2009 NSW Inmate Health Survey: Key Findings Report

Devon Indig, Libby Topp, Bronwen Ross, Hassan Mamoon,
Belinda Border, Shalin Kumar and Martin McNamara

JUSTICE HEALTH
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Front Cover Illustration:
Original Artwork **Les Elvin**. *"Goannas Beware"*. 2009. Acrylic, 1100mm x 770mm.

Story: The painting illustrates two goannas aware that there are a number of hunters in their territory, three camped around a fire and two waiting near their drinking hole. The goannas have been feeding at one of two favourite eating areas, which can be reached by using their travelling tracks. These two goannas have a number of caves that they can hide in symbolised at the bottom left and right hand top of the painting. The goannas are marked similar to the area they live in.

Uncle Les is a Wanaruah Man and was National NAIDOC Artist of the Year in 2008. Uncle Les is an Aboriginal Artist well known for his work with Aboriginal peoples within the New South Wales educational and criminal justice system. Of late, Uncles Les is known for his art teaching to Aboriginal men at both St Heliers and Cessnock Correctional Centres.

Suggested citation:
Indig, D., Topp, L., Ross, B., Mamoon, H., Border, B., Kumar, S. & McNamara, M. (2010) *2009 NSW Inmate Health Survey: Key Findings Report.* Justice Health. Sydney.

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SHPN (JH) 090252

ISBN 978-1-74187-425-9

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Abbreviations

AAD	American Association of Dermatologists
ABS	Australian Bureau of Statistics
ADD	Attention Deficit Disorder
ADHD	Attention Deficit Hyperactivity Disorder
AHS	Area Health Service
AIHW	Australian Institute of Health and Welfare
ALP	Alkaline Phosphotase
ALT	Alanine Aminotransferase
AOD	Alcohol and Other Drug
ASOC	Australian Standard Offence Classification
AST	Aspartate Aminotransferase
AUDIT	Alcohol Use Disorders Identification Test
AVETI	Adult Education and Vocational Training Institute
BBV(s)	Blood Borne Virus(es)
BDI	Beck Depression Inventory
BMI	Body Mass Index
BSE	Breast Self-Exam
BSL	Blood Sugar Level
CATI	Computer Assisted Telephone Interviewing
CDC	Centers for Disease Control
CHRCJ	Centre for Health Research in Criminal Justice, Justice Health
CSNSW	Corrective Services New South Wales
EUC	Electrolytes Urea Creatinine
(e)GFR	(Estimated) Glomerular Filtration Rate
FBC	Full Blood Count
GGT	Gamma-Glutamyltransferase
GP	General Practitioner
HbA1c	Glycated Haemoglobin
HAV	Hepatitis A Virus
HBV	Hepatitis B Virus
HBcAb	Hepatitis B Core Antibody
HBsAg	Hepatitis B Surface Antigen
HBsAb	Hepatitis B Surface Antibody
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
HPV	Human Papillomavirus
HSC	Higher School Certificate
HSV1	Herpes Simplex Virus Type 1
HSV2	Herpes Simplex Virus Type 2
IDRS	Illicit Drug Reporting System
IDU(s)	Injecting Drug User(s)
IHS(s)	Inmate Health Survey(s)
LFTs	Liver Function Tests
MCS	Mental Component Summary
MCV	Mean Corpuscular Volume
MRSA	Methicillin-Resistant Staphylococcus Aureus
MMR	Measles Mumps Rubella
MMWR	Morbidity and Mortality Weekly Report
NCHECR	National Centre in HIV Epidemiology and Clinical Research
NDSHS	National Drug Strategy Household Survey
NHMRC	National Health and Medical Research Council
NHS	National Health Survey
NRT	Nicotine Replacement Therapy
NSP(s)	Needle and Syringe Program(s)
NSW	New South Wales
PCR	Polymerase Chain Reaction
PCS	Physical Component Summary
PEF	Peak Expiratory Flow
PID	Pelvic inflammatory disease
PSA	Prostate Specific Antigen
SF-12	Short Form-12
SHAAP	Sexual Health and Attitudes of Australian Prisoners
SD	Standard Deviation
STI(s)	Sexually Transmissible Infection(s)
TAFE	Technical and Further Education
UVR	Ultra Violet Radiation
WHO	World Health Organization

List of Tables and Figures

Acknowledgements

We are indebted to the following individuals and organisations for their support, input and assistance in the development and implementation of the 2009 NSW Inmate Health Survey and the preparation of this report:

- ***Funding agencies:*** Including NSW Health (Mental Health and Drug and Alcohol Office, Centre for Epidemiology and Research and Centre for Health Protection) and Justice Health.
- ***Justice Health clinical research team:*** Including Shalin Kumar, the clinical coordinator of the project, who operated exceptionally well, often under great pressure; and the dedication of the Justice Health research nurse team, including Peter McNamee, Nicole Keyes, Maxwell Rance, Elizabeth Pearson, Nicole Ang, Amanda Richardson, Trudy Lynch, Janine Twitchen and Susan Howlett.
- ***Clinical operational support:*** Including Justice Health senior staff such as Julie Babineau, Maureen Hanly, Jenny Graham and all Justice Health Nursing Unit Managers and Nurse Managers for supporting the research team. We'd also like to acknowledge the hospitals and laboratories in the Area Health Services who conducted the pathology testing.
- ***Investigators:*** Including Dr Devon Indig, Dr Libby Topp, Elizabeth McEntyre, Dr Bronwen Ross, Peter Kemp, Denise Monkley, Dr Martin McNamara, A/Professor Robyn Rosina, Dr Stephen Allnut and Professor David Greenberg, all of Justice Health, and Dr Edouard Tursan D'Espaignet, of Hunter New England Population Health. Although not an investigator in 2009, we wish to acknowledge A/Professor Tony Butler the Chief Investigator of the 1996 and 2001 IHS which the 2009 survey was largely based upon. We also wish to acknowledge Professor Ron Penny, the former Chair of the Justice Health Board, who originally conceived of the need for an Inmate Health Survey.
- ***Hunter New England Population Health:*** Including Belinda Border and the Computer Assisted Telephone Interviewing group from the Surveillance and Monitoring team, who conducted the telephone interview component of the IHS, with technological expertise and support provided by Dr Edouard Tursan D'Espaignet, Todd Heard, Christophe Lecathelinais, Fakhrul Islam and Lynn Francis. Interviews were conducted by Beverly Parker, Olga Peers, Jennifer Jackson, Sue Dunn, Allison Vincent, Daniel Groombridge, Helen Compton, Jillian Bright, Tracey Findlay and Sandra Dowley.
- ***Corrective Services NSW (CSNSW):*** Including Assistant Commissioner (Offender Management) Luke Grant, Donna Ceeney, Simon Eyland and others, the support of whom was essential to the Survey's smooth operation. We note specifically the important input of Elias Chouefati and Gerard van Doorn of the Information, Communication and Technology Division, who regularly, efficiently and often at short notice provided the information which allowed the drawing of random samples of inmates. We also wish to thank the General Managers, Managers of Security, Managers of Programs and Officers for assisting in coordination and implementation of the survey.
- ***Participants:*** Lastly, and most importantly, we wish to acknowledge the inmates of New South Wales Correctional Centres who participated in the IHS, without whom the Survey would not have been possible.

Foreword

Justice Health led the way with surveys of the health of inmate populations with the first Inmate Health Survey conducted in 1996. This was followed by a second survey in 2001. Both these surveys have had substantial impacts on service developments within Justice Health and indeed provided key findings that have influenced the work of the health and social sectors more broadly. Furthermore, these surveys have been recognised internationally for their contribution to understanding the health needs of those in custody. Our range of services and levels of expertise have expanded rapidly since the first two surveys as we develop health interventions that improve the health and well-being of those affected by incarceration and detention.

The commitment of Justice Health to use the best available evidence to meet the health needs of the inmate population and guide these service expansions led to the establishment of the Centre for Health Research in Criminal Justice in 2003. In undertaking the 2009 Inmate Health Survey the Centre established a range of partnerships with health services and researchers. Critical among these was a partnership with the Population Health Unit of Hunter New England Area Health Service that enabled the survey to be conducted with Computer Assisted Telephone Interviewing techniques for the first time.

The 2009 NSW Inmate Health Survey confirms the findings of previous surveys and also provides new insights into the health of those in custody. Perhaps not surprisingly for those familiar with the patient population in custody in NSW, mental health problems, drug and alcohol dependence, and blood borne viruses are all highly prevalent. However, there have been important changes over the course of the surveys in injecting drug use (down from 57% in 2001 to 43% in 2009) and a drop in the proportion of participants who were Hepatitis C antibody positive (down from 65% to 45% among women and from 40% to 28% among men).

The survey also highlights ongoing challenges for Justice Health and our key stakeholders. Smoking rates remain unacceptably high at 75% among men and 79% among women. The burden of disease caused by smoking is well established and the need to minimise this burden is clear. However, the challenges and restrictions of custodial environments create particular difficulties in reducing rates of smoking.

Our commitment to providing the best possible health care to our patients remains our key focus. We are confident that by using the evidence from the 2009 Inmate Health Survey to inform policy and practice, Justice Health will be able to continue to deliver improved health outcomes for patients in custody in NSW.

We look forward to the series of publications and service and policy development arising from the Survey. Of particular note is the planned report focussing on the differentials between Aboriginal and non-Aboriginal inmates in NSW. We are confident that these and other reports and publications will provide sound evidence to guide Justice Health, the broader criminal justice system and other human service agencies in the provision of services to those in custody in NSW.

Julie Babineau
Chief Executive
Justice Health

Neil Wykes
A/Chair
Justice Health Board

Executive Summary

Introduction

In 1996 (Butler, 1997) and again in 2001 (Butler & Milner, 2003), the (then) New South Wales (NSW) Corrections Health Service successfully conducted the Inmate Health Surveys (IHSs) to investigate the health status of the NSW prison population. The Inmate Health Surveys are referenced in international literature as being the most comprehensive descriptions of prisoner health. Results from the Surveys have been published in peer reviewed medical journals on areas as diverse as drug use; blood borne viruses and other infectious diseases; mental health; the relationship between physical and mental health; cardiovascular disease and diabetes; Aboriginal health; intellectual disability; access to health services; smoking; and oral health. The Surveys thus established an evidence base appropriate for the development and evaluation of health service delivery; and, in addition, allowed for an examination of trends over time in the health status of this disadvantaged group.

Given the success of previous IHSs, funding was provided to the Centre for Health Research in Criminal Justice (CHRCJ), the specialist research centre of Justice Health (formerly Corrections Health Service), to conduct the third IHS. To ensure comparability with the previous surveys, the majority of the 2009 Survey is directly comparable to the 2001 IHS. The only amendments to the questions asked in the 2001 IHS were to fix instances where response options overlapped (e.g., 1-2 years, 2-3 years) and other minor changes of this nature.

This report presents the main findings of the cross-sectional component of the 2009 IHS drawing from a random sample of 996 participants, with results presented separately for men and women. Where possible and appropriate, comparable findings from all three IHSs (1996, 2001 and 2009) are also presented, to depict changes over time in important health and social indicators describing the NSW prison population.

Background

The NSW prisoner population has increased at a rate of 5% per annum over the last decade, with a total full-time custody population of N=9,859 as of 30 June 2008 (Corben, 2009). Despite making up just 2% of the general community in NSW, Aboriginal people are disproportionately represented in custody. Aboriginal men increased from 12% of the NSW inmate population in 1996 to over 20% in 2008, while Aboriginal women increased from 17% to 30% over the same time period. The length of stay in custody is often short with 24% of inmates in 2008 being on remand, 31% having a sentence of less than 6 months, 17% between 6 and 12 months, and the remaining 28% sentenced for a year or longer (Corben, 2009). Each year there are over 30,000 new prison receptions and over 150,000 movements among prisoners in NSW.

Justice Health (NSW) is responsible for providing health care to adults and juveniles in the criminal justice system across four key areas:

- **Pre-custody:** including diversion for people with mental illness in the adult or juvenile court system away from custody into appropriate treatment, including the Court Liaison Service (in 21 adult courts), the Adolescent Community and Court Team (in 5 children's courts), the Adult Drug Court and the Youth Drug and Alcohol Court.
- **Custody:** for adult prisoners (in 31 correctional centres) and juvenile detainees (in 8 juvenile justice centres and 1 juvenile detention centre), periodic detainees (11 centres), and police cell complexes (10 centres). The care provided includes screening, triage, treatment and monitoring in areas such as clinical and nursing services, primary health, population health, drug and alcohol, women's health, Aboriginal health, and adolescent health.
- **Inpatient:** inpatient healthcare services including the Long Bay and Forensic Hospitals (primarily responsible for mentally unwell people), as well as organising inpatient and specialist care in community-based hospitals for people in custody.
- **Post-release:** including community forensic mental health (for adults), Community Integration Team (for juveniles) and the Connections Project which assists in integrating people with a drug and alcohol problem into community-based services.

Given the service model described above, the health issues identified in this report cannot be solved or improved by Justice Health alone. Justice Health's primary focus remains on screening, assessment and referral and release planning. Partnerships with the criminal justice system and health services in the community will be critical to improving the health status of the inmate population in NSW.

Methodology

The 2009 NSW Inmate Health Survey was conducted using a stratified random sample of all inmates from 30 adult correctional centres (26 male centres and 4 female centres). Of the 1,166 inmates randomly selected and invited to participate, 996 agreed, equating to a response rate of 85.4%. Women and Aboriginal people were over-represented in the sample to ensure better estimates of health issues for these populations. The sample was also stratified by age groups (18-24 years, 25-44 years and 45 years or more) to ensure adequate representation of older and younger inmates. Participants were provided with a comprehensive health check (including any referrals for further healthcare) and were reimbursed with $10 for their involvement.

The methodology for the 2009 NSW Inmate Health Survey was different from the 1996 and 2001 Surveys which were conducted using face-to-face interviews. The questionnaire component of the IHS was conducted via Computer Assisted Telephone Interviewing technology at Hunter New England Population Health with each of the scripted interview questions displayed on computer monitors and data collected from the inmates by the telephone interviewers entered directly into a database. A key concept supporting the use of this technology was the provision of continuous real-time data for immediate surveillance capacity. Telephone interviews took an average of 73 minutes (median of 70 minutes, range 21 to 198 minutes) to conduct.

Key Findings

Social Determinants

- Over half (52%) of men and just under half (45%) of women did not finish year 10 of schooling.
- Just over one in ten (11%) participants were living in unsettled accommodation or had no fixed abode prior to their current incarceration, a slight increase since 1996 (8%).
- Half (50%) of men and two-thirds (67%) of women were unemployed in the 6 months before their incarceration. Much of this unemployment was long-term with 30% of men and 44% of women being unemployed for five years or longer.
- An increased proportion (30%) of 2009 participants had a history of being placed in care before the age of 16 years compared to 2001 (21%).
- Just under one in five (18% of men, 17% of women) had a history of parental incarceration during their childhood.

Offending behaviour

- Twice as many men (42%) as women (22%) had a history of juvenile detention.
- The proportion of men who had previously been incarcerated remained stable from 1996 to 2009 at just under two-thirds. Among women, the proportion steadily decreased from 63% in 1996 to 55% in 2001 to 46% in 2009.
- Men were less likely to have their own cell in 2009 (35%) compared with 1996 (60%), a finding which also held for women where 56% had their own cell in 2009 compared to 77% in 1996.

Physical health

- Over half (56%) of participants were overweight or obese in 2009, representing a small increase from 1996 and 2001 (both 49%). The largest increase in overweight and obesity was found among women who increased from 42% in 1996 to 44% in 2001 to 58% in 2009.
- High blood pressure decreased among men from 24% in 1996 to 22% in 2001 to 15% in 2009. High blood pressure increased slightly for women from 7% in 2001 to 12% in 2009.
- Despite the average age of the sample being 35 years, a high proportion (20%) had been told by a doctor that they had a heart problem such as chest or angina pain, heart murmur or palpitations. This steadily increased from 16% in 1996 to 20% in 2009, with a higher proportion of women (24%) reporting heart problems than men (19%).
- Over half (54%) of women and just under half (46%) of men reported a disability or illness that had impacted on their health for six months or more, which represented a steady increase from 1996 (34%) to 2001 (41%) to 2009 (47%) for all participants.
- Half (52%) of men and 35% of women had a history of a head injury resulting in unconsciousness. The prevalence of head injuries has decreased among women from 39% in 2001 to 35% in 2009, but increased among men from 45% in 2001 to 52% in 2009. Most of these head injuries (47%) occurred over ten years previously and involved only a short period of unconsciousness (51% less than ten minutes).

Access to healthcare

- One in six (17%) men and 4% of women had never accessed healthcare outside of prison. Women were more likely to have ever accessed a range of health services than men, but were particularly more likely to have accessed a general practitioner (80% compared with 59% of men) or a medical centre (61% compared with 40% of men).

Infectious diseases

- There were substantial drops between 2001 and 2009 in the proportion of participants who were hepatitis C antibody positive, from 64% to 45% among women, and 40% to 28% among men.
- Just over a third (38%) of inmates demonstrated vaccine-conferred immunity to Hepatitis B infection, which was a slight increase from 2001 (35%).

Smoking, alcohol and other drugs

- Over three quarters of participants (75% of men and 80% of women) were current tobacco smokers (compared to 17% of the general population in Australia). This rate of smoking has not changed much from 1996 to 2009, in contrast to steady decreases in the community.
- However, a high proportion (85%) of current smokers indicated they would like to quit smoking. Desire to quit was higher among men (89%) than among women (74%) in 2009.
- Risky alcohol consumption in the year before incarceration was much higher than the community average, with 63% of men and 40% of women drinking alcohol at hazardous/harmful levels in the year before prison. In particular, a high proportion (35% of men, 16% of women) were drinking at levels suggestive of alcohol dependence.
- The majority (84%) of participants had used illicit drugs, compared to just over a third (38%) in the general community. The proportion of women who had used illicit drugs decreased slightly between 1996 and 2009 (from 82% to 78%), while use of drugs increased among men from 69% in 1996 to 86% in 2009.
- Cannabis was the most common drug ever used (81%), followed by amphetamines (57%), cocaine (45%) and ecstasy (44%). The use of heroin decreased from 2001 to 2009 (from 49% to 41%), while the use of crystalline methamphetamine (ice) increased over this same time period from 11% to 42%, which reflect changes in illicit drug markets during this time.

- There was a decrease in the proportion of participants indicating daily/near daily use of drugs in the year before prison between 2001 (68%) and 2009 (44%) which may reflect the decreased use of heroin noted above. Similarly, there was a decrease in ever using drugs in prison from 48% in 2001 to 43% in 2009.
- A striking finding from the Survey was the substantial drop in the proportion of participants who had ever injected drugs from 2001 (57%) to 2009 (43%). This decline was evident among both men (53% to 40%) and women (74% to 52%). There was a major decrease in heroin injection from 47% in 2001 to 32% in 2009, and an increase in crystalline methamphetamine injection from 4% in 2001 to 23% in 2009, again reflecting changes in Australia's drug markets.

Mental health

- The proportion of participants who had ever been assessed or treated by a doctor or psychiatrist for a mental health problem increased steadily from 39% in 1996 to 43% in 2001 to 49% in 2009. This increase was mostly due to an increasing proportion of men being treated for mental health problems (from 35% in 1996 to 41% in 2001 to 47%), as the proportion of women remained steady at around 54%. The three most common mental health conditions were depression, anxiety and drug dependence.
- Similarly, an increasing proportion of participants reported ever having been admitted to a psychiatric unit from 13% in 1996 to 14% in 2001 to 16% in 2009. A higher proportion of women (20%) than men (15%) reported this in 2009.
- There was a steady decline in participants who had ever thought about committing suicide (from 42% in 1996 to 36% in 2001 to 33% in 2009). This drop was most notable among women, decreasing from 60% in 1996 to 38% in 2009.
- There was also a small decrease in the proportion of participants who had ever attempted suicide (from 24% in 1996 to 22% in 2001 to 21% in 2009), with a higher proportion of women (27%) than men (19%) reporting having attempted suicide in 2009.
- The rates of self-harm remained relatively stable from 1996 to 2009, at around 15% for all participants. However, a steady decline was observed among women, from 23% in 1996 to 21% in 2001 to 17% in 2009.

Conclusions

Meeting the health needs of the inmate population in NSW constitutes a significant challenge. Prison health care is not only provided in a complex environment but, as the results of the 2009 IHS demonstrate, prison inmates are a complex, high-needs population. However, the correctional environment also provides a unique opportunity to improve the health status of a group who suffer poor health and may have minimal contact with health services in the community. Importantly, the 2009 IHS provides Justice Health, its key stakeholders and the community with reliable evidence of the health needs of individuals incarcerated in NSW. As such, the key findings from the 2009 IHS provide all agencies and sectors involved in the provision of services to patients in custody with evidence to guide policy and practice.

Introduction

In 1996 (Butler, 1997) and again in 2001 (Butler & Milner, 2003), the (then) New South Wales (NSW) Corrections Health Service successfully conducted the Inmate Health Surveys (IHSs) to investigate the health status of the NSW prison population. The IHSs are referenced in international literature as being the most comprehensive descriptions of prisoner health. Results from the Surveys have been published in peer reviewed medical journals on areas as diverse as drug use; blood borne viruses and other infectious diseases; mental health; the relationship between physical and mental health; cardiovascular disease and diabetes; Aboriginal health; intellectual disability; access to health services; smoking; and oral health. The Surveys thus established an evidence base appropriate for the development and evaluation of health service delivery; and, in addition, allowed for an examination of trends over time in the health status of this disadvantaged group.

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This report presents the main findings of the cross-sectional component of the 2009 IHS, drawing from a random sample of 996 participants, with results presented separately for men and women. Where possible and appropriate, comparable findings from all three IHSs (1996, 2001 and 2009) are also presented, to depict changes over time in important health and social indicators describing the NSW prison population.

Methods

The methodology for the 2009 NSW Inmate Health Survey was different from the 1996 and 2001 Surveys which were conducted using face-to-face interviews. Drawing on the success of the 2007 NSW Sexual Health in Australian Prisons Study (Richters et al., 2008) which used a Computer-Assisted Telephone Interviewing (CATI) strategy, the questionnaire for the 2009 IHS was implemented using CATI. A key concept supporting the use of this technology was the provision of continuous real-time data for immediate surveillance capacity.

As occurred in the 2001 IHS, the 2009 IHS included two components: a cross-sectional, random sample of inmates; and a longitudinal component, in which targeted efforts were made to recruit inmates who participated in one of the two previous Surveys and were currently in custody. Note that these individuals may have been in custody continuously since the time of their previous IHS participation, or may have been released to the community on one or more occasions since that time.

The NSW prisoner population has increased at a rate of 5% per annum over the last decade or so, and the proportion of the population of Aboriginal origin has increased (Corben, 2008). Aboriginal men increased from 12% of the NSW inmate population in 1996 to over 20% in 2008, while Aboriginal women increased from 17% to 30% over the same time period (Table i).

Table i NSW prisoner population characteristics, 1996 to 2008

Full-time custody	1996 (N=7,691)	2001 (N=8,780)	2008 (N=9,859)
% Men	94.3	93.2	92.7
% Women	5.7	6.8	7.3
% Aboriginal Men	12.1	14.5	20.4
% Aboriginal Women	16.9	23.3	29.6

Sampling and recruitment

Between May 2008 and March 2009, 1128 inmates of 30 NSW adult correctional centres (26 male and 4 female) participated in the 2009 IHS. A total of 996 randomly selected inmates participated in the cross-sectional component of the Survey, 51 of whom had, by chance, participated in one or both of the previous surveys. A further 132 inmates who were targeted specifically because they had participated in one or both of the earlier IHSs (at which time they were randomly selected) also completed the most recent Survey. This group, together with the 51 participants who had participated previously but were also randomly selected to participate in the cross-sectional component, comprise the 2009 IHS longitudinal sample (N=183). The results presented in this report relate to the 996 randomly selected inmates. Where appropriate, comparable results from the 1996 and 2001 Surveys are also presented.

The sampling framework employed in the 2009 IHS was comparable to that used in the previous IHSs. The design represents a cross-sectional random sample of inmates, stratified by gender, age (18-24 years, 25-44 years and 45+ years) and Aboriginality (Table ii). The age ranges for the strata were altered between 2001 and 2009; in 2001, the three age groups were 18-24 years, 25-40 years, and 40+ years. Due to the ageing of the prisoner population, it was decided to increase the age of the older strata to 45 years and over to better identify the health issues of older inmates. Stratification involved deliberately over-sampling both women and Aboriginal inmates in order to derive adequate sample sizes for credible estimates of low prevalence health conditions. The exclusion criteria for participation included: those who did not speak sufficient English, were under 18 years, or had an intellectual disability or mental illness that prevented them from consenting to participate in the research.

Table ii Target random stratified sample for the 2009 Inmate Health Survey

Age	Non-Aboriginal Men	Aboriginal Men	Women	Total
18-24 years	180	90	80	350
25-44 years	180	90	80	350
45+ years	180	90	80	350
Total	540	270	240	1050

Prior to the beginning of the IHS, a list of all inmates of NSW prisons was obtained from Corrective Services New South Wales (CSNSW, formerly Department of Corrective Services). The list contained inmates' demographic data, and was used to develop a fixed sampling fraction proportional to the number of inmates in each prison. This allowed the calculation of the number and demographic characteristics (gender, age range, Aboriginal status) of inmates required in each Centre in order to meet the random sample stratification targets depicted in Table ii. Subsequently, several days prior to the research team visiting a given Centre, a list of inmates at that Centre was again obtained from CSNSW. The administrative data were entered into *SPSS for Windows, Release 17.0* (SPSS Inc., 2008), the software used to randomly select the required number of inmates in each stratum. Reserve lists of inmates for each stratum were also drawn in order that any inmate who declined to participate or was otherwise unavailable for interview was replaced by an inmate of the same gender, age range and Aboriginal status.

Thus, Aboriginal participants were selected based on the information provided by CSNSW. Participants were also asked during the Survey whether they identified as being of Aboriginal and/or Torres Strait Islander origin. There was approximately 6% disagreement between CSNSW-provided and participant self-reported Aboriginality, which followed no particular pattern. Stratified sampling proceeded based on the information provided by CSNSW. Nevertheless, participants' self-reported status was used to divide the sample into Aboriginal and non-Aboriginal participants; and all reporting of Aboriginality in this report is based on self-reported status. Please note that reporting by Aboriginality has been deliberately kept to a minimum in this report. A separate report focused on Aboriginal and non-Aboriginal key findings will be released in the near future.

Response rates

In some Centres it proved impossible to access the targeted number of inmates for each stratum for a number of reasons including: selected inmates' employment (either within the prisons or in the community in the case of transitional centres); industrial action by CSNSW officers; unscheduled "lockdowns" (in which all inmates are locked in their cells and cannot leave); or the inability to locate the selected inmates (i.e., they may not have heard their names called on the loudspeaker requesting that they come to the health centre). In instances where a Centre's recruitment numbers fell short of targets, efforts were made to randomly select and recruit inmates with the same characteristics from other Centres. Accordingly, there was variation in the number of participants recruited from each Centre from the original estimates. Additional confounding factors on reaching the initial sample estimates are the changes to the population sizes and distributions of Centres during the survey implementation (i.e. closure of John Morony II and a significant reduction in the Silverwater prison population). Table iii outlines the random sample achieved for the IHS.

Table iii Random sample achieved for the 2009 Inmate Health Survey

Age	Non-Aboriginal Men	Aboriginal Men	Women	Total
18-24 years	180	96	54	330
25-44 years	184	102	89	375
45+ years	174	61	56	291
Total	538	259	199	996

Response rates were calculated on the number of participants divided by the number of participants added to the number of inmates who specifically refused to participate. Response rates varied between Correctional Centres from 65% (Malabar Special Programs Centre in Long Bay where there was ongoing industrial action during the weeks the research team was recruiting) to 100% (Compulsory Drug Treatment Centre, Dawn de Loas, Glen Innes, Grafton and Tamworth Centres) (Table iv). A total of 1,166 randomly selected inmates were invited to participate in the 2009 IHS, of whom 996 agreed, equating to a response rate of 85.4%.

Table iv Number of randomly selected participants and response rates by Correctional Centres

Centre	Number of participants	Response rate (%)	Proportion of sample (%)
Bathurst	80	70	8
Berrima	22	92	2
Brewarrina	6	86	<1
Broken Hill	12	92	1
Cessnock	34	92	3
Compulsory Drug Treatment Centre	12	100	1
Cooma	12	92	1
Dawn de Loas	5	100	<1
Dilwynnia	75	95	8
Emu Plains	56	88	6
Glen Innes	14	100	1
Goulburn	15	94	2
Grafton	30	100	3
Ivanhoe	3	75	<1
John Morony 1	23	88	2
Junee	74	90	7
Kirkconnell	42	98	4
Lithgow	36	92	4
Malabar Special Programs Centre	35	65	4
Mannus	12	86	1
Metropolitan Reception and Remand Centre	128	75	13
Mid North Coast	45	92	5
Oberon	28	85	3
Parklea	43	84	4
Parramatta	26	87	3
Silverwater	26	94	3
Silverwater Women's	31	84	3
St Heliers	22	96	2
Tamworth	6	100	<1
Wellington	43	88	4
Total	996	85.4%	100%

The CSNSW administrative lists were also used to identify 316 inmates currently in custody who had taken part in one or both previous IHSs in 1996 and/or 2001. As noted above, 183 of these 316 previous participants (58%) were successfully recruited to the 2009 IHS. Note, however, it was not possible to access all of the 316 previous participants to invite them to participate. Among the 219 previous participants who were successfully accessed and invited to take part, a response rate of 83.6% was achieved. The combined overall response rate for both the cross-sectional and longitudinal components of the Survey was 84.6%.

Procedures

Full Survey procedures included:

1. Recruitment and provision of informed consent;
2. Conduct of a physical health examination by a trained Justice Health nurse;
3. Collection, also by a trained Justice Health nurse, of blood and urine samples for serological testing for blood borne viruses (BBVs) and sexually transmitted infections (STIs), including pre-test counselling;
4. Administration of a detailed telephone interview covering a broad range of areas (see *Measures*, below); and
5. Provision of health referrals and post-test counselling.

The particular order in which the various components of the Survey were undertaken depended on a range of factors specific to each Centre, such as the availability of CSNSW officers to escort inmates to and from the research team; the number of telephone lines and room space allocated to the research team (including any time limitations on using these resources) and so on.

The research team included Justice Health nurses who visited each Centre to coordinate the survey and to conduct physical assessments. The questionnaire component of the IHS was conducted via CATI technology at Hunter New England Population Health with each of the scripted interview questions displayed on computer monitors and data collected from the inmates by the telephone interviewers entered directly into a database. All telephone interviewers were trained extensively in the delivery and administration of the questionnaire with regular team meetings organised to support the interviewers and provide opportunities to debrief as necessary. Telephone interviews took an average of 73 minutes (median of 70 minutes, range 21 to 198 minutes) to conduct.

Inmates selected to participate in the IHS were retrieved from within the Centre by custodial CSNSW officers or attended themselves if they were able to directly access the location of the research team. In cases where the research team were unable to locate a particular inmate, the inmate was replaced with an inmate drawn from the reserve recruitment lists. It was not feasible to provide translation services for non-English speaking inmates; therefore, inmates without sufficient English language skills to understand the informed consent and interview procedures were excluded from participation and replaced with an inmate drawn from the reserve lists.

Potential participants received a full explanation of the project before written informed consent to participate was obtained. The following features of the Survey were explained prior to the provision of informed consent:

- Participation was voluntary;
- Names had been selected at random by a computer program;
- There was no obligation to answer any questions deemed intrusive;
- Participants could withdraw their consent at any time during the interview;
- Information would be treated with the utmost confidentiality except in situations where clinical referrals were required;
- Participants' names would not be recorded on any of the Survey materials;
- $10 would be paid into participants' prison accounts to compensate them for their time and any loss of income; and
- Written consent to participate would be required.

The consent form included a space for participants to indicate that they declined to have their blood samples tested for HIV antibodies, an option taken up by seven participants.

Once the phone interview was completed, a participant was debriefed by a Research Nurse. If a participant was distressed as a result of the interview, or by certain questions, counselling was provided. This was a rare event. Referrals were made to CSNSW psychologists or to Justice Health clinical staff for further follow-up. CATI interviewers contacted the clinical coordinator immediately after the interview if they identified that a participant was distressed as a result of the interview or if they were concerned about a participant due to responses indicating a participant may have a mental illness but had not been seen by a clinician whilst in custody.

Hunter New England Population Health also provided a weekly automated report on identified questions/response options that required notification to health staff by the clinical coordinator. This included responses that indicated concerns about suicidality or self-harm or requests for assistance related to their healthcare. Referrals were subsequently made to the appropriate clinical stream by Justice Health nurses.

Measures

The questionnaire used in the 2009 IHS was based closely on the instruments used in the previous two IHSs in order to allow reliable comparisons to be drawn between the results of the three Surveys. It covered a broad range of areas, including socio-demographics, physical and mental health issues, medications, risk behaviours, sexual health, diet and nutrition, head injury, and access to and satisfaction with health services.

Several sections of the questionnaire targeted specific groups such as women (breast self-examination, pregnancy, cervical screening), men (testicular examination) and Aboriginal inmates (use of Aboriginal health services and removal from families). Validated standardised screening instruments were also included as part of the interview schedule, including the Beck Depression Inventory (Beck et al., 1961), the Short Form 12 (Ware et al., 1996), and the Alcohol Use Disorders Identification Test (Saunders et al., 1993) (see Appendix for a copy of the questionnaire).

The 2009 IHS had a strong focus on physical health which included additional diagnostic testing as specified below. The Inmate Access Survey (assessing access to healthcare in prison and in the community) was also included in the 2009 IHS, having previously been conducted as a separate survey in 2001 and 2004. To reduce the survey length, a number of sections from the 2001 IHS were removed including the following: the Hayes Ability Screening Index (an Intellectual Disability screen), Symptom Checklist, Dental Health, Tuberculosis, Gambling, Referral Decision Scale and the Beck Hopelessness Scale. In addition, the SF-12 was substituted for the SF-36 and due to the recent completion of the NSW Sexual Health in Australian Prisons study (Richters et al., 2008), the Sexual Health section was

also reduced including removing the Childhood Sexual Abuse section. Lastly, the psychiatric assessment using the Composite International Diagnostic Interview was not conducted.

The Survey protocol was updated following amended ethical approval about halfway into its implementation to include a short impulsivity screening tool (the Barratt's Impulsivity Scale; Barratt & Stanford, 1995), which was administered to 273 participants (27%). This tool was administered on paper by the research nurses, and these data were entered separately and linked to the data collected in the CATI system.

Physical health examination

The following physical measures were recorded for each participant by a Justice Health nurse trained in the Survey methodology:

- Height (centimetres)
- Weight (kilograms)
- Waist measurement (centimetres)
- Hip measurement (centimetres)
- Blood pressure (mmHG)
- Peak flow (L/min)
- Test of visual acuity (Snellen chart)
- Random (non-fasting) blood glucose level (mmol/L) – (finger-prick and serum)
- Skin integrity and MRSA nasal and wound swabs

Blood and urine testing

Blood was collected by nurses who were accredited in venepuncture by Justice Health. Pre-test counselling was conducted for all BBV and STI testing in accordance to Justice Health Policy. If a participant reported engaging in behaviours that would increase risks of contracting a BBV or STI, referral was made to Public/Sexual Health Nurse for an assessment and follow-up. BBV results were given back to participants by an accredited Public/Sexual Health nurse. Post-test counselling was provided and if a participant was identified as being involved in risky activity within the window period, a further referral was made for an assessment and retesting. Participants were educated on harm minimisation strategies and informed of services available in custody and in the community if they needed further information. All test results were reviewed by medical officers and abnormal results were referred for appropriate follow-up and treatment.

Urine samples were collected from 80% of participants (N=795) and were screened for:

- General – dipstick
- Renal – microalbustix
- Chlamydia Polymerase Chain Reaction (PCR)
- Gonorrhoea PCR

Non-fasting blood samples were collected from 78% (N=775) of participants and were tested for:

- Full Blood Count (FBC)
- Electrolytes (EUC)
- Liver Function Test (LFT)
- Glycated haemoglobin: (HbA1c)
- Prostate Specific Antigen (PSA) in men >50 years
- Blood Sugar Level (BSL)

Blood samples were screened for indicators of exposure, and, where appropriate, vaccination, to the following infectious diseases:

- Human Immunodeficiency Virus (HIV)
- Hepatitis B virus (HBV) – including Hepatitis B core antibody and surface antigen
- Hepatitis C virus (HCV)
- Herpes Simplex Virus (HSV1 and HSV2)
- Syphilis

Ethics approval

Ethical approval to conduct this study was provided by the Justice Health Human Research Ethics Committee, the Department of Corrective Services Ethics Committee, and the Aboriginal Health and Medical Research Council Ethics Committee.

Data entry, cleaning and analysis

Participant responses were recorded directly into GEIS (Generalized Electronic Interviewing System), a flexible CATI system developed by Hunter New England Population Health which enabled the data to be provided back to the investigators in real-time and programmed in SAS 8.2 (SAS Institute, 2003). Data extracts were provided on a weekly basis to the Chief Investigator and a one page key indicator report was provided to key Justice Health and CSNSW staff at each participating Centre within a week of Survey completion to provide feedback on the key findings. Having immediate access to the data enabled preliminary findings to be used for a number of policy development and operational purposes while the Survey was underway. Once participant recruitment was complete, data entry of the physical health testing results was included in a separate SPSS 17.0 database (SPSS, 2008) and linked into the broader CATI SAS database. Data entry was also conducted separately for the impulsivity screening tool which was collected on paper.

The information provided by CSNSW for the sample included a number of administrative and offending-related data items such as: Master Index Number, name, date of birth, Aboriginal status, postcode of usual address, correctional facility, wing, security classification, charged most serious offence for current imprisonment, convicted most serious offence for current imprisonment, most serious historical offence, arrival date in correctional centre, admission date in prison, sentence date, earliest possible release date, and sentence expiry date. This data was de-identified (names were removed) and linked to the CATI and physical health datasets using the MIN number. An extensive data cleaning process was undertaken to amend skip patterns, address any logical errors, and recode responses in the 'other specify' field. The data depicted in this report were analysed using SAS v9.1.3 (SAS Institute, 2007).

Summary

The 2009 NSW Inmate Health Survey follows largely the methods of the 2001 Inmate Health Survey in order to make valid comparisons. A new telephone survey and data recording method (CATI) was implemented. There were some changes to the survey content, screening tools and physical health assessments.

Results

1. Social determinants

1.1 Demographics

As mentioned in the Methods section, the 2009 IHS was sampled according to three age strata: 24 years and under, 25 to 44 years and 45 years and over. As a result of this, the age distribution of the sample contains a large proportion of people aged 18 to 24 years, including 35% of men and 27% of women (Table 1.1.1). The sample was fairly evenly distributed in the five-year categories among the 25 to 44 year old participants. Few participants (4% of men, 3% of women) were aged 60 years or older.

Table 1.1.1 Participant age by age groups

	Men		Women		Total	
	n	%	n	%	n	%
18-24 years	276	34.6	54	27.1	330	33.1
25-29 years	80	10.0	26	13.1	106	10.6
30-34 years	66	8.3	21	10.6	87	8.7
35-39 years	73	9.2	19	9.5	92	9.2
40-44 years	67	8.4	23	11.6	90	9.0
45-49 years	87	10.9	29	14.6	116	11.6
50-59 years	115	14.4	22	11.1	137	13.8
60+ years	33	4.1	5	2.5	38	3.8
Total	797	100.0	199	100.0	996	100.0

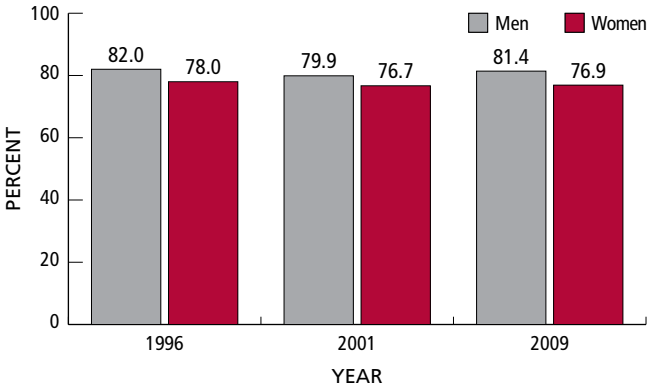
The mean age of the 2009 IHS sample was 35.5 years (SD 12.9; range 19-84), with no difference between the average age of men and women (Table 1.1.2). The age of our sample appears consistent with the population of inmates in full-time custody in NSW: the NSW Inmate Census 2008 (Corben, 2009) indicated that the majority of men in custody on June 30, 2008 were aged between 25 and 34 years (36%) or 35 to 44 years (27%). A similar age distribution was also recorded among women, with the majority aged between 25 and 34 years (39%) or 35 and 44 years (30%).

Table 1.1.2 Participant age characteristics

	Men	Women	Total
N	797	199	996
Mean (± sd)	35.5 (± 13.2)	35.6 (± 12.0)	35.5 (± 12.9)
Median	32.0	34.0	33.0
Range	19 - 84	19 - 66	19 - 84

Consistent with both the 1996 and 2001 Surveys, around 81% of the 2009 IHS sample were born in Australia, with a slightly lower proportion of women (77%) than men (81%) reporting Australia as their country of birth (Table 1.1.3). The overall proportion of Australian-born IHS participants (81%) is slightly higher than among the inmate population as a whole; the NSW Inmate Census 2008 (Corben, 2009) reported that 73% of the inmate population was Australian-born (74% of men and 70% of women), with the country of birth of a further 5% of inmates recorded as unknown. Given that proficiency in the English language was an essential criterion for participation in the IHS, it is perhaps not surprising that Australian-born inmates were slightly over-represented among the Survey sample.

Table/Fig 1.1.3 Born in Australia



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	506	617	82.0	595	745	79.9	649	797	81.4
Women	92	118	78.0	125	163	76.7	153	199	76.9
Total	598	735	81.4	720	908	79.3	802	996	80.5

After Australia, the most common region of birth among women was Oceania (mostly New Zealand, Fiji and Tonga), followed by Asia, Europe and the Americas (Table 1.1.4). Among men, the most common birth regions after Australia were Oceania, Europe, Asia and the Middle East. These figures are also broadly consistent with the population of inmates in full-time custody in NSW: the NSW Inmate Census 2008 (Corben, 2009) indicated that among inmates in full-time custody as at June 30 2008, 7% were born in Asia, 5% in Oceania, 3% in Europe, 3% in the Middle East, 1% in Africa, and 1% in the Americas. The proportions are also broadly consistent with the countries of birth of the general population of NSW: the 2006 Census indicated that 74% of the general resident population of NSW were born in Australia, while 7% were born in Asia, 7% in Europe, 2% in Oceania, 1% in the Middle East, 0.5% in Africa, and 0.4% in the Americas (Population Health Division, NSW Health, 2008).

Table 1.1.4 Region of birth

	Men		Women		Total	
	n	%	n	%	n	%
Australia	649	81.4	153	76.9	802	80.5
Oceania	40	5.0	13	6.5	53	5.3
Asia	33	4.1	19	9.6	52	5.2
Europe	35	4.4	5	2.5	40	4.0
Middle East	25	3.1	1	0.5	26	2.6
Americas	11	1.4	5	2.5	16	1.6
Africa	4	0.5	3	1.5	7	0.7
Total	797	100.0	199	100.0	996	100.0

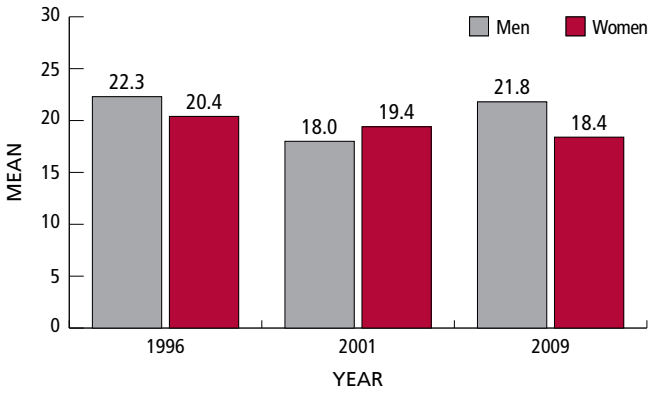
More than half of all 2009 IHS participants who were born overseas reported having lived in Australia for more than 20 years (Table 1.1.5), and a further quarter of overseas-born participants had lived in Australia for between 10 and 19 years. Just one in 10 overseas-born men, and slightly less than one in five overseas-born women, had lived in Australia for less than five years.

Table 1.1.5 Number of years in Australia (if born overseas)

	Men		Women		Total	
	n	%	n	%	n	%
< 5 years	14	9.5	8	18.2	22	11.5
5 - 9 years	15	10.2	6	13.6	21	11.0
10 - 19 years	42	28.6	6	13.6	48	25.1
20+ years	76	51.7	24	54.5	100	52.4
Total	147	100.0	44	100.0	191	100.0

The mean number of years for which overseas-born 2009 IHS participants had lived in Australia was 21.0, with men who were born overseas having lived in Australia for an average of three years longer than women born overseas. These results are consistent with earlier IHSs; overseas-born participants in the 1996 and 2001 IHSs had also lived in Australia for a substantial period of time, with an average of 21.9 years among 1996 IHS participants and 18.3 years among 2001 IHS participants (Table 1.1.6).

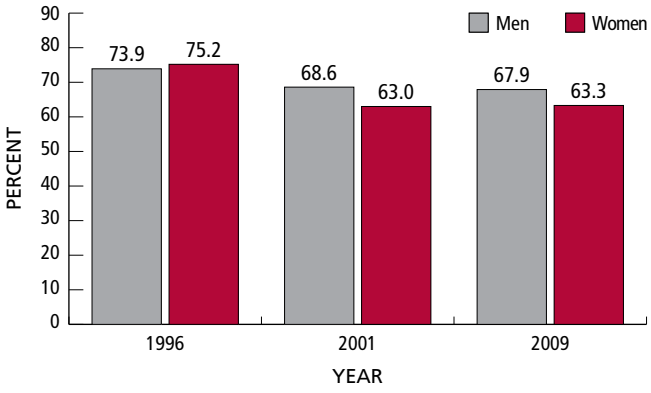
Table/Fig 1.1.6 Mean number of years in Australia (if born overseas)



	1996		2001		2009	
	n	Mean (± sd)	n	Mean (± sd)	n	Mean (± sd)
Men	101	22.3 (± 11.0)	93	18.0 (± 10.4)	147	21.8 (± 13.8)
Women	23	20.4 (± 10.6)	25	19.4 (± 14.5)	44	18.4 (± 11.8)
Total	124	21.9 (±10.9)	118	18.3 (± 11.4)	191	21.0 (± 13.4)

The majority (67%) of 2009 IHS participants reported that their mothers were born in Australia, with a slightly higher proportion of men (68%) than women (63%) reporting this to be the case (Table 1.1.7). Among the 329 participants who reported that their mothers were born overseas, 32% were born in a European country, followed by 20% from Oceania (mostly New Zealand), 20% from Asia, and 16% from the Middle East. The proportion of participants whose mothers were born in Australia was virtually identical to the findings of the 2001 IHS (68% of the total sample), which represented a decrease from the 1996 IHS (74%).

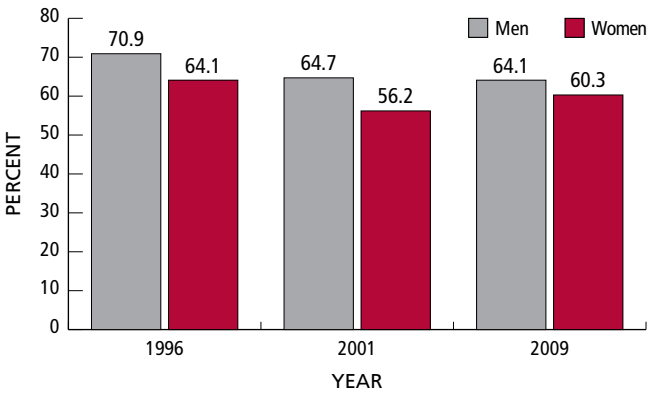
Table/Fig 1.1.7 Mother was born in Australia



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	456	617	73.9	485	707	68.6	541	797	67.9
Women	88	117	75.2	97	154	63.0	126	199	63.3
Total	**544**	**734**	**74.1**	**582**	**861**	**67.6**	**667**	**996**	**67.0**

The majority (63%) of 2009 IHS participants also reported that their fathers were born in Australia, again with a slightly higher proportion of men (64%) than women (60%) reporting this to be the case (Table 1.1.8). Among the 365 participants who reported that their fathers were born overseas, 33% were born in a European country, followed by 20% from Oceania (mostly New Zealand), 17% from Asia, and 16% from the Middle East. The proportion of participants whose fathers were born in Australia was identical to the findings of the 2001 IHS (63% of the total sample), which represented a decrease from the 1996 IHS (70%).

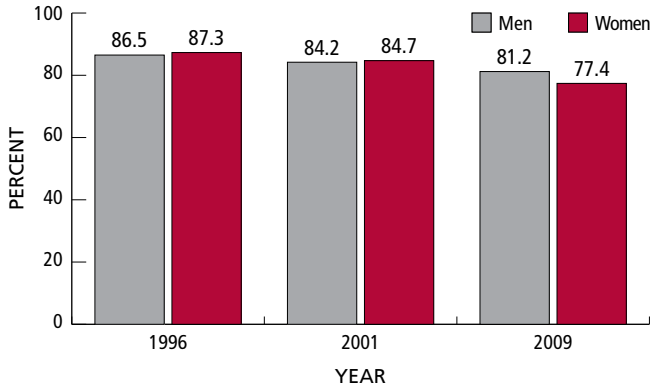
Table/Fig 1.1.8 Father was born in Australia



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	437	616	70.9	453	700	64.7	511	797	64.1
Women	75	117	64.1	86	153	56.2	120	199	60.3
Total	**512**	**733**	**69.8**	**539**	**853**	**63.2**	**631**	**996**	**63.4**

Consistent with the preponderance of Australian-born IHS participants, 80% of the sample reported that English was the language spoken in the home in which they grew up (Table 1.1.9), with a slightly higher proportion of men (81%) than women (77%) reporting this to be the case. This figure continued the gradual decline in the proportion of earlier IHS samples who reported growing up in an English-speaking household, from 87% in 1996 to 84% in 2001. The proportion is also consistent with the population of inmates in full-time custody in NSW: the NSW Inmate Census 2008 (Corben, 2009) indicated that 79% of all inmates in full-time custody as at June 30 2008 grew up in an English-speaking home, whereas 17% grew up in a non-English speaking home. This information was unknown for 5% of inmates in the Inmate Census 2008.

Table/Fig 1.1.9 Spoke English growing up



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	530	613	86.5	593	704	84.2	647	797	81.2
Women	103	118	87.3	127	150	84.7	154	199	77.4
Total	**633**	**731**	**86.6**	**720**	**854**	**84.3**	**801**	**996**	**80.4**

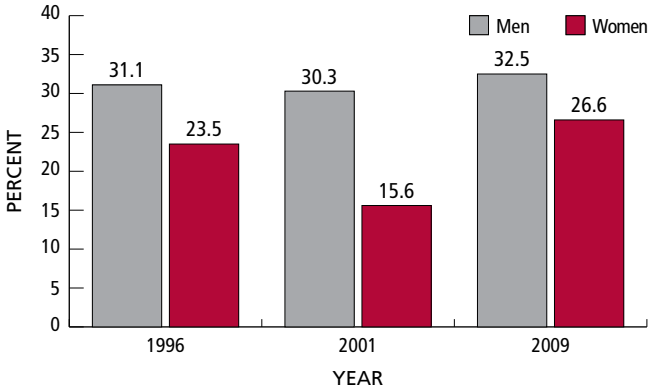
Among 2009 IHS participants who grew up speaking a language other than English, the most commonly reported languages were Arabic, Chinese, Vietnamese, Spanish and Italian, with men more likely to report speaking Arabic, and women more likely to report speaking Chinese or Vietnamese (Table 1.1.10). This pattern of results reflects the languages spoken among the resident general population of NSW: the 2006 Census reported that 78.7% of the NSW population spoke only English at home, while 4% spoke Chinese at home, 2.7% spoke Arabic, 1.4% spoke Italian, 1.4% spoke Greek, 1.2% spoke Vietnamese, and 0.8% spoke Spanish (Population Health Division, NSW Health, 2008).

Table 1.1.10 Language spoken growing up

	Men		Women		Total	
	n	%	n	%	n	%
English	647	81.2	154	77.4	801	80.4
Arabic	33	4.1	3	1.5	36	3.6
Chinese	12	1.5	5	2.5	17	1.7
Vietnamese	7	0.9	5	2.5	12	1.2
Spanish	7	0.9	4	2.0	11	1.1
Italian	7	0.9	3	1.5	10	1.0
Other	84	10.5	25	12.6	109	10.9
Total	**797**	**100.0**	**199**	**100.0**	**996**	**100.0**

Consistent with the over-representation of Aboriginal and Torres Strait Islander people among NSW prison inmates, together with deliberate over-sampling of Aboriginal inmates in this Survey as described in the Methods, close to one third (31%) of participants in the 2009 IHS self-reported during the telephone interview that they were of Aboriginal and/or Torres Strait Islander origin (Table 1.1.11). A higher proportion of men than women reported this to be the case (33% versus 27%). The overall proportion represented a slight increase from the proportion of 2001 IHS participants who identified as Aboriginal (28%), which itself represented a slight decrease from the 1996 IHS sample (30%). Just 6% of the 312 participants who identified as Aboriginal Australians indicated that they were of Torres Strait Islander origin.

Table/Fig 1.1.11 Aboriginal and/or Torres Strait Islander origin



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	204	657	31.1	215	710	30.3	259	797	32.5
Women	31	132	23.5	24	154	15.6	53	199	26.6
Total	**235**	**789**	**29.8**	**239**	**864**	**27.7**	**312**	**996**	**31.3**

According to the NSW Inmate Census 2008 (Corben 2009), 21% of inmates (20% of men, 28% of women) held in full-time custody on 30 June 2008 were of Aboriginal and/or Torres Strait Islander origin. This report indicates that Corrective Services NSW records an inmate as an Aboriginal and/or Torres Strait Islander if they have identified as such (by self-report) in any current or previous imprisonment episode. Data on the Aboriginality of IHS participants was also contained in the administrative records provided by CSNSW from which our sampling frame was derived. Although the overall proportion of participants recorded as being of Aboriginal origin was similar for the self-report and administrative data items (31.3% by self-report compared with 30.9% using CSNSW data), there was disagreement for 6.3% (N=62) with no particular pattern of over or under-reporting.

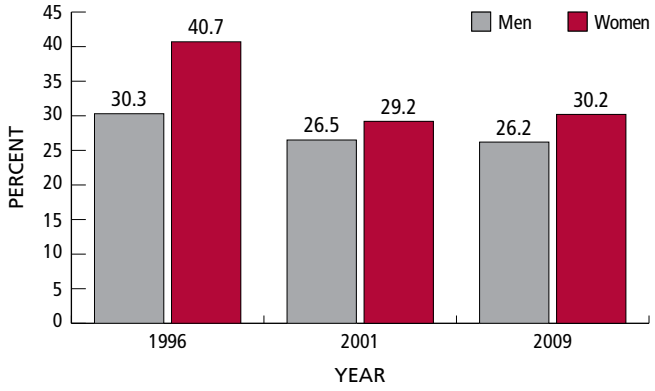
Although just 27% of 2009 IHS participants described themselves as currently married or living in a de facto marriage (Table 1.1.12), a much higher proportion (75%) of participants reported a history of marriage or a de facto relationship. The relatively small proportion of married IHS participants is consistent with the documented characteristics of Australian inmate populations (e.g., Borzycki, 2005), and is much lower than among the NSW resident adult population. The 2008 NSW Population Health Survey reported that 58% of men and 57% of women aged 16 years and older in NSW are currently married or in de facto relationships (Centre for Epidemiology and Research, NSW Department of Health, 2009).

Table 1.1.12 Legal marital status

	Men		Women		Total	
	n	%	n	%	n	%
Never married	360	45.2	73	36.7	433	43.5
Married / De-facto	209	26.2	60	30.2	269	27.0
Separated	77	9.7	24	12.1	101	10.1
Regular partner	73	9.2	16	8.0	89	8.9
Divorced	63	7.9	19	9.5	82	8.2
Widowed	15	1.9	7	3.5	22	2.2
Total	797	100.0	199	100.0	996	100.0

Consistent with previous IHS findings, a higher proportion of women than men described themselves as currently married or in a de facto relationship (30% versus 26%). Likewise, a smaller proportion of women than men reported never having been married (37% versus 45%). The proportion of married/de facto IHS participants decreased from 32% in 1996 to 27% in 2001, then remained steady between 2001 and 2009 (Table 1.1.13).

Table/Fig 1.1.13 Legal marital status "married" or "de facto"



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	186	614	30.3	188	710	26.5	209	797	26.2
Women	46	113	40.7	45	154	29.2	60	199	30.2
Total	232	727	31.9	233	864	27.0	269	996	27.0

1.2 Childhood care experiences

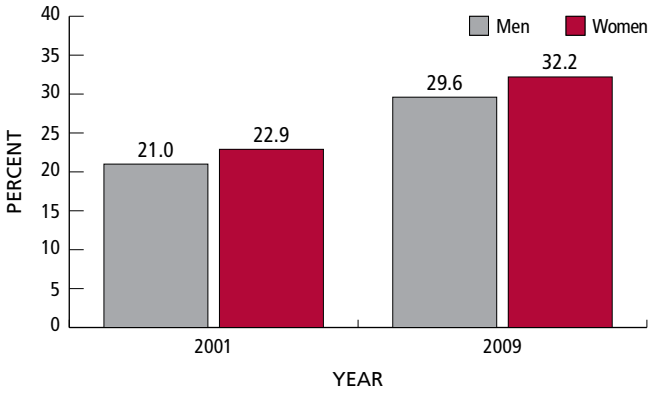
Just half (49%) of the 2009 IHS sample reported that they had been raised by both biological parents for their entire childhood (defined for this purpose as birth to 16 years of age), with women slightly less likely to report this than men (45% versus 50%) (Table 1.2.1). Conversely, more than one-third of participants reported not having been raised by both biological parents for any of their childhood, with no difference between the proportion of men and women who reported this to be the case (34% versus 36%).

Table 1.2.1 Raised by both biological parents

	Men		Women		Total	
	n	%	n	%	n	%
Yes (full childhood)	400	50.2	90	45.2	490	49.2
Yes, 0 - 10 years only	115	14.4	33	16.6	148	14.9
Yes, 11 - 16 years only	10	1.3	5	2.5	15	1.5
None of childhood	272	34.1	71	35.7	343	34.4
Total	797	100.0	199	100.0	996	100.0

A history of being raised outside of the family unit is more prevalent among inmate populations than among the general population (see review by Borzycki, 2005). Consistent with this, almost one third (30%) of the 2009 IHS sample reported having been placed in care before the age of 16 years (Table 1.2.2), with little difference between the proportion of men and women who reported such a history (32% versus 30%). This figure represented an increase from the 21% of the 2001 IHS sample who reported a history of being placed in childhood care (these data were not collected in the 1996 IHS). Childhood care experiences were defined as "spending any part of your childhood living away from your natural parents," excluding juvenile detention, which clearly leaves some room for interpretation.

Table/Fig 1.2.2 Ever placed in care before the age of 16 years



	2001			2009		
	n	Total	%	n	Total	%
Men	149	709	21.0	236	797	29.6
Women	35	153	22.9	64	199	32.2
Total	184	862	21.3	300	996	30.1

Some participants specified they had been placed in care because of family breakdown, abusive parents, and drug and alcohol problems (both the participant and their parents).

Specific comments included:

- 'Mum and dad split up and mum couldn't afford to look after me.'
- 'Mother's partner sexually assaulted me and my sister.'
- 'My father had an accident and lost his leg and my mother had a breakdown.'
- 'I started basically getting into trouble with the police, running amok. My mum was going through difficulties as she's a heavy drinker.'
- 'I was classed with ADD and was uncontrollable.'
- 'Taken away from parents (stolen generation) by government order/policy.'

Among participants who reported having been placed in care before the age of 16 years, the most common experience was being cared for by extended family (Table 1.2.3), followed by being placed in foster care. Twenty two percent of men and 13% of women reported having been placed "in a home," although this term was not defined and presumably meant different things to different participants. Note that participants could nominate more than one form of childhood care placement.

Table 1.2.3 Type of care (if ever placed in care before the age of 16 years)

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
With an extended family	91	38.6	20	31.3	111	37.0
Foster care	76	32.2	26	40.6	102	34.0
In a home	53	22.5	8	12.5	61	20.3
Other	42	17.8	20	31.3	62	20.7

The majority of those who reported having been placed in care before the age of 16 years had undergone just one such experience (Table 1.2.4), although 9% of participants had been placed in care between two and five times, and 4% of the sample had been placed in care six or more times before the age of 16 years.

Table 1.2.4 Number of childhood care placements (before the age of 16 years)

	Men		Women		Total	
	n	%	n	%	n	%
0	561	70.4	135	67.8	696	69.9
1	133	16.7	41	20.6	174	17.5
2 – 5	72	9.0	18	9.0	90	9.0
6+	31	3.9	5	2.5	36	3.6
Total	**797**	**100.0**	**199**	**100.0**	**996**	**100.0**

One quarter (26%) of 2009 IHS participants who reported having been placed in care before the age of 16 years reported that they were first placed in care at the age of 4 years or younger (Table 1.2.5), whereas close to half (47%) were first placed in care at the age of 10 years or older. There was no difference between men and women in the age at which they were first placed in care; among men, the mean age was 8.4 years (SD 4.8; range 0-17) and among women, the mean age was 8.2 years (SD 5.0; range 0-16).

Table 1.2.5 Age first placed in care (if ever placed in care before the age of 16 years)

	Men		Women		Total	
	n	%	n	%	n	%
0 - 2 years	37	16.2	12	19.7	49	16.9
3 - 4 years	21	9.2	4	6.6	25	8.6
5 - 9 years	63	27.5	16	26.2	79	27.2
10+ years	108	47.2	29	47.5	137	47.2
Total	**229**	**100.0**	**61**	**100.0**	**290**	**100.0**

For many 2009 IHS participants who reported a history of childhood care placements, such experiences were long-term: 41% of those ever in care reported having been in care for a total of more than five years of their childhood, and a further 22% had been in care for between two and five years (Table 1.2.6). Just 14% of men and 17% of women with a childhood care history had spent less than a total of six months of their childhood in care, and for only 25% was the total time spent in care less than twelve months.

Table 1.2.6 Total time spent in childhood care (if ever placed in care before the age of 16 years)

	Men		Women		Total	
	n	%	n	%	n	%
< 6 months	32	13.6	11	17.2	43	14.3
6 - < 12 months	29	12.3	4	6.3	33	11.0
1 - < 2 years	26	11.0	5	7.8	31	10.3
2 - < 5 years	49	20.8	18	28.1	67	22.3
5+ years	99	41.9	24	37.5	123	41.0
Don't know	1	0.4	2	3.1	3	1.0
Total	**236**	**100.0**	**64**	**100.0**	**300**	**100.0**

1.3 Parents in prison or in care

Eighteen percent of the 2009 IHS sample reported that during their childhood, at least one of their parents had been imprisoned (Table 1.3.1), most commonly their father (13%), but also their mother (2%) or both parents (2%). Such rates of parental incarceration are consistent with the literature demonstrating elevated prevalence of family criminal involvement among Australian and international inmate populations (see review by Borzycki, 2005).

Table 1.3.1 Parents ever imprisoned during childhood

	Men		Women		Total	
	n	%	n	%	n	%
None	622	78.0	156	78.8	778	78.2
Father only	114	14.3	18	9.1	132	13.3
Mother only	11	1.4	11	5.6	22	2.2
Both parents	18	2.3	5	2.5	23	2.3
Don't know	32	4.0	8	4.0	40	4.0
Total	797	100.0	198	100.0	995	100.0

Ten percent of 2009 IHS participants reported that one or both parents had been placed in care during their own (the parents') childhood, most commonly their mothers (6%) but also their fathers (4%) and in four instances, both parents (Table 1.3.2).

Table 1.3.2 Parents ever placed in care during their own childhoods

	Men		Women		Total	
	n	%	n	%	n	%
None	606	76.0	150	75.8	756	76.0
Father only	32	4.0	8	4.0	40	4.0
Mother only	37	4.6	19	9.6	56	5.6
Both parents	3	0.4	1	0.5	4	0.4
Don't know	119	14.9	20	10.1	139	14.0
Total	797	100.0	198	100.0	995	100.0

1.4 Education

Consistent with the poor educational attainment of Australian and international prison populations (see review by Borzycki, 2005), more than half of the 2009 IHS sample left school prior to attaining Year 10 (school certificate), the minimum level of education required by law in NSW (Table 1.4.1), including four participants who reported having never attended school at all, and 37 who reported only having attended primary school. A further 29% of the sample reported having left school before the end of Year 10, and less than one in ten completed their higher school certificate (Year 12). Men were more likely than women to report having left school before completing Year 10 (49% versus 39%). Post-high school qualifications were attained by only small minorities of this sample, with women again more likely to report post-school educational attainment.

Table 1.4.1 Highest educational qualification

	Men		Women		Total	
	n	%	n	%	n	%
Never attended school	1	0.1	3	1.5	4	0.4
Primary school only	29	3.6	8	4.0	37	3.7
Left school no qualification	387	48.6	78	39.2	465	46.7
School certificate	237	29.7	51	25.6	288	28.9
HSC/VCE/Leaving certificate	63	7.9	22	11.1	85	8.5
College certificate / Diploma	31	3.9	18	9.0	49	4.9
Technical or trade qualification	32	4.0	5	2.5	37	3.7
Degree / tertiary qualification	15	1.9	14	7.0	29	2.9
Don't know	2	0.3	0	0.0	2	0.2
Total	797	100.0	199	100.0	996	100.0

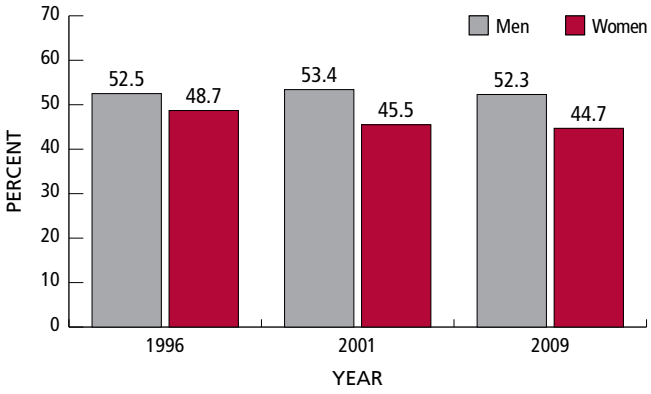
Among 2009 IHS participants who left school with no qualification (i.e. prior to completing Year 10), the average age at which both men and women left school was around 14.5 years (Table 1.4.2). Note that this excludes the four participants who never attended school.

Table 1.4.2 Age left school characteristics (if not complete Year 10)

	Men	Women	Total
N	413	85	498
Mean (± sd)	14.6 (± 1.2)	14.4 (± 1.4)	14.5 (± 1.3)
Median	15.0	15.0	15.0
Range	9 - 19	8 - 17	8 - 19

The proportion of the 2009 IHS sample who failed to attain the minimum level of education was consistent with both the 1996 and 2001 IHS results: just over half of all three samples reported having left school before completing Year 10 (Table 1.4.3). However, the proportion of women who did not complete Year 10 declined slightly from 49% in 1996 to 45% in 2009.

Table/Fig 1.4.3 Left school prior to completing Year 10



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	321	612	52.5	376	704	53.4	417	797	52.3
Women	56	115	48.7	70	154	45.5	89	199	44.7
Total	377	727	51.9	446	858	52.0	506	996	50.8

Disrupted educational histories were evident among 2009 IHS participants, with less than one third of participants reporting that they had attended only one or two schools (Table 1.4.4). Women were more likely than men to report having attended only one or two schools (37% versus 30%). A total of 31% of participants reported having attended five or more schools, including 15% who reported having attended seven or more schools.

Table 1.4.4 Number of schools attended

	Men		Women		Total	
	n	%	n	%	n	%
1 – 2	238	30.1	70	36.8	308	31.4
3 – 4	310	39.2	61	32.1	371	37.8
5 – 6	124	15.7	34	17.9	158	16.1
7+	119	15.0	25	13.2	144	14.7
Total	791	100.0	190	100.0	981	100.0

Likewise, a high rate of school expulsions was also reported by 2009 IHS participants, with 37% of men and 27% of women – equating to a total of 35% of the overall sample – reporting that they had been expelled from at least one school during their educational history. Men were more likely than women to report having been expelled from two or more schools (18% versus 8%). Eighteen percent of men and 8% of women reported having attended a "special school," although this term was not defined and presumably meant different things to different participants.

Educational opportunities are also offered to many inmates during their incarceration, an important aspect to seeking to equip inmates with the life skills to avoid re-offending and re-incarceration after their release to the community. Forty two percent of 2009 IHS participants reported having completed an educational course during their present incarceration, most commonly TAFE (Technical and Further Education) (19%) and AVETI courses (12%) (Table 1.4.5). AVETI courses refer to those provided by the Adult Vocational and Education Training Institute (AVETI), located at the Silverwater Correctional Centre. AVETI offers training courses in areas such as Adult Literacy and Numeracy, English as a Second Language, Communications, Computers, Job-seeking Skills and Small Business Management.

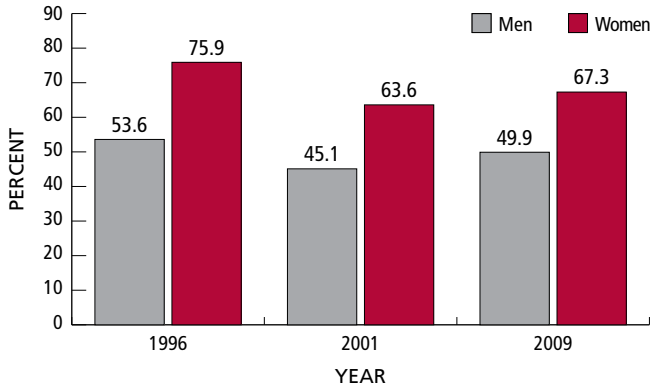
Table 1.4.5 Completed educational courses during current incarceration

	Men		Women		Total	
	n	%	n	%	n	%
No	473	59.3	106	53.3	579	58.1
Yes, TAFE	151	18.9	42	21.1	193	19.4
Yes, AVETI	94	11.8	22	11.1	116	11.6
Yes, other	79	9.9	29	14.6	108	10.8
Total	797	100.0	199	100.0	996	100.0

1.5 Employment

A history of poor employment and unemployment is characteristic of Australian and international inmate populations (e.g., see review by Borzycki, 2005). Consistent with the characteristics of both the 1996 and 2001 IHS samples, around half (53%) of the 2009 sample reported that they had been unemployed in the six months prior to their present incarceration (Table 1.5.1). Also consistent with earlier findings was the substantially higher proportion of women than men who reported having been unemployed before prison (67% versus 50%).

Table/Fig 1.5.1 Unemployed in the six months prior to incarceration



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Male	331	617	53.6	320	710	45.1	398	797	49.9
Women	88	116	75.9	98	154	63.6	134	199	67.3
Total	**419**	**733**	**57.2**	**418**	**864**	**48.4**	**532**	**996**	**53.4**

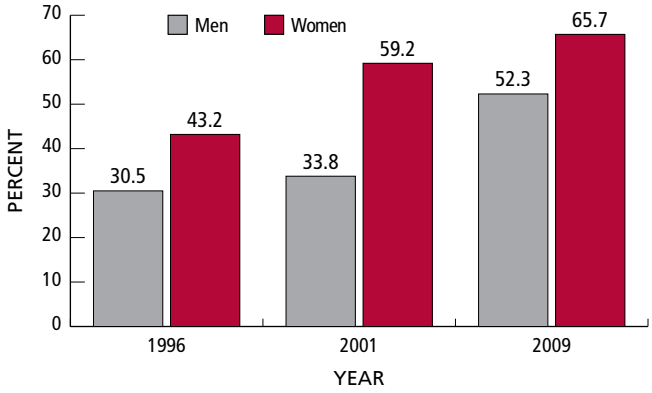
Among the 53% of 2009 IHS participants who reported having been unemployed in the six months prior to prison, more than half (56%) reported having been unemployed for two or more years before prison, including almost one in five who reported not having worked for ten or more years (Table 1.5.2). The duration of unemployment was longer among women, who were substantially more likely than men to have been unemployed for five or more years (44% versus 30%).

Table 1.5.2 Duration of unemployment (if unemployed in six months prior to incarceration)

	Men		Women		Total	
	n	%	n	%	n	%
< 1 year	114	28.6	28	20.9	142	26.7
1 - <2 years	76	19.1	18	13.4	94	17.7
2 - <5 years	88	22.1	29	21.6	117	22.0
5 - <10 years	59	14.8	26	19.4	85	16.0
10+ years	61	15.3	33	24.6	94	17.7
Total	**398**	**100.0**	**134**	**100.0**	**532**	**100.0**

The proportion of IHS participants who were unemployed in the six months prior to their incarceration and who reported not having worked for two or more years increased from 33% among the 1996 IHS sample to 40% in 2001, and declined again to 56% in 2009 (Table 1.5.3). Women had consistently higher rates of unemployment than men, including nearly two-thirds (66%) in 2009 compared with just over half (52%) of men.

Table/Fig 1.5.3 Unemployed for two or more years (if unemployed in six months prior to incarceration)



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	101	331	30.5	108	320	33.8	208	398	52.3
Women	38	88	43.2	58	98	59.2	88	134	65.7
Total	**139**	**419**	**33.2**	**166**	**418**	**39.7**	**296**	**532**	**55.6**

Participants in the 2009 IHS who had been employed for at least part of the six months preceding their current incarceration were most likely to report that the job they had held most recently was as a labourer (44%), a tradesperson (13%) or as a sales person or personal service worker (12%) (Table 1.5.4). Jobs held most recently were often different from participants' reported 'usual' occupation, but are presented in this report as an indication of participants' lifestyles directly prior to imprisonment.

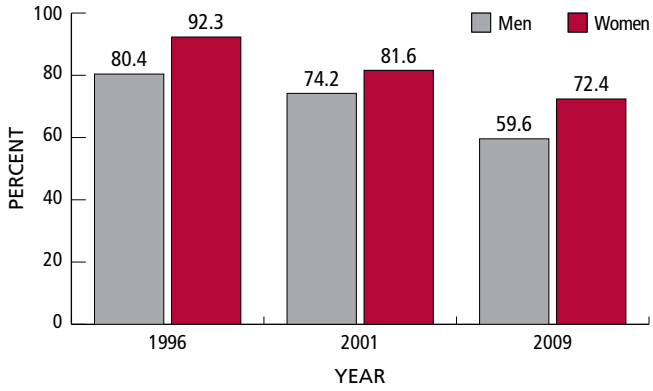
Some participants specified their occupation was a 'career criminal' or that they 'had never worked in their life'.

Table 1.5.4 Last job prior to current incarceration

	Men		Women		Total	
	n	%	n	%	n	%
Labourer and related workers	189	47.4	15	23.1	204	44.0
Tradespeople	59	14.8	1	1.5	60	12.9
Salespeople / service worker	38	9.5	19	29.2	57	12.3
Self-employed	37	9.3	12	18.5	49	10.6
Plant / machine operators / drivers	35	8.8	1	1.5	36	7.8
Manager / Administrator / Professionals	21	5.3	6	9.2	27	5.8
Other	20	5.0	11	16.9	31	6.7
Total	**399**	**100.0**	**65**	**100.0**	**464**	**100.0**

Many inmates have the opportunity to work for Corrective Services Industries during their incarceration. This commercial industrial aspect of the prison system manufactures a range of products including textiles and furniture. A higher proportion of 2009 IHS participants reported having a job in prison than had had a job in the community during the six months prior to their current incarceration (62% versus 47%). Nevertheless, the proportion of IHS samples who reported having a prison job declined steadily from 82% in 1996 to 76% in 2001, and again to 62% in 2009 (Table 1.5.5). Consistent with previous IHS findings, a higher proportion of women than men reported having a prison job (72% versus 60%).

Table/Fig 1.5.5 Have a job in prison during current incarceration



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	484	602	80.4	526	709	74.2	475	797	59.6
Women	108	117	92.3	124	152	81.6	144	199	72.4
Total	**592**	**719**	**82.3**	**650**	**861**	**75.5**	**619**	**996**	**62.1**

Participants in the 2009 IHS who were employed in prison reported a range of prison jobs, with some differences between men and women. Men were most likely to be employed as "sweepers" (trusted inmates who conduct domestic work in clinics and administration areas), in maintenance roles, in the kitchens or in the timber industry (Table 1.5.6). Women were most likely to be employed in maintenance roles, in the kitchens, in clerical roles or in agriculture.

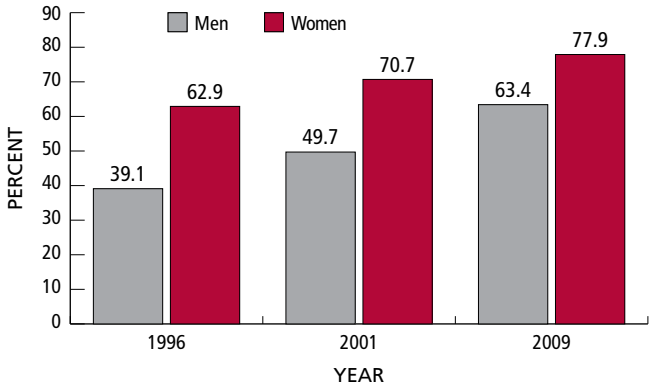
Table 1.5.6 Type of prison job (if employed in prison)

	Men		Women		Total	
	n	%	n	%	n	%
Sweeper	104	21.9	11	7.6	115	18.6
Maintenance	66	13.9	20	13.9	86	13.9
Kitchen / cook	46	9.7	18	12.5	64	10.3
Timber shop	43	9.1	0	0.0	43	6.9
Garden /Farmers /Nursery	26	5.5	15	10.4	41	6.6
Clerical work	19	4.0	16	11.1	35	5.7
Storeman / packer	14	2.9	12	8.3	26	4.2
Textile	23	4.8	0	0.0	23	3.7
Laundry	17	3.6	4	2.8	21	3.4
Other CSNSW industry	28	5.9	25	17.4	53	8.6
Other	89	18.7	23	16.0	112	18.1
Total	**475**	**100.0**	**144**	**100.0**	**619**	**100.0**

1.6 Pension or benefit

Welfare reliance, associated with both poor educational attainment and a lack of employment and training opportunities, is another highly prevalent feature of Australian and international inmate populations (Borzycki, 2005). Consistent with this characteristic, many 2009 IHS participants reported having received some form of pension or benefit for substantial periods of time. The proportion of participants reporting receiving a pension or benefit in the six months prior to incarceration increased from 43% in 1996 to 54% in 2001 to 66% in 2009 (Table 1.6.1). Women were more likely than men to report receiving a pension or benefit across all Surveys.

Table/Fig 1.6.1 Pensions or benefits received in the six months prior to incarceration



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	257	657	39.1	371	747	49.7	505	797	63.4
Women	83	132	62.9	118	167	70.7	155	199	77.9
Total	340	789	43.1	489	914	53.5	660	996	66.3

Two-thirds of participants reported that they had received at least one form of pension or benefit in the six months prior to their current incarceration (Table 1.6.2), with unemployment (34%), disability (14%) and student/youth allowances (9%) the most commonly reported payment received. "Other" forms of pension or benefits had reportedly been received by 11% of the sample in the six months prior to incarceration, including both the aged pension and the widow's pension. Note that participants could nominate more than one form of pension or benefit received.

Table 1.6.2 Type of pensions or benefits received in the six months prior to incarceration

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Any pension or benefit	505	63.4	155	77.9	660	66.3
Unemployment	280	35.1	57	28.6	337	33.8
Disability support	107	13.4	36	18.1	143	14.4
Student/youth	67	8.4	26	13.1	93	9.3
Supporting parent	13	1.6	36	18.1	49	4.9
Carers	12	1.5	10	5.0	22	2.2
Sickness	16	2.0	2	1.0	18	1.8
Other	80	10.0	32	16.1	112	11.2
No pension or benefit	292	36.6	44	22.1	336	33.7

Receipt of pensions or benefits was a relatively longstanding occurrence for many 2009 IHS participants. Almost half (49%) of those who received at least one form of pension or benefit in the six months prior to incarceration reported having received that pension or benefit for two or more years (Table 1.6.3), including 10% who had received the payment for ten or more years. One third (35%) of those who had been in receipt of pensions or benefits had received their payments for less than one year.

Table 1.6.3 Time on pension or benefit (if on pension or benefit in six months prior to incarceration)

	Men		Women		Total	
	n	%	n	%	n	%
< 1 year	184	38.0	40	26.5	224	35.3
1 - <2 years	83	17.1	19	12.6	102	16.1
2 - <5 years	105	21.7	39	25.8	144	22.7
5 - <10 years	73	15.1	27	17.9	100	15.7
10+ years	39	8.1	26	17.2	65	10.2
Total	484	100.0	151	100.0	635	100.0

1.7 Accommodation and living situation

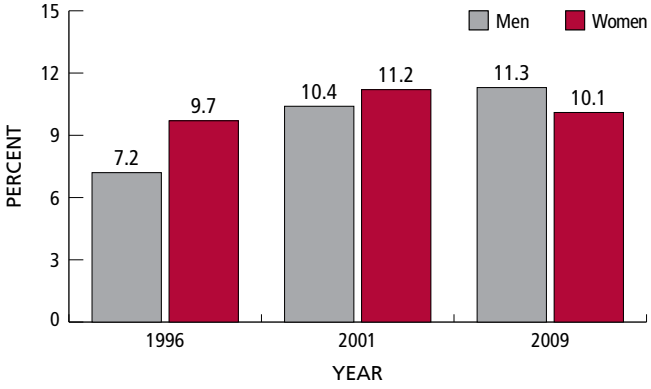
Consistent with the literature demonstrating strong associations between transient accommodation and incarceration (e.g., Baldry et al., 2003), 11% of IHS participants were homeless or residing in unsettled accommodation such as hostels, squats or caravans immediately prior to their current incarceration (Table 1.7.1). Half of the sample reported that they lived in rental accommodation prior to their imprisonment, and more than one-third reported having lived in their own or the family home.

Table 1.7.1 Accommodation immediately prior to current incarceration

	Men		Women		Total	
	n	%	n	%	n	%
Renting	390	48.9	110	55.3	500	50.2
Own home / family	314	39.4	66	33.2	380	38.2
Unsettled lodgings	70	8.8	16	8.0	86	8.6
Sleeping rough \ (no fixed abode)	20	2.5	4	2.0	24	2.4
Hospital	3	0.4	3	1.5	6	0.6
Total	797	100.0	199	100.0	996	100.0

The proportion of 2009 IHS participants who reported unsettled accommodation or no fixed abode immediately prior to their current incarceration was equivalent to that of the 2001 IHS sample, and a slight increase compared to the 1996 sample (Table 1.7.2).

Table/Fig 1.7.2 Unsettled or "no fixed abode" accommodation prior to incarceration



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	44	613	7.2	73	700	10.4	90	797	11.3
Women	11	113	9.7	17	152	11.2	20	199	10.1
Total	55	726	7.6	90	852	10.6	110	996	11.0

Among the majority of 2009 IHS participants, accommodation arrangements prior to their incarceration appeared relatively stable: 60% of the sample reported having lived in only one residence in the six months preceding their current incarceration, and a further 10% reported having moved once during that period (Table 1.7.3). However, one quarter had moved two or more times in the preceding six months, including 4% who reported having moved six or more times. Three percent reported that they had no fixed accommodation during the six months before imprisonment.

Table 1.7.3 Changes of accommodation in the six months prior to current incarceration

	Men		Women		Total	
	n	%	n	%	n	%
None, lived in same place	495	62.1	105	52.8	600	60.2
Moved once	74	9.3	25	12.6	99	9.9
Moved 2-3 times	140	17.6	35	17.6	175	17.6
Moved 4-5 times	39	4.9	13	6.5	52	5.2
Moved 6+ times	26	3.3	13	6.5	39	3.9
No fixed accommodation	23	2.9	8	4.0	31	3.1
Total	797	100.0	199	100.0	996	100.0

Among participants in the 2009 IHS with a history of previous incarceration, 30% reported that they had experienced problems with their accommodation arrangements within six months of their last release into the community (Table 1.7.4). These findings are consistent with research demonstrating the strong likelihood of ex-inmates being re-incarcerated if they move house often in the immediate post-release period (Baldry et al., 2003). Accommodation issues were substantially more likely to have been experienced by women after release from prison than men (51% versus 26%). This finding is consistent with Australian research demonstrating that ex-inmates are more likely to avoid re-incarceration if they return to live with their partner, parents or close family post-release, and proportionally fewer female ex-inmates are provided with such an opportunity (Baldry et al., 2003).

Table 1.7.4 Accommodation problems within six months of most recent release (if ever previously incarcerated)

	Men		Women		Total	
	n	%	n	%	n	%
Yes	132	25.9	46	50.5	178	29.6
No	378	74.1	45	49.5	423	70.4
Total	510	100.0	91	100.0	601	100.0

Thirty five percent of 2009 IHS participants reported that they had been living with their partner prior to their current incarceration (Table 1.7.5). A further 20% reported living alone, while living with parents (19%), siblings or other family (15%), or friends (9%) were also relatively common. Note that this question specifically requested that participants exclude any children whom they might have lived with.

Table 1.7.5 People lived with (excluding children) prior to current incarceration

	Men		Women		Total	
	n	%	n	%	n	%
Alone	150	18.8	48	24.1	198	19.9
Partner	276	34.6	71	35.7	347	34.8
Parent (s)	163	20.5	29	14.6	192	19.3
Siblings / Other family	118	14.8	28	14.1	146	14.7
Friends	68	8.5	17	8.5	85	8.5
Other	22	2.8	6	3.0	28	2.8
Total	797	100.0	199	100.0	996	100.0

In the twelve months preceding their current incarceration, more than 90% of the 2009 IHS sample had spent the most time in a location within NSW (Table 1.7.6). Dividing the sample into the geographical NSW Health Area Health Services (AHS) of the location where they spent the most time in the year preceding their imprisonment indicates that participants were most likely to have resided in the Sydney metropolitan area such as Sydney South West (22%), Sydney West (16%), or South Eastern Sydney and Illawarra (15%) Area Health Services. The majority of participants who were not living in NSW prior to incarceration were living in the bordering states of Queensland (35%) or Victoria (20%).

Table 1.7.6 NSW Area Health Service of residence in the year prior to incarceration

	Men		Women		Total	
	n	%	n	%	n	%
Sydney Southwest AHS	164	20.6	53	26.6	217	21.8
Sydney West AHS	131	16.4	24	12.1	155	15.6
South Eastern Sydney Illawarra AHS	123	15.4	30	15.1	153	15.4
Hunter New England AHS	100	12.5	24	12.1	124	12.4
Greater Western AHS	63	7.9	15	7.5	78	7.8
Greater Southern AHS	61	7.7	7	3.5	68	6.8
Northern Sydney Central Coast AHS	53	6.6	13	6.5	66	6.6
North Coast AHS	43	5.4	15	7.5	58	5.8
Outside NSW / International / No fixed address	59	7.4	18	9.0	77	7.7
Total	797	100.0	199	100.0	996	100.0

1.8 Children of participants

Close to half (45%) of the 2009 IHS sample reported that they were the parent of at least one child under the age of 16 years, including both foster children and step-children (Table 1.8.1), with a higher proportion of women (49%) than men (43%) reporting that they were parents. Note that participants were not asked if they were the parent of children 16 years or older. Thirty two percent of the sample reported being the parent of one or two children aged less than 16 years, while 13% reported having three or more. There was no difference between the proportion of men (13%) and women (14%) who reported being the parent of three or more children aged less than 16 years.

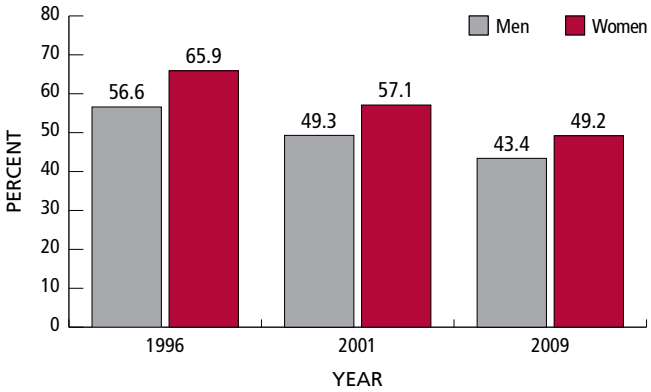
In 2006–7, 65% of Australia's general population aged 18 years or older and living in private dwellings (excluding very remote parts of Australia) reported that they had natural children, although no information about the age of these children is available, and these data refer specifically to biological children, excluding foster and step-children (ABS, 2008). It is not possible to determine whether inmates were more or less likely to be parents than the general community since they were only asked about children aged less than 16 years. Among Australia's parents, 41% reported that they had two children, and 39% reported that they had three or more.

Table 1.8.1 Number of children (including foster and step-children) aged less than 16 years

	Men		Women		Total	
	n	%	n	%	n	%
0	450	56.6	101	50.8	551	55.4
1	138	17.4	44	22.1	182	18.3
2	107	13.5	26	13.1	133	13.4
3	48	6.0	14	7.0	62	6.2
4	24	3.0	6	3.0	30	3.0
5+	28	3.5	8	4.0	36	3.6
Total	795	100.0	199	100.0	994	100.0

Whereas a consistently higher proportion of women than men reported being the parents of at least one child aged less than 16 years (Table 1.8.2), the overall proportion of IHS participants who reported being parents declined from 58% in 1996 to 51% in 2001, and again to 45% in 2009. Such results may reflect social trends in the broader Australian community, with increasing proportions of Australian women and their partners not having children (ABS, 2002); estimates for 2000 suggested that 24% of women currently in their child-bearing years would never have children. The ABS (2002) reports that this trend is also seen in other developed countries, with recent estimates of permanent childlessness for women in the United Kingdom and the United States of 20% and 22%, respectively.

Table/Fig 1.8.2 Parent of at least one child aged less than 16 years (including foster and step-children)



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	372	657	56.6	337	684	49.3	345	795	43.4
Women	87	132	65.9	84	147	57.1	98	199	49.2
Total	459	789	58.2	421	831	50.7	443	994	44.6

Twenty seven percent of the 2009 IHS sample reported that at least one of their children aged less than 16 years was dependent on them immediately prior to their incarceration (Table 1.8.3). There was little difference between the proportion of men and women who reported having dependent children (26% versus 30%).

Table 1.8.3 Have dependent child aged less than 16 years (including foster and step-children) prior to incarceration

	Men		Women		Total	
	n	%	n	%	n	%
Yes, have dependent children	207	26.0	60	30.2	267	26.9
No, have children (non dependent)	138	17.4	38	19.1	176	17.7
Not have any children	450	56.6	101	50.8	551	55.4
Total	795	100.0	199	100.0	994	100.0

1.9 Contact with family during incarceration

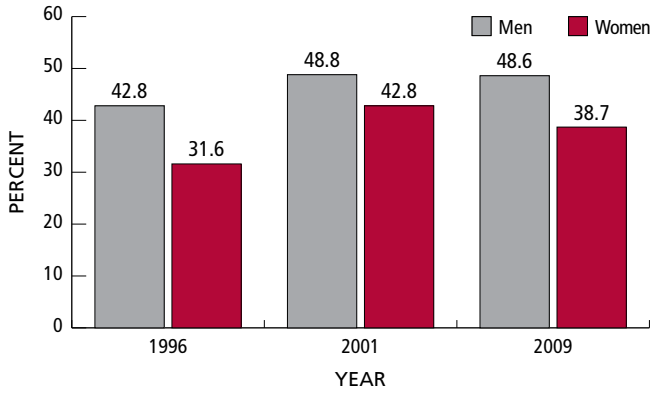
Prison inmates who maintain close links with their families and/or close friends during incarceration have lower rates of post-release recidivism than inmates who do not maintain these ties (Hairston, 2003; Visher & Travis, 2003). Close to half (47%) of 2009 IHS participants reported that they had not received any visits from family and/or friends in the four weeks preceding the Survey (Table 1.9.1), with men more likely than women to report that this was the case (49% versus 39%). Women were also more likely than men to report having received two or more visits during that period (43% versus 34%).

Table 1.9.1 Number of visits from family and/or friends in the previous four weeks

	Men		Women		Total	
	n	%	n	%	n	%
0	382	48.6	72	38.7	454	46.7
1	136	17.3	34	18.3	170	17.5
2 - 4	189	24.0	64	34.4	253	26.0
5+	79	10.1	16	8.6	95	9.8
Total	786	100.0	186	100.0	972	100.0

The proportion of IHS participants who reported having received no visits from family and/or friends during the four weeks preceding the Survey increased from 41% in 1996 to 48% in 2001, and then remained steady at 47% in 2009 (Table 1.9.2). In all Survey years, women were more likely than men to report receiving at least one visit during that period, suggesting that women may be more likely than men to maintain family and social networks during incarceration to which they can return post-release.

Table/Fig 1.9.2 No visits from family and/or friends in the previous four weeks



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	262	612	42.8	341	699	48.8	382	786	48.6
Women	37	117	31.6	65	152	42.8	72	186	38.7
Total	299	729	41.0	406	851	47.7	454	972	46.7

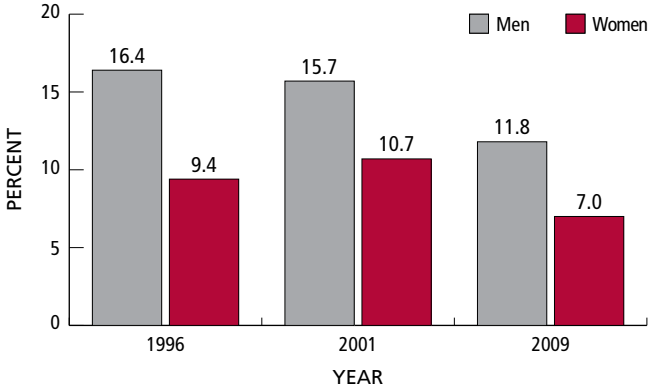
One in ten (11%) 2009 IHS participants reported having received no phone calls or letters from family and/or friends during the two weeks preceding the Survey (Table 1.9.3). Women were slightly more likely than men to report that they had received at least one phone call or letter during this period (93% versus 88%); and a higher proportion of women reported receiving at least two phone call or letters during that period (87% versus 80%).

Table 1.9.3 Number of phone calls or letters from family and/or friends in the previous two weeks

	Men		Women		Total	
	n	%	n	%	n	%
0	93	11.8	13	7.0	106	10.9
1	68	8.7	13	7.0	81	8.3
2-4	159	20.2	50	26.9	209	21.5
5+	466	59.3	110	59.1	576	59.3
Total	786	100.0	186	100.0	972	100.0

The proportion of IHS participants who reported having received no phone calls or letters from family and/or friends during the two weeks preceding the Survey remained steady at 15% between 1996 and 2001, then decreased to 11% in 2009 (Table 1.9.4). Consistent with the findings on visits from family and friends reported above, in all Survey years, women were more likely than men to report receiving at least one phone call or letter during that period. Once again, these results may indicate that women may be more likely than men to maintain during incarceration family and social networks to which they can return post-release.

Table/Fig 1.9.4 No phone calls or letters from family and/or friends in the previous two weeks



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	101	614	16.4	110	700	15.7	93	786	11.8
Women	11	117	9.4	16	150	10.7	13	186	7.0
Total	112	731	15.3	126	850	14.8	106	972	10.9

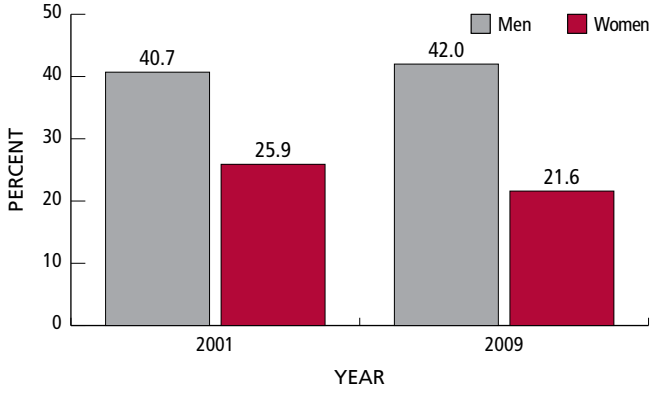
2. Offending behaviour

2.1 Juvenile detention

Juvenile detention is a strong predictor of continuing involvement in both the juvenile and adult criminal justice systems. Detaining a child diminishes their chances of becoming a productive citizen and increases the likelihood of future incarceration. Incarceration exposes children to violence and negative peer influence and limits opportunities for them to return to their communities. In particular, the majority of young people released from detention face serious obstacles in re-enrolling in school and finding employment (Faruquee, 2002). Crime is committed disproportionately by 15-25 year olds, peaking between the ages of 15 and 18 and declining by the late 20s. A study of 33,900 young offenders in NSW showed that the average age of first criminal appearance was 16, with 70% appearing only once before the Children's Court (Coumarelos, 1994). Boys are about seven times more likely to be charged for offending than girls.

Among 2009 IHS participants, 38% reported a history of juvenile detention (Table 2.1.1), with substantially more men than women reporting such a history (42% versus 22%). These results are consistent with the histories reported by the 2001 IHS sample; juvenile detention history was not examined in the 1996 IHS.

Table/Fig 2.1.1 Ever been in juvenile detention



	2001			2009		
	n	Total	%	n	Total	%
Men	279	686	40.7	335	797	42.0
Women	37	143	25.9	43	199	21.6
Total	316	829	38.1	378	996	38.0

Similar proportions of 2009 IHS participants reported having been detained in juvenile detention on one occasion (13%) and on five or more occasions (13%) (Table 2.1.2). Women were more likely than men to report fewer occasions of detainment in a juvenile detention facility; just 8% of women reported having been in juvenile detention on three or more occasions, compared to 22% of men. Twenty four percent of women with a history of juvenile detention were aged 12 years or younger at their first detention episode, compared with 17% of men. There was, however, no difference in the mean age at which men (14.2 years; SD 2.0; range 7-17) and women (14.3 years; SD 1.9; range 10-17) were first detained in a juvenile detention facility.

Table 2.1.2 Number of times in juvenile detention

	Men		Women		Total	
	n	%	n	%	n	%
0	462	58.0	156	78.4	618	62.0
1	110	13.8	20	10.1	130	13.1
2	53	6.6	7	3.5	60	6.0
3 - 4	58	7.3	4	2.0	62	6.2
5+	114	14.3	12	6.0	126	12.7
Total	797	100.0	199	100.0	996	100.0

Among all 2009 IHS participants with a juvenile detention history, the most serious offence which led to their first juvenile detention episode was robbery (52% of men, 37% of women), followed by assault (Table 2.1.3). Other offences included property crimes, driving offences and breaches of court orders.

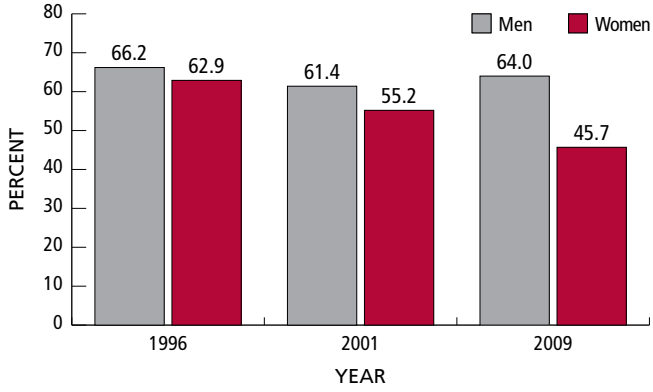
Table 2.1.3 Most serious offence leading to first time in juvenile detention (if ever in juvenile detention)

	Men		Women		Total	
	n	%	n	%	n	%
Robbery	174	51.9	16	37.2	190	50.3
Assault	60	17.9	7	16.3	67	17.7
Property	24	7.2	3	7.0	27	7.1
Driving	19	5.7	0	0.0	19	5.0
Order breaches	10	3.0	0	0.0	10	2.6
Sexual offences	7	2.1	0	0.0	7	1.9
Homicide	5	1.5	2	4.7	7	1.9
Drugs	3	0.9	2	4.7	5	1.3
Other	33	9.9	12	27.9	45	11.9
Total	335	100.0	43	100.0	378	100.0

2.2 Previous incarceration

Sixty percent of 2009 IHS participants (64% of men and 46% of women) reported that they had been previously incarcerated, a lower proportion than the total inmate population as indicated by the records held by CSNSW. According to the NSW Inmate Census 2008 (Corben, 2009), 68% of inmates held in full-time custody by CSNSW on June 30, 2008, had a history of prior adult imprisonment (including remand). For the purposes of the Census, full-time custody inmates include those held in gazetted correctional centres, transitional centres and police/court complexes in NSW. In the 2001 and 2009 IHSs, the proportion of participants reporting previous imprisonment was the same (60%), following a decline from 66% in 1996 (Table 2.2.1). The decline in the proportion of IHS participants with histories of previous imprisonment has been more substantial among women, falling from 63% in 1996 to 55% in 2001 and again to 46% in 2009.

Table/Fig 2.2.1 Previous adult incarceration



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	406	613	66.2	436	710	61.4	510	797	64.0
Women	73	116	62.9	85	154	55.2	91	199	45.7
Total	**479**	**729**	**65.7**	**521**	**864**	**60.3**	**601**	**996**	**60.3**

The majority of men (67%) and almost half of women (48%) reported having been first imprisoned between the ages of 18 and 24 years (Table 2.2.2); together, this group accounted for 64% of the total 2009 IHS sample. Just over 5% of participants indicated they were under age 18 when they were first imprisoned, which suggests they were in juvenile detention.

Table 2.2.2 Age of first imprisonment

	Men		Women		Total	
	n	%	n	%	n	%
< 18 years	46	5.8	5	2.5	51	5.1
18 - 19 years	344	43.2	40	20.1	384	38.6
20 - 24 years	193	24.2	55	27.6	248	24.9
25 - 29 years	45	5.6	19	9.5	64	6.4
30 - 39 years	67	8.4	30	15.1	97	9.7
40 - 49 years	61	7.7	34	17.1	95	9.5
50+ years	41	5.1	16	8.0	57	5.7
Total	**797**	**100.0**	**199**	**100.0**	**996**	**100.0**

A higher proportion of women (40%) than men (21%) reported having been first imprisoned at the age of 30 years or older; together, this group accounted for 25% of the overall sample. Although a male participant reported the oldest age of first imprisonment (82 years), women had, on average, been first imprisoned at an older age than men (around 30 years versus 25 years; Table 2.2.3).

Table 2.2.3 Age of first imprisonment characteristics

	Men	Women	Total
N	797	199	996
Mean (± sd)	24.8 (± 10.9)	29.6 (± 11.9)	25.7 (± 11.3)
Median	19.7	24.0	20.0
Range	13 - 82	15 - 64	13 - 82

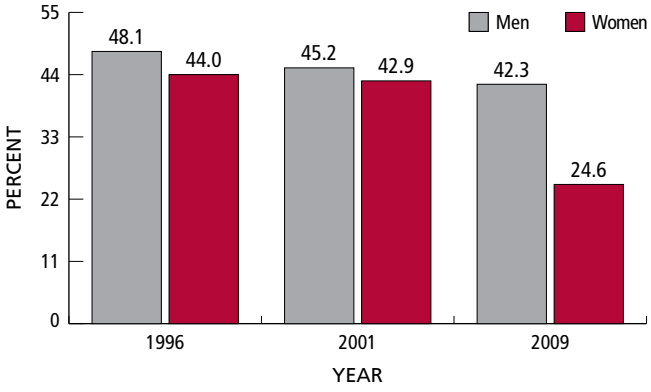
Thirty-six percent of men and 54% of women were in adult prison for the first time. Around one-fifth of IHS participants were currently serving their second custodial sentence (Table 2.2.4); and 3% had been imprisoned more than 10 times. Ninety two percent of women had been imprisoned on five or fewer occasions, compared with 83% of men.

Table 2.2.4 Number of previous incarcerations

	Men		Women		Total	
	n	%	n	%	n	%
1	287	36.0	108	54.3	395	39.7
2	173	21.7	42	21.1	215	21.6
3 - 5	203	25.5	33	16.6	236	23.7
6 - 10	109	13.7	12	6.0	121	12.1
11+	25	3.1	4	2.0	29	2.9
Total	797	100.0	199	100.0	996	100.0

The proportion of IHS samples reporting a history of three or more incarcerations in adult prison (including the current episode) decreased from 48% in 1996 to 45% in 2001, and again to 39% in 2009 (Table 2.2.5). The decline in the proportion of women with a history of three or more incarcerations (from 44% in 1996 to 43% in 2001 and 25% in 2009) has been far greater than the decline in the proportion of men reporting such a history (from 48% in 1996 to 45% in 2001 to 42% in 2009).

Table/Fig 2.2.5 History of three or more incarcerations



	1996			2001			2009		
	3 or more times	Total	%	3 or more times	Total	%	3 or more times	Total	%
Men	295	613	48.1	321	710	45.2	337	797	42.3
Women	51	116	44.0	66	154	42.9	49	199	24.6
Total	346	729	47.5	387	864	44.8	386	996	38.8

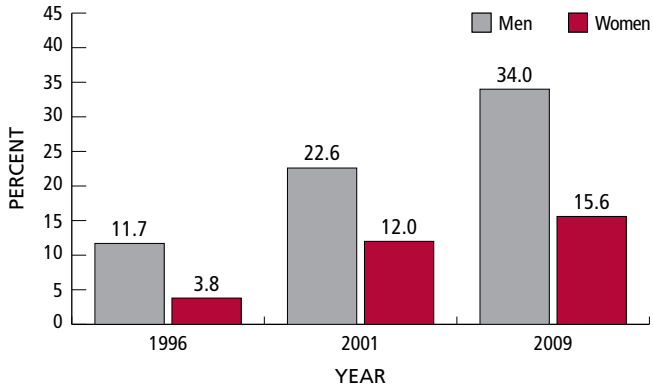
Participants were asked to estimate how much time they had spent in adult prisons throughout their lifetime. Twenty nine percent estimated that they had been in prison for a total of less than one year, and a further 40% estimated their total time in prison at between one and five years (Table 2.2.6). Thirty percent reported having been in prison for more than five years, of whom half (15% of the total sample) reported a total of more than 10 years' imprisonment. On average, men reported having spent more time in prison than women; and were more than twice as likely to have been imprisoned for a total of more than five years (34% versus 16%).

Table 2.2.6 Total time spent in adult prisons (lifetime)

	Men		Women		Total	
	n	%	n	%	n	%
> 6 months	118	14.8	61	30.7	179	18.0
6 months - < 1 year	81	10.2	31	15.6	112	11.2
1 - < 2 years	132	16.6	40	20.1	172	17.3
2 - < 5 years	195	24.5	36	18.1	231	23.2
5 - < 10 years	130	16.3	24	12.1	154	15.5
10+ years	141	17.7	7	3.5	148	14.9
Total	797	100.0	199	100.0	996	100.0

Although the proportion of IHS participants reporting a history of three or more incarcerations decreased between 1996 and 2009, this was not accompanied by a decrease in the proportion of participants having spent a total of five or more years in prison. In fact, the opposite pattern was observed: the overall proportion of IHS samples reporting having spent a total of five or more years in adult prisons increased from 10% in 1996 to 21% in 2001 to 30% in 2009 (Table 2.2.7). This substantial increase was reflected among both men and women, with the proportion of men with a history of five or more years of imprisonment rising from 12% in 1996 to 23% in 2001 to 34% in 2009; and the proportion of women with such a history increasing from 4% in 1996 to 12% in 2001 to 16% in 2009.

Table/Fig 2.2.7 Spent five or more years incarcerated during lifetime

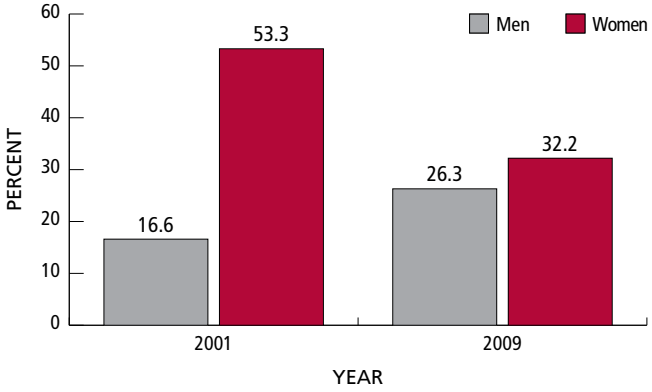


	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	77	657	11.7	169	747	22.6	271	797	34.0
Women	5	132	3.8	20	167	12.0	31	199	15.6
Total	**82**	**789**	**10.4**	**189**	**914**	**20.7**	**302**	**996**	**30.3**

2.3 Current incarceration

Over one quarter of men (26%) and nearly a third of women (32%) indicated they were currently on remand. This means that they had been charged with an offence but the court had not reached a final verdict resulting in a sentence or being deemed 'not guilty.' The proportion of men on remand increased from 17% in 2001 to 26% in 2009, while the proportion of women on remand decreased from 53% in 2001 to 32% in 2009 (Table 2.3.1).

Table/Fig 2.3.1 Currently on remand



	2001			2009		
	n	Total	%	n	Total	%
Men	124	747	16.6	210	797	26.3
Women	89	167	53.3	64	199	32.2
Total	**213**	**914**	**23.3**	**274**	**996**	**27.5**

Close to one quarter (24%) of 2009 IHS participants reported having served less than three months during their current incarceration (Table 2.3.2); and a total of 58% of participants reported having been in prison during their current episode for less than twelve months (56% of men and 70% of women). Around one third (32%) of participants reported having served between one and five years during their current imprisonment. Compared to women, men were more likely to report that they had served more than five years during their current sentence (11% versus 5%). Among the 274 participants currently on remand, 27% had been in prison for six months or longer.

Table 2.3.2 Amount of time served (current incarceration) at time of interview

	Men		Women		Total	
	n	%	n	%	n	%
<3 months	181	22.7	53	26.6	234	23.5
3 - <6 months	132	16.6	49	24.6	181	18.2
6 - <12 months	129	16.2	37	18.6	166	16.7
1 - <2 years	124	15.6	27	13.6	151	15.2
2 - <5 years	141	17.7	24	12.1	165	16.6
5 - <10 years	60	7.5	7	3.5	67	6.7
10+ years	30	3.8	2	1.0	32	3.2
Total	797	100.0	199	100.0	996	100.0

Among sentenced inmates, sentence lengths were calculated from administrative data provided by CSNSW by subtracting the date of admission to prison from the sentence expiry date (Table 2.3.3). Although approximately equivalent proportions of men and women had sentences of between one and less than 10 years (69% versus 71%), a higher proportion of women than men had been sentenced to periods of incarceration of less than twelve months (20% versus 12%); and a higher proportion of men than women had been sentenced to periods of incarceration of 10 years or more (19% versus 10%).

Table 2.3.3 Sentence length for current incarceration

	Men		Women		Total	
	n	%	n	%	n	%
< 6 months	11	1.9	6	4.8	17	2.4
6 - <12 months	58	10.1	19	15.1	77	11.0
1 - <2 years	118	20.6	27	21.4	145	20.8
2 - <5 years	165	28.9	32	25.4	197	28.2
5 - <10 years	113	19.8	30	23.8	143	20.5
10+ years	106	18.6	12	9.5	118	17.0
Total	571	100.0	126	100.0	697	100.0

* Note: excluded if on remand; Sentence expiry data was not available for 25 inmates.

On average, men had been sentenced to longer periods of incarceration than women (Table 2.3.4). This was reflected in both the mean (6.1 years for men compared to 4.4 years for women) and the median sentence length (4.0 years for men and 2.7 years for women).

Table 2.3.4 Sentence length for current incarceration characteristics

	Men	Women	Total
N	571	126	697
Mean (± sd)	6.1 (± 6.4)	4.4 (± 5.0)	5.8 (± 6.2)
Median	4.0	2.7	3.7
Range	0.2 – 37.1	0.2 – 36.0	0.2 – 37.1

The most serious offence for which IHS participants were currently incarcerated was derived from administrative data provided by CSNSW, based on the Australian Standard Offence Classification (ASOC) (ABS, 1997). Although an inmate may be held by CSNSW for a number of different offences, these data refer to only the characteristics of the most serious of all offences in the current imprisonment episode if the inmate has been sentenced. Generally, the most serious offence is selected as the offence for which the longest sentence was imposed for a single count of the offence, regardless of the possible result of any appeals.

Among IHS participants who had been sentenced, the most common class of most serious offences were assault, followed by robbery; break, enter and steal offences; and drug offences (Table 2.3.5). Homicide was the most serious offence among 10% of sentenced IHS participants. There were clear gender differences in some offences, with men more likely to have been sentenced for assault, robbery and sexual offences, and women more likely to have been sentenced for break, enter and steal offences, and for drug offences. Twenty-one sentenced participants did not have a most serious offence recorded by CSNSW.

Table 2.3.5 Convicted most serious offence (if sentenced)

	Men		Women		Total	
	n	%	n	%	n	%
Assault	119	20.7	15	11.8	134	19.1
Robbery	114	19.9	11	8.7	125	17.8
Break, enter & steal	59	10.3	26	20.5	85	12.1
Drugs	52	9.1	25	19.7	77	11.0
Homicide	56	9.8	12	9.5	68	9.7
Driving	47	8.2	12	9.5	59	8.4
Sexual	50	8.7	3	2.4	53	7.6
Order breaches	30	5.2	11	8.7	41	5.8
Other	47	8.2	12	9.5	59	8.4
Total	574	100.0	127	100.0	701	100.0

For inmates where no sentence had been imposed at the time of participation in the IHS (i.e., those on remand orders), the most serious offence is that with which they have been charged, although it should be remembered that they are yet to be found guilty and sentenced. Reflecting similar patterns to the offence classifications of sentenced inmates, among IHS participants who were on remand, the most common class of most serious offences were assault, followed by robbery; break, enter and steal offences; and drug offences (Table 2.3.6). Homicide was the most serious offence among 2% of men and 5% of women on remand. Similar gender differences to sentenced inmates were evident, with men more likely to have been charged with assault, robbery and sexual offences, and women more likely to have been charged with break, enter and steal offences, and for drug offences.

Table 2.3.6 Charged most serious offence charged (if on remand)

	Men		Women		Total	
	n	%	n	%	n	%
Assault	47	22.4	8	12.5	55	20.1
Robbery	42	20.0	7	10.9	49	17.9
Break, enter & steal	20	9.5	13	20.3	33	12.0
Drugs	18	8.6	14	21.9	32	11.7
Order breaches	19	9.1	1	1.6	20	7.3
Driving	8	3.8	5	7.8	13	4.7
Sexual	10	4.8	2	3.1	12	4.4
Homicide	4	1.9	3	4.7	7	2.6
Other	42	20.0	11	17.2	53	19.3
Total	210	100.0	64	100.0	274	100.0

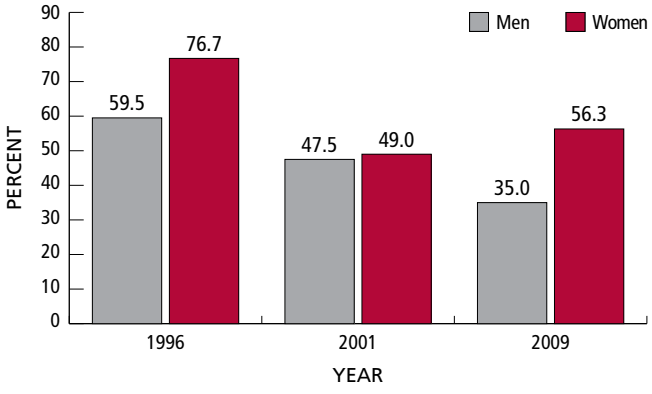
Based on administrative data provided by CSNSW, 2009 IHS participants were assigned a security classification current at the time of their participation in the Survey. Close to two thirds of men (63%) and almost all women (98%) were assigned a minimum security classification; while 21% of men and 2% of women were assigned a medium security classification (Table 2.3.7). Sixteen percent of men, and no women, were assigned a maximum security classification. These figures broadly reflect the overall security classifications of the NSW inmate population. The NSW Inmate Census 2008 (Corben, 2009) indicates that 19% of men and 0.3% of women inmates are subjected to a maximum security classification. Twenty three percent of men and 17% of women are classified as medium security; while 51% of men and 80% of women are classified as minimum security. Note that classification was not available for 70 participants.

Table 2.3.7 Security classification

	Men		Women		Total	
	n	%	n	%	n	%
Maximum	118	16.1	0	0.0	118	12.7
Medium	155	21.2	3	1.6	158	17.1
Minimum	459	62.7	191	98.4	650	70.2
Total	732	100.0	194	100.0	926	100.0

At the time of the interview, 39% of 2009 IHS participants reported having their own cell, with a substantially higher proportion of women (56%) than men (35%) reporting having a private cell (Table 2.3.8). The proportion of men with their own cell declined steadily, from 60% in 1996 to 48% in 2001 to 35% in 2009. Among women, the decline from 77% in 1996 to 49% in 2001 was followed by an increase to 56% in 2009. Overall, the proportion of IHS samples with their own cell decreased in recent years, from 62% in 1996 to 48% in 2001 and again to 39% in 2009.

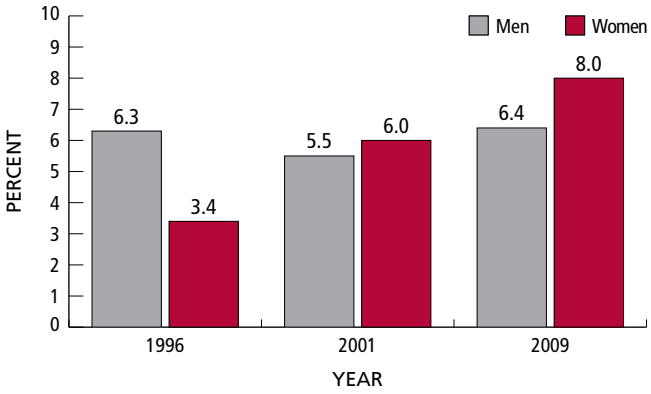
Table/Fig 2.3.8 Have own cell (current incarceration)



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	342	575	59.5	318	670	47.5	279	797	35.0
Women	89	116	76.7	73	149	49.0	112	199	56.3
Total	431	691	62.4	391	819	47.7	391	996	39.3

Overall, the proportion of IHS samples who reported sharing their cell with two or more people remained relatively low and stable between 1996 and 2009 (Table 2.3.9), increasing from 6% to 7% during that period. The increase occurred primarily among women rather than men, however. The proportion of women who reported sharing a cell with two or more people, more than doubled from 3% in 1996 to 6% in 2001 to 8% in 2009.

Table/Fig 2.3.9 Sharing cell with two or more people



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	36	575	6.3	37	670	5.5	51	797	6.4
Women	4	116	3.4	9	149	6.0	16	199	8.0
Total	**40**	**691**	**5.8**	**46**	**819**	**5.6**	**67**	**996**	**6.7**

Some comments from participants on offending and release:

- 'If spend less time on trying to punish people and more time on rehabilitation and educating people, there would be less re-offenders. Because they can't read and write their options are limited.'
- 'Worrying about having no money when I leave gaol and how to get the medical and dental care and psychologist care that will need with no money to pay for anything.'
- 'I'm innocent and they should let me out.'

3. Health status

3.1 Self-reported health status/SF-12

IHS participants were asked whether a doctor had ever told them they had any of the conditions listed in Table 3.1.1; there was no limit to the number of conditions participants could report. Infection with hepatitis B (HBV) and C (HCV) viruses were included in the list of conditions provided to participants, but results are not reported here due to the consistent finding that self-reports of these infections lack sufficient validity to be considered useful (see, for example, Best et al., 1999; Hagan et al., 2006; Stein et al., 2007; Topp et al., 2009).

Women were more likely than men to report at least one of the conditions listed for participants (92% of women versus 81% of men). These figures are somewhat higher than the 75% of Australia's general population who reported in the 2007-08 National Health Survey (ABS, 2009) having one or more current long term medical conditions, although because the questions asked in the National Health Survey and the IHS are not exactly the same, these data are indicative rather than directly comparable. The NHSs are serial cross-sectional surveys conducted by the Australian Bureau of Statistics (ABS) which assess the health of Australia's general population. The National Health Survey 2007-2008 included approximately 20,800 respondents.

The most prevalent conditions reported by women were poor eyesight (41%), asthma (40%) and back problems (34%). The same three conditions were also the most prevalent among men, but were reported by smaller proportions (poor eyesight 33%; asthma 26%; back problems 25%). Hypertension (16%) and arthritis (15%) were also reported by more than one in ten participants. These results appear to reflect the health of Australian society more broadly, though the proportion of inmates with each health condition was higher than found in the community. The National Health Survey 2007-08 found that the most commonly reported long-term condition among Australia's general population was poor eyesight (52%), followed by arthritis (15%), back problems (14%), asthma (10%) and hypertensive disease (9%).

Among 52 participants who reported that a doctor had told them they had epilepsy or seizures (5% of the sample), five women (56%) and 16 men (37%) reported that their last episode of seizures occurred while they were withdrawing from drugs and/or alcohol. Among participants who reported that they had been told they had diabetes (4%), six men (14%) and two women (22%) reported that they took insulin for their diabetes. The prevalence of self-reported diabetes among the 2009 IHS sample is equivalent to that reported in the National Health Survey 2007-08 (4% of the general population; 5% of men and 3% of women) (ABS, 2009).

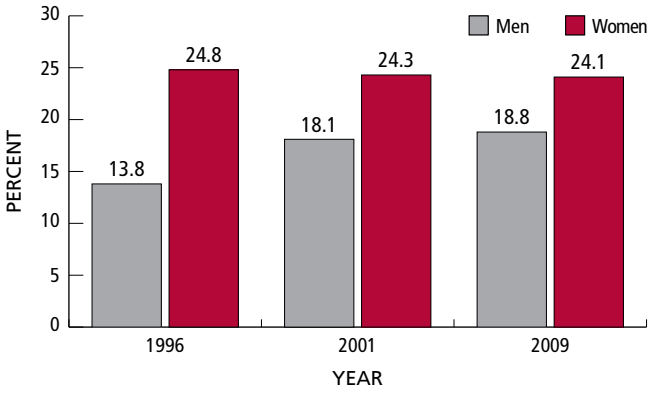
Just 43 (4%) participants indicated they had ever been told they had cancer, with a higher proportion of women than men reporting this to be the case (9% versus 3%). The most common form of cancer mentioned by participants was skin cancer; a small number of women also mentioned cervical cancer.

Table 3.1.1 Ever told by a doctor had any of the following physical health conditions

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Poor eyesight	263	33.0	82	41.4	345	34.7
Asthma	210	26.3	80	40.4	290	29.1
Back problems	197	24.7	67	33.8	264	26.5
Hypertension	122	15.3	35	17.7	157	15.8
Arthritis	107	13.4	37	18.7	144	14.5
Chest / Angina pain	82	10.3	17	8.6	99	9.9
Haemorrhoids	69	8.7	23	11.6	92	9.2
Palpitations / Rapid heartbeat	66	8.3	23	11.6	89	8.9
Kidney problems	43	5.4	26	13.1	69	6.9
Other heart conditions	50	6.3	14	7.1	64	6.4
Heart Murmur	43	5.4	19	9.6	62	6.2
Epilepsy / Seizures	43	5.4	9	4.5	52	5.2
Diabetes	34	4.3	9	4.5	43	4.3
Cancers / tumours	25	3.1	18	9.1	43	4.3
Gall stones	21	2.6	25	12.6	46	4.6
Peptic ulcers	40	5.0	5	2.5	45	4.5
Hepatitis A	21	2.6	5	2.5	26	2.6
Prostate problems	22	2.8	–	–	–	–
Other condition	282	35.4	85	42.9	367	36.9
No condition	148	18.6	17	8.5	165	16.6

One quarter (24%) of women, and 19% of men, reported that a doctor had told them they had a heart problem (Table 3.1.2), which included chest or angina pain, heart murmurs, and/or palpitations or rapid heartbeat. This prevalence estimate of 20% of the total 2009 sample continues the increase in the proportion of earlier IHS samples who reported having a heart problem, which rose from 16% in 1996 to 19% in 2001.

Table/Fig 3.1.2 Ever told by a doctor had a heart problem



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	85	615	13.8	127	702	18.1	150	797	18.8
Women	29	117	24.8	37	152	24.3	48	199	24.1
Total	114	732	15.6	164	854	19.2	198	996	19.9

The majority of both men (58%) and women (73%) reported multiple health problems, including 26% of men and 38% of women who reported four or more conditions (Table 3.1.3). Over a third (37%) of participants specified another health condition separate to the list of conditions provided. The most common other conditions reported were mental health problems; these are not reported here nor considered in calculations of the number of self-reported physical health conditions. Mental health problems are instead discussed in section 6.

Table 3.1.3 Number of self-reported health conditions

	Men		Women		Total	
	n	%	n	%	n	%
0	148	18.6	17	8.5	165	16.6
1	190	23.8	36	18.1	226	22.7
2	145	18.2	36	18.1	181	18.2
3	105	13.2	35	17.6	140	14.1
4+	209	26.2	75	37.7	284	28.5
Total	797	100.0	199	100.0	996	100.0

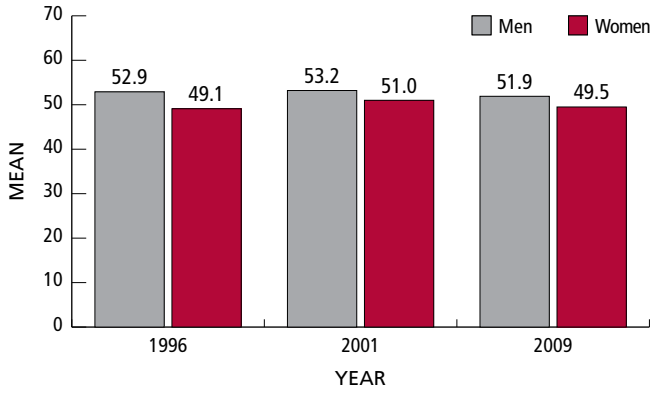
Perceived health status (SF-12)

Perceived health status was measured using the Short-Form 12 Health Survey (SF-12), a widely used, psychometrically validated, generic measure of health status that incorporates measures of well-being and role functioning and generates summary scores for both physical and mental health (Ware et al., 1996). It can be considered as a measure of disability because it addresses limitations due to physical and mental health. The SF-12 is derived from the SF-36, a 36-item 'parent' health questionnaire. Eight scale scores are generated from responses to SF-36 items: (1) physical functioning; (2) role limitations due to physical health problems; (3) bodily pain; (4) social functioning; (5) general mental health (psychological distress and psychological well-being); (6) role limitations due to emotional problems; (7) vitality (energy and fatigue); and (8) general health perceptions. The SF-36 can also be divided into two aggregate summary measures, the Physical Component Summary (PCS) and the Mental Component Summary (MCS). The SF-12 includes 12 questions from the SF-36, including at least one item from each of the eight scales, and is designed to allow calculation of the PCS and MCS scores of the SF-36 using only one third of the items. Thus, the SF-12 is an appropriate substitute for the SF-36 when the summary scales are of interest but a briefer instrument is required (Sanderson & Andrews, 2002).

SF-12 items refer to the four weeks preceding administration of the questionnaire. The PCS and MCS are scored using norm-based methods derived from surveys of the US general population. Both scales are transformed to have a mean of 50 and a standard deviation of 10. A lower score on either scale indicates a greater degree of disability; conversely, higher scores indicate better health. In norm-based scoring the general population norm is built into the scoring algorithm. Therefore, all scores above or below 50 can be interpreted as above or below the general population norm (US 1998 general population norm).

Across 1996 to 2009, the mean PCS score was slightly above the 50% mark for male IHS participants, suggesting the male prisoner population in NSW demonstrated a slightly better physical component summary than the corresponding norm in the general population (Table 3.1.4). Women recorded a slightly lower average score but still on par with the community norm of 50%.

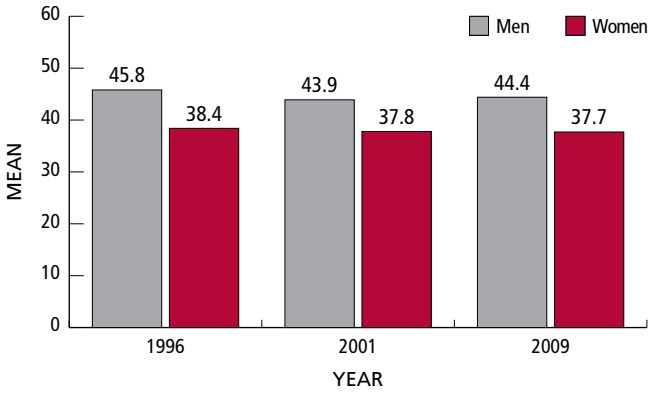
Table/Fig 3.1.4 SF-12 Physical Component Summary score characteristics



	1996		2001		2009	
	n	Mean (± sd)	n	Mean (± sd)	n	Mean (± sd)
Men	610	52.9 (±9.9)	670	53.2 (± 9.4)	794	51.9 (±10.0)
Women	115	49.1 (±11.7)	142	51.0 (±11.0)	198	49.5 (±11.5)
Total	725	52.3 (±10.3)	812	52.8 (±9.7)	992	51.4 (±10.4)

The mental health of IHS participants was substantially less than the community norm score of 50, reflective of their worse mental health (Table 3.1.5). However, for both men and women there was a substantial and significant increase in the mean mental component summary from 1996 to 2009. The improvement in women (27% in 1996 to 38% in 2009) was not as pronounced as found among men (28% in 1996 to 44% in 2009).

Table/Fig 3.1.5 SF-12 Mental Component Summary score characteristics



	1996		2001		2009	
	n	Mean (± sd)	n	Mean (± sd)	n	Mean (± sd)
Men	610	45.8 (±13.1)	670	43.9 (±12.8)	794	44.4 (±14.5)
Women	115	38.4 (±13.1)	142	37.8 (±12.9)	198	37.7 (±15.4)
Total	725	44.7 (±13.4)	812	42.9 (±13.0)	992	43.1 (±14.9)

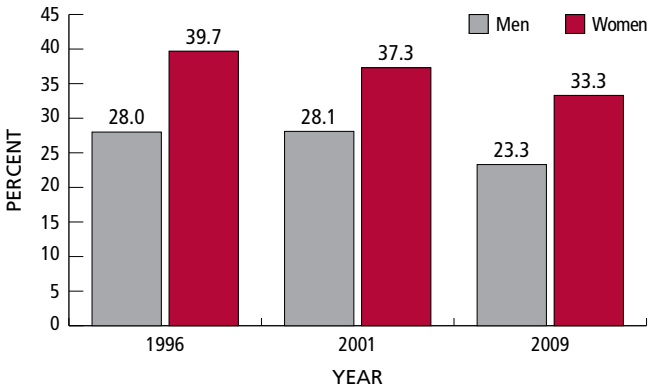
The first item of the SF-12 asks respondents to rate their health "in general" on a five-point scale ranging from poor to excellent. Fewer than one in ten (9%) 2009 IHS participants perceived their own health as excellent, although a further 24% described their health as very good (Table 3.1.6). Women were less likely than men to rate their health as excellent or very good (23% versus 35%), and were more likely to describe it as fair or poor (33% versus 23%), although similar proportions of women and men described their health as good (43% versus 42%).

Table 3.1.6 Self-rated general health status

	Men		Women		Total	
	n	%	n	%	n	%
Excellent	73	9.2	12	6.1	85	8.6
Very good	203	25.5	34	17.2	237	23.9
Good	334	42.0	86	43.4	420	42.3
Fair	142	17.9	48	24.2	190	19.1
Poor	43	5.4	18	9.1	61	6.1
Total	795	100.0	198	100.0	993	100.0

The same general health rating question was included in the National Health Survey 2007-2008 (ABS, 2009). Comparison of these general population results with those of the IHS clearly demonstrates that inmates rate their health much less positively. The National Health Survey demonstrated that 56% of Australians aged 15 years and over considered their overall health to be very good or excellent (compared with 33% of IHS participants). A further 29% stated that their health was good (compared with 42% of IHS participants), whereas 15% of people aged 15 years or more rated their health as fair or poor (compared with 25% of IHS participants). Nevertheless, the proportion of 2009 IHS participants who rated their health as fair or poor decreased slightly (25%) in 2009 compared with 30% among both the 1996 and 2001 IHS samples (Table 3.1.7).

Table/Fig 3.1.7 Fair/poor self-rated health

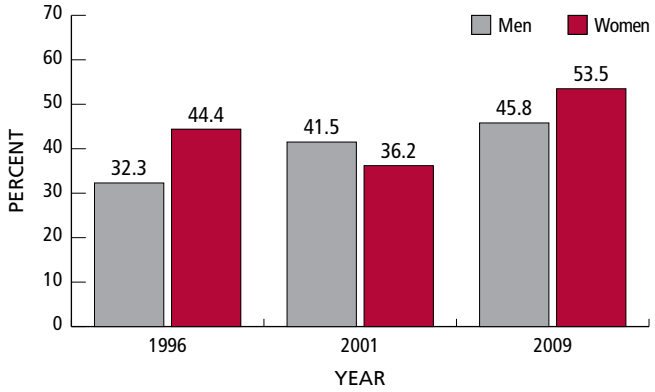


	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	173	617	28.0	196	697	28.1	185	795	23.3
Women	46	116	39.7	56	150	37.3	66	198	33.3
Total	219	733	29.9	252	847	29.8	251	993	25.3

3.2 Disability and illness

Almost half (47%) of 2009 IHS participants reported that they currently suffered from an illness or disability that had troubled them for six months or more (Table 3.2.1). This prevalence estimate represents a continued increase in the proportion of earlier IHS samples reporting such an illness or disability, which rose from 34% in 1996, to 41% in 2001. It is also considerably higher than the 36% of Australia's general population who reported a disability or long term restrictive condition in the 2007-08 National Health Survey (ABS, 2009), although once again, the questions asked in the National Health Survey and the IHS are not exactly the same, so these data are indicative rather than directly comparable to the present results.

Table/Fig 3.2.1 Current disability or illness that had troubled you for six months or more



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	196	607	32.3	295	710	41.5	365	797	45.8
Women	52	117	44.4	55	152	36.2	106	198	53.5
Total	248	724	34.3	350	862	40.6	471	995	47.3

Women were more likely than men to report at least one such chronic illness or disability (54% versus 46%). Women were also more likely to report that they suffered from two or more such illnesses or disabilities (22% versus 12%) (Table 3.2.2).

Some examples of the disabilities mentioned included:

- 'Teeth problems. Waiting two and a half years to have my teeth out.'
- 'Residual symptoms of drug induced psychosis. I hear voices.'

Table 3.2.2 Number of current disabilities or illnesses

	Men		Women		Total	
	n	%	n	%	n	%
0	432	54.2	92	46.5	524	52.7
1	271	34.0	63	31.8	334	33.6
2	64	8.0	28	14.1	92	9.2
3+	30	3.8	15	7.6	45	4.5
Total	797	100.0	198	100.0	995	100.0

IHS participants were asked in open-ended questions to nominate up to three illnesses or disabilities that had troubled them for six months or more. The myriad responses received were categorised into overarching classes (Table 3.2.3). The most common class of disabilities among all participants was musculoskeletal problems, followed by psychological problems, which were endorsed by a substantially higher proportion of women than men (17% versus 8%) but were nevertheless the second most common class of disability among both genders. Neurological, respiratory and cardiovascular conditions were the next most common classes of conditions causing disability among both men and women.

Table 3.2.3 Type of current disabilities or illnesses

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
No illness / disability	432	54.2	92	46.2	524	52.6
Musculoskeletal	176	22.1	48	24.1	224	22.5
Psychological	64	8.0	34	17.1	98	9.8
Neurological	47	5.9	14	7.0	61	6.1
Respiratory	40	5.0	10	5.0	50	5.0
Digestive	28	3.5	10	5.0	38	3.8
Cardiovascular	24	3.0	9	4.5	33	3.3
Eye	16	2.0	3	1.5	19	1.9
General (not specified)	15	1.9	3	1.5	18	1.8
Skin	10	1.3	3	1.5	13	1.3
Ear	10	1.3	2	1.0	12	1.2
Reproductive system	9	1.1	3	1.5	12	1.2
Endocrine	4	0.5	5	2.5	9	0.9
Urinary tract	7	0.9	1	0.5	8	0.8
Other	17	2.1	4	2.0	21	2.1

For all chronic conditions or disabilities thus reported, 2009 IHS participants were asked to describe the way in which the condition(s) limited their activities, and could nominate more than one type of disability. Responses ranged broadly, including 29 participants who reported at least one chronic condition or disability but found that this did not limit their activities in any way. The most common type of disability caused by chronic illness or conditions was pain, reported by 32% of women and 27% of men. Restriction of movement, reduced physical activity, problems lifting, fatigue and lethargy, being unable to work and poor concentration were all relatively common types of disabilities caused by chronic conditions or illnesses, and all were reported by higher proportions of women than men (Table 3.2.4). The biggest gender differences reported in the type of disability caused by chronic conditions or illnesses were in psychological problems, reported by 23% of women and 10% of men, and a reduction or cessation of social activities, reported by 21% of women and 7% of men.

Table 3.2.4 Limiting problem caused by disabilities or illnesses

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
No illness / disability	432	54.2	92	46.5	524	52.7
Pain	214	26.9	63	31.8	277	27.8
Restricts movement	144	18.1	46	23.2	190	19.1
Physical activity	105	13.2	37	18.7	142	14.3
Problems lifting	98	12.3	33	16.7	131	13.2
Psychological problems	83	10.4	46	23.2	129	13.0
Fatigue/lethargy	68	8.5	31	15.7	99	9.9
Stops socialising	57	7.2	41	20.7	98	9.8
Unable to work	54	6.8	27	13.6	81	8.1
Poor concentration	55	6.9	22	11.1	77	7.7
Problems walking	45	5.6	30	15.2	75	7.5
Breathlessness	46	5.8	13	6.6	59	5.9
Problems eating	27	3.4	17	8.6	44	4.4
Vision and hearing	33	4.1	8	4.0	41	4.1
Dizziness	21	2.6	13	6.6	34	3.4
Problems sleeping	22	2.8	9	4.5	31	3.1
Problems reading and writing	20	2.5	7	3.5	27	2.7
Problems going to the toilet	14	1.8	9	4.5	23	2.3
Other	72	9.0	35	17.7	107	10.8
Not limiting	23	2.9	6	3.0	29	2.9

Some examples of the how disability limits participants:

- 'I can't sleep for the pain. It restricts my work.'
- 'I can't play with my kids.'

For all disabilities/illnesses reported, participants were asked whether they had cut down any activities in the preceding two weeks as a result of that disability (Table 3.2.5). Of participants who identified a persistent illness or disability, just under half (46%) indicated they had cut down activities in the past two weeks because of their health problem(s). A higher proportion of women (52%) than men (44%) had cut down on activities.

Table 3.2.5 Cut down activities in past two weeks as a result of disabilities or illnesses

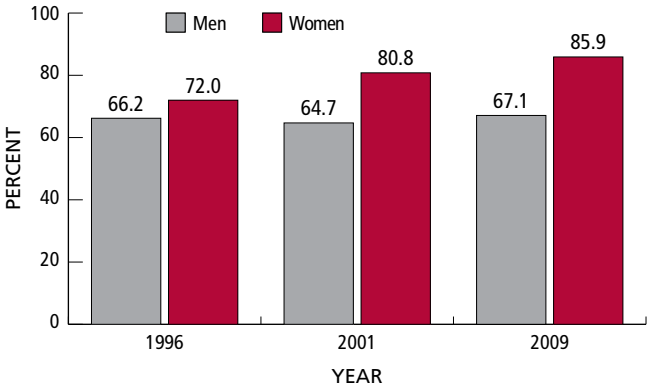
	Men		Women		Total	
	n	%	n	%	n	%
Yes, cut down	160	43.8	56	52.3	216	45.8
Not cut down	205	56.2	51	47.7	256	54.2
Total	365	100.0	107	100.0	472	100.0

3.3 Medications

Close to three quarters (71%) of the 2009 IHS sample reported having taken medications prescribed for them in the preceding two weeks (Table 3.3.1). This proportion represented a slight increase compared to the 1996 (67%) and 2001 (68%) Surveys. Note that 'prescribed medications' in this context does not necessarily refer to scheduled medications, as all medications received in prison, scheduled or otherwise, must be prescribed by a doctor; inmates must attend the prison health centres to access medications taken for granted in the community. Thus, at least some proportion of the figures in Table 3.3.1 would be accounted for by over-the-counter medication.

Across all three IHSs, women were more likely than men to report that they had taken prescribed medications in the preceding two weeks, with the differential between the two genders becoming more pronounced over time. In 1996, 72% of women had taken prescribed medications in the preceding two weeks, compared to 66% of men, but by 2009, the corresponding proportions were 86% of women and 67% of men.

Table/Fig 3.3.1 Taken medications prescribed for you in the past two weeks



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	435	657	66.2	483	747	64.7	535	797	67.1
Women	95	132	72.0	135	167	80.8	170	198	85.9
Total	530	789	67.2	618	914	67.6	705	995	70.9

Participants in the 2009 IHS were provided with a list of medications and asked which they had been prescribed in the preceding two weeks, with no limit to the number they could report having been prescribed and taken. The most commonly mentioned prescribed medication taken was analgesics (pain-killer/headache tablets), which had been taken by 37% of the 2009 IHS sample (54% of women and 33% of men), followed by methadone (11% of men, 32% of women), skin ointments (13% of men, 18% of women) and asthma medications (11% of men and 22% of women). Women were more likely than men to report having taken all of the most common medications in the preceding two weeks (Table 3.3.2), and were also substantially more likely to report having taken vitamins (19% versus 6%) and laxatives (10% versus 2%).

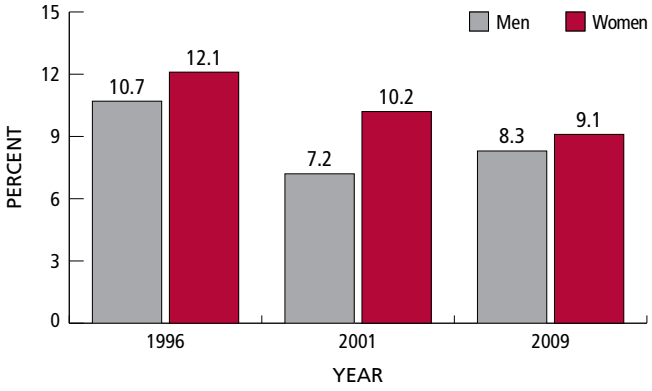
Table 3.3.2 Taken medications prescribed for you in the past two weeks by medication type

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
No medications	262	32.9	28	14.1	290	29.1
Pain-killer/headache tablets	265	33.2	107	54.0	372	37.4
Methadone	88	11.0	63	31.8	151	15.2
Skin ointment	105	13.2	36	18.2	141	14.2
Asthma medications	86	10.8	44	22.2	130	13.1
Stomach medications	66	8.3	21	10.6	87	8.7
Vitamins/minerals	47	5.9	37	18.7	84	8.4
Antibiotics	52	6.5	20	10.1	72	7.2
Blood pressure	40	5.0	16	8.1	56	5.6
Sleeping tablets	45	5.6	9	4.5	54	5.4
Allergy medication	36	4.5	10	5.1	46	4.6
Heart problems	30	3.8	9	4.5	39	3.9
Laxatives	16	2.0	20	10.1	36	3.6
Anti-coagulants	28	3.5	7	3.5	35	3.5
Cough mixture	25	3.1	7	3.5	32	3.2
Anti-epileptic	22	2.8	6	3.0	28	2.8
Other diabetes medication	23	2.9	4	2.0	27	2.7
Nicotine patches	15	1.9	2	1.0	17	1.7
Insulin for diabetes	5	0.6	4	2.0	9	0.9
Angina patches	4	0.5	2	1.0	6	0.6
Other	219	27.5	79	39.9	298	29.9

Just under one third of participants (30%) mentioned another type of prescribed medication taken in the preceding two weeks. These were often psychiatric medications. Eleven percent of participants (17% of women and 9% of men) reported taking anti-depressants, 6% (10% of women and 4% of men) reported taking anti-psychotics, 2% reported taking benzodiazepines and 1% reported taking other psychiatric medications. Five percent of the sample (7% of women and 5% of men) reported taking anti-inflammatories, 3% (4% of women and 3% of men) reported taking cholesterol-lowering drugs and less than 1% reported taking thyroid medications.

Fewer than one in ten (9%) 2009 IHS participants reported having taken medications which were not prescribed for them in the two weeks preceding the Survey, with no difference between the proportion of men and women who reported this was the case (8% versus 9%) (Table 3.3.3). The proportion of IHS samples having recently taken non-prescribed medications remained relatively stable between 1996 (11%) and 2009 (9%). Among the 84 participants who reported taking non-prescribed medication in 2009, the majority took psychiatric medication such as sedatives, anti-depressants and other psychiatric medication.

Table/Fig 3.3.3 Taken medications not prescribed for you in the past two weeks



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	70	657	10.7	54	747	7.2	66	796	8.3
Women	16	132	12.1	17	167	10.2	18	198	9.1
Total	**86**	**789**	**10.9**	**71**	**914**	**7.8**	**84**	**994**	**8.5**

As a result of the careful control of medications within the prison system (as noted above), it is likely that an inmate who takes medication that is not prescribed for him or herself has been given or has paid for medication which was prescribed for another inmate.

3.4 Diabetes

Diabetes Australia recommends that healthy adults with no risk factors for diabetes undertake a fasting plasma glucose test on an annual basis from the age of 55 years, to monitor their risk of developing diabetes as they get older. Among people with one or more risk factors for diabetes, the recommendation is for annual fasting plasma glucose tests from the age of 45 years. Risk factors for diabetes include a family history of the condition; obesity; high cholesterol; hypertension; a history of cardiovascular events; polycystic ovarian syndrome; ethnicity (people of Asian, Pacific Island and Aboriginal Australian backgrounds); and a history of gestational diabetes. Among people aged less than 45 years, there is no recommended frequency of testing for plasma glucose levels.

Thirty six percent of 2009 IHS participants (34% of men and 48% of women) reported having had a blood glucose test in the preceding year in addition to the one undertaken as part of this Survey. No detail was requested in terms of whether this was a random or fasting blood glucose test. The great majority of this testing was undertaken in the prison system, with just 6% of men and 12% of women reporting a blood glucose test only in the community in the preceding year (Table 3.4.1).

Table 3.4.1 Location of blood glucose testing undertaken in the last year

	Men		Women		Total	
	n	%	n	%	n	%
None	529	66.4	104	52.5	633	63.6
Prison only	204	25.6	64	32.3	268	26.9
Community only	48	6.0	24	12.1	72	7.2
Both prison and community	16	2.0	6	3.0	22	2.2
Total	**797**	**100.0**	**198**	**100.0**	**995**	**100.0**

Eight percent of 2009 IHS participants (8% of men and 11% of women) reported having been told by a doctor or nurse that they had "high blood sugar" (Table 3.4.2). Women were first informed they had high blood sugar at a mean age of 33.0 years (SD 14.4; range 2-56), whereas men were first informed at a mean age of 37.9 years (12.7; range 13-61 years).

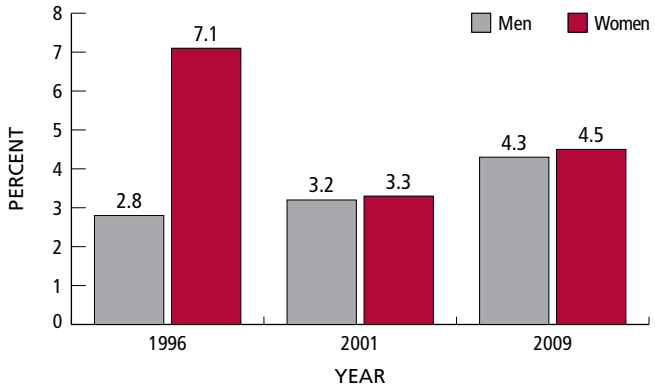
Table 3.4.2 Ever told by a doctor or nurse had "high blood sugar"

	Men		Women		Total	
	n	%	n	%	n	%
Yes	61	7.7	21	10.6	82	8.2
No	736	92.3	177	89.4	913	91.8
Total	**797**	**100.0**	**198**	**100.0**	**995**	**100.0**

When combined with the blood sugar test results reported later (see section 4.9) and using a cut-off of 8 mmol/L for high blood sugar (detected either through a finger-prick or venous reading), serological evidence of high blood sugar was found among 15% of participants who indicated they had ever been told they had high blood sugar, compared with less than 2% of participants who had never been told by a doctor or nurse that they had high blood sugar.

Four percent of the 2009 IHS sample (4% of men and 5% of women) reported having been told by a doctor or nurse that they had diabetes. This is similar to the proportions of the 1996 (4%) and 2001 (3%) IHS samples who reported having been told that they had diabetes (Table 3.4.3). Women with diabetes had first been diagnosed at a mean age of 32.9 years (SD 17.7; range 11-56 years), whereas men with diabetes had first been diagnosed at a mean age of 40.1 years (SD 11.9; range 10-60 years).

Table/Fig 3.4.3 Ever told have diabetes



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	17	600	2.8	23	710	3.2	34	797	4.3
Women	8	112	7.1	5	153	3.3	9	198	4.5
Total	**25**	**712**	**3.5**	**28**	**863**	**3.2**	**43**	**995**	**4.3**

When combined with the blood sugar test results reported later (see section 4.9) and using a cut-off of 8mmol/L for high blood sugar, serological evidence of high blood sugar was found for 28% of participants who indicated they had ever been told they had diabetes, compared with less than 2% of participants who had never been told by a doctor or nurse that they had diabetes.

Diabetes is managed in a range of ways depending on the nature and progression of the disorder. Type 1 diabetes is an auto-immune disorder that cannot be prevented but can be effectively managed with insulin replacement through lifelong insulin injections (up to six per day), healthy eating, regular exercise and regular monitoring of blood glucose levels (up to six times per day). Type 2 diabetes is a lifestyle-related disorder that is initially treated through lifestyle modification including healthy diet and regular exercise. However, as the disease progresses, people with Type 2 diabetes are often prescribed tablets to control their blood glucose levels. Due to the progressive nature of Type 2 diabetes, it may eventually be necessary to start taking insulin injections to control blood glucose levels.

Among 2009 IHS participants who reported having been told that they had diabetes (N=43), just three (two men and one woman) reported not currently receiving any treatment or undertaking any management strategies for the condition (Table 3.4.4). The most common management strategy reported by inmates who reported having diabetes was the use of tablets (63%), which tends to suggest that they had Type 2 diabetes. Just under a third (30%) reported eating special diets; and injections (19%) were also management strategies reported by some participants. Among 2009 IHS participants who reported having been told that they had diabetes, 76% reported being satisfied with the diabetes treatment they received in prison. There was a strong gender difference here, with 90% of men reporting satisfaction with the treatment of their diabetes, compared to just 14% of women.

Table 3.4.4 Current diabetes treatment/management (if ever told have diabetes)

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Yes, tablets	23	67.6	4	44.4	27	62.8
Yes, special diet	9	26.5	4	44.4	13	30.2
Yes, injections	6	17.6	2	22.2	8	18.6
No treatment/management	2	5.9	1	11.1	3	7.0

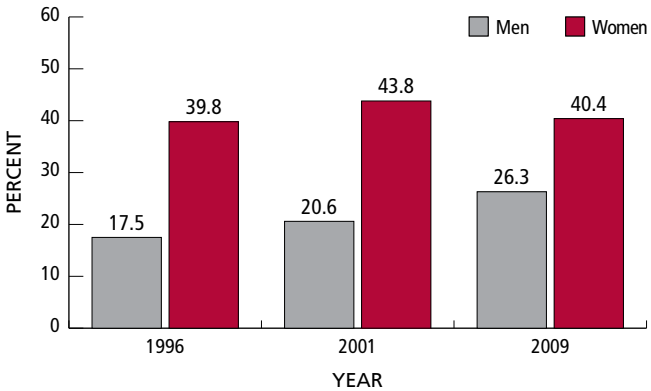
Among the 4% of Australia's general population who reported having diabetes in the 2007-08 National Health Survey (ABS, 2009), a range of management strategies were reported. The majority (77%) reported that they had discussed strategies to self-manage their condition with a GP or specialist in the preceding year. Three quarters (75%) of people with diabetes reported taking some form of pharmaceutical medication to manage their condition, including 21% who reported taking insulin. Seventy five percent reported following a healthy eating plan to help manage their condition, 17% reported having lost weight, and 27% reported that they exercised on most days. Almost half (46%) checked their blood glucose levels at least once a day; just 2% had not checked their blood glucose in the year preceding the Survey.

3.5 Asthma

More than one quarter (29%) of 2009 IHS participants reported that they had been told by a doctor that they had asthma (Table 3.5.1), with a substantially higher proportion of women than men (40% versus 26%) reporting this to be the case. The National Health Surveys demonstrate that the prevalence of asthma is also higher among women than men among Australia's general population (11% versus 9%; ABS, 2009), although the overall general population prevalence (10%) is markedly lower than that reported by 2009 IHS participants. Asthma is most common among young people aged 0-14 years and 15-24 years (ABS, 2009).

Rates of reported asthma increased among male IHS participants, from 18% in 1996 to 21% in 2001 to 26% in 2009, whereas the proportions of women who reported suffering from asthma remained relatively stable during this period (Table 3.5.1). Among the general population, the prevalence of asthma increased from 8% in 1989-90 to 11% in 1995, then more recently decreased, from 12% in 2001 to 10% in 2004-05 and again in 2007-08 (ABS, 2009). Thus, patterns of self-reported asthma among IHS participants appear to diverge quite markedly from those reported by Australia's general population, although because the questions asked in the National Health Survey and the IHS are not exactly the same, these data should be considered indicative rather than directly comparable.

Table/Fig 3.5.1 Ever told by a doctor had asthma



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	108	616	17.5	146	708	20.6	210	797	26.3
Women	47	118	39.8	67	153	43.8	80	198	40.4
Total	155	734	21.1	213	861	24.7	290	995	29.1

Half (51%) of 2009 IHS participants who reported that a doctor had told them they had asthma reported that they had not suffered an asthma attack in the three months preceding the Survey (Table 3.5.2), with women substantially more likely to have suffered at least one attack during that period (64% versus 43%). Sixteen percent of self-reported asthma sufferers (20% of women and 14% of men) reported having experienced six or more attacks in the preceding three months.

Table 3.5.2 Number of asthma attacks in the past three months (if ever told have asthma)

	Men		Women		Total	
	n	%	n	%	n	%
0	118	56.7	29	36.3	147	51.0
1	20	9.6	10	12.5	30	10.4
2	20	9.6	12	15.0	32	11.1
3 – 5	20	9.6	13	16.3	33	11.5
6+	30	14.4	16	20.0	46	16.0
Total	208	100.0	80	100.0	288	100.0

Among 2009 IHS participants who reported that a doctor had told them that they had asthma, 71% reported that they did not have a current asthma management plan (Table 3.5.3). Women (35%) were more likely than men (27%) to report having a current management plan. The 2007-08 National Health Survey (ABS, 2009) found that among the 10% of Australia's general population with asthma, 21% reported having a *written* asthma action plan (as is recommended by the National Asthma Council Australia). These data are indicative rather than directly comparable to the findings of the IHS, because the relevant IHS question did not specify that the management plan must be written.

Table 3.5.3 Current asthma management plan (if ever told have asthma)

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
No management plan	153	72.9	52	65.0	205	70.7
Yes, medication	53	25.2	28	35.0	81	27.9
Yes, reduced smoking	11	5.2	9	11.3	20	6.9
Yes, breathing exercises	11	5.2	5	6.3	16	5.5
Yes, exercise	11	5.2	3	3.8	14	4.8
Other	2	1.0	2	2.5	4	1.4

Components of IHS participants' current asthma management plans included medication (28% of participants who reported having been told by a doctor that they had asthma), reductions in smoking (7%), breathing exercises (6%) and exercise (5%). Women were more likely than men to report that their management plans included medication (35% versus 25%) and reduced smoking (11% versus 5%).

Fifty eight percent of 2009 IHS participants who reported that a doctor had told them that they had asthma reported using a salbutamol (Ventolin®; a short-acting bronchodilator) puffer at least sometimes (Table 3.5.4), with frequency of use ranging from less than once per month (13% of self-reported asthma sufferers) to daily or more often (25% of self-reported asthma sufferers). Among participants in the 2007-08 National Health Survey (ABS, 2009) who self-reported suffering from asthma, 39% reported having used salbutamol for their asthma in the two weeks preceding the Survey.

Table 3.5.4 How often use salbutamol (Ventolin®) puffers (if ever told have asthma)

	Men		Women		Total	
	n	%	n	%	n	%
Daily / more than daily	41	19.5	31	38.8	72	24.8
More than weekly but not daily	20	9.5	12	15.0	32	11.0
Less than weekly (1-4 times per month)	20	9.5	8	10.0	28	9.7
Less than once a month	30	14.3	7	8.8	37	12.8
Never	99	47.1	22	27.5	121	41.7
Total	**210**	**100.0**	**80**	**100.0**	**290**	**100.0**

Peak expiratory flow (PEF) is a measure of maximum expiratory flow occurring just after the start of a forced expiration from the point of maximum inspiration (total lung capacity). PEF is used to provide a measure of airway calibre or airflow. It is dependent not only on airway calibre, but on lung elastic recoil, patient effort and patient cooperation. PEF is measured by a peak flow meter. The National Asthma Council Australia advises that monitoring of asthma control based on PEF may have the greatest benefit in patients with more severe or difficult-to-manage asthma, or those who cannot readily perceive symptoms of airflow limitation. They suggest that self-monitoring based on PEF might help some patients detect the onset of potentially severe exacerbations earlier, but there is no strong evidence that this offers any advantage over symptom monitoring for most patients; thus, only a small number of patients may benefit from long-term PEF monitoring.

The majority (61%) of 2009 IHS participants who reported that a doctor had told them they had asthma reported that they had not had their breathing measured with a peak flow meter in the past year (Table 3.5.5). Women were more likely than men to have had their PEF measured at least once in the past year (52% versus 34%).

Table 3.5.5 How often measure breathing with peak flow meter in past year (if ever told have asthma)

	Men		Women		Total	
	n	%	n	%	n	%
Never	139	66.2	38	47.5	177	61.0
Once only	36	17.1	27	33.8	63	21.7
Less than quarterly	15	7.1	8	10.0	23	7.9
Quarterly	14	6.7	5	6.3	19	6.6
Monthly or more often	6	2.9	2	2.5	8	2.8
Total	**210**	**100.0**	**80**	**100.0**	**290**	**100.0**

High levels of satisfaction with the treatment they received in prison for their asthma was reported by 2009 IHS participants who reported that a doctor had told them that they had asthma (Table 3.5.6). Among participants who indicated they had asthma, 85% of women and 88% of men reported that they were satisfied with their asthma treatment in prison.

Table 3.5.6 Satisfied with asthma treatment in prison (if ever told have asthma)

	Men		Women		Total	
	n	%	n	%	n	%
Yes	184	87.6	68	85.0	252	86.9
No	26	12.4	12	15.0	38	13.1
Total	**210**	**100.0**	**80**	**100.0**	**290**	**100.0**

3.6 Vaccination

Australia's National Immunisation Program, an initiative of the Commonwealth Department of Health and Ageing, seeks to have all children between birth and 4 years of age vaccinated against a range of infections and in accordance with the Australian Standard Vaccination Schedule. Adequate vaccination is just as important for adults as it is for children. Some vaccines given during childhood require boosters to ensure they still offer

protection. Many people miss essential vaccines in childhood and so are not protected against specific diseases. Just 4% of 2009 IHS participants reported that they never received any vaccinations at all (Table 3.6.1), with a slightly higher proportion of women than men reporting this to be the case (7% versus 4%).

Table 3.6.1 History of vaccinations against specific infections

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
No vaccinations	30	3.8	13	6.6	43	4.3
Tetanus	674	84.6	155	78.3	829	83.3
Measles	321	40.3	101	51.0	422	42.4
Hepatitis B	403	50.6	125	63.1	528	53.1
Hepatitis A	92	11.5	27	13.6	119	12.0
Rubella (German measles)	162	20.3	101	51.0	263	26.4

Tetanus vaccination is included in the Australian Standard Vaccination Schedule with a primary course for infants followed by a booster at 4 years of age and a second booster between the ages of 15 and 17 years, intended to help maintain immunity into adulthood. Adults who have their primary course as an adult are recommended to have boosters 10 and 20 years after their primary course. However, the Schedule recommends that all adults should receive a booster at 50 years of age, unless they have had one in the previous 10 years. Adults receiving a wound that may become infected with tetanus, such as a gardening wound or a nail puncture, should have a booster if they haven't had one within five years. Eighty three percent of 2009 IHS participants (85% of men and 78% of women) reported having been vaccinated against tetanus (Table 3.6.1). Of these, 39% indicated they had received a vaccination within the preceding five years; 63% indicated had received it within the last ten years; and 28% were unsure when they last received a tetanus vaccination.

Rubella (German measles) and measles vaccines are usually given as part of a combination vaccine called MMR (measles, mumps, rubella). MMR is included in the Australian Standard Vaccination Schedule and is given as two doses in childhood. Rubella infection in early pregnancy results in damage to the unborn baby in a high proportion of affected pregnancies. Women of child-bearing age who missed vaccination or who are not immune after vaccination should be vaccinated unless they are pregnant, and must not become pregnant for 28 days after vaccination. The Schedule also recommends that men born during or after 1966 who have no record of rubella immunisation should be vaccinated. Twenty six percent of 2009 IHS participants reported having been vaccinated against rubella (Table 3.6.1), with a markedly higher proportion of women than men reporting this to be the case (51% versus 20%).

An ongoing hepatitis B vaccination program for infants and adolescents aims to control hepatitis B virus (HBV) infection in Australia. Population groups at risk of HBV infection, such as injecting drug users and sexual contacts of infected persons, are also recommended to undertake HBV vaccination. Among adults and children who have not been vaccinated or who are not immune following vaccination, a course of three injections will provide several years' protection. Just over half (53%) of 2009 IHS participants reported that they had received at least one dose of HBV vaccine (Table 3.6.1), with substantially more women than men reporting this to be the case (63% versus 51%). Among participants who reported having received a HBV vaccination, 76% further reported that they had received the full course of three injections. Nevertheless, among participants who reported receiving the full course and who provided a blood sample (N=295), just 55% had serological evidence of vaccine-conferred immunity (see section 4.6). This finding is consistent with the literature which clearly indicates that concordance between self-reported and serological markers of HBV status is poor (Topp et al., 2009a).

Vaccination against Hepatitis A virus (HAV) infection is included in the Australian Standard Vaccination Schedule for Aboriginal and Torres Strait Islander children in high-risk areas, and is also a risk for travellers. It is contracted from shellfish, water, ice or food that has been contaminated with human faeces, or directly from an infected person. Thus, HAV vaccination is not universally recommended, which may account for the low proportion of 2009 IHS participants who reported having received at least one dose of vaccine (Table 3.6.1). Just 14% of women and 12% of men reported that they had received a dose of HAV vaccine, the majority (82%) of whom further reported that they had received the full course of two injections.

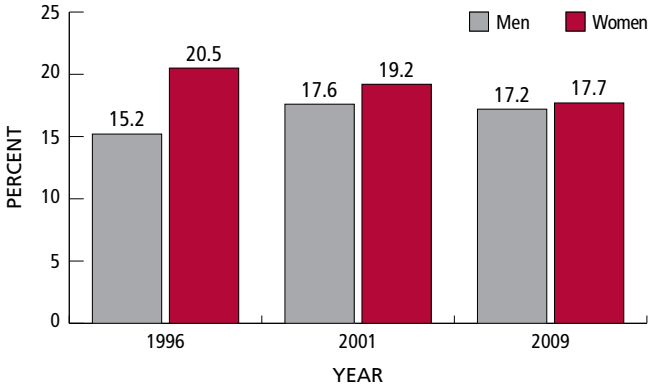
3.7 Injury and head injury

Around 365,000 cases of community injury – those typically sustained in the home, workplace, public places etc – resulted in hospitalisation in Australia in 2004-05 (Bradley & Harrison, 2008), with injury the fourth most common cause of hospitalisation in that year. The majority (86%) of hospitalised injuries were documented as unintentional injuries, with the remainder considered to be intentional (such as those resulting from assaults or incidents of self-harm). Unintentional falls, the leading cause of hospitalised injury in 2004-05, accounted for more than one-third of all community injury cases. Unlike most other types of community injury, women outnumbered men in unintentional fall injury cases (55% to 45%). Transport accidents were the second most common cause of hospitalised community injuries (14% or 51,000 cases), followed by sport-related injuries, which accounted for around 37,300 cases, with football injuries (Australian Rules, soccer, rugby league and rugby union) being by far the most prevalent (13,600 cases overall, 12,700 for men). There were an estimated 23,900 hospitalised injury cases due to self-harm. Female cases outnumbered male cases by 14,900 to 9,000. Nearly 1.5 million patient-days were attributed to hospitalised community injury in 2004–05 and the average length of stay per community injury case was 4.0 days (Bradley & Harrison, 2008).

The most common place of occurrence of community injury cases was the home, with more than a quarter of all hospitalised cases occurring here (26%), while 10% occurred on public streets and highways. Injuries reported to occur in streets and highways, as well as sports and athletics areas, trade and construction areas and farms, accounted for higher proportions of cases involving men than of cases involving women. One in ten community injury cases occurred while the person was engaged in sporting activities (11%). Men were more commonly injured while playing sport (14% of cases involving men) than women (6%). Another ten per cent of community injury cases occurred while the person was engaged in work of some kind (either for income or not; 10% of cases). Men were more commonly injured while working for income than women (9% versus 2%), while similar proportions of men and women were injured while engaged in 'other types of work' (3.5% vs. 3.4%).

These observations about injury requiring hospitalisation among the general population provide some context within which to interpret data relating to injury among prison inmates. Overall, the proportion of IHS participants who reported having sustained an injury within the preceding three months that required them to see a doctor or nurse or to go to hospital remained relatively stable between 1996 and 2009, at just under one in five participants (Table 3.7.1). The overall proportion, however, masks a gender difference over time, whereby the proportion of men reporting such an injury increased slightly, from 15% in 1996 to 17% in 2009, whereas the proportion of women reporting such an injury decreased slightly, from 21% in 1996 to 18% in 2009. Note that injuries in the preceding three months may have included those that occurred in the community as well as in prison.

Table/Fig 3.7.1 Injury requiring medical intervention in the past three months



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	87	574	15.2	123	700	17.6	137	796	17.2
Women	23	112	20.5	28	146	19.2	35	198	17.7
Total	110	686	16.0	151	846	17.8	172	994	17.3

The majority (85%) of 2009 IHS participants who reported having sustained an injury requiring them to present to a doctor, nurse or hospital in the preceding three months further reported that they had sustained a single such injury (Table 3.7.2). However, 21 participants (twelve men and nine women) reported sustaining two such injuries in the preceding three months, and four participants (three men and one woman) reported having sustained three or more.

Table 3.7.2 Number of injuries requiring medical intervention in the past three months

	Men		Women		Total	
	n	%	n	%	n	%
0	659	82.8	163	82.4	822	82.7
1	122	15.3	25	12.6	147	14.8
2	12	1.5	9	4.5	21	2.1
3+	3	0.4	1	0.5	4	0.4
Total	**796**	**100.0**	**198**	**100.0**	**994**	**100.0**

Participants who reported having sustained one or more injuries within the preceding three months were asked further details about those injuries. Data are presented regarding only the first such injury among participants who reported having sustained more than one within that period. The most common type of injuries were lacerations or cuts (Table 3.7.3), which women were slightly more likely to report having sustained (31% versus 29%), closely followed by strains or sprains, which men were slightly more likely to report having sustained (29% versus 26%). Fractures had been sustained by 28 participants in the three months preceding the Survey.

Table 3.7.3 Type of injury requiring medical intervention in the past three months (first injury)

	Men		Women		Total	
	n	%	n	%	n	%
Laceration / cut	39	28.5	11	31.4	50	29.1
Sprain / strain	40	29.2	9	25.7	49	28.5
Fracture	23	16.8	5	14.3	28	16.3
Superficial	11	8.0	0	0.0	11	6.4
Dislocation	5	3.6	1	2.9	6	3.5
Other	19	13.9	9	25.7	28	16.3
Total	**137**	**100.0**	**35**	**100.0**	**172**	**100.0**

The most common cause of the injuries requiring medical intervention sustained within the preceding three months was being struck by a person or object (Table 3.7.4). Men were substantially more likely than women to report that their injury was caused by a low fall (20% versus 11%) or machinery (5% versus 0%), whereas women were more likely to report the cause to be cutting or piercing (9% versus 2%).

Table 3.7.4 Cause of injury requiring medical intervention in the past three months (first injury)

	Men		Women		Total	
	n	%	n	%	n	%
Struck by object / person	40	29.2	12	34.3	52	30.2
Fall (low)	28	20.4	4	11.4	32	18.6
Fall (high)	6	4.4	1	2.9	7	4.1
Machinery	7	5.1	0	0.0	7	4.1
Cutting / piercing	3	2.2	3	8.6	6	3.5
Other	53	38.7	15	42.9	68	39.5
Total	**137**	**100.0**	**35**	**100.0**	**172**	**100.0**

The majority (82%) of 2009 IHS participants who reported having sustained an injury requiring medical intervention in the preceding three months further reported that this injury was unintentional (Table 3.7.5). This is consistent with the results of a pilot project examining the feasibility of a system of injury surveillance in NSW male prisons, which recorded 68% of injury presentations to prison health clinics as unintentionally caused (Butler et al., 2004a). In the 2009 IHS, men were slightly more likely than women to report that their injury was caused by another person who intended to hurt them (17% versus 14%), whereas women were slightly more likely to report that their injury was a result of intentional self-harm (3% versus 1%). The higher prevalence of self-harm among women is consistent with previous research examining injuries among both prison inmates (Butler et al., 2004a) and the general population (Bradley & Harrison, 2008).

Other specific causes of injury mentioned included:

- 'From not stretching properly before playing football.'
- 'Assault in cell by other inmate.'
- 'Blacked out. Had been drinking. Ended up in hospital.'

Table 3.7.5 Intentional nature of injury requiring medical intervention in the past three months (first injury)

	Men		Women		Total	
	n	%	n	%	n	%
Accidental	112	81.8	29	82.9	141	82.0
Intentional harm (others)	23	16.8	5	14.3	28	16.3
Intentional self-harm	1	0.7	1	2.9	2	1.2
Other	1	0.7	0	0.0	1	0.6
Total	**137**	**100.0**	**35**	**100.0**	**172**	**100.0**

Prisons are violent environments with a high risk of exposure to physical and sexual assaults, self-harm and unintentional injuries (Butler et al., 2004a). The most common locations in which men reported sustaining the injury which required medical intervention in the preceding three months were in the athletics and sports areas of the prison (25%), a prison workplace (15%), or in their own prison cell (12%) (Table 3.7.6). These results are in line with the results of a pilot project examining the feasibility of a system of injury surveillance in NSW male prisons, which found that injuries arising from sporting activities and assaults were the most common presentations to prison health clinics (Butler et al., 2004a). Among women, the most common locations in which injuries were sustained were in their own prison cell (26%), a prison workplace (20%), or the prison yard (11%).

Table 3.7.6 Location where injury requiring medical intervention in the past three months occurred (first injury)

	Men		Women		Total	
	n	%	n	%	n	%
Prison: athletics / sports	34	24.8	2	5.7	36	20.9
Prison: workplace	21	15.3	7	20.0	28	16.3
Prison: cell	16	11.7	9	25.7	25	14.5
Prison: yard	15	10.9	4	11.4	19	11.0
Prison: (other)	12	8.8	4	11.4	16	9.3
Community: street / highway	16	11.7	1	2.9	17	9.9
Community: home	16	11.7	4	11.4	20	11.6
Other	7	5.1	4	11.4	11	6.4
Total	137	100.0	35	100.0	172	100.0

Men who had sustained an injury requiring medical intervention within the preceding three months were most likely to report being engaged in leisure activities at the time (50%), followed by sporting activities (23%) and work (18%) (Table 3.7.7). Women were most likely to report being engaged in leisure (43%) or work (34%) activities at the time of sustaining their injury.

Table 3.7.7 Activities being undertaken at the time of injury requiring medical intervention in the past three months (first injury)

	Men		Women		Total	
	n	%	n	%	n	%
Leisure	68	49.6	15	42.9	83	48.3
Work	24	17.5	12	34.3	36	20.9
Sporting	32	23.4	2	5.7	34	19.8
Other	13	9.5	6	17.1	19	11.0
Total	137	100.0	35	100.0	172	100.0

The most common action taken by 2009 IHS participants who reported sustaining an injury requiring medical intervention was to present to the prison clinic for treatment of the injury by the nurse (Table 3.7.8), an action undertaken by 66% of women and 45% of men who had sustained an injury. The next most common option was to see a doctor, with men more likely to see a doctor (20%) than women (6%). Men were also more likely to be admitted to hospital (14%) than women (3%) as a result of their injuries.

Table 3.7.8 Action taken following the injury requiring medical intervention in past three months (first injury)

	Men		Women		Total	
	n	%	n	%	n	%
Saw clinic nurse	61	44.5	23	65.7	84	48.8
Saw doctor	27	19.7	2	5.7	29	16.9
Hospital: not admitted	23	16.8	6	17.1	29	16.9
Hospital: admitted	19	13.9	1	2.9	20	11.6
Self-treated	5	3.6	3	8.6	8	4.7
Other	2	1.5	0	0.0	2	1.2
Total	137	100.0	35	100.0	172	100.0

More than one quarter (27%) of 2009 IHS participants who reported having sustained an injury requiring medical intervention in the preceding three months reported that their injury had caused them a lasting disability, with men more likely than women to report that this was the case (28% versus 23%). Women were slightly more likely than men to report that they were unsure whether their injury was associated with a lasting disability (9% versus 7%).

Fifteen percent of 2009 IHS participants reported having sustained a physical injury in the preceding year that was deliberately caused by another individual (Table 3.7.9), with no gender difference in the proportion of participants reporting this to be the case. Women were slightly more likely than men to report having sustained an injury deliberately caused by an intimate partner (3% versus <1%) or another inmate (6% versus 4%), whereas men were more likely to report having sustained an injury caused by a stranger (5% versus 2%). Twenty three participants (twenty men and three women) reported having sustained an injury deliberately caused by the police within the preceding year.

Table 3.7.9 Physical injuries sustained in the past year deliberately caused by specific individuals

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
None	677	85.1	168	84.8	845	85.0
Inmate	29	3.6	12	6.1	41	4.1
Stranger	37	4.6	3	1.5	40	4.0
Police	20	2.5	3	1.5	23	2.3
Friend/acquaintance	19	2.4	4	2.0	23	2.3
Parent/other family	9	1.1	2	1.0	11	1.1
Intimate partner	2	0.3	5	2.5	7	0.7
Other	13	1.6	3	1.5	16	1.6

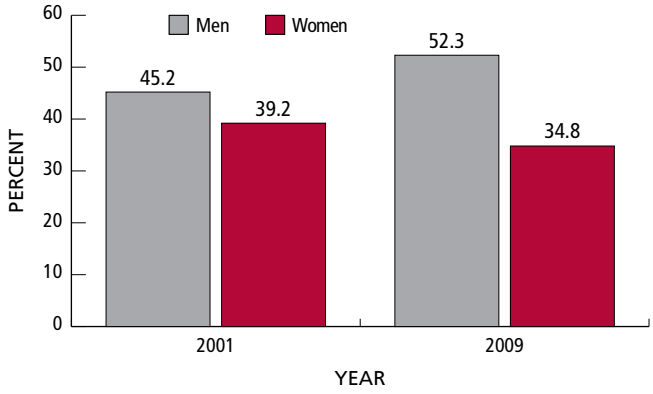
Head injury

The most common type of community injury resulting in hospitalisation in Australia in 2004-05 was a head injury (18% of cases) (Bradley & Harrison, 2008). Head injuries were the most common principal diagnosis for both men (21% of cases) and women (15%). Head injuries were common for people of all ages, and were the most frequent type of principal diagnosis for young Australians aged 15 – 24 years.

In an Australian community survey undertaken across three birth cohorts, the lifetime prevalence of head injury resulting in a loss of consciousness of at least 15 minutes ranged between 5% and 6% (Buttersworth et al., 2004). As noted previously, correlates of violence are common in the prison environment, including a high proportion of inmates from economically and socially deprived backgrounds. Perhaps unsurprisingly, studies have consistently found levels of head injury and traumatic brain injury among prison inmates which far exceed those documented among the general population, leading some to postulate causal links between such injuries, behavioural sequelae, and offending behaviour (Schofield et al., 2006).

Consistent with such research, a strikingly high proportion of IHS participants reported a lifetime history of head injury resulting in a loss of consciousness in all years in which the Survey has been conducted, from 44% in 2001 to 49% in 2009 (Table 3.7.10). In the most recent Survey, a substantially higher proportion of men than women reported such a history (52% versus 35%), which is a higher differential than found in 2001 (45% of men and 39% of women).

Table/Fig 3.7.10 Ever have head injury resulting in a loss of consciousness



	2001			2009		
	n	Total	%	n	Total	%
Men	315	697	45.2	416	796	52.3
Women	56	143	39.2	69	198	34.8
Total	371	840	44.2	485	994	48.8

Among 2009 IHS participants, men were not only more likely to report a lifetime history of at least one head injury resulting in a loss of consciousness, but were also more likely to report more than one such injury (Table 3.7.11). Close to one third (32%) of men reported having sustained two or more head injuries that resulted in a loss of consciousness, whereas the equivalent figure for women was 21%. Likewise, 11% of men reported having sustained five or more such injuries, whereas 5% of women reported this to be the case.

Some participants provided details about their head injury including:

- 'I had a hit on the head with an iron bar. I was in hospital and had to learn to walk and talk again. I had two operations at Royal North Shore Hospital. I lost a bit of my brain and had fragments in my skull.'
- 'I have 10% brain damage from a truck accident in 1988. If I have a week off work, they have to retrain me because I can't remember.'
- 'I have two fractures in my head from playing rugby league. They said it would take 2 years to heal but it still hurts. It happened when I was 18 years old.'
- 'I had a stack off a skateboard, hit a rail and it went partially into my head at the temple.'
- 'I was in the back of the police wagon. They hit the brakes and I fell back and hit my nose on the door and fell to the ground.'
- 'I was weight training and burst a blood vessel in my brain.'

Table 3.7.11 Lifetime number of head injuries resulting in a loss of consciousness

	Men		Women		Total	
	n	%	n	%	n	%
0	380	47.7	129	65.2	509	51.2
1	162	20.4	27	13.6	189	19.0
2	102	12.8	20	10.1	122	12.3
3-4	67	8.4	12	6.1	79	7.9
5-6	53	6.7	2	1.0	55	5.5
7+	32	4.0	8	4.0	40	4.0
Total	796	100.0	198	100.0	994	100.0

Among 2009 IHS participants who reported a history of head injury resulting in loss of consciousness, half (51%) reported that following their most severe head injury they were unconscious for a relatively brief time (less than ten minutes), with men more likely than women to report such a period of unconsciousness (52% versus 45%) (Table 3.7.12). Women, on the other hand, were substantially more likely than men to report that they did not know for how long they had been unconscious (26% versus 15%). A total of 34 participants (equating to 7% of both men and women with a history of head injury resulting in a loss of consciousness) reported having been unconscious for more than 24 hours following their most severe head injury.

Table 3.7.12 Time unconscious for most severe head injury

	Men		Women		Total	
	n	%	n	%	n	%
< 10 minutes	216	52.1	31	44.9	247	51.0
10 - <30 minutes	55	13.3	8	11.6	63	13.0
30 minutes - <24 hours	54	13.0	7	10.1	61	12.6
24 hours or more	29	7.0	5	7.3	34	7.9
Don't know	61	14.7	18	26.1	79	16.3
Total	415	100.0	69	100.0	484	100.0

Close to half (47%) of head injuries resulting in a loss of consciousness sustained by 2009 IHS participants were reported to have occurred ten or more years before the Survey, and a further 22% had occurred between five and ten years earlier (Table 3.7.13). A relatively small proportion (4%, equating to head injuries among sixteen men and two women) had occurred within the preceding six months; while a total of 13% of head injuries resulting in a loss of consciousness had occurred within the preceding two years.

Table 3.7.13 Time since most severe head injury

	Men		Women		Total	
	n	%	n	%	n	%
< 6 months ago	16	3.9	2	2.9	18	3.7
6 months - <2 years ago	40	9.6	4	5.8	44	9.1
2 - <5 years ago	76	18.3	15	21.7	91	18.8
5 - <10 years ago	90	21.7	14	20.3	104	21.5
10+ years ago	193	46.5	34	49.3	227	46.9
Total	415	100.0	69	100.0	484	100.0

There was little gender difference in the causes reported by 2009 IHS participants of their most severe head injury resulting in a loss of consciousness (Table 3.7.14), with more than half of such head injuries caused by being struck by an object or person among both men and women (54% and 52%, respectively). Women were, however, more likely to report that their most severe head injury was caused by a fall (25% versus 17%), while men were more likely to describe a motorcycle accident as the cause of their head injury (5% versus 2%).

Table 3.7.14 Cause of most severe head injury

	Men		Women		Total	
	n	%	n	%	n	%
Struck by object / person	222	53.5	36	52.2	258	53.3
Fall	70	16.9	17	24.6	87	18.0
Motor vehicle accident	62	14.9	10	14.5	72	14.9
Motorcycle accident	21	5.1	1	1.5	22	4.5
Other	40	9.6	5	7.2	45	9.3
Total	**415**	**100.0**	**69**	**100.0**	**484**	**100.0**

Schofield et al. (2006) found that among their study of 200 men entering the NSW criminal justice system, almost 20% of those who reported a history of head injury further reported that this injury had resulted in a skull fracture. Among 2009 IHS participants, men who reported having sustained a head injury that resulted in a loss of consciousness were more likely than women to further report that this head injury resulted in a skull fracture (15% versus 12%) (Table 3.7.15). Women were slightly more likely than men to report that they did not know whether this was the case (10% versus 8%). Notwithstanding this high prevalence of reported skull fractures, more than three quarters of head injuries among both men and women were reported not to have resulted in skull fracture (77% and 78%, respectively).

Table 3.7.15 Most severe head injury resulted in a skull fracture

	Men		Women		Total	
	n	%	n	%	n	%
Yes	62	14.9	8	11.6	70	14.5
No	319	76.9	54	78.3	373	77.1
Don't know	34	8.2	7	10.1	41	8.5
Total	**415**	**100.0**	**69**	**100.0**	**484**	**100.0**

Likewise, the majority (68%) of most severe head injuries were reported not to have resulted in an intracranial bleed (Table 3.7.16). A higher proportion of men than women, however, reported that they had sustained internal head bleeding following their most severe head injury (25% versus 17%). Eight percent of participants were uncertain whether their most severe head injury had resulted in internal head bleeding.

Table 3.7.16 Most severe head injury resulted in intracranial bleeding

	Men		Women		Total	
	n	%	n	%	n	%
Yes	104	25.1	12	17.4	116	24.0
No	278	67.0	52	75.4	330	68.2
Don't know	33	8.0	5	7.3	38	7.9
Total	**415**	**100.0**	**69**	**100.0**	**484**	**100.0**

Sixteen percent of 2009 IHS participants with a history of head injury resulting in a loss of consciousness reported that they had required surgery following their most severe head injury, with a higher proportion of men reporting this to be the case than women (16% versus 12%).

Three quarters (73%) of IHS participants who reported having sustained a head injury resulting in a loss of consciousness reported experiencing at least one neuropsychiatric sequela immediately following their most severe head injury (Table 3.7.17), with women substantially more likely than men to report at least one such symptom (84% versus 71%). Headaches (50%), problems with coordination or balance (27%), poor concentration (24%), problems retrieving the appropriate words when speaking (22%) and psychiatric symptoms such as anxiety and/or depression (22%) were the most common neuropsychiatric sequelae of head injuries resulting in a loss of consciousness. Women were substantially more likely than men to report having suffered headaches (68% versus 48%) and anxiety and/or depression (33% versus 21%), and were somewhat more likely to report poor concentration (30% versus 23%) and coordination or balance problems (30% versus 26%).

Table 3.7.17 Immediate sequelae following most severe head injury

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
None	118	28.5	11	15.9	129	26.7
Headaches	197	47.6	47	68.1	244	50.4
Memory loss	128	30.9	21	30.4	149	30.8
Coordination / balance problems	108	26.1	21	30.4	129	26.7
Poor concentration	93	22.5	21	30.4	114	23.6
Anxiety / depression	85	20.5	23	33.3	108	22.3
Problems finding right words when speaking	91	22.0	17	24.6	108	22.3
Weakness in body	70	16.9	13	18.8	83	17.1
Personality change	55	13.3	11	15.9	66	13.6
Other	52	12.6	15	21.7	67	13.8

Table 3.7.18 Unresolved sequelae from most severe head injury

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
All effects resolved	283	68.4	43	62.3	326	67.4
Headaches	70	16.9	18	26.1	88	18.2
Anxiety / depression	45	10.9	10	14.5	55	11.4
Memory loss	41	9.9	9	13.0	50	10.3
Problems finding right words when speaking	32	7.7	7	10.1	39	8.1
Poor concentration	29	7.0	8	11.6	37	7.6
Personality change	22	5.3	6	8.7	28	5.8
Coordination / balance problems	21	5.1	4	5.8	25	5.2
Weakness in body	10	2.4	3	4.4	13	2.7
Other	9	2.2	4	5.8	13	2.7

Among 2009 IHS participants who reported having experienced at least one neuropsychiatric sequela of their most severe head injury resulting in a loss of consciousness, two thirds (67%) further reported that all such sequelae had since resolved (Table 3.7.18), with men somewhat more likely to report the resolution of all such symptoms than women (68% versus 62%). Headaches (18%), anxiety and/or depression (11%) and memory loss (10%) were the sequelae most likely to be reported as unresolved. There was a consistent gender difference whereby men were more likely than women to report the resolution of every individual symptom. These rates of persistent sequelae are lower than those reported in a study of 200 men entering the NSW criminal justice system in 2003 and 2004 (Schofield et al., 2006), among whom 82% reported a history of head injury, 79% of which involved a loss of consciousness. Among participants who had experienced a head injury, 52% reported unresolved consequences of that injury, including 45% who continued to suffer neurological effects, 32% who still experienced psychological symptoms, and 17% who reported ongoing social sequelae.

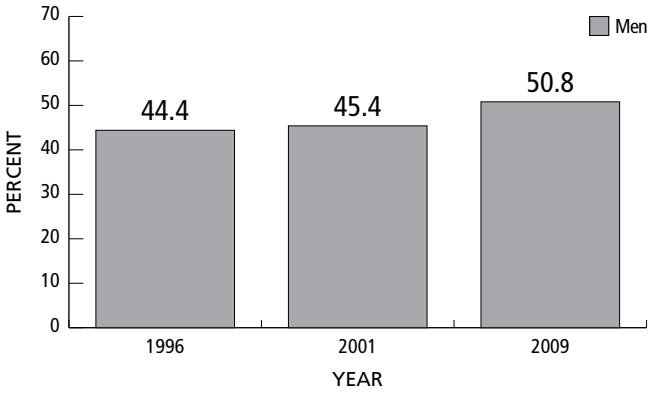
More than one-fifth (23%) of 2009 IHS participants with a history of head injury resulting in a loss of consciousness reported that they had had tests or scans that confirmed they had brain damage as a result of their head injury, with men more likely than women to report that this was the case (23% versus 19%). Two men and three women were unsure whether they had undergone such tests.

3.8 Men's health

Testicular cancer is an uncommon cancer, with an estimated incidence of approximately 6.8 in every 100,000 men (Cancer Council Australia, 2008). Young men are more commonly affected by testicular cancer, with about half of new diagnoses being made in men under the age of 33 years. Testicular cancer represents 0.1% of all cancer deaths. Across Australian in 2004, there were 675 cases and 14 deaths related to testicular cancer (Cancer Council Australia, 2008). The exact cause remains unknown, but factors that may increase a man's risk include undescended testes or a family history of testicular cancer. In more than 90% of cases, testicular cancer is curable, particularly in cases of early diagnosis and treatment (Cancer Council NSW, 2009a). Most testicular tumours are discovered through self-examination, and health authorities recommend that men check their testicles regularly from puberty onwards.

Half (51%) of men reported having examined their testicles for lumps at least once, an increase compared to the 2001 (45%) and 1996 (44%) IHS results (Table 3.8.1). Less than half (41%) of men reported that they knew how to properly examine their testicles for lumps. A similar proportion (43%) expressed a desire for more information about how to do so.

Table/Fig 3.8.1 Ever examined testicles for lumps



	1996		2001		2009	
	n	%	n	%	n	%
Yes	273	44.4	318	45.4	403	50.8
No	342	55.6	383	54.6	390	49.2
Total	615	100.0	701	100.0	793	100.0

Frequency of reported testicle self-examination among men ranged from weekly checks (18%) through to monthly (17%) or less frequent (14%) checks. Three percent of men reported having examined their testicles for lumps on a sole occasion (Table 3.8.2).

Table 3.8.2 Frequency examine testicles for lumps

	n	%
Never	390	49.2
Once only	20	2.5
Less than monthly	111	14.0
Monthly	132	16.6
Weekly	140	17.7
Total	793	100.0

Please also see section 4.8 which reports information about prostate cancer screening among male IHS participants.

3.9 Women's health

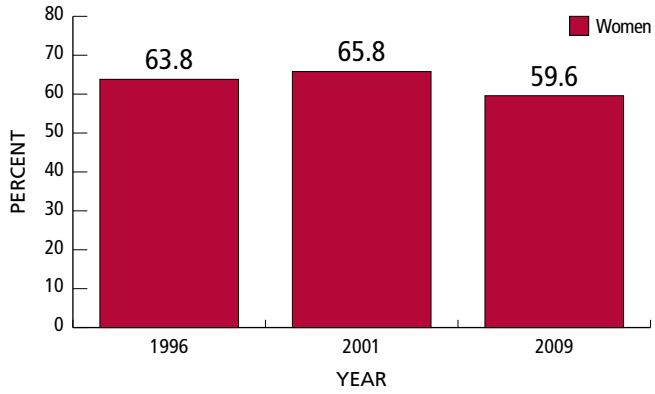
Breast self-examination

Breast cancer is a common cancer diagnosed in women. About one in eleven women will develop breast cancer by the age of 75 (NSW Cancer Council, 2009b). In NSW, around 4000 women are diagnosed with breast cancer each year. Men can also develop breast cancer, although this is rare. Around 30 men are diagnosed each year in NSW, accounting for about 1% of all breast cancer. Breast cancer is more common among women aged over 60; nevertheless, around one quarter of women diagnosed with breast cancer are younger than 50 (NSW Cancer Council, 2009b). For women aged between 50 and 69, regular screening mammograms are the best way to detect breast cancers, and Australian women of these ages are invited to participate in a government-funded biannual mammography screening program. Relatively few incarcerated women are old enough to qualify for this program.

Regular breast self-examination (BSE) may be performed to check for breast lumps that may be indicative of cancerous changes. BSE is not an alternative to screening mammography because it will not usually detect tumours smaller than a grape. Nevertheless, BSE is a low-cost, simple, non-invasive means of detecting breast changes, and the NSW Breast Cancer Institute recommends all women perform breast self examination monthly.

More than half (60%) of women reported having undertaken breast self-examination at least once, a decrease compared to the 2001 (66%) and 1996 (64%) IHS results (Table 3.9.1).

Table/Fig 3.9.1 Ever examined breasts for lumps



	1996		2001		2009	
	n	%	n	%	n	%
Yes	74	63.8	98	65.8	118	59.6
No	42	36.2	51	34.2	80	40.4
Total	116	100.0	149	100.0	198	100.0

The frequency of reported BSE among women ranged from monthly checks (17%) through to approximately six monthly (11%) or annual (10%) checks. Four percent of women reported having undertaken BSE on a sole occasion (Table 3.9.2).

More than half (59%) of women reported that they knew how to properly examine their breasts for lumps. A smaller proportion (44%) expressed a desire for more information about how to do so.

Table 3.9.2 Frequency examine breasts for lumps

	n	%
Never	80	40.4
Once only	7	3.5
About once a year	20	10.1
About twice a year	21	10.6
Monthly	33	16.7
Other	37	18.7
Total	198	100.0

Cervical cancer and screening

Cervical cancer is caused by a common virus called Human Papillomavirus (HPV), which over half of the population will contract at some time in their life (Dunne & Markowitz, 2006). An HPV vaccine to protect against cervical cancer has recently become available and protects against 80% of cervical cancer cases. The Pap test is a simple test that checks for changes to the cells of the cervix that may lead to cervical cancer. In Australia, it is recommended that all women aged between 18 and 70 years who have ever been sexually active have a Pap test every two years, including women who have had the HPV vaccine.

Table 3.9.3 Ever have a Pap test

	n	%
Yes	182	91.9
No	15	7.6
Don't know	1	0.5
Total	198	100.0

Ninety two percent of women reported having had at least one Pap test (Table 3.9.3); and 80% reported having had their most recent Pap test within the preceding two years (Table 3.9.4). Twelve percent of women reported having had their most recent Pap test more than two years previously, including 4% who had last had a Pap test more than six years previously.

Table 3.9.4 Time since most recent Pap test

	n	%
Never	16	8.1
<6 months	69	34.8
6 - <12 months	51	25.8
1 - <2 years	38	19.2
2 - <4 years	14	7.1
4 - <6 years	2	1.0
6+ years ago	8	4.0
Total	198	100.0

Among women who reported having had at least one Pap test, 76% reported that the results of their most recent Pap test were normal (Table 3.9.5). A higher proportion of women reported being unsure of their most recent Pap test results than reported that the results were abnormal (17% versus 8%).

Table 3.9.5 Result of most recent Pap test

	n	%
Normal	138	75.8
Abnormal	14	7.7
Don't know	30	16.5
Total	182	100.0

Among women who reported having undertaken at least one Pap test, 76% reported having them at the recommended frequency of once every two years or more often (Table 3.9.6), whereas 9% reported having them less often than is recommended. Eight percent of women with a history of Pap testing reported having had just a single Pap test.

Table 3.9.6 Frequency of Pap testing

	n	%
Once only	15	8.2
Less often than once every two years	17	9.3
Once every two years	96	52.7
Yearly	34	18.7
Twice a year or more often	9	4.9
Other	11	6.0
Total	182	100.0

Pregnancy

Eighty two percent of women reported having been pregnant at least once in their lives (Table 3.9.7), including 27% of women who reported having had five or more pregnancies. Women had been pregnant a median of three times in their lives (range 0-20). Seven women (4%) reported being pregnant at the time of the interview, while a further two women (1%) reported being unsure of their current pregnancy status.

Table 3.9.7 Lifetime number of pregnancies

	n	%
0	35	17.7
1	21	10.6
2	39	19.7
3	21	10.6
4	29	14.6
5	20	10.1
6+	33	16.7
Total	198	100.0

Forty percent of women reported having had at least one miscarriage (Table 3.9.8). Close to one fifth (18%) of women reported a history of two or more miscarriages, including 3% who reported having had four or more such experiences. Women with a history of miscarriage reported a mean age of 22.5 years (SD 7.0; range 13-41) at their first experience of miscarriage, and a mean age of 26.4 years (SD 7.3; range 16-42) at their most recent experience.

Table 3.9.8 Lifetime number of miscarriages

	n	%
Never pregnant	35	17.8
0	84	42.6
1	43	21.8
2	24	12.2
3	6	3.0
4+	5	2.5
Total	197	100.0

Fewer than half (43%) of women reported having undergone at least one pregnancy termination (Table 3.9.9). One fifth (20%) of women reported a history of two or more terminations, including 2% who reported having had four or more such experiences. Women with a history of termination reported a mean age of 20.8 years (SD 6.1; range 14-38) at their first experience of termination, and a mean age of 25.1 years (SD 6.9; range 16-39) at their most recent termination.

Table 3.9.9 Lifetime number of terminations

	n	%
Never pregnant	35	17.8
0	77	39.1
1	46	23.4
2	27	13.7
3	8	4.1
4+	4	2.0
Total	197	100.0

Nearly two-thirds (66%) of women reported having given birth to at least one child, including 21% who reported having given birth to four or more children (Table 3.9.10). The mean number of children to whom women had given birth was 2.3 (SD 2.0; range 0-15).

Table 3.9.10 Number of children given birth to

	Women	
	n	%
Never pregnant	35	17.7
0	32	16.2
1	36	18.2
2	32	16.2
3	21	10.6
4+	42	21.2
Total	198	100.0

Women with a history of childbirth reported a mean age of 20.3 years (SD 4.6; range 13-37) at their first experience of childbirth. Just over half (51%) of women gave birth before they were 20 years old (Table 3.9.11). The mean age of women's most recent experience of childbirth was 29.1 years (SD 6.7; range 16-50).

Table 3.9.11 Age first gave birth (if ever gave birth)

	n	%
<18 years	39	29.8
18-19 years	28	21.4
20-24 years	43	32.8
25-29 years	14	10.7
30+ years	7	5.3
Total	131	100.0

Domestic violence and abuse

Recent experience of relationships characterised by power imbalances were relatively common among women: 45% of women reported that a partner or spouse had engaged in at least one form of abuse or control in the year preceding their current incarceration (Table 3.9.12). The most common experience reported by women was verbal abuse (40%), followed by being physically hurt (25%), having contact with family or friends limited (25%), and having knowledge of and/or access to money restricted (20%). Being forced by a partner or spouse to participate in unwanted sexual activity in the year preceding incarceration was reported by 9% of women.

Table 3.9.12 Domestic violence and abuse experienced

(Multiple response)	n	%
Verbally abused you	80	40.4
Physically hurt you	50	25.3
Tried to limit contact with family or friends	49	24.7
Stopped you knowing about or having access to money	39	19.7
Forced you to take part in unwanted sexual activity	18	9.1
None of the above	109	55.1

General comments about women's health:

- 'Basically that Justice Health is a very important aspect of women in prison. Sometimes it is the only opportunity women get to address their health issues.'

4. Physical health tests

4.1 Height and weight

For each participant, the following measures were recorded: height in centimetres (cm), weight in kilograms (kg), and waist and hip circumferences in centimetres. These measures were used to calculate Body Mass Index (BMI) according to World Health Organization (WHO, 2000) guidelines, and to assess the risk of type 2 diabetes, cardiovascular diseases and some lifestyle-related cancers according to recommendations made by Australian federal, State and Territory governments in their current joint *Measure Up* public health campaign (see www.measureup.gov.au), part of the Australian Better Health Initiative approved in 2006 by the Council of Australian Governments.

The BMI is calculated by dividing a person's weight in kilograms by the square of their height in metres. Ranges on the continuous BMI score have been identified to classify an individual as normal weight, overweight or obese based on associations between BMI and chronic disease and mortality. Although widely used, the BMI has limitations, including that it cannot distinguish fat mass from lean muscle mass and thus may overestimate overweight and obesity among muscular individuals. Further, BMI does not necessarily reflect body fat distribution, with the accumulation of intra-abdominal fat more predictive of ill health and chronic disease than fat accumulated in other parts of the body, such as the hips and thighs. BMI also varies across different population groups (NHMRC, 2003a; WHO, 2000). Accordingly, both the NHMRC (2003a) and the WHO (2000) recommend using a combination of both waist circumference and BMI to assess the risk of chronic disease such as type 2 diabetes and cardiovascular disease.

The mean height of men in the 2009 IHS was 177 cm (range 120-197 cm), and the mean weight was 81.4 kg (range 46-197kg). Among women, the mean height was 164 cm (range 148-184 cm) and mean weight was 73.9 kg (range 48-138 kg).

Using these measurements to calculate BMI according to WHO (2000) guidelines, close to one half of participants (44%) were classified as having a BMI in the healthy weight range (BMI of 18.5-24.9) (Table 4.1.1); 37% were classified as having a BMI indicative of overweight (BMI of 25.0-29.9); and 19% were classified as obese according to the BMI (BMI of 30 or higher). There were also five men who were classified as being underweight. Although the proportions of males and females classified in the healthy weight range were similar, a higher proportion of males than females was classified as overweight (39% versus 29%), whereas a higher proportion of females was classified as obese (29% versus 16%).

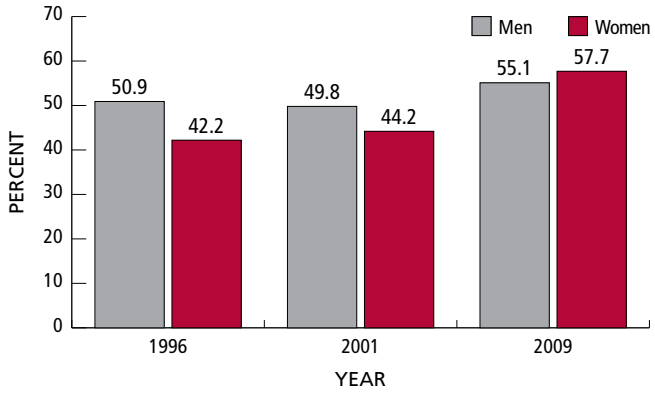
Rates of overweight and obesity among prison inmates can be compared to those of the general population by comparison of these figures with those from the National Health Survey (NHS) 2007-08 (ABS, 2009). BMI results from the 2007-08 NHS indicate that 37% of Australian adults have a BMI in the healthy weight range; 37% are classified in the overweight range; and 25% are classified as obese. A higher proportion of adult males in the general population are overweight or obese (68%) than adult females (55%). Thus, compared to the general population, IHS participants were more likely to be of a healthy weight (44% versus 37%), and less likely to be obese (19% versus 25%), but equally likely to be overweight (37% versus 37%).

Table 4.1.1 Body Mass Index category

	Men		Women		Total	
	n	%	n	%	n	%
Underweight (<18.5)	4	0.6	0	0.0	4	0.5
Healthy weight (18.5 - 24.9)	301	44.3	77	42.3	378	43.9
Overweight (25.0 - 29.9)	266	39.1	53	29.1	319	37.0
Obese (30+)	109	16.0	52	28.6	161	18.7
Total	**680**	**100.0**	**182**	**100.0**	**862**	**100.0**

More than half (56%) of the 2009 IHS sample were classified as overweight or obese according to the BMI. Compared to both the 1996 (49%) and 2001 (49%) Surveys, this finding represents an increase in the proportion of overweight and obese participants (Table 4.1.2). The increase is consistent with the patterns of overweight and obesity among Australia's general population, as reported in the 2007-08 NHS (ABS, 2009). Among the general adult population, the proportion of overweight or obese males increased from 64% in 1995 to 68% in 2007-08, and the proportion of overweight or obese females increased from 49% to 55% over the same period.

Table/Fig 4.1.2 Overweight or obese (BMI of 25.0 or higher)



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	327	643	50.9	356	715	49.8	375	680	55.1
Women	54	128	42.2	73	165	44.2	105	182	57.7
Total	381	771	49.4	429	880	48.8	480	862	55.7

As noted above, both the NHMRC (2003a) and the WHO (2000) recommend also using waist circumference as a measure of risk of chronic disease. According to NHMRC (2003a) guidelines, a waist circumference of less than 80 cm in women and 94 cm in males is associated with a low risk of chronic disease; between 80 and 88 cm in women and 94 and 102 cm in men is associated with an increased risk; and greater than 88 cm in women and 102 cm in men is associated with substantially increased risk. According to those guidelines, 23% of men and 21% women had waist circumferences indicating that they were at increased risk; and 15% of men and 54% of women were at substantially increased risk (Table 4.1.3). Thus, consistent with BMI measurements, a higher proportion of women than men recorded a waist circumference indicative of substantially increased risk of chronic disease.

Table 4.1.3 Waist circumference

	Men		Women		Total	
	n	%	n	%	n	%
Low risk (<94 cm males, <80 cm females)	421	62.7	44	24.6	465	54.6
Increased risk (94-102 cm males, 80-88 cm females)	152	22.6	38	21.2	190	22.3
Substantially increased risk (>102 cm males, >88 cm females)	99	14.7	97	54.2	196	23.0
Total	672	100.0	179	100.0	851	100.0

The waist-to-hip ratio (waist circumference in cm divided by hip circumference in cm) has recently been shown to be the strongest predictor of cardiovascular disease and coronary heart disease death, superior to waist circumference which in turn is superior to BMI (Welborn et al., 2003). The NHMRC (2003) reviewed evidence indicating that a waist to hip ratio of <0.96 for males and <0.81 for females is associated with a low risk of chronic disease. Among 2009 IHS participants, a substantially higher proportion of men than women recorded a waist-to-hip ratio in the low risk category (72% versus 20%) (Table 4.1.4); conversely, a substantially higher proportion of women were classified in the high risk category (64% versus 15%).

Table 4.1.4 Waist-to-hip ratio

	Men		Women		Total	
	n	%	n	%	n	%
Low risk (<0.96 males, <0.81 females)	479	72.1	36	20.0	515	61.0
Moderate risk (0.96-1.0 males, 0.81-0.85 females)	84	12.7	28	15.6	112	13.2
High risk (>1.0 males, >0.85 females)	101	15.2	116	64.4	217	25.7
Total	664	100.0	180	100.0	844	100.0

Women were substantially more likely than men to perceive themselves as overweight or very overweight (42% versus 22%), whereas men were more likely to perceive their weight as normal (65% versus 51%) or underweight/very underweight (13% versus 7%) (Table 4.1.5). As reported previously, BMI calculations indicated that more than half (56%) of participants were overweight or obese. Among these 482 participants,

women were more likely to perceive themselves as overweight or very overweight than men (66% of obese/overweight women compared with 37% of men).

Table 4.1.5 Self-perceived body weight

	Men		Women		Total	
	n	%	n	%	n	%
Very overweight	11	1.4	18	9.1	29	2.9
Overweight	166	20.9	66	33.3	232	23.3
Normal weight	515	64.7	100	50.5	615	61.9
Underweight	91	11.4	13	6.6	104	10.5
Very underweight	9	1.1	1	0.5	10	1.0
Don't know	4	0.5	0	0.0	4	0.4
Total	796	100.0	198	100.0	994	100.0

Five women (3%) reported that they had purposely caused themselves to vomit in the preceding four weeks specifically in order to control their body weight. Two women reported that they had taken pills to control their body weight in the last four weeks. More than half (55%) of women reported dissatisfaction with their body shape, with 35% indicating that they would prefer to be much thinner.

4.2 Blood pressure

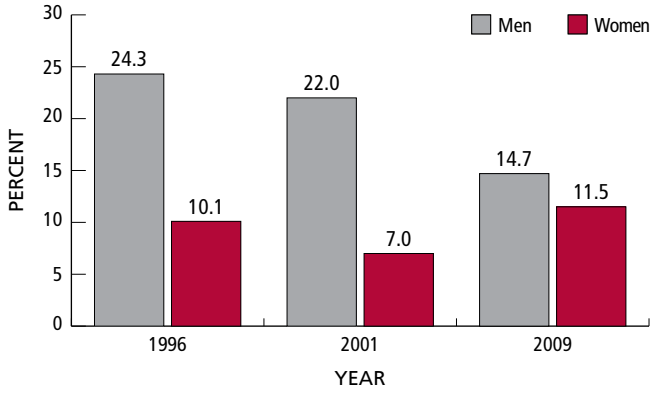
The WHO updated its guidelines on the management of hypertension (high blood pressure) in 2003, indicating that high blood pressure can be diagnosed in an individual who:

- records a systolic blood pressure of 140 mmHg or more; and/or
- records a diastolic blood pressure of 90 mmHg or more; and/or
- is prescribed medication to treat high blood pressure.

The mean systolic blood pressure among male 2009 IHS participants was 118 mmHg (range=90-178 mmHg), and among women was 110 mmHg (range=85-160 mmHg). A total of 40 men and six women recorded a systolic blood pressure of 140 mmHg or higher. The mean diastolic blood pressure among men was 72.3 mmHg (range=40-124 mmHg), and among women was 68.5 mmHg (range=40-110 mmHg). A total of 43 men and five women recorded a diastolic blood pressure of 90 mmHg or higher.

A total of 121 of the 864 participants (14%, including 15% of men and 12% of women) for whom results were available were classified as having high blood pressure according to the WHO (2003) guidelines. This figure represents a decrease in the overall proportion of participants with high blood pressure, from 22% in 1996 and 19% in 2001, although the decrease occurred among male rather than female participants (Table 4.2.1). Of those classified as having high blood pressure in 2009, 73 (60%) self-identified the condition during the telephone interview.

Table/Fig 4.2.1 High blood pressure



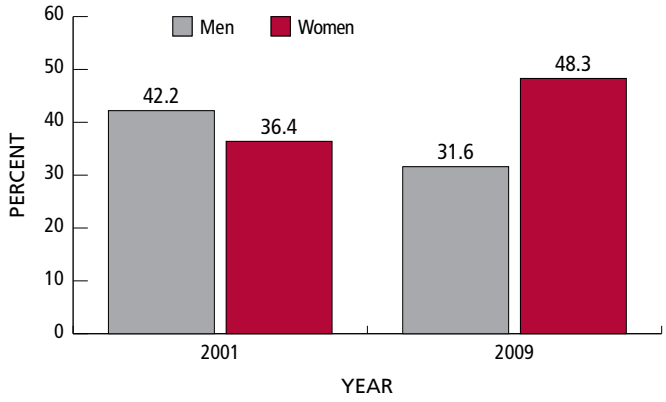
	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	157	645	24.3	158	718	22.0	100	682	14.7
Women	13	128	10.1	11	157	7.0	21	182	11.5
Total	170	773	22.0	169	875	19.3	121	864	14.0

4.3 Peak flow and spirometry

Peak expiratory flow (PEF) is a measure of maximum expiratory flow occurring just after the start of a forced expiration from the point of maximum inspiration (total lung capacity). PEF is used to provide a measure of airway calibre or airflow. Single PEF measures have wide ranges of normal and are no longer considered useful in the diagnosis of asthma, rather are used in monitoring to measure variation (National Asthma Council of Australia, 2006). Peak flow measurements were taken from 862 participants, including 682 men and 180 women. Of these, 32% of men and 48% of women returned a reading below the normal range (using a cut off of 80% or higher to indicate normal function and an algorithm using height, age and gender) (Partners Asthma Centre, 2009). See section 3.5 (Asthma) for more information.

The 2001 IHS report did not specify how below normal peak flow was calculated, so the data was re-analysed using the 2009 algorithm. This change resulted in a higher proportion of 2001 participants recording a below normal peak flow result, from 30% (in the 2001 IHS report) to 42% among men, and from 17% (in the 2001 IHS report) to 36% among women (Table 4.3.1).

Table/Fig 4.3.1 Below normal (<80%) peak flow reading



	2001		2009	
	Men N=708	Women N=162	Men N=682	Women N=180
Below normal range (<80%)	42.2	36.4	31.6	48.3
Normal range (80+%)	57.8	63.6	68.4	51.7

When compared with the proportion of participants who indicated they had ever been told they had asthma, 49% of those with asthma had below normal peak flow readings, compared with 29% of those who did not have asthma.

Spirometry is the most useful Pulmonary Function Test in the management of lung disease. It allows reliable measurement of airflow limitation compared with normal predicted air flow and reversibility of airflow limitation (National Asthma Council of Australia, 2006). Spirometry testing is performed using a spirometer, which produces results in the form of graphs. Among 2009 IHS participants, spirometry testing was conducted in 216 men (42%) and 38 women (33%). As a result of the graphical format of the results, they are not easily summarised and are not presented in this report.

4.4 Vision

Among participants who underwent a physical health examination, 362 (42%) indicated they wore glasses or contact lenses, with the majority (93%) of these people indicating they wore both glasses and contacts. Just over one-third (34%) of these participants did not self-report that they had poor eyesight in the phone interview. By contrast, 50 people self-reported that they had poor eyesight but didn't currently have glasses or contacts.

When tested for their vision using both eyes (allowing participants to use their glasses or contacts), 78% had at least 6/9 vision (Table 4.4.1). Normal vision (6/6) was found in 25% of men and 37% of women.

Table 4.4.1 Eyesight test (both eyes)

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Line 1 (6/60)	654	99.7	173	99.4	827	99.6
Line 2 (6/36)	651	99.2	171	98.3	822	99.0
Line 3 (6/24)	638	97.3	165	94.8	803	96.8
Line 4 (6/18)	627	95.6	159	91.4	786	94.7
Line 5 (6/12)	605	92.2	149	85.6	754	90.8
Line 6 (6/9)	517	78.8	127	73.0	644	77.6
Line 7 (6/7.5)	376	57.3	104	59.8	480	57.8
Line 8 (6/6)	161	24.5	64	36.8	225	27.1
Total	656	100.0	174	100.0	830	100.0

4.5 Wounds and MRSA

Participants in the 2009 IHS who underwent a physical health examination (N=830) were asked whether they currently had any cuts or sores. A small proportion (31 men and six women) reported that they were currently suffering from a wound or sore, including cuts, scratches, boils, burns, a dog bite and a surgical wound. The majority (81%) of the 37 participants who reported sores or cuts further reported currently suffering a single such sore or cut, although up to three were reported by small numbers of participants. Most sores and cuts appeared to be of a relatively superficial nature, with the majority (61%) of participants reporting that they had suffered their cuts or sores within just the preceding week, and a smaller proportion nominating a duration of between one and two weeks; although four men reported having had a wound that had lasted for a month or longer. Almost all participants who reported currently suffering cuts or sores reported that they had sustained these injuries in prison rather than the community.

Methicillin-resistant Staphylococcus aureus (MRSA) infection is caused by Staphylococcus aureus bacteria, a strain of "staph" that is resistant to the broad-spectrum antibiotics commonly used to treat it. Most MRSA infections occur in hospitals or other health care settings, such as nursing homes and dialysis centres. Older adults and people with weakened immune systems are at greatest risk.

Of the 37 participants with a current cut or sore mentioned above, a MRSA swab was conducted on the open wounds of 16 participants (13 men and three women). Among these participants a MRSA culture (with varying sensitivities and resistances among antibiotics) was isolated in two individuals (13%).

Approximately 10-30% of people are colonised with Staphylococcus aureus with a smaller sub-group colonised with MRSA (approximately 0.8%) (Kuehnert et al., 2006, Abudu et al., 2001). MRSA transmission is more likely among athletes and in institutions such as prisons characterised by increased skin-to-skin contact, frequent skin wounds and poor cleaning and hygeine (Rihn et al., 2005, Marcotte & Trzeciak, 2008). This poses a potential threat to those at increased risk of systemic MRSA infection and the potential for outbreaks of MRSA in prison populations (Pan et al., 2003; Baillargeon et al., 2004).

Nasal swabs for MRSA were conducted among 805 participants, including 625 men and 180 women. MRSA culture was detected in seven of these nasal swabs (0.9%).

4.6 Blood borne viruses

Inmate populations are characterised by increased risk of exposure to infectious diseases including blood borne viruses (BBVs) and sexually transmissible infections (STIs) (e.g., Butler, Boonwaat et al., 2007; Butler, Donovan et al., 2000; Butler, Kariminia et al., 2004b; Butler, Robertson et al., 2001; Butler, Spencer et al., 1999; Levy et al., 2007). Consequently, participation in the IHS, which in 2009 involved testing for exposure to Human Immunodeficiency Virus (HIV), herpes, hepatitis B (HBV) and C (HCV) viruses, syphilis, chlamydia, and gonorrhoea, can provide inmates with a valuable screening opportunity.

HIV

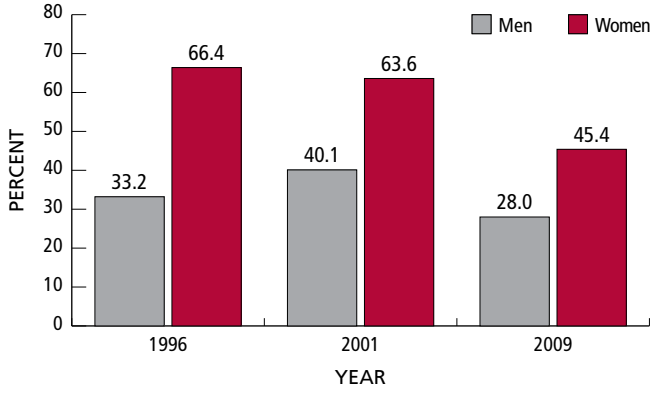
Exposure to the Human Immunodeficiency Virus (HIV) is assessed by the presence of HIV antibodies, the body's immunological response to the virus. In 2009, one male IHS participant tested positive to HIV antibody. This participant was a known HIV case, and self-reported his HIV positive status during the telephone interview. An additional five participants (all men) self-reported being HIV positive, but serological testing indicated no evidence of exposure to HIV among these participants. HIV therefore appears not to be a substantial public health concern among prison inmates, reflecting the epidemiology of the broader Australian population, among whom HIV prevalence has remained low and stable (NCHECR, 2008). Nevertheless, the absence of complete concordance between self-reported and serological HIV infection status indicates that ensuring that inmates receive appropriate post-test counselling and clearly understand the results of their tests remains an important outcome to pursue.

The 2009 results are similar to those found in the 2001 IHS, when one male participant who self-reported being HIV positive was serologically confirmed to have been exposed to the virus. The serological status of a further eight 2001 participants (all men) who self-reported being HIV positive indicated that they had not been exposed to the virus. Likewise, in the 1996 IHS, two male and two female participants, all of whom self-reported being HIV positive, tested positive to HIV antibody, while a further three participants who self-reported exposure to the virus tested negative to HIV antibody.

Hepatitis C virus

Close to one-third of the 2009 IHS sample tested positive to Hepatitis C virus (HCV) antibody, a measure of exposure to the virus, with a higher proportion of women than men testing positive (Table 4.6.1). The gender difference is consistent with findings of both the 1996 and 2001 IHSs. Of particular note, prevalence of antibodies decreased substantially since 2001 among both men and women, and, consequently, among the samples as a whole. This included a drop from 64% of women in 2001 to 45% of women in 2009 and 40% of men to 28% of men. The primary reason for this is that the proportion of injecting drug users also decreased significantly since 2001 (see section 5.6 for more details). Among the 229 participants who tested positive to HCV antibody in 2009, 62 (27%) were newly diagnosed cases that were previously unaware of their HCV infection.

Table/Fig 4.6.1 Hepatitis C antibody positive



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	209	629	33.2	281	700	40.1	160	571	28.0
Women	79	119	66.4	96	151	63.6	69	152	45.4
Total	**288**	**748**	**38.5**	**377**	**851**	**44.3**	**229**	**723**	**31.7**

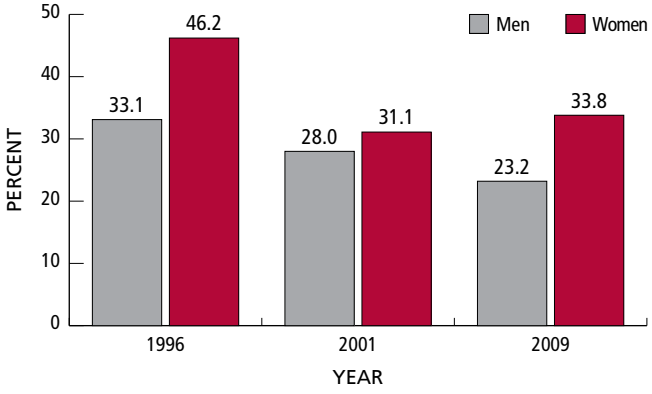
Hepatitis B virus (HBV)

Hepatitis B virus (HBV) serological testing may detect a range of markers (Hoofnagle, 1981):

- Hepatitis B surface antigen (HBsAg) is a marker of active infection;
- Hepatitis B surface antibody (HBsAb) appears when a person has cleared the virus or has responded to HBV vaccination. A positive HBsAb result indicates that a person is immune to HBV (cannot get re-infected) and is no longer infectious;
- Hepatitis B core antibody (HBcAb), the most common test in surveillance research, is a marker of exposure to HBV (previous or current infection). Testing positive for both HBcAb and HBsAg indicates current (acute or chronic) infection. Testing positive to both HBcAb and HBsAb indicates recovery from prior infection.

Twenty six per cent of 2009 IHS participants tested positive to HBcAb, indicating exposure to the virus and either past or present infection. This finding constituted a continuation of the decrease in the prevalence of exposure to HBV noted among both male and female participants between 1996 and 2001 (Table 4.6.2). Also consistent with findings of previous surveys was the higher prevalence of HBcAb among women (34%) than men (23%).

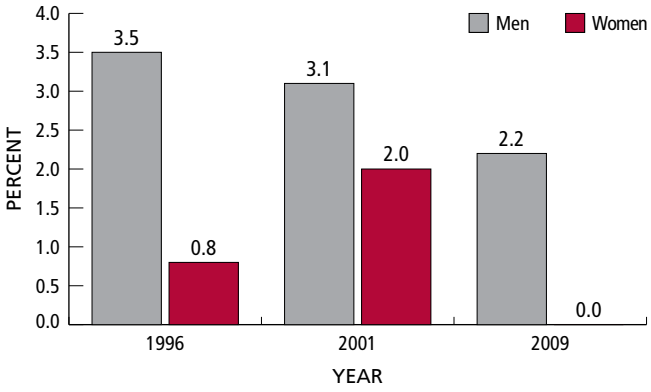
Table/Fig 4.6.2 Hepatitis B core antibody positive



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	208	629	33.1	197	704	28.0	125	539	23.2
Women	55	119	46.2	47	151	31.1	51	151	33.8
Total	**263**	**748**	**35.2**	**244**	**855**	**28.5**	**176**	**690**	**25.5**

The decrease in prevalence of exposure to HBV was also reflected in decreases between 1996 and 2009 in the proportion of IHS participants who tested positive to HBsAg, the marker of active infection (Table 4.6.3). Less than 2% of the 2009 sample had serological indicators of current infection, a decrease from around 3% in both 1996 and in 2001.

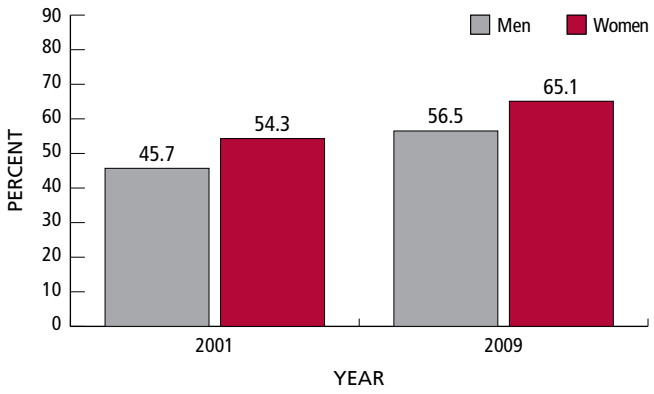
Table/Fig 4.6.3 Hepatitis B surface antigen positive



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	22	629	3.5	22	703	3.1	13	585	2.2
Women	1	119	0.8	3	150	2.0	0	152	0.0
Total	23	748	3.1	25	853	2.9	13	737	1.8

A higher proportion of 2009 IHS participants tested positive to HBsAb in 2009 than in 2001 (Table 4.6.4), indicating that more inmates are immune to HBV infection than has been the case in the past. Consistent with the 2001 results, a higher proportion of women (65%) than men (57%) tested positive. Note that this marker was not included in serological screening conducted in the 1996 Survey.

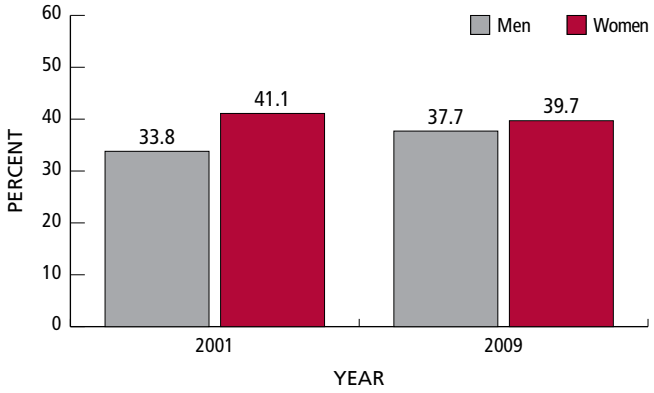
Table/Fig 4.6.4 Hepatitis B surface antibody positive



	2001			2009		
	n	Total	%	n	Total	%
Men	322	705	45.7	324	573	56.5
Women	82	151	54.3	99	152	65.1
Total	404	856	47.2	423	725	58.3

Vaccine-conferred immunity to HBV is demonstrated when an individual tests positive for HBsAB (≥10 mIU/ml) while testing negative for core antibody. The overall proportion of IHS participants with vaccine-conferred immunity increased from 2001 to 2009 (35% to 38%), although this increase was only evident in males (Table 4.6.5).

Table/Fig 4.6.5 Vaccine-conferred immunity to Hepatitis B virus



	2001			2009		
	n	Total	%	n	Total	%
Men	238	704	33.8	200	530	37.7
Women	62	151	41.1	60	151	39.7
Total	300	855	35.1	260	681	38.2

4.7 Sexually transmissible infections

Chlamydia

Chlamydia is a common STI, caused by the bacterium *Chlamydia trachomatis* and occurring most frequently among young people (under 25 years of age). Most infected women have no signs or symptoms, but if left untreated, chlamydia can lead to pelvic inflammatory disease (PID), complications of which include ectopic pregnancy and infertility. Pregnant women with chlamydia may pass the infection to their baby during childbirth, causing lung or eye infections. The majority of infected men also experience few symptoms, but if the infection spreads from the urethra to the epididymis, it may cause significant pain (Victorian Department of Health, 2009a). When detected early, chlamydia can be effectively treated with a single dose of antibiotics.

Chlamydia is the most frequently notified infection in Australia, with 51,867 newly diagnosed cases notified in 2007 (NCHECR, 2008). The rate of testing for chlamydial infection has increased over time and is likely to be partly responsible for the ongoing increase in the numbers of cases. Age- and gender-specific patterns may also be influenced by differential testing rates (NCHECR, 2008).

Among participants in the 2009 IHS, chlamydia was detected among twelve male participants (2%) and one female participant. These results mirrored exactly those of the 2001 IHS, when chlamydia was detected among twelve male participants and one female participant. Participants in the 1996 IHS were not tested for chlamydia.

Gonorrhoea

Gonorrhoea is an STI caused by the bacterium *Neisseria gonorrhoeae*. Among women, symptoms are generally mild and may be so unspecific that gonorrhoea may go undetected for long periods. If left untreated among women, gonorrhoea may lead to PID. Likewise, some men experience no symptoms of gonorrhoea, whereas some may experience pus-like penile discharge and burning sensations during urination. Gonorrhoea can cause epididymitis, a painful condition of the ducts attached to the testes that can lead to infertility if left untreated (CDC, 2007).

Gonorrhoea is more commonly diagnosed among men than women, among Aboriginal than non-Aboriginal Australians, and among 15-39 year olds than other age groups. Australia's general population rate of diagnosis of gonorrhoea increased steadily between 1998 and 2006, followed by a 15% decline between 2006 and 2007 among men, to a rate of 47.9 per 100,000 population, and a 6% decline among women, to a rate of 24.5 per 100,000 population. The decline occurred first among 15-19 year olds, followed by 20-29 and 30-39 year olds (NCHECR, 2008), and occurred primarily in Victoria, NSW and Queensland.

Among 2009 IHS participants, gonorrhoea was detected in one male and in no female participants. In comparison, among 2001 IHS participants, gonorrhoea was detected in three male and in no female participants. Participants in the 1996 IHS were not tested for gonorrhoea.

Syphilis

Syphilis is an STI caused by the bacterium *Treponema pallidum*. It is transmitted through close skin-to skin contact and is highly contagious when the associated skin inflammation is present. Those most at risk of syphilis are homosexually active men and people who have engaged in sexual activity in countries with high prevalence of syphilis. Pregnant women may also pass syphilis to their unborn baby (Victorian Department of Health, 2009b).

Syphilis is more commonly diagnosed among men than women, and among Aboriginal than non-Aboriginal Australians. Among Australia's general population, the rate of diagnosis of syphilis more than doubled, from 3.1 per 100,000 in 2004, to 6.6 in 2007 (NCHECR, 2008). The increases occurred in NSW, Victoria and Queensland and were almost completely confined to homosexually active men (NCHECR, 2008).

Among 2009 IHS participants, syphilis was detected among eight men (1%) and three women (2%), all of whom were cases with no history of previous diagnosis. These findings were similar to those of the 2001 IHS, when syphilis was detected among twelve male (2%) and one female (<1%) participant. Participants in the 1996 IHS were not tested for syphilis.

Herpes

Herpes is a common infection passed on through skin-to-skin contact and caused by the herpes simplex virus (HSV). HSV causes blisters and sores, usually around the mouth, nose, genitals, and buttocks, but they may occur almost anywhere on the skin. There are two types of HSV, Type 1 and Type 2. Often referred to as cold sores, HSV Type 1 infections are tiny, clear, fluid-filled blisters that most often occur on the face. Less frequently, Type 1 infections can occur in the genital area. Type 1 may also develop in wounds on the skin. Most people acquire HSV1 in infancy or childhood through close contact with an infected person, but it can be acquired at any age, through kissing, sharing utensils or towels (AAD, 2009). HSV1 infections may be primary or recurrent. Although most people acquire the infection when exposed to the virus, only around ten percent will subsequently develop sores.

Although it may occur in other locations, infection with HSV Type 2 usually results in sores on the buttocks, penis, vagina, or cervix, two to twenty days after contact with an infected person. Sexual intercourse is the most frequent means of acquiring the infection. Both primary and recurrent attacks can cause a minor rash or itching, painful sores, fever, aching muscles, and a burning sensation with urination. As with Type 1, sites and frequency of repeated bouts vary. The initial episode can be so mild that a person does not realize that he or she has an infection. Years later, when HSV recurs, it may be mistaken for an initial attack.

The laboratories that screened for antibodies to the herpes virus unfortunately did not distinguish between HSV1 and HSV2, so the results below cannot easily be compared to the previous IHS or community samples. Among 2009 IHS participants who were screened for HSV, 88% of men (N=208) and 98% of women (N=126) tested positive for antibodies to the virus. These findings are similar to the findings of the 2001 IHS, in which 85% of men and 89% of women tested positive for antibodies to HSV1. The prevalence of HSV1 among Australia's general adult population is also relatively high, at 76%, with prevalence higher among women than among men (80% versus 71%) (Cunningham et al., 2006).

4.8 Prostate specific antigen

Prostate-specific antigen (PSA) is a protein produced by the cells of the prostate gland. PSA is present in small quantities in the blood of healthy men, but is often elevated in the presence of prostate cancer and in other prostate disorders. A temporary rise in PSA can be caused by a number of conditions. Urinary infection, prostatitis (inflammation of the prostate), or a biopsy of the prostate can cause large rises, while small rises can be caused by ejaculation and even bicycle riding. Nevertheless, a blood test to measure PSA is considered the most effective test currently available for the early detection of prostate cancer. Because PSA levels tend to increase with age, there is no specific cut-off for possible prostate cancer. Current guidelines indicate using a PSA level of greater than or equal to 3.0 ng/ml for men aged 50 to 59 years, 4.0 ng/ml for men aged 60 to 69 years and 5.5 ng/ml for men aged 70 years or more (Repatriation General Hospital, 2005).

In the 2009 IHS, the blood samples of 77 men aged 50 years or older were screened for PSA. Using the age-specific categories above, eleven men (14%) had elevated PSA levels. Depending on the degree of elevation and other findings, this may indicate further investigation for prostate cancer.

4.9 Blood glucose and HbA1c

Finger-prick and venous blood glucose testing

The plasma glucose levels of random (non-fasting, non-glucose-challenged) blood samples provided by participants through a finger-prick were tested. It was not possible to ensure that participants fasted prior to their participation in this Survey, and thus it was not possible to request fasting blood sugar tests. According to the guidelines on detection and management of Type 2 diabetes produced by the NHMRC (2009a), 60% of the sample recorded plasma glucose levels under 5.5mmol/L, indicating that diabetes was unlikely among the majority of participants (Table 4.9.1). Forty percent of the sample recorded plasma glucose levels within the range where diabetes is considered possibly present, including a higher proportion of female (47%) than male (38%) participants, whereas plasma glucose levels considered to indicate that diabetes is likely were recorded by less than 1% of the sample.

Among the 37 participants who self-reported that they had diabetes, 27% (N=10) recorded plasma glucose levels of less than 5.5 mmol/L; 60% (N=22) recorded plasma glucose levels between 5.5 and 11 mmol/L; and 14% (N=5) recorded levels higher than 11.0 mmol/L.

Table 4.9.1 Blood sugar (random plasma glucose) level by finger-prick test

	Men		Women		Total	
	n	%	n	%	n	%
Diabetes unlikely (<5.5 mmol/L)	415	61.4	94	52.2	509	59.5
Diabetes possible (5.5 - 11.0 mmol/L)	255	37.7	85	47.2	340	39.7
Diabetes likely (>11.0 mmol/L)	6	0.9	1	0.6	7	0.8
Total	676	100.0	180	100.0	856	100.0

Non-fasting venous blood samples provided by 2009 IHS participants were also tested for plasma glucose levels. The majority of participants (92%) recorded glucose levels in the normal range. Approximately N=43 men and 13 women had blood glucose readings indicative of possible diabetes (Table 4.9.2).

Table 4.9.2 Blood sugar (random plasma glucose) level by venous blood sample

	Men		Women		Total	
	n	%	n	%	n	%
Diabetes unlikely (<5.5 mmol/L)	515	92.3	147	91.9	662	92.2
Diabetes possible (5.5 - 11.0 mmol/L)	37	6.6	13	8.1	50	7.0
Diabetes likely (>11.0 mmol/L)	6	1.1	0	0.0	6	0.8
Total	558	100.0	160	100.0	718	100.0

HbA1c

HbA1c is a test that measures the amount of glycated haemoglobin in the blood. In the normal 120-day life span of the red blood cell, glucose molecules react with haemoglobin, forming glycated haemoglobin. The level of glycated haemoglobin within red blood cells therefore reflects the average level of glucose to which the cell has been exposed during its life cycle. Thus, HbA1c provides an average measure of blood glucose levels during the preceding two weeks to three months. In individuals with poorly controlled diabetes, the quantities of glycated haemoglobins are much higher than in people with normal blood glucose regulation. The International Diabetes Federation Clinical Guidelines Taskforce (2005) recommends HbA1c levels of below 6.5%; this is the cut-off used in the table below. Five percent of 2009 IHS participants recorded HbA1c levels above normal, including 5% of men and 4% of women (Table 4.9.3).

Table 4.9.3 Glycated haemoglobin (HbA1c results)

	Men		Women		Total	
	n	%	n	%	n	%
Normal (<6.5%)	524	94.8	130	96.3	654	95.1
Above normal (≥6.5%)	29	5.2	5	3.7	34	4.9
Total	553	100.0	135	100.0	688	100.0

Glucose in urine

Urine samples were collected from N=795 IHS participants (78% of men, 86% of women). Urine dipsticks were used to test for the presence of a range of substances (including leukocytes, protein, glucose, ketones, bilirubin, blood and microalbumin). The results below are provided related to the finding of glucose in the urine; some results (e.g. protein, bilirubin and microalbumin) are presented later, while results for others are not shown in this report.

Normally, little glucose is present in the urine. The presence of glucose in urine, called glycosuria, may be an indicator of diabetes, glucose release from the kidneys into the urine (called renal glycosuria), or pregnancy. Further testing is required to determine the cause of abnormal urine glucose results. Among 209 IHS participants who were screened, the urine samples of six men and three women contained abnormal levels of glucose.

4.10 Liver function

The blood samples provided by 2009 IHS participants were analysed for a range of measures of liver function. Bilirubin is the yellow waste product of the catabolism of haem, which is found in haemoglobin, a principal component of red blood cells. Bilirubin is excreted in bile, and its levels are elevated in certain diseases, in particular, in relation to biliary disease (intra or extra-hepatic), but sometimes with haemolysis (unconjugated). Total and direct bilirubin are usually measured to screen for or to monitor liver or gallbladder problems. An accepted upper cut-off for bilirubin levels is 17 umol/L (Deepak et al., 2007). According to this cut-off, 6% of 2009 IHS participants had bilirubin levels that were above normal (Table 4.10.1), including 7% of men and 3% of women.

Table 4.10.1 Bilirubin levels

	Men		Women		Total	
	n	%	n	%	n	%
Normal (<17 umol/L)	531	93.3	154	96.9	685	94.1
Above normal (≥17 umol/L)	38	6.7	5	3.1	43	5.9
Total	**569**	**100.0**	**159**	**100.0**	**728**	**100.0**

A range of other common liver function tests (LFTs) were conducted. Gamma-glutamyltransferase (GGT) is an enzyme found in many bodily tissues, but most notably the liver. GGT levels are elevated in cholestatic liver disease, hepatacellular disease, diabetes, chronic excessive alcohol intake and with drug-related enzyme induction (especially phenytoin) (RCPA, 2009). According to the results provided by the laboratories which analysed the blood samples of 2009 IHS participants, GGT levels were above normal among 25% of men and 21% of women (Table 4.10.2) (Reynaud et al., 2000).

Table 4.10.2 Gamma-glutamyltransferase (GGT) levels

	Men		Women		Total	
	n	%	n	%	n	%
Normal (<40 u/L)	427	74.8	125	79.1	552	75.7
Above normal (≥40 u/L)	144	25.2	33	20.9	177	24.3
Total	**571**	**100.0**	**158**	**100.0**	**729**	**100.0**

Like GGT, alkaline phosphatase (ALP) is an enzyme found in many bodily tissues, but particularly concentrated in the liver. Increased ALP levels are seen in liver disease (particularly with cholestasis), bone disease (e.g. Paget's disease), with bony metastases and some non-liver, non-bone malignancies (RCPA, 2009). According to the results provided by the laboratories which analysed the blood samples of 2009 IHS participants, the ALP levels of 13% of men and 12% of women were elevated (Table 4.10.3) (University of Michigan, 2009).

Table 4.10.3 Alkaline phosphatase (ALP) levels

	Men		Women		Total	
	n	%	n	%	n	%
Normal (<118 u/L)	479	87.1	134	87.6	613	87,2
Above normal (≥118 u/L)	71	12.9	19	12.4	90	12.8
Total	**550**	**100.0**	**153**	**100.0**	**703**	**100.0**

Alanine aminotransferase (ALT) is an enzyme more specifically associated with the liver. Significantly elevated levels of ALT often suggest the existence of hepatocellular damage, such as viral hepatitis, auto-immune hepatitis and drug and other toxicity. When elevated ALT levels are detected, the possible underlying causes can be further narrowed down by measuring other enzymes. Among 2009 IHS participants, the ALT levels of 12% of men and 20% of women were elevated (Table 4.10.4) (Jamal et al., 2003). These findings may be consistent with the relatively high rates of HCV infection among this sample, as well as the high rates of illicit and prescribed use of drugs with liver toxicity side effects (Martin et al., 2008).

Table 4.10.4 Alanine aminotransferase (ALT) levels

	Men		Women		Total	
	n	%	n	%	n	%
Normal (<53 u/L women; <73 u/L men)	502	87.8	128	80.5	630	86.1
Above normal (≥53 u/L women; ≥73 u/L men)	70	12.2	31	19.5	101	13.8
Total	**572**	**100.0**	**159**	**100.0**	**731**	**100.0**

Aspartate aminotransferase (AST) is another transaminase indicative of liver disease, although also elevated in cardiac and skeletal muscle disease. The ratio of AST to ALT is an indicator of alcohol consumption and associated liver damage. For example, AST/ALT ratio is typically >1 in alcoholic liver disease and <1 in non-alcoholic liver disease (RCPA, 2009). According to the results provided by the laboratories which analysed the blood samples of 2009 IHS participants, the AST levels of 37% of men and 38% of women were elevated (Table 4.10.5) (Berk & Korenblat, 2007).

Table 4.10.5 Aspartate aminotransferase (AST) levels

	Men		Women		Total	
	n	%	n	%	n	%
Normal (<35 u/L)	361	63.1	99	62.3	460	62.9
Above normal (≥35 u/L))	211	36.9	60	37.7	271	37.1
Total	**572**	**100.0**	**159**	**100.0**	**731**	**100.0**

4.11 Renal function

The general biochemistry of 2009 IHS participants was examined using the blood samples provided by 568 men and 160 women. Three tests are measures of renal function, namely the levels of urea and creatinine, and the estimated glomerular filtration rate.

Urea is a waste product generated during the breakdown of proteins. Urea is usually excreted in the urine by the kidneys. Abnormally high levels of urea may indicate kidney impairment. Other possible causes include blockage of the urinary tract by a kidney stone or tumour; heart attack or congestive heart failure; dehydration; fever; shock; or bleeding in the digestive tract. According to the results provided by the laboratories which analysed the blood samples of 2009 IHS participants, abnormal urea levels were detected in 4% of men and 3% of women (Table 4.11.1) (RCPA, 2009).

Table 4.11.1 Urea levels

	Men		Women		Total	
	n	%	n	%	n	%
Normal (<8 mmol/L)	545	96.0	155	96.9	700	96.2
Above normal (≥8 mmol /L)	23	4.0	5	3.1	28	3.8
Total	**568**	**100.0**	**160**	**100.0**	**728**	**100.0**

Creatinine is a waste product generated during muscle metabolism that is filtered by the kidneys and excreted in urine. Creatinine blood levels remain relatively stable because the muscle mass in the body is relatively constant. Creatinine blood levels will rise in kidney impairment due to poor clearance; thus, abnormal levels of creatinine may indicate possible kidney malfunction or failure. Other causes of high creatinine include muscle conditions such as rhabdomyalysis. According to the results provided by the laboratories which analysed the blood samples of 2009 IHS participants, abnormal creatinine levels were detected in six men (1%) and two women (1%) (Table 4.11.2) (RCPA, 2009).

Table 4.11.2 Creatinine levels

	Men		Women		Total	
	n	%	n	%	n	%
Normal (≤110 umol/L women/ ≤120 umol/L men)	562	98.9	158	98.8	720	98.9
Above normal (>110 umol/L women/ >120 umol/L men)	6	1.1	2	1.2	8	1.1
Total	**568**	**100.0**	**160**	**100.0**	**728**	**100.0**

The glomerular filtration rate (GFR) measurement is based on determining the volume of plasma from which a substance is removed by glomerular filtration during its passage through the kidney, or in other words, the "clearance" of that substance. The estimated GFR (eGFR) is calculated based on blood creatinine levels, and measures the efficiency with which the kidneys filter waste products from the blood for excretion and is a key measure in chronic kidney disease. According to the results provided by the laboratories which analysed the blood samples of 2009 IHS participants, the eGFR of seven men (1%) and nine women (6%) were below normal levels (Table 4.11.3) (Kidney Health Australia, 2009).

Table 4.11.3 Glomerular Filtration Rate (GFR) levels

	Men		Women		Total	
	n	%	n	%	n	%
Normal (≥60 ml/min)	557	98.8	149	94.3	706	97.8
Below normal (<60 ml/min)	7	1.2	9	5.6	16	2.2
Total	**564**	**100.0**	**158**	**100.0**	**722**	**100.0**

Microalbumin and protein in urine

The urine dipstick test was used to detect small quantities of the protein albumin in the urine samples of 2009 IHS participants. The detection of albumin in the urine may be an early marker of kidney function problems, and may occur with certain immune disorders, diabetes, high blood pressure and some lipid problems. Among 2009 IHS participants who were screened, the urine samples of 41 men and 14 women contained abnormal levels of albumin.

The urine dipstick test was also used to detect the presence of protein in participants' urine. Normally, protein is not excreted in urine because protein molecules are too large to pass through the filtering membranes in the kidneys. If these filtering structures are damaged, protein escapes. The presence of protein in the urine can thus be an important indicator of kidney disease. Among 2009 IHS participants who were screened, the urine samples of 13 men and two women contained abnormal levels of protein.

4.12 Full blood count

In addition to the information reported below, the full blood count test included results for red blood cells, haematocrit, mean cell haemoglobin, mean corpuscular haemoglobin concentration, red blood cell distribution width, monocytes, eosinophils and basophils.

Red blood cells

Measuring the concentration of haemoglobin and the red blood cell count can help diagnose anaemia, a condition caused by a deficiency of haemoglobin. Anaemia can arise for a number of reasons, including: inadequate production of red blood cells in the bone marrow; inadequate iron intake; inadequate folate or vitamin B12 intake; microscopic bleeding or other blood loss; blood cell destruction; a chronic illness; or a defect in the haemoglobin molecule itself. Abnormally high blood concentrations of haemoglobin may occur in people with chronic lung disease, as an adaptation to high altitudes, or because of an abnormal increase in red cell production by the bone marrow (polycythaemia vera).

According to the results provided by the laboratories which analysed the blood samples of 2009 IHS participants, the majority of both men (98%) and women (93%) recorded haemoglobin levels in the normal range (Table 4.12.2) (RCPA, 2009). A higher proportion of women (7%) had below normal haemoglobin levels than men (1%).

Table 4.12.1 Haemoglobin levels

	Men		Women		Total	
	n	%	n	%	n	%
Below normal (<130 g/L men, <115 g/L women)	7	1.3	8	6.6	15	2.2
Normal (130-179 g/L men, 115-164 g/L women)	543	97.8	114	93.4	657	97.0
Above normal (≥180 g/L men, ≥165 g/L women)	5	0.9	0	0.0	5	0.7
Total	555	100.0	122	100.0	677	100.0

The majority of both men (95%) and women (96%) were found to have red blood cell counts in the normal range (Table 4.12.2) (RCPA, 2009). A higher proportion of men (5%) than women (3%) had below normal red blood cell counts, while only two men and two women had above normal red blood cell counts.

Table 4.12.2 Red blood cell count

	Men		Women		Total	
	n	%	n	%	n	%
Below normal (<4.5 10^{12}/L men, <3.8 10^{12}/L women)	25	4.5	3	2.5	28	4.1
Normal (4.5-6.5 10^{12}/L men, <3.8-5.8 10^{12}/L women)	528	95.1	117	95.9	645	95.3
Above normal (>6.5 10^{12}/L men, >5.8 10^{12}/L women)	2	0.4	2	1.6	4	0.6
Total	555	100.0	122	100.0	677	100.0

Mean corpuscular volume (MCV) is an estimate of the volume, or size, of red blood cells; and is one of a number of red blood cell indices tested in a full blood count. A low MCV may indicate iron deficiency, chronic disease, pregnancy, a haemoglobin disorder such as thalassaemia, anaemia due to blood cell destruction or bone marrow disorders. A high MCV may indicate anaemia due to nutritional deficiencies, bone marrow abnormalities, liver disease, alcoholism, chronic lung disease, or therapy with certain medications.

According to the results provided by the laboratories which analysed the blood samples of 2009 IHS participants, the great majority of both men and women had MCV counts in the normal range (Table 4.12.3). Just over 2% of males and nearly 10% of women (equating to 4% of the whole sample) recorded MCV counts below normal, while four men (<1%) and no women recorded MCV counts above the normal range (RCPA, 2009). The higher rates of low haemoglobin and low MCV in women is consistent with the higher rate of iron deficiency and anaemia due to menstrual and childbirth blood loss and iron demands of pregnancy.

Table 4.12.3 Mean corpuscular volume levels

	Men		Women		Total	
	n	%	n	%	n	%
Below normal (<80 g/L)	12	2.2	12	9.8	24	3.5
Normal (80-100 g/L)	539	97.1	110	90.2	649	95.9
Above normal (>100 g/L)	4	0.7	0	0.0	4	0.6
Total	**555**	**100.0**	**122**	**100.0**	**677**	**100.0**

White blood cells

White blood cells (leukocytes) are a fundamental component of the immune system, and thus help to defend the body against infectious organisms and foreign substances. The number of white blood cells in a given volume of blood is expressed as cells per microlitre of blood. The total white blood cell count normally ranges between 4,000 and 11,000 cells per microlitre. The proportion of each of the five major types of white blood cells and the total number of cells of each type can also be determined in a given volume of blood (Merck, 2009). Leukopenia, in which the blood contains fewer than normal white blood cells, makes people more susceptible to infections. Leukocytosis, in which the blood contains excessive white blood cells, may result from the normal response of the body to help fight an infection. Other causes of a raised white cell count include an acute inflammatory allergic reaction or it may occur in some malignancies. Low white cell counts may occur as a result of bone marrow disease, chemotherapy, radiotherapy or other drug side effects.

According to the results provided by the laboratories which analysed the blood samples of 2009 IHS participants, 8% of male 2009 IHS participants, and 9% of women, recorded white blood cell counts above normal (Table 4.12.4) (RCPA, 2009).

Table 4.12.4 White blood cell count

	Men		Women		Total	
	n	%	n	%	n	%
Normal (<11 10^9/L)	509	92.0	111	91.0	620	91.9
Above normal (≥11 10^9/L)	44	8.0	11	9.0	55	8.1
Total	**553**	**100.0**	**122**	**100.0**	**675**	**100.0**

Neutrophils are one of the five types of white blood cells that normally appear in the blood. An important component of the immune system, the neutrophil has a lifespan of about three days. Neutrophlia, an increased proportion of neutrophils in the blood, is a common finding with acute bacterial infections, but may also be associated with eclampsia, gout, rheumatoid arthritis, rheumatic fever, thyroiditis, acute stress or trauma. Neutropenia, a decreased proportion of neutrophils, may be observed with viral infections, widespread bacterial infection, and after radiotherapy or chemotherapy. Neutropenia lowers the immune barrier to bacterial and fungal infection. The cut-off for neutrophil levels to be below normal is ≤2.0, normal is 2.1-7.5 and above normal is greater than 7.5 10^9/L (RCPA, 2009). Fewer than 4% of IHS participants had below normal levels of neutrophils and 6% had above normal levels, with minimal differences between men and women (Table 4.12.5).

Table 4.12.5 Neutrophil levels

	Men		Women		Total	
	n	%	n	%	n	%
Below normal (≤2.0 10^9/L)	19	3.5	4	3.6	23	3.5
Normal (2.1-7.5 10^9/L)	498	90.4	102	91.1	600	90.5
Above normal (>7.5 10^9/L)	34	6.1	6	5.4	40	6.0
Total	**551**	**100.0**	**112**	**100.0**	**663**	**100.0**

Lymphocytes

Lymphocytes are another type of white blood cell important in establishing the body's immune responses. There are two main types of lymphocytes. B cells make antibodies that attack bacteria and toxins, while T cells attack body cells themselves when they have been taken over by viruses or have become cancerous. These cells account for immunological "memory," a faster and stronger response to a second encounter with the same antigen. Lymphocytes secrete products (lymphokines) that modulate the functional activities of many other types of cells and are often present at sites of chronic inflammation. An increase in the proportion of lymphocytes in the blood may be due to chronic bacterial infection, viral hepatitis, glandular fever, viral infection such a mumps or measles, or recovery from a bacterial infection. A decreased proportion of lymphocytes may be caused by chemotherapy, HIV infection, leukemia, radiation therapy or exposure, or sepsis. The cut-off for lymphocyte levels to be below normal is ≤1.5, normal is 1.6-4.0 and above normal is greater than 4.0 109/L (RCPA, 2009). Nearly one in ten (9%) participants had below normal lymphocyte levels. The proportion of women with above normal lymphocyte levels was twice as high as men (7% compared to 3%) (Table 4.12.6).

Table 4.12.6 Lymphocytes levels

	Men		Women		Total	
	n	%	n	%	n	%
Below normal (≤1.5 10^9/L)	50	9.1	9	8.0	59	8.9
Normal (1.6-4.0 10^9/L)	484	87.8	95	84.8	579	87.3
Above normal (>4.0 10^9/L)	17	3.1	8	7.1	25	3.8
Total	551	100.0	112	100.0	663	100.0

Platelets

Platelets, or thrombocytes, are involved in haemostasis. If the number of platelets is too low (thrombocytopenia), excessive bleeding can occur. If the number of platelets is too high (thrombocytosis), blood clots can form (thrombosis), which may result in events such as a stroke, heart attack, or pulmonary embolism. The platelet count is an estimation of the number of platelets per litre of blood. Abnormally low numbers of platelets is known as thrombocytopenia, while an abnormally high level of platelets is known as thrombocytosis. Platelet counts are often used to monitor medications that can have toxic effects on bone marrow, or conditions such as ideopathic thrombocytopenia, as well as in diagnosing problems associated with abnormal bleeding or bruising.

According to the results provided by the laboratories which analysed the blood samples of 2009 IHS participants, the great majority of both men (94%) and women (91%) had platelet counts in the normal range (Table 4.12.7). Four percent of males and 2% of women (equating to 4% of the whole sample) recorded platelet counts below normal, while 2% of men and 7% of women recorded platelet counts above the normal range (RCPA, 2009).

Table 4.12.7 Platelet count levels

	Men		Women		Total	
	n	%	n	%	n	%
Below normal (<150 10^9/L)	23	4.2	2	1.7	25	3.7
Normal (150-400 10^9/L)	521	94.2	111	91.7	632	93.8
Above normal (>400 10^9/L)	9	1.6	8	6.6	17	2.5
Total	553	100.0	121	100.0	674	100.0

5. Health behaviours

5.1 Diet and nutrition

Diet is an important contributor to a range of health conditions including obesity, type 2 diabetes, hypertension, cardiovascular diseases, cancer, dental disease, and osteoporosis (Nishida et al., 2004). Evidence continues to accumulate that consumption of fresh fruit and vegetables reduces the risk of a variety of cancers (Bode & Dong, 2009; Vainio & Weiderpass, 2006; vant Veer et al., 2000); stroke (He et al., 2006); cardiovascular (Hung et al., 2004; vant Veer et al., 2000) and coronary heart (Dauchet et al., 2006; He et al., 2007) disease. Indeed, there appears to be a dose-response relationship between vegetable and fruit consumption and protection from ill health (CPHN, 2003). A widely cited randomised controlled trial conducted in the UK found that young prison inmates provided with dietary supplements including vitamins, minerals and essential fatty acids showed a 26% reduction in prison offences, including violence, compared with inmates administered placebo capsules (Gesch et al., 2002). These authors suggested that their results have direct implications for offenders consuming nutritionally poor diets in the community.

Australia's most recent adult National Nutrition Survey was conducted in 1995 in conjunction with the National Health Survey. Given the extent of public health education regarding sound nutrition since that time, it was not considered viable to include those results here for comparative purposes. Instead, the limited data on nutrition collected through the 2007-08 National Health Survey (ABS, 2009) are included. The Commonwealth Department of Health and Ageing is currently planning the development and implementation of an ongoing National Nutrition and Physical Activity Survey Program. The Survey Program will collect data on the food intake, physical activity participation and physical measurements of the Australian population through periodic surveys. The first survey is expected to commence in late 2009 and is expected to focus on Australian adults. The Department is also planning that the Survey Program will collect data on biomedical and other nutrition and physical activity indicators.

The NHMRC *Dietary Guidelines for Australian Adults* (NHMRC, 2003b) recommend that adults eat at least two pieces of fruit per day. Among 2009 IHS participants, men appeared to eat fruit more often than women: 67% of men, and 56% of women, reported eating fruit one or more times per day (Table 5.1.1). A further 16% of men and 19% of women reported eating fruit on at least three days per week. Three percent of men and 6% of women reported eating fruit less than monthly, including 15 men and eight women who reported eating fruit "never" or "rarely."

The 2007-08 National Health Survey (ABS, 2009) found that among Australia's general population, females aged 15 years and older were more likely than men of the same age to meet the recommended daily intake of fruit: 56% of women and 46% of men reported eating two or more pieces of fruit per day, whereas a total of 8% of men and 5% of women reported not eating fruit at all. It is important to remember that the questions asked in the National Health Survey and the IHS are not exactly the same, such that these data are indicative rather than directly comparable. Nevertheless, whereas in the community, men appear to eat less fruit than women, this pattern may in fact be reversed among prison inmates.

Table 5.1.1 Frequency of fruit consumption

	Men		Women		Total	
	n	%	n	%	n	%
More than daily	149	18.7	24	12.1	173	17.4
Once a day	384	48.3	86	43.4	470	47.3
3 - 6 days per week	129	16.2	37	18.7	166	16.7
1 - 2 days per week	101	12.7	24	12.1	125	12.6
At least monthly	11	1.4	16	8.1	27	2.7
Less than monthly	6	0.8	3	1.5	9	0.9
Rarely / never	15	1.9	8	4.0	23	2.3
Total	795	100.0	198	100.0	993	100.0

The NHMRC *Dietary Guidelines for Australian Adults* (NHMRC, 2003b) recommend that adults eat at least five serves of vegetables per day. There appeared to be no gender difference in the frequency with which 2009 IHS participants reported eating vegetables or salad, with 51% of men and 50% of women reporting eating vegetables/salad at least once per day (Table 5.1.2). Five percent of men and 4% of women reported eating vegetables/salad less than monthly, including 31 men and four women who reported eating vegetables or salad "never" or "rarely."

The 2007-08 National Health Survey (ABS, 2009) found that among Australia's general population, females aged 15 years and older were more likely than men of the same age to meet the recommended daily intake of vegetables: 10% of women and 7% of men reported eating five or more serves of vegetables per day, whereas a total of 0.8% of men and 0.6% of women reported not eating vegetables at all. Women in the community were also more likely than men to meet the recommended daily intake of both fruit and vegetables (8% versus 5%). General population surveys also indicate that, generally, as adults become older, their intake of both fruit and vegetables increases (e.g., ABS, 2009; CPHN, 2003). It is important to remember that the questions asked in the National Health Survey and the IHS are not exactly the same, such that these data are indicative rather than directly comparable. Nevertheless, whereas in the community, men appear to be less likely to eat vegetables than women, this gender difference may be eliminated among prison inmates.

Table 5.1.2 Frequency of vegetable/salad consumption

	Men		Women		Total	
	n	%	n	%	n	%
More than daily	54	6.8	10	5.1	64	6.4
Once a day	352	44.3	89	44.9	441	44.4
3-6 days per week	167	21.0	44	22.2	211	21.2
1-2 days per week	160	20.1	42	21.2	202	20.3
At least monthly	23	2.9	6	3.0	29	2.9
Less than monthly	8	1.0	3	1.5	11	1.1
Rarely / never	31	3.9	4	2.0	35	3.5
Total	**795**	**100.0**	**198**	**100.0**	**993**	**100.0**

Among 2009 IHS participants, men reported consuming bread more frequently than women: 76% of men reported eating bread or rolls on a daily basis, compared to 52% of women (Table 5.1.3). The majority of both men (95%) and women (87%) reported eating bread at least one day per week. A higher proportion of women than men (10% versus 3% of men) reported "rarely" or "never" eating bread or rolls.

Table 5.1.3 Frequency of bread or rolls consumption

	Men		Women		Total	
	n	%	n	%	n	%
More than daily	232	29.2	34	17.2	266	26.8
Once a day	372	46.8	68	34.3	440	44.3
3-6 days per week	81	10.2	27	13.6	108	10.9
1-2 days per week	72	9.1	43	21.7	115	11.6
At least monthly	11	1.4	4	2.0	15	1.5
Less than monthly	5	0.6	3	1.5	8	0.8
Rarely / never	22	2.8	19	9.6	41	4.1
Total	**795**	**100.0**	**198**	**100.0**	**993**	**100.0**

In the 2009 IHS, 83% of men and 80% of women reported "usually" adding a sweetener to their tea or coffee; note that "usually" may have included behaviours both while imprisoned and in the community. Forty five percent of men and 41% of women reported "usually" adding salt to their food without tasting it first. Almost half (48%) of men, and a slightly smaller proportion (45%) of women reported "usually" spreading butter or margarine on their bread either "medium" or "thickly", while 12% of men and 16% of women reported not using butter or margarine at all.

Consumption of fries/hot chips by 2009 IHS participants was reportedly much less frequent than consumption of either fruit or vegetables. No women and less than 1% of men reported consuming hot chips on a daily basis (Table 5.1.4); indeed, the majority of both men and women reported eating hot chips less than monthly, including 79% of men and 75% of women whose reported frequency of consumption of hot chips was "rarely" or "never."

Just over 13% of participants (13% of men, 16% of women) reported eating biscuits or cakes on a daily basis. A further 54% of men and 57% of women ate biscuits or cakes at least once a week, while only 18% of participants reported rarely or never eating them. Just over one in ten (11%) participants indicated eating sweets or lollies on a daily basis, while 40% of men and 47% of women ate them at least weekly. Just over a quarter (27%) indicated they rarely or never ate sweets or lollies, with a higher proportion of men (28%) reporting this than women (21%). It should be noted that these questions did not specify whether consumption of nutritionally poor food was in prison or in the community.

Table 5.1.4 Daily consumption of nutritionally poor foods

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Biscuits/Cakes	100	12.6	31	15.6	131	13.2
Sweets/Lollies	73	9.2	39	19.7	112	11.3
Hot chips/Fries	6	0.7	0	0.0	6	0.6
Total	795	100.0	198	100.0	993	100.0

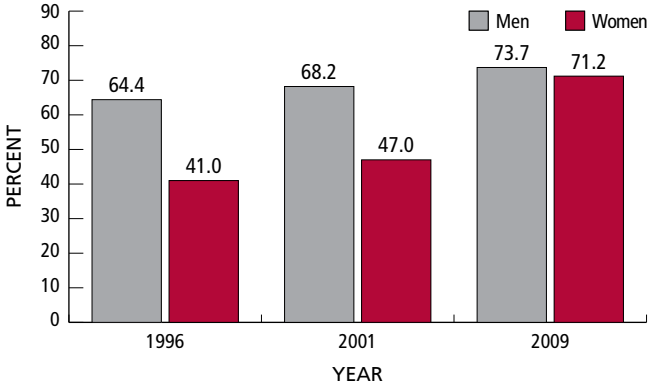
Prison inmates have little control over the food they are provided and its preparation. Inmates can, however, use their own funds to buy a range of items each week from a "buy up" list, which includes a number of foodstuffs. Participants in the 2009 IHS were asked to nominate the three most common food items purchased from the buy up list. The foodstuffs most commonly purchased by women tended to be sweet items, including biscuits/cakes (29%), noodles (29%), lollies (23%), eggs (19%), soft drinks (18%) and chocolate (17%) (Table 5.1.5). Among men, the most commonly purchased foodstuffs were more likely to be staple food items, including rice (27%), seafood (26%), noodles (25%), eggs (23%), meat (21%) and pasta (15%).

Table 5.1.5 Most common food items purchased from the prison buy-up list

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Noodles	198	24.9	57	28.8	255	25.7
Rice	212	26.7	27	13.6	239	24.1
Eggs	186	23.4	37	18.7	223	22.5
Seafood	208	26.2	14	7.1	222	22.4
Meat	166	20.9	5	2.5	171	17.2
Biscuits / cakes	107	13.5	58	29.3	165	16.6
Soft drinks	102	12.8	35	17.7	137	13.8
Pasta	118	14.8	8	4.0	126	12.7
Lollies	68	8.6	45	22.7	113	11.4
Vegetables	80	10.1	16	8.1	96	9.7
Chocolate	49	6.2	33	16.7	82	8.3
Milk	68	8.6	10	5.1	78	7.9
Chips	39	4.9	28	14.1	67	6.7
Bread	21	2.6	26	13.1	47	4.7
Cereal	34	4.3	13	6.6	47	4.7
Cheese	17	2.1	24	12.1	41	4.1
Spreads	20	2.5	3	1.5	23	2.3
Condiments	19	2.4	2	1.0	21	2.1
Crackers	6	0.8	13	6.6	19	1.9
Coffee / Tea	11	1.4	3	1.5	14	1.4
Nuts	8	1.0	5	2.5	13	1.3
Fruit	10	1.3	0	0.0	10	1.0
Milo	6	0.8	2	1.0	8	0.8
Butter / Margarine / Oil	5	0.6	1	0.5	6	0.6
Yoghurt	0	0.0	4	2.0	4	0.4
Cans of soup	1	0.1	1	0.5	2	0.2

The majority of both men (74%) and women (71%) reported dissatisfaction with the food they received in prison (Table 5.1.6). The proportion of IHS samples reporting dissatisfaction with prison food increased from 61% in 1996 to 65% in 2001 to 73% in 2009, although the increase has been far more dramatic among women (from 41% in 1996 to 71% in 2009) than among men (64% to 74%).

Table/Fig 5.1.6 Dissatisfaction with prison food



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	396	615	64.4	478	701	68.2	586	795	73.7
Women	48	117	41.0	70	149	47.0	141	198	71.2
Total	444	732	60.7	548	850	64.5	727	993	73.2

Among 2009 IHS participants who reported being unhappy with the food they received in prison, a range of reasons were offered, with no limit on the number of specific issues dissatisfied participants could raise (Table 5.1.7). Chief among the concerns of both men and women included that the food is of poor quality (74% of those who reported dissatisfaction) and is poorly prepared (63%), with specific concerns raised about the "cook-chill" method used to prepare prison food (63%), under which food is cooked to a "just done" state then immediately chilled (not frozen) for storage and later reheating. Women were more likely than men to consider that the food they were served lacked variety (70% versus 48%); that it was culturally insensitive (15% versus 10%); that they disliked fish (29% versus 22%); and/or that they were unhappy about their lack of control over eating times (27% versus 21%). Men were more likely than women to report that they bought and cooked their own food (34% versus 29%) and/or that insufficient quantity of food was provided (44% versus 39%).

Table 5.1.7 Reasons for dissatisfaction with prison food

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Poor quality	436	74.4	104	73.8	540	74.3
Poorly prepared	373	63.7	88	62.4	461	63.4
Concerned about 'cook-chill' method	367	62.6	89	63.1	456	62.7
Lacks variety	268	45.7	98	69.5	366	50.3
Unhealthy	243	41.5	73	51.8	316	43.5
Insufficient quantity	256	43.7	55	39.0	311	42.8
Buy and cook own food	200	34.1	41	29.1	241	33.1
Dislike fish	131	22.4	41	29.1	172	23.7
Lack of control over eating times	121	20.6	38	27.0	159	21.9
Food tampered with	124	21.2	26	18.4	150	20.6
Culturally insensitive	60	10.2	21	14.9	81	11.1

Some specific comments about the prison food included:

- 'A lot of rice, bread and cereal and not enough fresh vegetables. The meat is full of fat and puts fat on you.'
- 'All veg overcooked and the chicken is not cooked properly. The meat is old and tastes as if repeatedly frozen.'
- 'Just a big tray of slop.'
- 'Meals served too early then get hungry through the night.'
- 'Not enough fresh veggies and salad. Would like more variety of fruit and some dried fruit.'
- 'Scared about whether someone might have done something to it.'
- 'The fish is purple when you get it. Not good for your health.'
- 'Need fresh fruit and vegetables on buy-up list. Can't eat the supplied meals, have been gaining weight from 65kg to 111kg. My meds and heart problems are leading to a worsening depression.'

The majority of both men (60%) and women (65%) considered that the prison "buy up" list contained about the right number of "healthy" items (defined as foods that were low in fat, salt and sugar and high in fibre). One third (35%) of men and 26% of women perceived that there were too few healthy items available on the "buy up" list, while just 19 participants thought there were too many.

A majority of both men (59%) and women (62%) perceived prison food as "too unhealthy." Around one third (34%) considered that prison food was "about right" in terms of healthfulness, and just 20 participants (2% of the sample) reported that prison food was "too healthy". In keeping with the 60% of 2009 IHS participants who perceived the food they received in prison as "too unhealthy," just 36% of participants indicated they were satisfied with the range of healthy foods available in prison. Healthy foods were defined as those that are low in fat, salt and sugar and high in fibre. Women were more likely than men to report being unsatisfied with the range of healthy foods available in prison (62% versus 56%); while 7% of the sample were unsure whether they were satisfied.

One in eight (12%) 2009 IHS participants reported that they were on a special diet, with women more likely to report this was the case than men (16% versus 11%). Among those who reported being on a special diet in prison, the most common types of diets were low fat/low cholesterol (Table 5.1.8), with men substantially more likely to report being on such a diet than women (21% versus 13%). Vegetarian diets were the next most common type, with women substantially more likely to report being on a vegetarian diet than men (28% of women on a special diet versus 11% of men). Women were also more likely to report being on a diabetic diet (16% versus 9%), whereas men were substantially more likely than women to report not eating seafood (14% versus 0%). Fifteen percent of the total sample reported being on a pork-free diet.

Table 5.1.8 Types of special diets in prison (if on special diet)

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Low fat / low cholesterol	19	21.3	4	12.5	23	19.0
Vegetarian	10	11.2	9	28.1	19	15.7
Pork free	13	14.6	5	15.6	18	14.9
Diabetic	8	9.0	5	15.6	13	10.7
Seafood free	12	13.5	0	0.0	12	9.9
Other	40	44.9	13	40.6	53	43.8

More than half (55%) of 2009 IHS participants who reported being on a special diet also reported that they had problems receiving this diet in prison, with women substantially more likely to report this was the case than men (72% versus 48%). Among participants who reported problems in having their dietary requirements met while in prison, a range of problems were reported, with no limits on the number of problems that participants could report.

The most common issue reported by both men and women was that they simply did not receive their special diet, with women substantially more likely to report this was the case than men (74% versus 49%). Women were also more likely than men to report being unhappy with the food they were provided on their special diets (44% versus 30%); that they had problems obtaining approval for their special diets (26% versus 16%); that CSNSW officers made receipt of their special diets difficult (30% versus 14%); and that there were problems receiving their diets as a result of their being moved between prisons (35% versus 26%). Men were slightly more likely than women to report that the portion sizes they received on their special diets were too small (16% versus 13%).

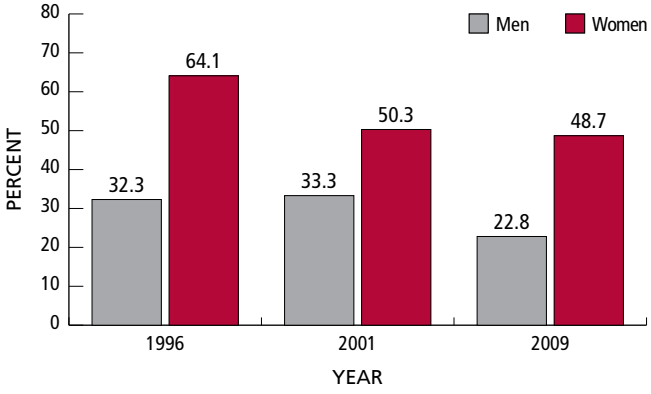
5.2 Physical activity

The numerous benefits of physical activity are well-documented. Sufficient physical activity decreases the risk of morbidity and mortality from a range of causes including coronary heart disease, cerebrovascular disease, colorectal cancer, Type 2 diabetes, chronic kidney disease, osteoarthritis and osteoporosis (AIHW, 2008a). Insufficient physical activity is closely associated with overweight and obesity, which are themselves risk factors for a range of chronic lifestyle diseases and conditions.

Sufficient physical activity is defined by the NSW Centre for Physical Activity and Health (Chau et al., 2007) as at least 150 minutes of walking, moderate and/or vigorous activity per week over at least five occasions. The IHS includes a series of questions about physical activity during the four weeks preceding the Survey; thus, *sufficient physical activity* is defined in this context as a minimum of 600 minutes of activity during the preceding four weeks (four weeks at 150 minutes per week); and *insufficient physical activity* is defined as less than 600 minutes of activity.

There was a decrease in the proportion of IHS participants, both men and women, who reported insufficient physical activity during the four weeks preceding the Survey, from 38% of the 1996 IHS sample, to 36% of the 2001 IHS sample, to 28% of the 2009 IHS sample (Table 5.2.1). The decrease appears to have been more marked among women (64% in 1996 to 49% in 2009) than among men (32% in 1996 to 23% in 2009).

Table/Fig 5.2.1 Insufficient physical activity during the past four weeks



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	211	654	32.3	249	747	33.3	180	788	22.8
Women	82	128	64.1	84	167	50.3	95	195	48.7
Total	293	782	37.5	333	914	36.4	275	983	28.0

Thus, as depicted in Table 5.2.1, the proportion of IHS participants who reported undertaking sufficient physical activity in the four weeks preceding the Survey increased from 62% in 1996 to 72% in 2009. This may reflect increases in physical activity among Australia's general population. For example, the proportion of people aged 16 years and over in NSW who undertook sufficient physical activity increased from 48% in 1998 to 51% in 2004, a change attributed largely to greater participation in walking (Chau et al., 2007).

Male 2009 IHS participants reported having undertaken substantially more physical activity in the four weeks preceding the interview than women (Table 5.2.2). Men reported having undertaken a median of 1980 minutes of activity in the preceding four weeks (equating to around 70 minutes per day or 8.25 hours per week). Women reported having undertaken a median of 620 minutes of physical activity in the preceding four weeks (equating to around 22 minutes per day or 2.6 hours per week).

Table 5.2.2 Physical activity duration (in minutes) during the past four weeks characteristics

	Men	Women	Total
N	788	195	983
Mean (± sd)	2838.5 (± 3108.8)	1072.2 (± 1459.4)	2488.1 (± 2943.3)
Median	1980.0	620.0	1680.0
Range	0 - 28080	0 - 10685	0 - 28080

Gender differences were also apparent in the types of physical activity that 2009 IHS participants had undertaken in the four weeks preceding the interview, with higher proportions of men undertaking more vigorous activities such as jogging, team sports, weight training and tennis or squash (Table 5.2.3). Among women, the most common types of physical activity undertaken were moderate walking (defined as continuous walking for at least ten minutes; 74% of women); vigorous walking (defined as sufficient to make participants "puff and pant"; 37%); stationary cycling on an exercise bike (25%); circuit training or aerobics (24%) and weight training (19%). Among men, the most common types of physical activity undertaken in the preceding four weeks were moderate walking (81%), weight training (50%), circuit training or aerobics (44%), vigorous walking (39%) and vigorous team activities such as football, soccer or cricket (39%).

Table 5.2.3 Types of physical activity during the past four weeks

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
No exercise	36	4.6	24	12.3	60	6.1
Moderate walking	648	81.4	146	74.1	794	80.0
Weight training	401	50.4	38	19.2	439	44.2
Circuit training / aerobics	350	44.0	48	24.2	398	40.0
Vigorous walking	310	38.9	73	37.1	383	38.6
Football / soccer / cricket	309	38.8	14	7.1	323	32.5
Running / jogging	259	32.6	29	14.6	288	29.0
Exercise bike	137	17.2	49	24.7	186	18.7
Tennis / squash	112	14.1	6	3.0	118	11.9
Basketball / netball	83	10.4	8	4.0	91	9.2
Other	216	27.1	78	39.4	294	29.6

Men also reported a longer duration of an average session of all types of physical activity undertaken during the preceding four weeks except for basketball/netball, which men reported engaging in for a median of 30 minutes per average session, while women reported a median of 38 minutes; and tennis or squash, in which women engaged for a median of 60 minutes per average session, compared to men's median duration of 45 minutes (Table 5.2.4). Compared to women, men reported undertaking substantially longer sessions of weight training (50 versus 25 minutes) and running/jogging (30 minutes versus 20 minutes).

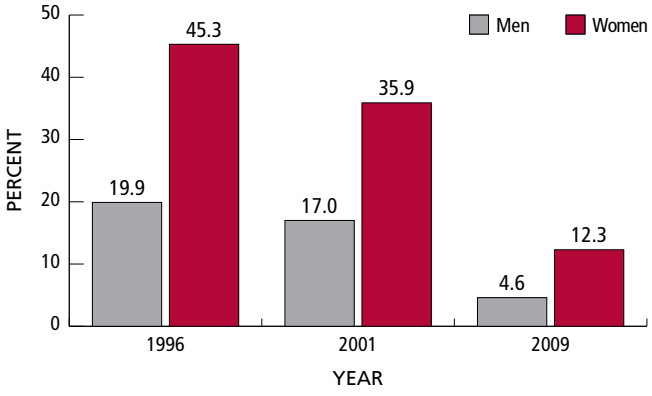
Table 5.2.4 Median duration (in minutes) by types of physical activity during the past four weeks

(Multiple response)	Men		Women		Total	
	n	Median	n	Median	n	Median
Football / soccer / cricket	308	60.0	14	30.0	322	60.0
Tennis / squash	112	45.0	6	60.0	118	45.0
Weight training	401	50.0	38	25.0	439	45.0
Circuit training / aerobics	349	45.0	48	30.0	397	45.0
Vigorous walking	310	40.0	73	30.0	383	30.0
Moderate walking	644	30.0	146	30.0	790	30.0
Running / jogging	259	30.0	29	20.0	288	30.0
Basketball / netball	83	30.0	8	37.5	91	30.0
Exercise bike	137	20.0	49	15.0	186	20.0
Other	215	30.0	77	30.0	292	30.0

Although these results are not directly comparable to any Australian or NSW general population survey of physical activity, they nevertheless appear relatively reflective of general patterns of physical activity. The 2007-08 National Health Survey (ABS, 2009) found that 65% of participants aged 15 years or older had exercised for fitness, sport or recreation in the two weeks preceding the Survey. Forty eight percent had walked in the preceding two weeks, whereas 36% did some form of moderate exercise (exercise which caused a moderate increase in heart rate or breathing) and 15% did some form of vigorous exercise (causing a large increase in heart rate or breathing). Women were more likely to report having walked for exercise than men (51% versus 44%), whereas men were more likely than women to do moderate (38% versus 33%) and vigorous (19% versus 11%) exercise. One quarter (24%) of those who exercised at a moderate level, and 21% of those who exercised vigorously, exercised seven times or more in the preceding two weeks. Eighty percent of moderate exercisers, and 85% of vigorous exercisers, reported that the average duration of each session was 30 minutes or more. Among those who walked for exercise, 37% did so seven times or more in the preceding two weeks, and 79% did so for an average of 30 minutes or more.

Just 6% of 2009 IHS participants reported having undertaken no physical activity during the four weeks preceding the Survey, a substantial decrease compared to the 2001 (21%) and 1996 (24%) IHS results (Table 5.2.5). Although the proportion of participants who reported having undertaken no physical activity decreased among both men and women, across all three IHSs, women were more likely than men to report this; for example, among 2009 IHS participants, 12% of women reported having undertaken no physical activity, compared with just 5% of men.

Table/Fig 5.2.5 No physical activity during the past four weeks



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	130	654	19.9	127	747	17.0	36	788	4.6
Women	58	128	45.3	60	167	35.9	24	195	12.3
Total	188	782	24.0	187	914	20.5	60	983	6.1

The 2007-08 National Health Survey (ABS, 2009) reported that one third (34%) of Australians aged 15 years or older had undertaken no physical activity at all in the two weeks preceding the interview. The questions asked in the National Health Survey and the IHS are not exactly the same, such that these data are indicative rather than directly comparable. The comparison nevertheless indicates that prison inmates may be substantially more physically active than Australia's general population.

Among 2009 IHS participants who had not undertaken any physical activity in the four weeks preceding the Survey, the most frequent reason given was for health reasons (62%), followed by "laziness" (27%). Women were more likely to cite health reasons for their lack of physical activity (71% versus 56%), whereas men were more likely to cite laziness (33% versus 17%).

Some specific reasons why participants did not exercise in prison included:

- 'The area to walk in prison is too boring.'
- 'The gym is not available when I have time.'
- 'My physical disability restricts me.'
- 'Nothing to do in the centre and feel too depressed to exercise.'
- 'Need more room for walking. Stuck in one little compound; can only walk round in circles. Need to walk on an oval at least twice a week. There is nothing to do, just sit around and go mad.'

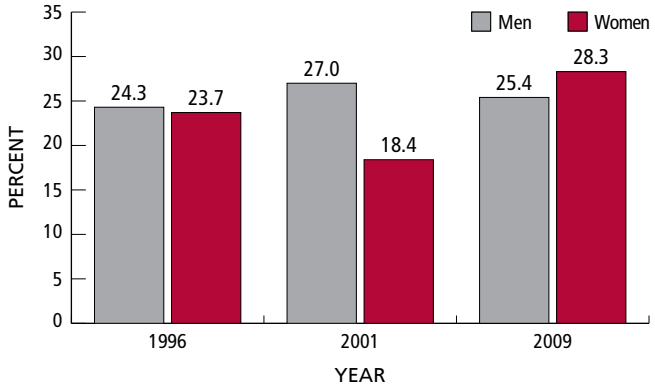
Three quarters (74%) of 2009 IHS participants described themselves as "fairly" or "very" physically active in the year preceding their incarceration (Table 5.2.6), with men slightly more likely than women to describe themselves in this manner (75% versus 72%).

Table 5.2.6 Physical activity in the year prior to incarceration

	Men		Women		Total	
	n	%	n	%	n	%
Very active	224	28.1	58	29.3	282	28.4
Fairly active	370	46.5	84	42.4	454	45.7
Not very active	146	18.3	36	18.2	182	18.3
Not at all active	56	7.0	20	10.1	76	7.6
Total	**796**	**100.0**	**198**	**100.0**	**994**	**100.0**

The proportion of IHS participants who described themselves as "not very" or "not at all" physically active in the year before their current incarceration remained relatively stable between 1996 and 2009, at around a quarter of participants (Table 5.2.7). Although women were substantially less likely than men to describe themselves in this manner in the 2001 IHS (18% versus 27%), the gender differential was much less marked in both 1996 and in 2009.

Table/Fig 5.2.7 Not very or not at all physically active in the year prior to incarceration



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	148	610	24.3	185	684	27.0	202	796	25.4
Women	28	118	23.7	26	141	18.4	56	198	28.3
Total	**176**	**728**	**24.2**	**211**	**825**	**25.6**	**258**	**994**	**26.0**

Just over half (52%) of 2009 IHS participants reported that they were as active, or more active, currently (i.e., during their present incarceration) than they were before they were imprisoned (Table 5.2.8). Women were substantially more likely than men to report being less active during their incarceration than prior to their imprisonment (64% versus 44%); conversely, men were substantially more likely to report that they were currently more active (41% versus 22%).

Table 5.2.8 Current physical activity rating in prison compared to the community

	Men		Women		Total	
	n	%	n	%	n	%
More active now	326	41.0	43	21.7	369	37.1
About the same	121	15.2	28	14.1	149	15.0
Less active now	349	43.8	127	64.1	476	47.9
Total	**796**	**100.0**	**198**	**100.0**	**994**	**100.0**

Forty five percent of 2009 IHS participants reported a history of participation in competitive contact sports (Table 5.2.9), with a substantially higher proportion of men than women reporting this to be the case (53% versus 12%). Various codes of football (39%) and amateur boxing (11%) were the most common competitive contact sports reported. Such high rates of participation may account, at least in part, for the striking prevalence of head injuries resulting in unconsciousness reported by this sample (see section 3.7).

Table 5.2.9 Ever participate in competitive contact sports

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
No competitive contact sports	373	47.0	175	88.4	548	55.2
Any competitive contact sports	421	53.0	23	11.6	444	44.8
Football	370	46.6	20	10.0	390	39.3
Amateur boxing	105	13.2	3	1.5	108	10.9
Professional boxing	14	1.8	1	0.5	17	1.7
Wrestling	13	1.6	0	0.0	13	1.3

5.3 Sun protection

Skin cancer is Australia's most common cancer, and Australia has the highest incidence of skin cancer in the world. In 2002, 374,000 Australians were treated for non-melanoma skin cancer, representing a more than 100 per cent increase since 1985. The risk of skin cancer can be dramatically reduced through decreased sun exposure, which can be achieved through simple measures such as wearing protective clothing, applying sunscreen, and avoiding the sun, particularly during peak ultraviolent radiation (UVR) hours in the middle of the day. The prison environment is such that inmates may spend prolonged periods in the sun in exercise yards and other outdoor areas.

Just under half (46%) of 2009 IHS participants reported deliberately wearing less clothing in order to get the sun on their skin at least sometimes (Table 5.3.1), with a substantially higher proportion of men than women reporting engaging in this behaviour (49% versus 34%). Men were also more likely to report deliberately wearing less clothing 'most of the time' in the sun (28% versus 11%). The National Sun Protection Survey 2006-07, which documented Australian adults' sun protective behaviours and sunburn during peak UVR times on summer weekends in 2006–07 (Dobbinson et al., 2008), found that among adults aged 18-69 years, 11% reported intentionally attempting to obtain a suntan during the 2006-07 summer. Although these figures are not directly comparable to IHS results due to the use of different questions, they do provide some context within which to interpret inmates' self-reported sun protection behaviours, and suggest that IHS participants may be less knowledgeable and/or concerned about the damaging effects of the sun than the broader population of Australian adults.

Table 5.3.1 Deliberately wear less clothing in order to get the sun on skin

	Men		Women		Total	
	n	%	n	%	n	%
Most of time	219	27.5	21	10.6	240	24.1
Sometimes	169	21.2	47	23.7	216	21.7
Rarely / never	408	51.3	130	65.7	538	54.1
Total	796	100.0	198	100.0	994	100.0

Just 39% of 2009 IHS participants reported wearing a hat or cap while in the sun 'most of the time' (Table 5.3.2). Women were more likely than men to report 'rarely' or 'never' wearing a hat or cap in the sun (55% versus 42%), while men were more likely to report wearing a hat or cap 'most of the time' (42% versus 25%). In the National Sun Protection Survey 2006-07 (Dobbinson et al., 2008), 50% of Australian adults aged 18-69 years reported wearing a hat or cap during their main outdoor activity during peak UVR hours. Men were more likely than women to report wearing such headwear (60% versus 38%). Again, these figures are not directly comparable to IHS results due to the use of different questions in the two Surveys. Nevertheless, the indication is that IHS participants may be less likely to engage in this important sun protection behaviour than the broader population of Australian adults, but that across both populations, men seem more likely to do so than women.

Table 5.3.2 Wear a hat or cap while in the sun

	Men		Women		Total	
	n	%	n	%	n	%
Most of time	336	42.2	50	25.3	386	38.8
Sometimes	126	15.8	39	19.7	165	16.6
Rarely / never	334	42.0	109	55.1	443	44.6
Total	**796**	**100.0**	**198**	**100.0**	**994**	**100.0**

Just 36% of 2009 IHS participants reported wearing sunglasses in the sun 'most of the time' (Table 5.3.3). Men were more likely than women to report 'rarely' or 'never' wearing sunglasses in the sun (50% versus 40%), while women were more likely to report wearing sunglasses 'most of the time' (43% versus 33%). In the National Sun Protection Survey 2006-07 (Dobbinson et al., 2008), 58% of Australian adults aged 18-69 years reported wearing sunglasses during their main outdoors activity during peak UVR hours on weekends of the 2006-07 summer. Women were more likely to report wearing sunglasses than men (63% versus 54%). Again, these figures are not directly comparable to IHS results due to the use of different questions in the two Surveys. Nevertheless, the indication is that IHS participants may be less likely to engage in this important sun protection behaviour than the broader population of Australian adults, but that across both populations, women may be more likely to do so than men.

Table 5.3.3 Wear sunglasses while in the sun

	Men		Women		Total	
	n	%	n	%	n	%
Most of time	268	33.7	85	42.9	353	35.5
Sometimes	132	16.6	33	16.7	165	16.6
Rarely / never	396	49.7	80	40.4	476	47.9
Total	**796**	**100.0**	**198**	**100.0**	**994**	**100.0**

Just 12% of 2009 IHS participants reported using sunscreen to protect their skin from the sun 'most of the time' (Table 5.3.4). Men were more likely than women to report 'rarely' or 'never' using sunscreen (75% versus 59%), while women were more likely to report using sunscreen 'most of the time' (22% versus 10%). In the National Sun Protection Survey 2006-07 (Dobbinson et al., 2008), 37% of Australian adults aged 18-69 years reported using 15+ sunscreen during their main outdoors activity during peak UVR hours on weekends of the 2006-07 summer. Women were more likely than men to report using 15+ sunscreen (49% versus 29%). Again, these figures are not directly comparable to IHS results due to the use of different questions in the two Surveys. Nevertheless, the indication is that IHS participants may be substantially less likely to engage in this important sun protection behaviour than the broader population of Australian adults, but that across both populations, women may be more likely to do so than men.

Table 5.3.4 Use sunscreen to help protect skin from the sun

	Men		Women		Total	
	n	%	n	%	n	%
Most of time	80	10.1	43	21.7	123	12.4
Sometimes	118	14.8	38	19.2	156	15.7
Rarely / never	598	75.1	117	59.1	715	71.9
Total	**796**	**100.0**	**198**	**100.0**	**994**	**100.0**

The majority (76%) of 2009 IHS participants reported having access to sunscreen in their Correctional Centre (Table 5.3.5). Just under 10% of the 2009 IHS sample were unaware of whether they were able to access sunscreen in their Correctional Centre.

Table 5.3.5 Have access to sunscreen in Correctional Centre

	Men		Women		Total	
	n	%	n	%	n	%
No	117	14.7	27	13.6	144	14.5
Yes	610	76.6	146	73.7	756	76.1
Don't know	69	8.7	25	12.6	94	9.5
Total	**796**	**100.0**	**198**	**100.0**	**994**	**100.0**

Of concern is the length of time 2009 IHS participants reported spending in the sun each day (Table 5.3.6), particularly given the relatively low proportions of participants who reported engaging in simple sun protection behaviours such as wearing hats and using sunscreen. More than one third (38%) of participants reported spending an average of four or more hours in the sun each day, with a slightly higher proportion of women than men reporting this to be the case (41% versus 37%). Just 33% of men and 35% of women reported spending an average of less than two hours in the sun each day. Reported amount of time spent in the sun was substantially higher than among Australian adults aged 18-69 years responding to the National Sun Protection Survey 2006-07, who reported a mean of less than two hours (116 minutes) spent outdoors during peak UVR hours on at least one day of the weekend preceding the Survey (Dobbinson et al., 2008). In this Survey, a higher proportion of men than women reported they were outdoors on the weekend (75% versus 59%). In addition, men spent a greater amount of time outdoors (127 minutes on average) than women (102 minutes). Seventeen male 2009 IHS participants indicated they spent no time in the sun on an average day, which may be due to prolonged cell time. These individuals may be at risk of developing Vitamin D deficiency.

Table 5.3.6 Time spent in the sun on an average day

	Men		Women		Total	
	n	%	n	%	n	%
None	17	2.1	0	0.0	17	1.7
< 1 hour	92	11.6	29	14.6	121	12.2
1 - < 2 hours	157	19.7	41	20.7	198	19.9
2 - < 4 hours	232	29.1	47	23.7	279	28.1
4 - < 6 hours	193	24.2	59	29.8	252	25.4
6+ hours	105	13.2	22	11.1	127	12.8
Total	**796**	**100.0**	**198**	**100.0**	**994**	**100.0**

Given the amount of time spent in the sun and the relatively low rates of reported sun protection behaviours among 2009 IHS participants, it is somewhat reassuring that more than half (56%) of participants reported that they did not get sunburnt during the summer preceding the Survey (Table 5.3.7). A substantially higher proportion of men than women reported having been sunburnt at least once during the preceding summer (46% versus 35%). Nineteen percent of men and 16% of women reported having been sunburnt three or more times during that period. Among respondents to the National Sun Protection Survey 2006-07 (Dobbinson et al., 2008), 14% of adults aged 18-69 years reported being sunburnt on at least one day of the weekend prior to the Survey. Sunburn on summer weekends was slightly more common among men than women (15% versus 12%).

Table 5.3.7 How often sunburnt last summer

	Men		Women		Total	
	n	%	n	%	n	%
Not at all	428	53.8	128	64.6	556	55.9
Once	104	13.1	20	10.1	124	12.5
Twice	109	13.7	19	9.6	128	12.9
3 - 4 times	71	8.9	19	9.6	90	9.1
5+ times	79	9.9	12	6.1	91	9.2
Don't know	5	0.6	0	0.0	5	0.5
Total	**796**	**100.0**	**198**	**100.0**	**994**	**100.0**

The majority (76%) of 2009 IHS participants reported that their skin had not been checked (by themselves or anyone else) for pre-cancerous changes in the year preceding the Survey (Table 5.3.8). There was no difference in the proportion of men and women who reported this to be the case (76% versus 74%). Among respondents to the National Sun Protection Survey 2006-07 (Dobbinson et al., 2008), 42% of adults aged 18-69 years reported that a doctor had checked their skin for pre-cancerous changes. The majority (67%) of those who had a check reported that it was done by a general practitioner, while 22% had their skin checked at a specialist skin cancer clinic, 9% had their skin checked by a dermatologist, 0.9% at a public hospital, and 1.6% elsewhere. Again, these figures are not directly comparable to IHS results due to the use of different questions in the two Surveys. Nevertheless, the indication is that IHS participants may be substantially less likely to engage in this important screening exercise than the broader population of Australian adults.

Table 5.3.8 How often checked skin for pre-cancerous changes in the last year

	Men		Women		Total	
	n	%	n	%	n	%
Not at all	606	76.1	147	74.2	753	75.8
Once	61	7.7	24	12.1	85	8.6
Twice	37	4.6	9	4.5	46	4.6
3 - 4 times	20	2.5	5	2.5	25	2.5
5+ times	71	8.9	12	6.1	83	8.4
Don't know	1	0.1	1	0.5	2	0.2
Total	796	100.0	198	100.0	994	100.0

5.4 Smoking

Tobacco smoking is the single most preventable cause of ill health and death. As a major risk factor for coronary heart disease, stroke, peripheral vascular disease, cancer and a variety of other diseases and conditions (AIHW, 2008b), it is estimated to be responsible for 7.8% of the burden of disease of Australians: around 10% of the total burden of disease in men and 6% in women (Begg et al., 2007). The tangible costs of tobacco use in Australia were estimated to be $12.0 billion in 2004 – 05 (Collins & Lapsley, 2008), equating to about 1.3% of gross domestic product. Major gains in reducing the prevalence of smoking among Australia's general population have been made in the last two decades; however, smoking rates are markedly higher among some population groups, including Aboriginal and Torres Strait Islander people, people from culturally and linguistically diverse backgrounds, people suffering from mental and substance use disorders, prison inmates (Baker et al., 2006), and people of lower socio-economic status (AIHW, 2008b). The continued high rates of smoking among such sub-populations underlie the assertion that tobacco use, more than any other lifestyle factor, contributes to the gap in healthy life expectancy between those most advantaged and those most in need (MCDS, 2004).

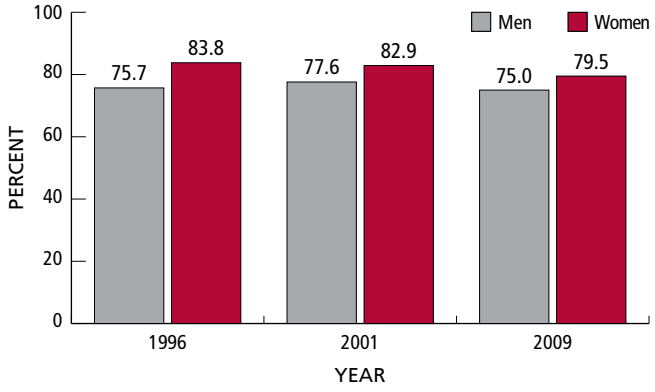
Smoking habits

Among 2009 IHS participants, 91% of men and 90% of women reported having smoked a full cigarette at some time in their lives. Although not directly comparable, some context to these prevalence estimates is provided by the 2007 National Drug Strategy Household Survey (NDSHS; AIHW, 2008c), a survey on drug use knowledge, attitudes and behaviours of a stratified random sample of Australian households, based on a sample of 23,356 participants. The 2007 NDSHS found that 45% of Australians aged 14 years and older had smoked at least 100 cigarettes or the equivalent amount of tobacco in their lifetime, a decline from the 2004 level of 47%.

The proportion of IHS participants who reported being a current cigarette smoker remained relatively stable across the years in which the Surveys have been conducted, at around three quarters of each sample (Table 5.4.1). In all IHSs, a higher proportion of women than men reported current smoking; in 2009, this gender differential translated to 75% of men versus 80% of women.

The current smoking prevalence estimate among inmates is around four times higher than among the general population of Australian adults. The 2007 NDSHS (AIHW, 2008c) found that 19% of Australians aged 14 years or older had used tobacco in the preceding year, and that 17% smoked daily in 2007. This rate of daily smoking continued the substantial decline observed since the inception of the Household Surveys, from 25% in 1993 to 17% in 2004. Thus, not only are the rates of smoking higher among prison inmates than among the general population, rates among inmates have also failed to reflect the substantial decline observed among the general population in recent decades. In the 2007 NDSHS, males were generally more likely to be daily smokers than females across all age groups except among 14-19 year olds, where females were more likely than males to be daily smokers (9% versus 6%).

Table/Fig 5.4.1 Current smoker



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	468	618	75.7	543	700	77.6	591	788	75.0
Women	98	117	83.8	126	152	82.9	151	190	79.5
Total	566	735	77.0	669	852	78.5	742	978	75.9

Among 2009 IHS participants who reported currently smoking tobacco, 94% reported smoking daily (Table 5.4.2), including 94% of men and 96% of women. Women reported heavier tobacco consumption in terms of number of cigarettes, being more likely than men to report smoking eleven or more cigarettes (74% versus 64%).

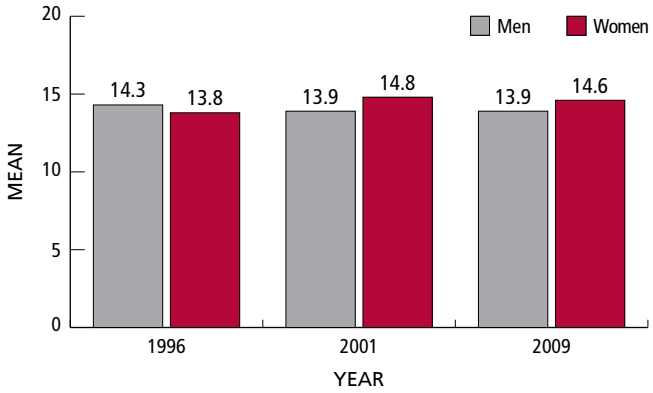
Table 5.4.2 Number of cigarettes per day (if current smoker)

	Men		Women		Total	
	n	%	n	%	n	%
Occasionally, less than weekly	7	1.2	1	0.7	8	1.1
Occasionally, at least weekly	28	4.7	5	3.3	33	4.4
5 - 10 a day	180	30.5	33	21.9	213	28.7
11 - 20 a day	233	39.4	66	43.7	299	40.3
21 - 30 a day	105	17.8	36	23.8	141	19.0
31+ a day	38	6.4	10	6.6	48	6.5
Total	591	100.0	151	100.0	742	100.0

The great majority (96%) of 2009 IHS participants who reported currently smoking tobacco further reported smoking mainly hand-rolled cigarettes, including 97% of men and 91% of women. This is presumably a function of the availability of pouches of tobacco in prison relative to factory-made cigarettes. Seventy-four percent of men, and 76% of women, reported smoking at least one 50 gram pouch of rolling tobacco per week. These hand-rolled cigarettes are more likely to be smoked without filters, thereby increasing the amount of tar inhaled.

Among IHS participants who had smoked a full cigarette, the mean age of initiation remained relatively stable between 1996 and 2009, at around 14 years of age for both men and women (Table 5.4.3). This is somewhat younger than the mean age of initiation into tobacco smoking among smokers in the general population, which in 2007 was reported to be 15.1 years of age among men, and 16.1 years among women (AIHW, 2008c).

Table/Fig 5.4.3 Mean age of initiation into cigarette smoking



	1996		2001		2009	
	n	Mean (± sd) Range	n	Mean (± sd) Range	n	Mean (± sd) Range
Men	525	14.3 (±4.7) 5 – 46	622	13.9 (±4.7) 4 – 50	710	13.9 (±4.7) 4 – 51
Women	106	13.8 (±4.7) 7 – 48	135	14.8 (±5.4) 5 – 40	170	14.6 (±6.4) 4 – 58
Total	631	14.2 (±4.7) 5 – 48	757	14.1 (±4.8) 4 – 50	880	14.0 (±5.1) 4 – 58

Almost half (49%) of current smokers who participated in the 2009 IHS reported that they smoked more while in prison than when in the community, with women more likely than men to report that this was the case (53% versus 48%) (Table 5.4.4). Twenty three percent of both men and women reported that they smoked equivalent amounts of tobacco in prison and in the community, whereas men were more likely than women to report smoking less in prison (29% versus 25%).

Table 5.4.4 Tobacco consumption in prison relative to in the community (if current smoker)

	Men		Women		Total	
	n	%	n	%	n	%
More now	285	48.2	80	53.0	365	49.2
About the same	136	23.0	34	22.5	170	22.9
Less now	170	28.8	37	24.5	207	27.9
Total	591	100.0	151	100.0	742	100.0

Among current smokers, 46 men and eight women reported having not smoked tobacco in the year prior to their current incarceration. Of these, 44 men and eight women reported having resumed tobacco smoking following their incarceration.

Smoking cessation (current smokers)

Over two-thirds (70%) of current smokers had attempted to quit smoking, with slightly more men (63%) having tried than women (58%). Among 2009 IHS participants who reported having made at least one attempt to quit smoking in the past, more than half (55%) further reported that their most recent quit attempt had occurred within the preceding year (Table 5.4.5). Men were more likely than women to report having made an attempt to quit within the preceding year (58% of men who had attempted to quit versus 46% of women). Twenty one percent of men and 26% of women reported that their most recent quit attempt was three or more years preceding the Survey.

Table 5.4.5 Timing of most recent attempt to quit smoking (if current smoker and ever tried to quit)

	Men		Women		Total	
	n	%	n	%	n	%
In last month	88	20.8	11	11.7	99	19.1
1 - <6 months ago	93	22.0	17	18.1	110	21.3
6 - <12 months ago	62	14.7	15	16.0	77	14.9
1 - <3 years ago	92	21.7	27	28.7	119	23.0
3 - <5 years ago	30	7.1	9	9.6	39	7.5
5+ years ago	58	13.7	15	16.0	73	14.1
Total	**423**	**100.0**	**94**	**100.0**	**517**	**100.0**

Among the 517 IHS participants in 2009 who were current smokers and who reported having attempted to quit, well over half (63%) reported having made a quit attempt while in prison, with a substantially higher proportion of men than women reporting this to be the case (68% versus 40%).

Among those who had made a quit attempt in prison, 74% (73% of men and 76% of women) reported that it was harder to attempt to quit in this environment than while in the community (Table 5.4.6). On the other hand, 14% (14% of men and 13% of women) reported that quitting was equally difficult in prison and in the community; and 12% (13% of men and 11% of women) reported that they found it easier to quit while in prison.

Table 5.4.6 Easier or harder to quit smoking in prison than in community (if current smoker and ever tried to quit smoking in prison)

	Men		Women		Total	
	n	%	n	%	n	%
Easier in prison	36	12.5	4	10.5	40	12.3
About the same	41	14.3	5	13.2	46	14.2
Harder in prison	210	73.2	29	76.3	239	73.5
Total	**287**	**100.0**	**38**	**100.0**	**325**	**100.0**

Although 55% of current smokers who had made at least one attempt to quit reported having done so within the last year (see Table 5.4.5), 82% reported having implemented at least one strategy designed to reduce the harm associated with smoking during that period (Table 5.4.7). More than half (56%) reported having reduced their quantity of cigarettes per day, and 46% reported having made an unsuccessful quit attempt. Eighteen percent had successfully quit for more than one month and 9% had changed to a lower tar cigarette brand. A small proportion (4%) reported having attended a prison Quit Smoking program within the preceding year. Men were more likely than women to report having successfully stopped smoking for more than one month (20% versus 10%) and to have made an unsuccessful quit attempt (49% versus 33%), whereas women were more likely to report changing to a lower tar brand of tobacco (16% versus 8%).

Table 5.4.7 Use of strategies in the past year designed to reduce the harm associated with smoking (if current smoker and ever tried to quit smoking)

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Reduced amount smoked per day	240	56.9	49	52.1	289	56.0
Tried unsuccessfully to give up smoking	208	49.3	31	33.0	239	46.3
Successfully given up smoking >1 month	86	20.4	9	9.6	95	18.4
Used nicotine replacement therapy	53	12.6	11	11.7	64	12.4
Changed to lower tar cigarette brand	32	7.6	15	16.0	47	9.1
Attended QUIT smoking program in prison	19	4.5	1	1.1	20	3.9
Other	44	10.4	7	7.4	51	9.9

Forty four percent of current smokers who had made an attempt to quit smoking reported having ever tried nicotine replacement therapy (NRT), including 44% of both men and women (Table 5.4.8).

Table 5.4.8 Ever tried nicotine replacement therapy to quit smoking (if current smoker and ever tried to quit)

	Men		Women		Total	
	n	%	n	%	n	%
Yes	187	44.2	41	43.6	228	44.1
No	236	55.8	53	56.4	289	55.9
Total	423	100.0	94	100.0	517	100.0

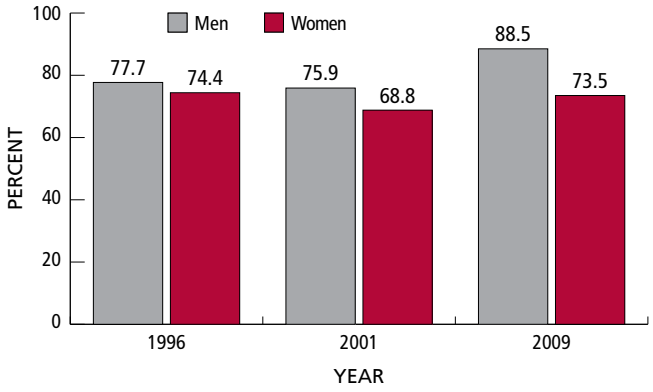
Among smokers who had attempted to quit, 63% said they would try nicotine patches to help them quit while they were in prison if they were provided free of charge; 43% reported that they would try them if they were cheaper than cigarettes; and 27% reported they would try patches if they were the same price as cigarettes in prison (Table 5.4.9).

Table 5.4.9 Hypothetical NRT cost scenarios (if current smoker and ever tried to quit)

I would use NRT in prison if the cost was: (Multiple response)	Men		Women		Total	
	n	%	n	%	n	%
The same price as cigarettes	103	24.3	34	36.2	137	26.5
Cheaper than cigarettes	174	41.1	48	51.1	222	42.9
Free	272	64.3	56	59.6	328	63.4

The proportion of IHS participants who reported both being current smokers and that they would like to quit smoking increased from 77% in 1996 to 85% in 2009, following a slight decline to 75% in 2001 (Table 5.4.10). In all years in which the IHS has been conducted, men who currently smoke have been more likely than women to report a desire to quit smoking; among 2009 IHS participants, this gender differential translated to 89% of men compared with 74% of women.

Table/Fig 5.4.10 Like to quit smoking (if current smoker)



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	362	466	77.7	412	543	75.9	523	591	88.5
Women	73	98	74.4	86	125	68.8	111	151	73.5
Total	435	564	77.1	498	668	74.6	634	742	85.4

Two thirds (65%) of 2009 IHS participants who reported that they would like to quit smoking further reported that they required assistance to help them achieve this outcome, including 70% of the 78 women and 64% of the 223 men who reported wanting to quit.

Eighty six percent of current smokers who participated in the 2009 IHS considered themselves to be "addicted to smoking," including 91% of women who currently smoked, and 85% of men. Women were slightly more likely than men to report feeling unsure whether they were addicted to smoking (3% versus 1%).

What would assist you to quit smoking:

- 'A program for people who have heart problems, who can't use NRT.'
- 'Bit more exercise. When stuck in one spot, you smoke more.'
- 'Put me in a place where they don't sell it. Not being around people that smoke.'
- 'Free patches, counselling and support.'
- 'If a doctor gives me a wake up call telling me if I don't stop I will die soon.'

Non-smokers

Among the 142 current non-smokers who participated in the 2009 IHS, more than three quarters (78%) were in fact "ex-smokers", defined for the purposes of this Survey as having smoked at least 100 full cigarettes in their lives (Table 5.4.11). Men were more likely to be classed as ex-smokers than women (81% versus 58%). Just 24 men (20% of current non-smoking men) and 8 women (42% of current non-smoking women) were classed as having never smoked, defined for the purposes of this study as having smoked less than 100 cigarettes in their lives.

Table 5.4.11 Smoking history (if non-smoker)

	Men		Women		Total	
	n	%	n	%	n	%
Never smoked	24	19.5	8	42.1	32	22.5
Ex-smoker	99	80.5	11	57.9	110	77.5
Total	123	100.0	19	100.0	142	100.0

Among the 110 ex-smokers, equal proportions had quit in the past year (34%) as had quit more than five years previously (35%) (Table 5.4.12). However, a greater proportion of women than men had quit five or more years ago (55% versus 33%).

Table 5.4.12 When quit smoking (if ex-smoker)

	Men		Women		Total	
	n	%	n	%	n	%
In last year	33	33.3	4	36.4	37	33.6
1-<3 years ago	23	23.2	1	9.1	24	21.8
3-<5 years ago	11	11.1	0	0.0	11	10.0
5-<10 years ago	11	11.1	2	18.2	13	11.8
10+ years ago	21	21.2	4	36.4	25	22.7
Total	99	100.0	11	100.0	110	100.0

The main factor that helped participants to quit smoking was concerns for their health, reported by 53% of ex-smokers (Table 5.4.13). Ten men and no women indicated support from family and friends was an important aid in quitting smoking.

Table 5.4.13 What helped you to quit smoking (if ex-smoker)

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Health concerns	52	52.5	6	54.6	58	52.7
Nicotine replacement therapy	12	12.1	2	18.2	14	12.7
Support family/ friends	10	10.1	0	0.0	10	9.1
Financial concerns	9	9.1	0	0.0	9	8.2
Desire set good example for kids	5	5.1	1	9.1	6	5.5
Other	34	34.3	4	36.4	38	34.6
Total	99	100.0	11	100.0	110	100.0

What helped you to quit smoking (among ex-smokers):

- '50th birthday and wife died of lung cancer.'
- 'Didn't like smoking. Could see the difference with my breathing when I stopped.'
- 'Looked at my faith in the bible and decided to make a change.'
- 'Mother made me smoke a whole packet of cigarettes. Never smoked since.'
- 'Sick and tired of fingers being yellow and coughing everyday and people wanting smokes off me.'

More than two-thirds of ex-smokers had made only one or two quit smoking attempts before they managed to quit (Table 5.4.14), with women more likely to quit smoking than men after just one or two attempts (82% versus 67%).

Table 5.4.14 Number of quit attempts (if ex-smoker)

	Men		Women		Total	
	n	%	n	%	n	%
1 - 2	66	66.7	9	81.8	75	68.2
3 - 5	17	17.2	2	18.2	19	17.3
6 - 10	4	4.0	0	0.0	4	3.6
11+	6	6.1	0	0.0	6	5.5
Don't know	6	6.1	0	0.0	6	5.5
Total	99	100.0	11	100.0	110	100.0

Environmental tobacco smoke

The majority (72%) of 2009 IHS participants considered that smoking should be prohibited in enclosed public areas in prison, such as workplaces, study areas, visiting areas and study areas, with women more likely than men to report this opinion (78% versus 71%). Five percent of men and 4% of women reported being unsure whether smoking should be prohibited in enclosed public spaces (Table 5.4.15).

Table 5.4.15 Think smoking should be allowed in enclosed public areas of prison

	Men		Women		Total	
	n	%	n	%	n	%
Yes	190	24.1	34	17.9	224	22.9
No	559	70.9	149	78.4	708	72.4
Don't know	39	4.9	7	3.7	46	4.7
Total	**788**	**100.0**	**190**	**100.0**	**978**	**100.0**

Feelings about increased restrictions on smoking areas in prison:

- 'Already enough restrictions.'
- 'As long as I can still smoke in the yard or my cell, that's OK.'
- 'Be happy with it. Should be banned altogether in confined spaces.'
- 'It would mean a lot more people will stop smoking. It's a good thing.'
- 'I'm not sure. Smoking is the only social thing in the gaol.'
- 'It would piss me off. At the same time it would be good.'
- 'It's got to be better for our health but it will stress a lot of people out and it will cause more tension.'
- 'Should be able to smoke in cells as there are more deaths in custody when can't smoke. Need a cigarette to calm them down.'
- 'Would cause problems in the gaol but inmates who want to give up should be in a room by themself. I think the visit area should be smoke free.'

More than half (55%) of 2009 IHS participants reported currently sharing a cell with a smoker, including 56% of men and 54% of women (Table 5.4.16).

Table 5.4.16 Currently share a cell with a smoker

	Men		Women		Total	
	n	%	n	%	n	%
Yes	437	55.5	102	53.7	539	55.1
No	351	44.5	88	46.3	439	44.9
Total	**788**	**100.0**	**190**	**100.0**	**978**	**100.0**

Close to one third (32%) of 2009 IHS participants reported that they had experienced adverse effects from passive smoking (the effects of other people's smoke) in the preceding year (respondents were specifically instructed to exclude experiences of "just disliking the smoke") (Table 5.4.17). Women were more likely than men to report adverse effects from passive smoking (37% versus 30%), while 6 men and 1 woman (<1% of the sample) reported being unsure whether they had experienced adverse effects from passive smoking.

Table 5.4.17 Felt adverse effects from second hand smoke in last year

	Men		Women		Total	
	n	%	n	%	n	%
Yes	238	30.2	71	37.4	309	31.6
No	544	69.0	118	62.1	662	67.7
Don't know	6	0.8	1	0.5	7	0.7
Total	**788**	**100.0**	**190**	**100.0**	**978**	**100.0**

The great majority (93%) of 2009 IHS participants were of the opinion that non-smokers should not be forced to share a cell with a smoker, including 93% of both men and women. Four percent of men and 2% of women were unsure of their opinion on this issue (Table 5.4.18).

Table 5.4.18 Think non-smokers should have to share cells with smokers

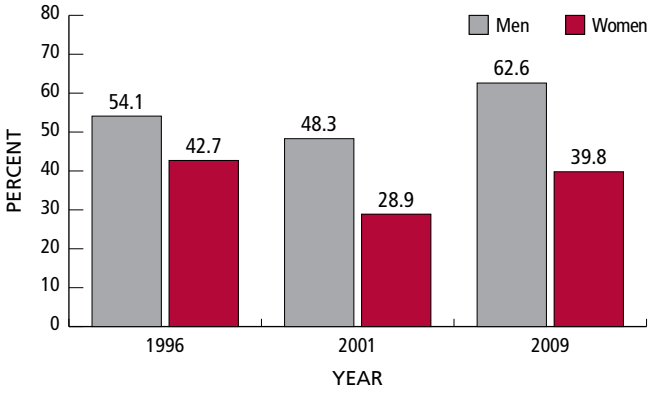
	Men		Women		Total	
	n	%	n	%	n	%
Yes	22	2.8	9	4.7	31	3.2
No	736	93.4	177	93.2	913	93.4
Don't know	30	3.8	4	2.1	34	3.5
Total	**788**	**100.0**	**190**	**100.0**	**978**	**100.0**

5.5 Alcohol

The World Health Organization's Alcohol Use Disorders Identification Test (AUDIT; Saunders et al., 1993) was used to assess the risk posed by IHS participants' self-reported alcohol consumption in the year prior to their current imprisonment. The AUDIT categorises alcohol consumption into 'safe,' 'hazardous' and 'harmful' levels, using a cut-off score of 8 to identify hazardous drinking, 16 to identify harmful drinking and 20 to identify dependent drinking (Babor et al., 2001).

The proportion of IHS participants who were classified by the AUDIT as having engaged in hazardous or harmful (scoring 8 or more) alcohol consumption in the year prior to their imprisonment varied from 52% in 1996 to 45% in 2001 to 58% in 2009 (Table 5.5.1). Excluding considerations of the 2001 prevalence estimates, the overall increase in reports of hazardous or harmful alcohol consumption between 1996 and 2009 occurred among men (from 54% among 1996 participants to 63% among 2009 participants), but decreased among women (43% among 1996 participants compared to 40% of 2009 participants).

Table/Fig 5.5.1 Hazardous/harmful alcohol consumption (AUDIT score 8+) in year before prison



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	329	608	54.1	338	700	48.3	493	788	62.6
Women	50	117	42.7	44	152	28.9	76	191	39.8
Total	379	725	52.3	382	852	44.8	569	979	58.1

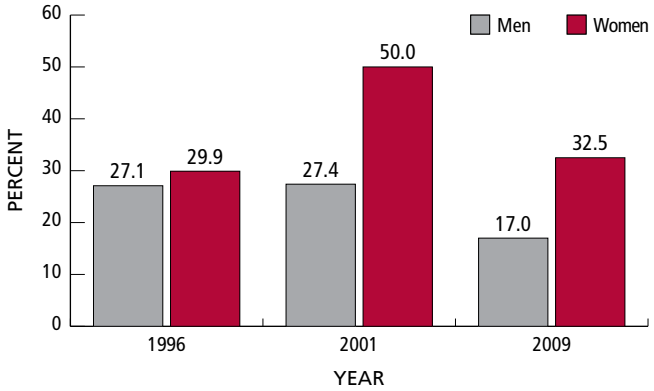
The AUDIT scores of 2009 IHS participants were categorised to examine in more detail the hazards of participants' self-reported alcohol consumption levels in the year preceding their current incarceration. Women were substantially more likely than men to report not having consumed alcohol at all or low risk alcohol consumption during that period (60% versus 37%) (Table 5.5.2). More than one third (35%) of men and one in six women (16%) reported alcohol consumption at levels indicative of alcohol dependence.

Table 5.5.2 Risky drinking in year before prison (AUDIT score categories)

	Men		Women		Total	
	n	%	n	%	n	%
0 (non-drinker)	134	17.0	62	32.5	196	20.0
1 - 7 (low risk drinker)	161	20.4	53	27.7	214	21.9
8 - 15 (hazardous drinker)	151	19.2	32	16.8	183	18.7
16 - 19 (harmful drinker)	70	8.9	14	7.3	84	8.6
20+ (dependent drinker)	272	34.5	30	15.7	302	30.8
Total	788	100.0	191	100.0	979	100.0

The proportion of IHS participants who reported no alcohol consumption in the year prior to their current imprisonment increased from 28% in 1996 to 32% in 2001, and then declined to 20% among 2009 participants (Table 5.5.3). A higher proportion of women than men reported not drinking alcohol at all in the year prior to their imprisonment in all years in which the IHS has been conducted; in 2009, this gender differential translated to 17% of men and 33% of women who reported not consuming alcohol during this period. If the participant indicated no alcohol consumption in the year before prison, they were not asked further AUDIT questions (as per current AUDIT guidelines), despite some of the questions being focused on alcohol problems that may have happened over a lifetime.

Table/Fig 5.5.3 No alcohol consumption in the year before prison



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	165	608	27.1	192	700	27.4	134	788	17.0
Women	35	117	29.9	76	152	50.0	62	191	32.5
Total	200	725	27.6	268	852	31.5	196	979	20.0

Along with the 20% of 2009 IHS participants who reported zero alcohol consumption in the year prior to imprisonment, a further 15% (14% of men and 18% of women) reported having consumed alcohol monthly or less frequently during that period, with a similar proportion (15%, including 14% of men and 17% of women) reporting drinking weekly or less often over that year (Table 5.5.4). One-fifth (19%) of participants reported having consumed alcohol on two or three days per week, with a higher proportion of men than women reporting this to be the case (21% versus 13%); while 31% (34% of men and 19% of women) reported having drunk alcohol on 4 or more days per week in the year prior to their imprisonment.

Table 5.5.4 How often had drink in year before prison

	Men		Women		Total	
	n	%	n	%	n	%
Never	134	17.0	62	32.5	196	20.0
Monthly or less	113	14.3	34	17.8	147	15.0
2 - 4 times a month	111	14.1	33	17.3	144	14.7
2 - 3 times a week	164	20.8	25	13.1	189	19.3
4+ times a week	266	33.8	37	19.4	303	30.9
Total	**788**	**100.0**	**191**	**100.0**	**979**	**100.0**

A concerning 41% of the 2009 IHS sample reported drinking ten or more standard drinks on a typical day they consumed alcohol in the year prior to their imprisonment (Table 5.5.5), clearly far in excess of the NHMRC's (2009) guidelines on safe drinking levels, which recommend that healthy men and women who seek to reduce the lifetime risk of harm from alcohol-related disease and injury should drink no more than two standard drinks on any one day; and that healthy men and women who seek to reduce the risk of alcohol-related injury should drink no more than four standard drinks on any one day. Men were substantially more likely than women to report drinking ten or more standard drinks on a typical drinking day in the year prior to their incarceration (47% versus 19%). On the other hand, women were substantially more likely than men to report not drinking at all or low risk drinking (one or two standard drinks per day) during that period (47% of women versus 25% of men).

Table 5.5.5 Number of drinks on a typical day in year before prison

	Men		Women		Total	
	n	%	n	%	n	%
0 (non-drinker)	134	17.0	62	32.5	196	20.0
1 - 2	64	8.1	27	14.1	91	9.3
3 - 4	91	11.5	24	12.6	115	11.7
5 - 6	78	9.9	26	13.6	104	10.6
7 - 9	54	6.9	15	7.9	69	7.0
10+	367	46.6	37	19.4	404	41.3
Total	**788**	**100.0**	**191**	**100.0**	**979**	**100.0**

The single AUDIT item shown to be most strongly associated with alcohol-related harm is that which assesses the frequency of drinking six or more standard drinks on one drinking occasion (Reinert & Allen, 2007). Close to one third (31%) of 2009 IHS participants reported having not consumed this many standard drinks on a single occasion at all during the year preceding their imprisonment, with a substantially higher proportion of women than men reporting this to be case (49% versus 27%) (Table 5.5.6). Men were substantially more likely than women to report engaging in such patterns of alcohol consumption weekly or more often (50% versus 30%). Of particular concern was the 31% of men and 17% of women who reported drinking 6 or more standard drinks on a daily or almost daily basis in the year prior to imprisonment.

Table 5.5.6 How often have six or more drinks in year before prison

	Men		Women		Total	
	n	%	n	%	n	%
Non-drinker	134	17.0	62	32.5	196	20.0
Never	75	9.5	32	16.8	107	10.9
Less than monthly	98	12.4	20	10.5	118	12.1
Monthly	88	11.2	20	10.5	108	11.0
Weekly	147	18.7	25	13.1	172	17.6
Daily/almost daily	246	31.2	32	16.8	278	28.4
Total	**788**	**100.0**	**191**	**100.0**	**979**	**100.0**

Other individual AUDIT items demonstrated a similar pattern of results. A higher proportion of men than women reported having failed to do what was normally expected of them as a result of drinking on a weekly or more frequent basis in the year preceding their incarceration (21% versus 13%). Women were less likely than men to report this outcome, because they reported either not drinking at all during that period, or never having failed to do what was expected of them (75% versus 64%) (Table 5.5.7).

Table 5.5.7 How often failed to do what was expected of you because of drinking in year before prison

	Men		Women		Total	
	n	%	n	%	n	%
Non-drinker	134	17.0	62	32.6	196	20.0
Never	371	47.1	80	42.1	451	46.1
Less than monthly	62	7.9	16	8.4	78	8.0
Monthly	58	7.4	8	4.2	66	6.7
Weekly	68	8.6	12	6.3	80	8.2
Daily/almost daily	95	12.1	12	6.3	107	10.9
Total	**788**	**100.0**	**190**	**100.0**	**978**	**100.0**

Likewise, a higher proportion of men than women reported having been unable to stop drinking once they started on a weekly or more frequent basis in the year preceding their incarceration (30% versus 15%). Women were again less likely than men to report this outcome, because they reported either not drinking at all during that period, or not having found themselves unable to stop drinking once they started (75% versus 50%) (Table 5.5.8).

Table 5.5.8 How often unable to stop drinking once started in year before prison

	Men		Women		Total	
	n	%	n	%	n	%
Non-drinker	134	17.0	62	32.6	196	20.0
Never	340	43.1	81	42.6	421	43.0
Less than monthly	41	5.2	8	4.2	49	5.0
Monthly	35	4.4	11	5.8	46	4.7
Weekly	87	11.0	9	4.7	96	9.8
Daily/almost daily	151	19.2	19	10.0	170	17.4
Total	**788**	**100.0**	**190**	**100.0**	**978**	**100.0**

Similarly, a higher proportion of men than women reported having been unable to remember the events of the night before as a result of their drinking on a weekly or more frequent basis in the year preceding their incarceration (21% versus 8%). Women were less likely than men to report this outcome, because they reported either not drinking at all, or not having been unable to remember the events of the night before (76% versus 58%) (Table 5.5.9).

Table 5.5.9 How often unable to remember what happened the night before because of drinking in year before prison

	Men		Women		Total	
	n	%	n	%	n	%
Non-drinker	134	17.0	62	32.6	196	20.0
Never	322	40.9	82	43.2	404	41.3
Less than monthly	104	13.2	20	10.5	124	12.7
Monthly	64	8.1	10	5.3	74	7.6
Weekly	82	10.4	9	4.7	91	9.3
Daily/almost daily	82	10.4	7	3.7	89	9.1
Total	**788**	**100.0**	**190**	**100.0**	**978**	**100.0**

Men were also more likely to report needing a drink first thing in the morning to get themselves going after a heavy drinking session on a weekly or more frequent basis in the year preceding their incarceration (18% versus 9%). Women were less likely than men to report this outcome, because they reported either not drinking at all, or not having needed a drink first thing in the morning to get them going after a heavy drinking session (87% versus 76%) (Table 5.5.10).

Table 5.5.10 How often need a drink first thing in the morning after a heavy drinking session in year before prison

	Men		Women		Total	
	n	%	n	%	n	%
Non-drinker	134	17.0	62	32.6	196	20.0
Never	461	58.5	104	54.7	565	57.8
Less than monthly	20	2.5	3	1.6	23	2.4
Monthly	29	3.7	4	2.1	33	3.4
Weekly	47	6.0	4	2.1	51	5.2
Daily/almost daily	97	12.3	13	6.8	110	11.2
Total	**788**	**100.0**	**190**	**100.0**	**978**	**100.0**

Interestingly, given the consistency of the pattern of results for the other AUDIT items, men were only slightly more likely than women to report feeling guilty or remorseful after drinking on a weekly or more frequent basis during the year preceding their incarceration (16% versus 11%) (Table 5.5.11). Indeed, excluding participants who reported not drinking at all during this period, a higher proportion of men than women reported never feeling guilty or remorseful after drinking (50% versus 44%).

Table 5.5.11 How often feel guilty or remorseful after drinking in year before prison

	Men		Women		Total	
	n	%	n	%	n	%
Non-drinker	134	17.0	62	32.6	196	20.0
Never	393	49.9	84	44.2	477	48.8
Less than monthly	79	10.0	16	8.4	95	9.7
Monthly	58	7.4	7	3.7	65	6.6
Weekly	61	7.7	8	4.2	69	7.1
Daily/almost daily	63	8.0	13	6.8	76	7.8
Total	**788**	**100.0**	**190**	**100.0**	**978**	**100.0**

A higher proportion of men (43%) than women (17%) indicated that they or someone else had ever been injured as a result of their drinking. Both men and women who indicated causing an alcohol-related injury were more likely to indicate that this had occurred in the last year (Table 5.5.12).

Table 5.5.12 Have you or someone else ever been injured as a result of your drinking

	Men		Women		Total	
	n	%	n	%	n	%
Non-drinker	134	17.0	62	32.6	196	20.0
No	313	39.7	95	50.0	408	41.7
Yes, but not in year prior to prison	140	17.8	15	7.9	155	15.8
Yes, during year prior to prison	201	25.5	18	9.5	219	22.4
Total	**788**	**100.0**	**190**	**100.0**	**978**	**100.0**

A higher proportion of men (40%) than women (21%) had been encouraged by a friend, relative or doctor to reduce their drinking (Table 5.5.13). Men were also more likely to report that this had happened during the year prior to their current incarceration.

Table 5.5.13 Has a relative, friend or doctor ever been concerned about your drinking and suggested you cut down

	Men		Women		Total	
	n	%	n	%	n	%
Non-drinker	134	17.0	62	32.6	196	20.0
No	340	43.1	88	46.3	428	43.8
Yes, but not in last year	110	14.0	15	7.9	125	12.8
Yes, during last year	204	25.9	25	13.2	229	23.4
Total	**788**	**100.0**	**190**	**100.0**	**978**	**100.0**

Unfortunately a computer programming error meant that 2009 IHS participants who reported not having consumed alcohol at all in the year prior to their incarceration were not asked whether they had ever consumed alcohol while in prison. Sixty men (8%) and nine women (5%) reported having drunk alcohol in prison (Table 5.5.14). The majority (82%) of those who reported having consumed alcohol in prison reported having done so less than monthly, including 80% of men and 89% of women. Two men and no women reported having consumed alcohol on a daily basis while in prison, while seven men and one woman reported having drunk on a weekly basis.

Table 5.5.14 Ever consumed alcohol in prison

	Men		Women		Total	
	n	%	n	%	n	%
Non-drinker	134	17.0	62	32.6	196	20.0
Yes	60	7.6	9	4.7	69	7.1
No	594	75.4	119	62.6	713	72.9
Total	**788**	**100.0**	**190**	**100.0**	**978**	**100.0**

More than half (54%) of IHS participants reported perceiving that at least one significant other in their lives had experienced problems as a result of their alcohol use, such as problems with their health, work, relationships or the law (Table 5.5.15). Participants were most likely to nominate their father as having problems related to alcohol (30%), followed by other family members (30%), their mothers (19%) and their own husband/wife/partner (15%). Women were substantially more likely than men to report perceiving that their own partner had problems related to alcohol (28% versus 12%).

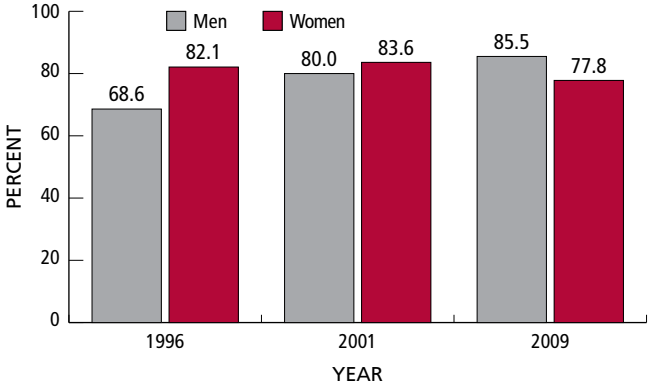
Table 5.5.15 Felt certain people had problems due to their use of alcohol

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
No significant others	374	47.5	75	39.5	449	45.9
Mother	139	17.6	44	23.2	183	18.7
Father	234	29.7	59	31.1	293	30.0
Husband / wife / partner	91	11.5	53	27.9	144	14.7
Children	24	3.0	9	4.7	33	3.4
Other family member	236	29.9	53	27.9	289	29.6

5.6 Illicit drugs

The proportion of IHS participants who reported having ever used an illicit drug increased from 71% in 1996 to 81% in 2001, and then increased again slightly to 84% in 2009 (Table 5.6.1). Reported lifetime prevalence of illicit drug use increased steadily among men (from 69% to 80% to 86%), while decreasing slightly among women, from 82% in 1996 to 78% in 2009. Indeed, 2009 is the first year in which the IHS has been conducted that a higher proportion of men than women reported a history of illicit drug use.

Table/Fig 5.6.1 Ever use any illicit drug



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	420	612	68.6	560	700	80.0	674	788	85.5
Women	96	117	82.1	127	152	83.6	147	189	77.8
Total	516	729	70.8	687	852	80.6	821	977	84.0

The illicit drug classes 2009 IHS participants were most likely to report having used at some time in their lives were cannabis (81%), followed by meth/amphetamine powder and/or paste (57%), cocaine (45%), ecstasy (44%), crystalline methamphetamine ('ice') (42%) and heroin (41%) (Table 5.6.2). Men were substantially more likely than women to report having used cannabis (84% versus 71%), steroids (8% versus <1%) and solvents (7% versus 2%), whereas women were substantially more likely to report having used heroin (49% versus 39%).

Not surprisingly, given the well-documented associations between drug use and incarceration (e.g., Butler et al., 2003) the lifetime prevalence of use of any illicit drugs, as well as the use of all individual illicit drug classes, was substantially higher than is reported by Australia's general population in the triennial National Drug Strategy Household Survey (NDSHS). For example, in 2007, 38% of Australians aged 14 years or older reported having used an illicit drug at some time in their lives, including 41% of men and 35% of women (AIHW, 2008c). Australians aged 30 – 39 years were more likely than those in other age groups to have used an illicit drug in their lifetime. Following the exclusion of cannabis from these analyses, 18% of Australians reported having used an illicit drug at some time, including ecstasy (9%), meth/amphetamines (6%), cocaine (6%) and heroin and other opiates (2%).

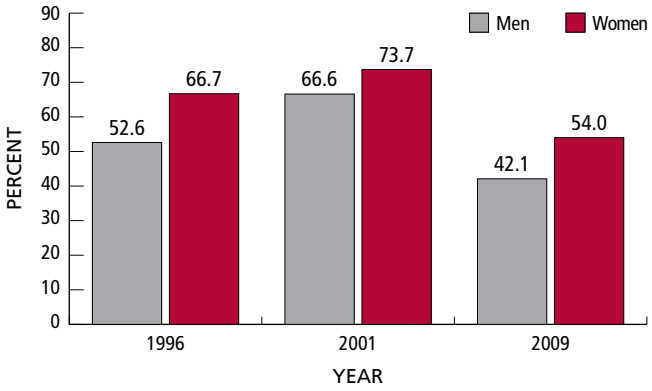
Table 5.6.2 Ever use any illicit drug by drug type

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Cannabis	659	83.6	135	71.4	794	81.3
Meth/amphetamines (powder/ paste)	453	57.5	106	56.1	559	57.2
Cocaine	354	44.9	88	46.6	442	45.2
Ecstasy	361	45.8	73	38.6	434	44.4
Crystalline methamphetamine ('ice')	330	41.9	82	43.4	412	42.2
Heroin	304	38.6	93	49.2	397	40.6
LSD	232	29.4	45	23.8	277	28.4
Benzodiazepines	189	24.0	55	29.1	244	25.0
Other opiates	150	19.0	38	20.1	188	19.2
Other's methadone/ buprenorphine	125	15.9	28	14.8	153	15.7
Steroids	65	8.2	1	0.5	66	6.8
Solvents/petrol	52	6.6	4	2.1	56	5.7
Amyl nitrate	41	5.2	9	4.8	50	5.1

The main changes observed between 2001 and 2009 in self-reported lifetime use of specific drug classes among IHS participants were substantial increases in reported use of crystalline methamphetamine (from 11% to 42%) and of ecstasy (from 27% to 44%), together with a decline in the reported use of heroin (from 53% to 41%). All three changes are entirely consistent with changes in Australia's broader illicit drug markets during these years. The availability and use of crystalline methamphetamine increased substantially during the early part of this decade (Topp et al., 2002) although more recently appears to have stabilised (Stafford et al., 2009); a marked decline in the availability and use of heroin occurred during the same period (Topp et al., 2003), with the heroin market yet to recover to its pre-2001 levels (Stafford et al., 2009); and the availability and use of ecstasy continuing to increase such that the drug is now entrenched in Australia's illicit drug markets (Degenhardt et al., 2009).

The proportion of IHS participants who reported having used at least one illicit drug 'regularly' in the year preceding prison – with 'regularly' defined as 'daily or almost daily use' – was lower in 2009 than any other year in which the IHS was conducted, decreasing from 55% in 1996, and from 68% in 2001, to 44% in the most recent Survey (Table 5.6.3). In all years in which the IHS was conducted, a higher proportion of women than men reported daily/almost daily use of illicit drugs in the year prior to their imprisonment; in 2009, this gender differential translated to 54% of women and 42% of men reporting such use of drugs.

Table/Fig 5.6.3 Daily/almost daily use of any illicit drugs in the year before prison



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	322	612	52.6	466	700	66.6	332	788	42.1
Women	78	117	66.7	112	152	73.7	102	189	54.0
Total	400	729	54.9	578	852	67.8	434	977	44.4

Whereas fewer than half (44%) of 2009 IHS participants reported having used illicit drugs daily/almost daily in the year before prison, a further 40% of the sample (43% of men and 24% of women) reported having used drugs less frequently during this period (Table 5.6.4). A higher proportion of women than men reported having never used illicit drugs at all (22% versus 15%).

Table 5.6.4 Frequency of daily/almost daily use of any illicit drug in the year before prison

	Men		Women		Total	
	n	%	n	%	n	%
Never used drugs	114	14.5	42	22.2	156	16.0
Used drugs but not on a daily/almost daily basis in year before prison	342	43.4	45	23.8	387	39.6
Used drugs on a daily/almost daily basis in year before prison	332	42.1	102	54.0	434	44.4
Total	788	100.0	189	100.0	977	100.0

The illicit drugs 2009 IHS participants were most likely to report having used daily/almost daily in the year preceding their incarceration were cannabis (26%), followed by meth/amphetamines (16%), crystalline methamphetamine (13%) and heroin (10%) (Table 5.6.5). Women were twice as likely as men to report daily/almost daily use of heroin in the year preceding their incarceration (18% versus 9%), three times as likely to report the daily/almost daily use of cocaine (15% versus 5%) or benzodiazepines (14% versus 5%), and somewhat more likely to report the daily/almost daily use of both meth/amphetamines (21% versus 14%) and crystalline methamphetamine (15% versus 12%).

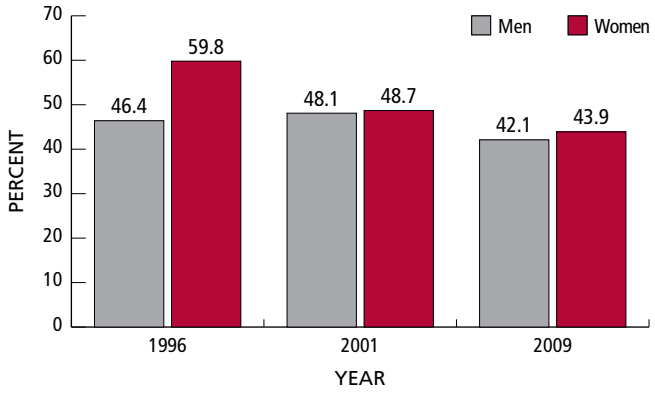
Table 5.6.5 Daily/almost daily use of any illicit drug in year before prison by drug type

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Cannabis	208	26.4	44	23.3	252	25.8
Meth/amphetamines (powder/paste)	113	14.3	39	20.6	152	15.6
Crystalline methamphetamine ('ice')	93	11.8	29	15.3	122	12.5
Heroin	67	8.5	34	18.0	101	10.3
Cocaine	42	5.3	28	14.8	70	7.2
Benzodiazepines	42	5.3	27	14.3	69	7.1
Ecstasy	55	7.0	10	5.3	65	6.7
Other's methadone/ buprenorphine	37	4.7	13	6.9	50	5.1
Other opiates	34	4.3	10	5.3	44	4.5
Steroids	13	1.6	0	0.0	13	1.3
LSD	8	1.0	1	0.5	9	0.9
Amyl nitrate	4	0.5	1	0.5	5	0.5
Solvents/petrol	1	0.1	0	0.0	1	0.1

Self-reported daily/almost daily drug use in the year preceding incarceration declined among IHS participants between 2001 and 2009 for all illicit drug classes with the exception of crystalline methamphetamine, which increased from 4% of 2001 participants to 12% of the 2009 sample. The largest decreases were observed in reports of the use of cannabis (from 49% to 26%), heroin (from 35% to 10%), and cocaine (22% to 7%).

The proportion of IHS participants who reported having ever used an illicit drug while in prison remained steady between 1996 (49%) and 2001 (48%) and then declined to 43% in 2009 (Table 5.6.6). The gender difference in reports of illicit drug use in prison observed in the 1996 IHS has been virtually absent in more recent Surveys; in 2009, 44% of women and 42% of men reported having ever used a drug in prison.

Table/Fig 5.6.6 Ever use illicit drugs in prison



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	286	616	46.4	335	696	48.1	332	788	42.1
Women	70	117	59.8	74	152	48.7	83	189	43.9
Total	356	733	48.6	409	848	48.2	415	977	42.5

With 16% of the 2009 IHS sample reporting having never used drugs at all and 43% reporting having used in prison, this equates to 42% of the sample who had a history of illicit drug use who had never used drugs in prison (Table 5.6.7). Between 2001 and 2009, the declines in reports of illicit drug use in prison among IHS participants were most marked for cannabis (44% to 31%) and heroin (24% to 15%).

Table 5.6.7 Ever use illicit drugs in or out of prison

	Men		Women		Total	
	n	%	n	%	n	%
Never used drugs	114	14.5	42	22.2	156	16.0
Have used drugs but never in prison	342	43.4	64	33.9	406	41.6
Have used drugs in prison	332	42.1	83	43.9	415	42.4
Total	788	100.0	189	100.0	977	100.0

The drugs that 2009 IHS participants were most likely to report having used while in prison were cannabis (31% of the sample), followed by heroin (15%), another person's methadone or buprenorphine (10%) and meth/amphetamines (10%) (Table 5.6.8). Men were more likely than women to report the use while in prison of cannabis (33% versus 26%), heroin (16% versus 13%), and another person's methadone or buprenorphine (11% versus 7%); whereas women were more likely than men to report the use of benzodiazepines (12% versus 8%). Eighteen men, and no women, reported the use of steroids in prisons.

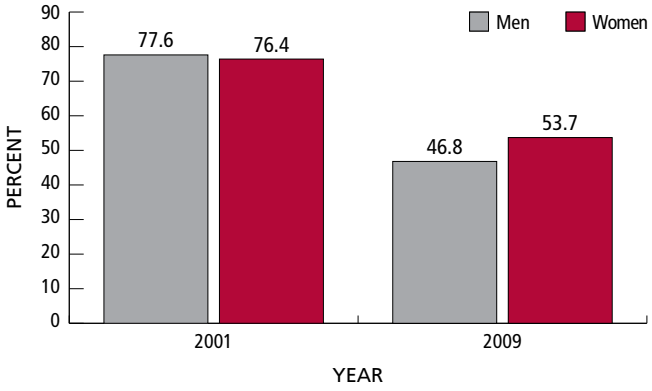
Table 5.6.8 Ever use illicit drug in prison by drug type

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Cannabis	258	32.7	49	25.9	307	31.4
Heroin	125	15.9	25	13.2	150	15.4
Other's methadone/ buprenorphine	84	10.7	14	7.4	98	10.0
Meth/amphetamines (powder/paste)	78	9.9	16	8.5	94	9.6
Benzodiazepines	59	7.5	22	11.6	81	8.3
Crystalline methamphetamine ('ice')	60	7.6	11	5.8	71	7.3
Cocaine	47	6.0	11	5.8	58	5.9
Other opiates	45	5.7	7	3.7	52	5.3
Ecstasy	33	4.2	3	1.6	36	3.7
Steroids	18	2.3	0	0.0	18	1.8
LSD	14	1.8	1	0.5	15	1.5
Solvents/petrol	6	0.8	0	0.0	6	0.6
Amyl nitrate	1	0.1	0	0.0	1	0.1

A total of 32 (31 men and one woman) 2009 IHS participants reported having initiated heroin use in an adult prison, having never used it in the community prior to their imprisonment. Forty one participants (35 men and six women) reported having specifically used heroin rather than cannabis in prison in order to avoid drugs being detected in a urine drug screening test (as the metabolites of heroin are detectable in urine for a significantly shorter period than the metabolites of cannabis; Wolff et al., 1999). Forty six participants (41 men and five women) reported that they had used heroin in prison as a substitute for cannabis and/or alcohol (due to the lack of availability of these drugs in prison).

The proportion of IHS participants who described it as "quite easy" or "very easy" to obtain drugs in prison decreased from 77% in 2001 to 48% in 2009 (Table 5.6.9). The decrease appears to have been more marked among men (dropping from 78% to 47%) than among women (declining from 76% to 54%).

Table/Fig 5.6.9 Quite easy or very easy to obtain drugs in prison



	2001			2009		
	n	Total	%	n	Total	%
Men	433	558	77.6	368	786	46.8
Women	94	123	76.4	101	188	53.7
Total	527	681	77.4	469	974	48.2

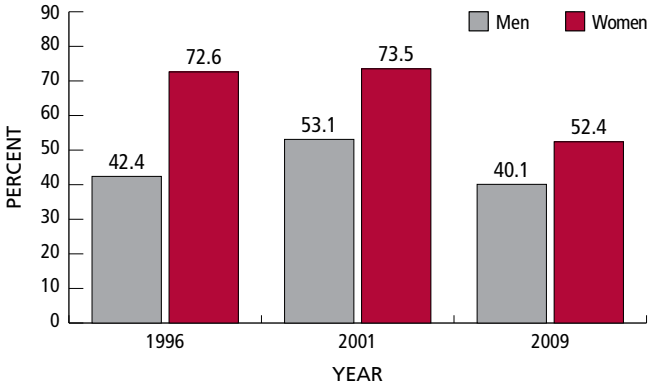
Among 2009 IHS participants, men were more likely than women to describe it as "very" or "quite difficult" to obtain drugs in prison (29% versus 22%), while, conversely, women were more likely to describe it as "quite" or "very easy" (54% versus 47%). A quarter of both men and women reported that they did not know whether it was easy to get drugs in prison (Table 5.6.10).

Table 5.6.10 Perceived ease to obtain drugs in prison

	Men		Women		Total	
	n	%	n	%	n	%
Very difficult	74	9.4	9	4.8	83	8.5
Quite difficult	154	19.6	32	17.0	186	19.1
Quite easy	191	24.3	57	30.3	248	25.5
Very easy	177	22.5	44	23.4	221	22.7
Don't know	190	24.2	46	24.5	236	24.2
Total	786	100.0	188	100.0	974	100.0

The proportion of IHS participants who reported a history of injecting drug use increased from 47% in 1996 to 57% in 2001, then declined to 43% in 2009 (Table 5.6.11). In all years in which the IHS has been conducted, a higher proportion of women than men reported a history of injecting drug use; in 2009, this gender differential translated to 52% of women and 40% of men reporting such a history. The 2007 NDSHS found that 2% of Australians aged 14 years or older reported a history of injecting drug use, including 2.5% of men and 1.3% of women (AIHW, 2008c).

Table/Fig 5.6.11 Ever inject drugs



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	261	616	42.4	359	676	53.1	316	788	40.1
Women	85	117	72.6	108	147	73.5	99	189	52.4
Total	346	733	47.2	467	823	56.7	415	977	42.5

Together with data reported earlier, the 43% of the 2009 IHS sample who reported a history of injecting drug use and the 16% who reported having never used drugs at all, leaves a total of 42% of the sample who reported having used illicit drugs but never injected them (Table 5.6.12). Men were more likely than women to report a history of non-injecting illicit drug use (45% versus 25%).

Table 5.6.12 Drug use by injecting history

	Men		Women		Total	
	n	%	n	%	n	%
Never used drugs	114	14.5	42	22.2	156	16.0
Have used drugs but never injected	358	45.4	48	25.4	406	41.6
Have injected drugs	316	40.1	99	52.4	415	42.5
Total	788	100.0	189	100.0	977	100.0

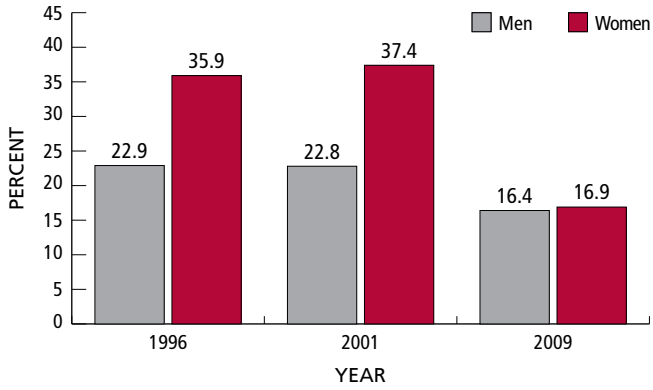
The drug classes 2009 IHS participants were most likely to report having injected were heroin (32%) and meth/amphetamines (32%), followed by crystalline methamphetamine (23%) and cocaine (21%) (Table 5.6.13). Twelve percent of the sample reported having injected their own methadone or buprenorphine, and 8% reported having injected another person's. Women were more likely than men to report having injected all of the major classes of injectable drugs, including heroin (42% versus 29%), meth/amphetamines (39% versus 30%), cocaine (33% versus 18%) and crystalline methamphetamine (31% versus 21%). Fifty two men, and no women, reported a history of having injected steroids. Between 2001 and 2009, the proportion of IHS participants who reported having injected heroin decreased from 47% to 32%; while the proportion who reported having injected crystalline methamphetamine increased from 4% to 23%.

Table 5.6.13 Ever inject drugs by drug type

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Heroin	228	28.9	80	42.3	308	31.5
Other opiates	107	13.6	32	16.9	139	14.2
Meth/amphetamines (powder/paste)	235	29.8	73	38.6	308	31.5
Cocaine	138	17.5	62	32.8	200	20.5
Crystalline methamphetamine ('ice')	167	21.2	58	30.7	225	23.0
Your methadone/ buprenorphine	84	10.7	37	19.6	121	12.4
Ecstasy	57	7.2	19	10.1	76	7.8
LSD	33	4.2	8	4.2	41	4.2
Other's methadone/ buprenorphine	57	7.2	19	10.1	76	7.8
Benzodiazepines	27	3.4	4	2.1	31	3.2
Steroids	52	6.6	0	0.0	52	5.3

The proportion of IHS participants who reported having injected drugs in prison decreased slightly from 25% in 1996 and in 2001 to 17% in 2009 (Table 5.6.14). In both 1996 and 2001, a substantially higher proportion of women than men reported having injected in prison, but in 2009, this gender difference was eliminated, with 16% of men and 17% of women reporting this behaviour.

Table/Fig 5.6.14 Ever inject drugs in prison



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	141	616	22.9	154	676	22.8	129	788	16.4
Women	42	117	35.9	55	147	37.4	32	189	16.9
Total	183	733	25.0	209	823	25.4	161	977	16.5

Together with data reported earlier, the 17% of the 2009 IHS sample who reported a history of injecting drugs in prison, and the 16% who reported having never used drugs at all, there was a further 42% of participants who had used drugs but never injected them and 26% who had injected drugs but never in prison (Table 5.6.15). Men were more likely than women to report having used but not injected illicit drugs (45% versus 25%), while women were more likely to have injected drugs but never while in prison (35% versus 24%).

Table 5.6.15 Drug use by injecting and prison use

	Men		Women		Total	
	n	%	n	%	n	%
Never used drugs	114	14.5	42	22.2	156	16.0
Used drugs but never injected	358	45.4	48	25.4	406	41.6
Inject drugs but never in prison	187	23.7	67	35.4	254	26.0
Injected drugs in prison	129	16.4	32	16.9	161	16.5
Total	788	100.0	189	100.0	977	100.0

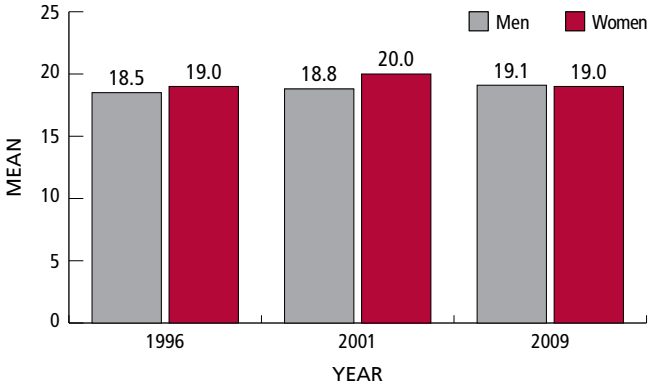
The drug that 2009 IHS participants were most likely to report having injected in prison was heroin (13% of the sample), followed by meth/amphetamines (7%). Crystalline methamphetamine (5%), opiates other than heroin (5%) and cocaine (4%) were also reported by small minorities of the sample (Table 5.6.16). Four percent of the sample reported having injected their own methadone or buprenorphine in prison, while 5% reported having injected someone else's. Between 2001 and 2009, the proportion of IHS participants who reported having injected in prison decreased for heroin (from 30% to 13%), meth/amphetamines (from 17% to 7%) and cocaine (from 10% to 4%); whereas over the same period, the proportion who reported having injected in prison increased for crystalline methamphetamine (from 1% to 5%) and other opiates (from 2% to 5%).

Table 5.6.16 Ever inject drugs in prison by drug type

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Heroin	102	12.9	23	12.2	125	12.8
Meth/amphetamines (powder/ paste)	59	7.5	10	5.3	69	7.1
Crystalline methamphetamine ('ice')	41	5.2	7	3.7	48	4.9
Other's methadone/ buprenorphine	38	4.8	10	5.3	48	4.9
Other opiates	40	5.1	6	3.2	46	4.7
Your methadone/ buprenorphine	37	4.7	6	3.2	43	4.4
Cocaine	31	3.9	10	5.3	41	4.2
Steroids	10	1.3	0	0.0	10	1.0
Ecstasy	9	1.1	0	0.0	9	0.9
LSD	3	0.4	0	0.0	3	0.3
Benzodiazepines	3	0.4	0	0.0	3	0.3

The mean age at which IHS participants with a history of injecting drug use reported initiating injecting remained relatively stable, ranging among men from 18.5 years in 1996 to 19.1 years in 2009, and among women from 19.0 years in 1996 and 2009 to 20.0 years in 2001 (Table 5.6.17). This age of initiation to injecting is consistent with that reported in the annual Needle and Syringe Program (NSP) survey, cross-sectional surveys of large samples of public sector NSP clients from all Australian jurisdictions that monitor changes over time in the prevalence of blood borne viruses (BBVs) and associated risk behaviours (MacDonald et al., 1997; 2000). For example, every year between 2004 and 2008, NSP Survey participants reported a median age of initiation to injection of 18 years (NCHECR, 2009).

Table/Fig 5.6.17 Mean age first injected drugs characteristics (if ever injected)



	1996	2001	2009
	Mean (±sd) range	Mean (±sd) range	Mean (±sd) range
Men	18.5 (±4.2) 11 - 38	18.8 (±5.6) 8 - 50	19.1 (±6.0) 9 - 49
Women	19.0 (±5.7) 12 - 39	20.0 (±6.8) 11 - 41	19.0 (±5.9) 9 - 40
Total	**18.6 (±4.6) 11 - 39**	**19.1 (±5.9) 8 - 50**	**19.1 (±5.9) 9 - 49**

Thirteen percent of 2009 IHS participants with a history of injecting drug use reported that their most recent injection was within the four weeks preceding the Survey, including 2% of the sample (9 men and no women) who reported most recently injecting within the preceding week (Table 5.6.18). Women were more likely than men to report a history of more recent injecting: whereas 66% of men reported that their most recent injection was 6 or more months preceding the Survey, the equivalent figure for women was 51%. Eleven percent of men and 5% of women reported having injected most recently more than 10 years preceding the Survey.

Table 5.6.18 How long since last injected drugs (if ever injected)

	Men		Women		Total	
	n	%	n	%	n	%
In last week	9	2.8	0	0.0	9	2.2
1 - <2 weeks	13	4.1	1	1.0	14	3.4
2 - <4 weeks	16	5.1	13	13.1	29	7.0
1 - <6 months	69	21.8	35	35.4	104	25.1
6 - <12 months	47	14.9	18	18.2	65	15.7
1 - <2 years	46	14.6	10	10.1	56	13.5
2 - <5 years	58	18.4	10	10.1	68	16.4
5 - <10 years	23	7.3	7	7.1	30	7.2
10+ years	35	11.1	5	5.1	40	9.6
Total	**316**	**100.0**	**99**	**100.0**	**415**	**100.0**

Among the 161 IHS participants in 2009 who reported having injected drugs in prison, 57% (equating to 22% of participants with a history of injecting drug use) reported that their most recent injection occurred in prison (Table 5.6.19). Although a higher proportion of male than female injectors reported having injected in prison at some time (41% versus 32%), there was no gender difference in the proportion of injectors who reported that their most recent injection had occurred in prison: 22% of male injectors and 21% of female injectors reported this to be the case.

Table 5.6.19 Was the most recent injection in prison (if ever injected)

	Men		Women		Total	
	n	%	n	%	n	%
Yes	70	22.2	21	21.2	91	21.9
No	59	18.7	11	11.1	70	16.9
Never injected in prison	187	59.2	67	67.7	254	61.2
Total	**316**	**100.0**	**99**	**100.0**	**415**	**100.0**

Among the 34 (27 men and 7 women) 2009 IHS participants who reported having injected in prison within the preceding month, five men and no women reported having injected daily or more often during that period. The majority (19 participants, comprising 14 men and five women) reported having injected in prison less often than weekly in the preceding month.

Among 112 IHS participants in 2009 who reported having injected in prison and for whom these data were available (unfortunately a computer programming error meant this question was skipped for 49 participants for whom it was relevant), just three (3%) reported that on their most recent occasion of injecting in prison, no other person had used the needle and syringe to inject before they themselves used it (Table 5.6.20). Close to one third (31%) reported that one other person had used the needle/syringe before them, and one in eight (12%) reported that two other people had done so. Seventeen percent reported that six or more people had used the needle/syringe prior to their doing so; while one quarter of men (26%) and one-third of women (33%) acknowledged that they did not know how many people had injected with the needle/syringe before they did.

Table 5.6.20 Number of people who had used the needle/syringe prior to participants on last injecting occasion (if ever injected in prison)

	Men		Women		Total	
	n	%	n	%	n	%
0	3	3.1	0	0.0	3	2.7
1	27	27.8	8	53.3	35	31.3
2	11	11.3	2	13.3	13	11.6
3-5	12	12.4	0	0.0	12	10.7
6+	19	19.6	0	0.0	19	17.0
Don't know	25	25.8	5	33.3	30	26.8
Total	97	100.0	15	100.0	112	100.0

Among the 161 IHS participants in 2009 who reported having injected in prison, 35% reported having never used any injecting equipment after another person while injecting in prison, with women more likely to report that this was the case than men (44% versus 33%). According to participants' reports, the item least likely to be used after another person was a tourniquet (24%), however, it is more likely that not all injectors used a tourniquet and that a high proportion used their own. Spoons (used as a container to mix drugs with water ready for injection), water, filters (to filter drug solution) and drug solution/mix had all been used after at least one other person by more than one-third of those who reported having injected in prison (Table 5.6.21). Men who reported having injected in prison were substantially more likely than women to report having used a spoon after another person (60% versus 41%).

Table 5.6.21 Use in prison of drug and injecting equipment after another person (if ever injected in prison)

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
No use of equipment after another person	43	33.3	14	43.8	57	35.4
Spoon	77	59.7	13	40.6	90	55.9
Filter	54	41.9	13	40.6	67	41.6
Drug solution/mix	50	38.8	13	40.6	63	39.1
Water	45	34.9	11	34.4	56	34.8
Tourniquet	32	24.8	7	21.9	39	24.2
Total	129	100.0	32	100.0	161	100.0

Among the 161 IHS participants in 2009 who reported having injected in prison, the great majority (90%) reported that the last time they injected in prison, the needle/syringe had been cleaned before they used it, with a higher proportion of men than women reporting this to be the case (92% versus 84%). An equal proportion (3%) of men and women reported being unsure whether the needle/syringe had been cleaned prior to their using it.

Current U.S. Centres for Disease Control (CDC) guidelines for the cleaning of injecting equipment are based on the 2x2x2 method, recommending flushing needles/syringes twice with cool water, twice agitating for 30 seconds with full strength bleach, and again flushing twice with cool water (Abdala et al., 2001). However, although bleach contact time of 30 seconds may deactivate HIV (MMWR, 1998), 10 minutes is recommended for HCV (Charrel et al., 2001; Sattar et al., 2001), and even after 10 minutes, the efficacy of bleach in deactivating HCV is inconclusive (Vlahov et al., 1994; Kapadia et al., 2002; Hagan & Thiede, 2003). Lack of adherence to suggested decontamination techniques is prevalent among North American injecting drug users in real world settings (McCoy et al., 1994; MMWR, 1994; Siegal et al., 1994), a lack of expertise likely to be compounded in the prison environment given that all injecting equipment is contraband, such that inmates are reluctant to be identified by custodial authorities as possessing it. The presumably hasty and covert nature of any attempted decontamination of injecting, tattooing or piercing equipment likely to be reused in prison seems highly likely to reduce the already low likelihood of effectively undertaking such techniques.

A range of cleaning methods were described by 2009 IHS participants who reported that the last time they injected in prison, the needle/syringe had been cleaned before they used it. Half (50%) reported using a variant of the CDC recommendations, namely the 2x2x2 or 3x3x3 (which involves three flushes with cool water, three agitations with full-strength bleach, and three flushes with cool water). A higher proportion of men than women reported using such methods (52% versus 44%). Soaking (12%) and rinsing (10%) with bleach were also reported, while a small proportion of participants who reported cleaning the needle/syringe last time they injected in prison further reported having only used water (hot or cold) to do so.

Among the eleven participants who reported not having cleaned the needle/syringe prior to using it on the last occasion on which they injected in prison, four reported that the equipment was new when they obtained it so they did not need to clean it, and two reported that only they had used the needle previously. Three reported not having enough time to clean the needle/syringe, and another reported that there was no bleach available.

Among the 415 IHS participants in 2009 who reported a history of injecting drug use, 17% (18% of men and 16% of women) reported having bought a "clean" needle/syringe in prison. Unfortunately, the wording of the question makes it impossible to determine whether these participants referred to paying for a brand new (sterile) needle/syringe or one that had been used but cleaned before they purchased it.

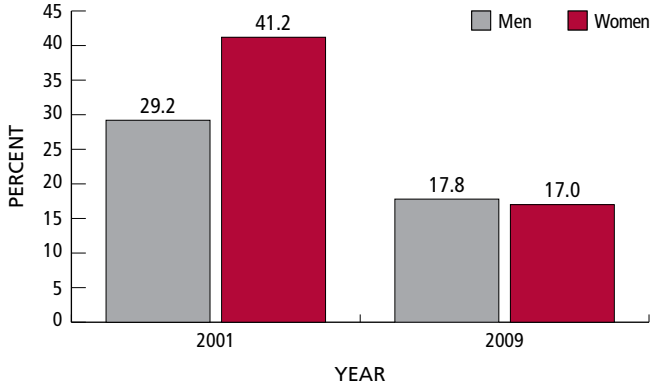
Access to bleach in prison

Disinfectant was first distributed to NSW prisoners in 1990. In November 2007, Corrective Services NSW (CSNSW) replaced the CCF5T bleach previously provided in specific dispensers in NSW prisons as a blood borne virus prevention strategy with Fincol, a hospital grade disinfectant. Intended to be used for the disinfection of injecting, piercing and tattooing equipment, CSNSW maintains that the advantages of Fincol over bleach include that it is less toxic and corrosive; will not deteriorate when stored in hot or cold conditions; has demonstrated effectiveness against bacteria, fungi and viruses including HIV, HBV and a surrogate for HCV; and retains its effectiveness for up to eight hours after it is mixed with water to the recommended concentration (Hep C Review, 2008). Given this change in CSNSW policy, it is important to note that whereas 2009 IHS participants may have had experience with both bleach and Fincol in prisons, and thus may have been referring to either or both substances when responding to questions which included the generic term 'bleach,' 2001 IHS participants would not have had experience with Fincol in prison.

Fewer than half (44%) of 2009 IHS participants reported being aware of the CSNSW policy to provide inmates with bleach for the purposes of disinfecting injecting, piercing and tattooing equipment. Women were substantially less likely than men to report awareness of this policy (30% versus 47%).

There was a substantial decrease in the proportion of IHS participants who reported having ever attempted to access bleach in prisons, from 31% in 2001 to 18% in 2009 (Table 5.6.22). Although the decline was reported by both men and women, it was most dramatic among women, among whom reports of having ever attempted to access bleach in prison declined from 41% in 2001 to 17% in 2009. As previously noted, it is not possible to determine if this decrease is due to the exchange of Fincol for bleach or a genuine decline.

Table/Fig 5.6.22 Ever attempted to access bleach in prison



	2001			2009		
	n	Total	%	n	Total	%
Men	199	681	29.2	140	786	17.8
Women	61	148	41.2	32	188	17.0
Total	**260**	**829**	**31.4**	**172**	**974**	**17.7**

Among the 140 men and 32 women who reported having attempted to access bleach in prison, close to two thirds (62%) described it as "easy" or "very easy" to obtain (Table 5.6.23). Women reported more difficulty in obtaining bleach, and were more likely than men to report that bleach was not available at all (22% versus 18%). A lack of availability of bleach or Fincol is in contravention of CSNSW policy to provide to inmates the means to disinfect any equipment potentially contaminated by blood borne viruses. HCV seroconversion has been documented among individuals continuously imprisoned in NSW prisons (Butler et al., 2004b). The provision of the means by which to penetrate skin with sterile injecting, piercing and/or tattooing equipment would reduce the continued risk of BBV transmission between prison inmates.

Table 5.6.23 Ease of obtaining bleach in prison (if ever tried to obtain bleach)

	Men		Women		Total	
	n	%	n	%	n	%
Very easy	46	32.9	10	31.3	56	32.6
Easy	44	31.4	7	21.9	51	29.7
Difficult	25	17.9	8	25.0	33	19.2
Not available	25	17.9	7	21.9	32	18.6
Total	140	100.0	32	100.0	172	100.0

Prior to 1990, a strong objection of custodial staff to the introduction of bleach was that inmates would use it improperly. Accordingly, 2009 IHS participants were asked if they were aware of any inmates using bleach for purposes other than that for which it was intended, with no limit to the number of such uses which they could report. Few were aware of such improper use (Table 5.6.24), with only a handful of participants reporting that they knew of inmates drinking bleach, throwing it into another person's eyes or injecting it. A total of 62 participants reported that they knew of inmates who injected drugs more often because bleach was available, with men somewhat more likely to report this than women (7% versus 4%). Six percent of participants reported that they knew of inmates being searched by CSNSW officers after asking for bleach, and 4% reported that inmates had had their names recorded.

Table 5.6.24 Awareness of uses for bleach in prison

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Injecting more because bleach was available	55	7.0	7	3.7	62	6.4
Throwing bleach into someone's eyes	38	4.8	4	2.1	42	4.3
Injecting bleach	16	2.0	3	1.6	19	2.0
Drinking bleach	16	2.0	1	0.5	17	1.7
Other	42	5.3	12	6.4	54	5.5

Other uses for bleach:

- 'Soaking whites'
- 'Swishing it around in mouth when asked for DNA tests'
- 'Tye dye clothes'
- 'Using bleach on skin to remove freckles'

Injecting in the community

Among the 415 IHS participants who reported a history of injecting drug use, 60% (60% of men and 61% of women) reported having used a new needle/syringe for all injections they undertook in the month preceding their imprisonment. This proportion is somewhat lower than that reported by community Needle and Syringe Program (NSP) clients who participated in the annual NSP Survey between 2004 and 2008. Among these samples, 71% – 72% of participants reported having used new injecting equipment for all injections in the month preceding the Survey (NCHECR, 2009).

The majority (88%) of 2009 IHS participants who reported any injecting drug use were aware of NSPs in the community, with a higher proportion of women (93%) aware of these services than men (87%) (Table 5.6.25).

Table 5.6.25 Awareness of community NSPs (if ever injected)

	Men		Women		Total	
	n	%	n	%	n	%
Yes	274	86.7	92	92.9	366	88.2
No	42	13.3	7	7.1	49	11.8
Total	316	100.0	99	100.0	415	100.0

Among the 365 IHS participants in 2009 who were aware of community based NSPs, more than three-quarters (78%) had actually used these services (Table 5.6.26). A higher proportion of women (85%) than men (76%) reported using NSPs in the community.

Table 5.6.26 Used community NSPs (if ever injected and aware of service)

	Men		Women		Total	
	n	%	n	%	n	%
Yes	208	76.2	78	84.8	286	78.4
No	64	23.4	14	15.2	78	21.4
Don't know	1	0.4	0	0.0	1	0.3
Total	273	100.0	92	100.0	365	100.0

Among IHS participants who had ever injected drugs, nearly half (49%) had obtained needles and syringes from an NSP or pharmacy weekly or more often in the month prior to incarceration, with a higher proportion of female injectors (57%) reporting this than male injectors (47%) (Table 5.6.27).

Table 5.6.27 Frequency of obtaining needles/syringes from an NSP or pharmacy in the month prior to incarceration (if ever injected)

	Men		Women		Total	
	n	%	n	%	n	%
Daily/more than daily	59	18.8	26	26.5	85	20.6
More than weekly, but not daily	87	27.7	30	30.6	117	28.4
Less than weekly (1 to 4 days)	61	19.4	14	14.3	75	18.2
Never	107	34.1	28	28.6	135	32.8
Total	314	100.0	98	100.0	412	100.0

Reasons not go to NSP:

- 'Always bought my own. Didn't want anyone to know I was into that stuff.'
- 'Just preferred to go to the chemist.'
- 'Mobile bus came to local street and that was more convenient.'
- 'Readily accessible from friends and dealers.'

Attitudes towards blood borne virus risks

Participants in the 2009 IHS who reported a history of injecting were asked to indicate the extent of their agreement with a range of statements regarding blood borne virus transmission risk (Table 5.6.28). Reassuringly, the responses of the great majority of both men and women indicated that they were aware of the risks of using injecting equipment which had previously been used by others, and were willing to experience some inconvenience in order to attempt to access clean equipment at least while in the community. Ninety one percent of participants with a history of injecting (92% of men and 89% of women) agreed or strongly agreed that using clean injecting equipment helps to protect them from infectious diseases; and 88% (88% of men and 85% of women) agreed or strongly agreed that they were willing to go out of their way to access clean equipment in the community. Just 3% of both men and women agreed that there was no point in their trying to use clean needles/syringes.

Table 5.6.28 Agree/strongly agree with statements related to blood borne virus transmission risk (if ever injected)

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Using clean needles / syringes helps protect me from infectious diseases	314	91.5	105	89.0	419	90.9
I am willing go out of my way to get clean needles / syringes in community	300	87.5	106	84.7	406	88.1
There is no point in me trying to use clean needles / syringes	10	2.9	4	3.4	14	3.0

All 2009 IHS participants were asked in an open-ended format to nominate three ways in which it is possible to acquire the hepatitis C virus (HCV). Thus, they were not provided a list of specific transmission risks, but instead, had to offer such risks spontaneously. Seven percent (7% of men and 9% of women) displayed no knowledge of transmission risks, being either unable to describe a single risk event, or offering one or more, all of which were incorrect (Table 5.6.29). Nevertheless, half the sample (50% of men and 51% of women) were able to correctly nominate three ways in which it is possible to acquire HCV, and a further 31% (32% of men and 28% of women) were able to nominate two ways.

Table 5.6.29 Number of correct responses provided to the question *"Can you tell me three ways in which you can catch hepatitis C?"*

	Men		Women		Total	
	n	%	n	%	n	%
Unable to describe any	41	5.2	14	7.4	55	5.6
None correct	15	1.9	3	1.6	18	1.8
1 out of 3 correct	89	11.3	23	12.2	112	11.5
2 out of 3 correct	249	31.6	52	27.5	301	30.8
3 out of 3 correct	394	50.0	97	51.3	491	50.3
Total	788	100.0	189	100.0	977	100.0

The two responses provided by more than half of the sample are in fact the events associated with the greatest risk of HCV transmission, namely sharing needles and syringes (nominated by 50% of the same) and blood-to-blood contact (51%). The third most common response, unprotected sex, is associated with a relatively small risk of HCV transmission, although the risk appears to be substantially greater among HIV-positive men who have sex with men (Topp et al., 2009b). Other common responses included injecting equipment (25%, associated with a significant risk), razors (17%, associated with a moderate risk), saliva (16%, unlikely to be associated with a risk of transmission), toothbrushes (12%, possibly associated with a small risk) and tattooing (10%, possibly associated with a small risk). Small proportions of the sample nominated events which are not associated with the risk of HCV transmission, including utensils (5%), toilets/bathroom facilities (2%), personal items (2%), smoking cigarettes (2%) and kissing (1%). These data demonstrate good familiarity with high risk HCV transmission events among half of participants, but also suggest a need for further education for some inmates.

Drug and alcohol use and offending

Close to two thirds (61%) of 2009 IHS participants reported that they were intoxicated at the time of the offence for which they were currently incarcerated, with men substantially more likely than women to report that this was the case (64% versus 50%) (Table 5.6.30). Men were more likely than women to report being intoxicated on alcohol alone (21% versus 8%) or on both alcohol and drugs (21% versus 13%), whereas women were more likely to report being intoxicated on drugs alone (29% versus 22%). Fewer than 1% of the sample were unsure whether they were intoxicated at the time of their offence.

Table 5.6.30 Intoxication at the time of the current offence

	Men		Women		Total	
	n	%	n	%	n	%
No	279	35.5	93	49.5	372	38.2
Alcohol only	166	21.1	15	8.0	181	18.6
Drugs only	170	21.7	54	28.7	224	23.0
Both drugs and alcohol	163	20.8	25	13.3	188	19.3
Don't know	7	0.9	1	0.5	8	0.8
Total	785	100.0	188	100.0	973	100.0

Among the 592 IHS participants in 2009 who reported being intoxicated at the time of their offence, the most common substance that had been used at the time was alcohol (63%), followed by cannabis (19%), crystalline methamphetamine (10%), meth/amphetamines (9%) and heroin (9%) (Table 5.6.31). Men were substantially more likely than women to report having used alcohol (67% of men who reported intoxication at the time of offence versus 45% of women) and/or cannabis (21% versus 12%), whereas women were more likely than men to report having used heroin (15% versus 8%) and/or cocaine (7% versus 3%).

Table 5.6.31 Intoxication at the time of the current offence by drug type taken

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Alcohol	331	66.6	42	44.7	373	63.1
Cannabis	164	20.9	23	12.2	187	19.2
Crystalline methamphetamine (ice)	82	10.4	18	9.6	100	10.3
Meth/amphetamines (powder/paste)	77	9.8	14	7.4	91	9.3
Heroin	61	7.8	28	14.9	89	9.1
Cocaine	26	3.3	14	7.4	40	4.1
Other	88	11.2	26	13.8	114	11.7
Don't know	1	0.1	0	0.0	1	0.1

Among 2009 IHS participants who reported having been intoxicated at the time of the offence for which they were currently incarcerated, the substance most commonly reported to be most affecting them at that time was alcohol (reported by 42% of those who were intoxicated at the time), followed by crystalline methamphetamine (13%) and heroin (9%). Eight percent of those who reported having been intoxicated at the time of offence were unable to

nominate a single substance which most affected them at that time. Men were more likely than women to report that alcohol was the substance that affected them most (46% versus 26%), while women were more likely to nominate heroin (17% versus 8%) or cocaine (9% versus 2%).

Three quarters (76%) of 2009 IHS participants reported that they were not committing the offence for which they were incarcerated in order to buy drugs and/or alcohol (Table 5.6.32), with no gender difference in the proportion of participants who reported this. A higher proportion of women than men reported that they committed the offence in order to buy drugs (19% versus 14%).

Table 5.6.32 Committing offence to buy drugs or alcohol

	Men		Women		Total	
	n	%	n	%	n	%
No	595	75.7	140	74.5	735	75.5
Yes, to buy alcohol	18	2.3	1	0.5	19	2.0
Yes, to buy drugs	112	14.2	36	19.1	148	15.2
Yes, to buy both drugs and alcohol	47	6.0	10	5.3	57	5.9
Don't know	14	1.8	1	0.5	15	1.5
Total	**786**	**100.0**	**188**	**100.0**	**974**	**100.0**

More than half (54%) of 2009 IHS participants perceived that their current sentence was linked to drugs in some way, with women substantially more likely than men to report that this was the case (65% versus 52%) (Table 5.6.33).

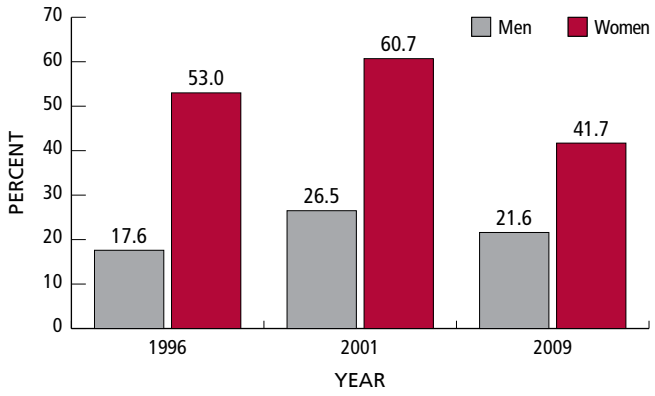
Table 5.6.33 Believe that current sentence is somehow linked to drugs

	Men		Women		Total	
	n	%	n	%	n	%
Yes	405	51.5	123	65.4	528	54.2
No	367	46.7	64	34.0	431	44.3
Don't know	14	1.8	1	0.5	15	1.5
Total	**786**	**100.0**	**188**	**100.0**	**974**	**100.0**

5.7 Drug treatment

The proportion of IHS participants who reported having ever been engaged in methadone maintenance treatment for opiate dependence increased from 23% in 1996 to 33% in 2001, and then declined again to 26% in 2009 (Table 5.7.1). A higher proportion of women than men reported a history of methadone maintenance treatment in all years in which the IHS has been conducted; in 2009, this gender differential translated to 22% of men and 42% of women reporting a methadone treatment history.

Table/Fig 5.7.1 Ever been on methadone program



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	108	615	17.6	183	691	26.5	170	786	21.6
Women	62	117	53.0	91	150	60.7	78	187	41.7
Total	**170**	**732**	**23.2**	**274**	**841**	**32.6**	**248**	**973**	**25.5**

Fourteen percent of 2009 IHS participants reported current engagement in methadone maintenance treatment, that is, while in prison, including 30% of women and 11% of men (Table 5.7.2). A further 11% of men and 12% of women reported having been engaged in methadone treatment in the past, leaving a total of 78% of men and 58% of women who reported having never been formally enrolled in methadone treatment. Among the samples of approximately 900 injecting drug users who participate in the survey component of the annual Illicit Drug Reporting System (IDRS), Australia's illicit drug market surveillance system, current enrolment in methadone treatment has remained relatively stable at a national level at around 30% since 2005 (Stafford et al., 2009).

Table 5.7.2 Ever been on methadone program

	Men		Women		Total	
	n	%	n	%	n	%
Yes, am on it now	84	10.7	56	29.9	140	14.4
Yes, in the past	86	10.9	22	11.8	108	11.1
No, never	616	78.4	109	58.3	725	74.5
Total	**786**	**100.0**	**187**	**100.0**	**973**	**100.0**

Among 2009 IHS participants who reported current engagement in methadone maintenance treatment, just over half (52%) reported that that were enrolled in methadone in the community immediately prior to their imprisonment, including 49% of men and 57% of women currently engaged in methadone treatment. Among these participants, a total of 21% (24% of men and 16% of women) reported having been on a daily dose of less than 60mg (12 mls) methadone. Rigorous systematic reviews suggest that clients receiving daily doses of greater than 60mg are more likely to remain in treatment and to reduce or eliminate their use of illicit drugs (Faggiano et al., 2003).

Eleven percent of 2009 IHS participants (10% of men and 18% of women) reported a history of engagement in buprenorphine maintenance treatment, including seven women (4%) and nine men (1%) who reported currently being engaged in buprenorphine treatment (Table 5.7.3). One male participant reported that he was on a waiting list for buprenorphine. Among the samples of approximately 900 injecting drug users who participate in the annual IDRS, current enrolment in buprenorphine treatment has remained relatively stable at a national level at around 8% since 2005 (Stafford et al., 2009).

Table 5.7.3 Ever been on buprenorphine

	Men		Women		Total	
	n	%	n	%	n	%
Yes, am on it now	9	1.1	7	3.8	16	1.6
Yes, in the past	66	8.4	26	14.0	92	9.5
No, on waiting list	1	0.1	0	0.0	1	0.1
No, never	710	90.3	153	82.3	863	88.8
Total	**786**	**100.0**	**186**	**100.0**	**972**	**100.0**

Fewer than 3% of 2009 IHS participants (N=26, 2% of men and 4% of women) reported a history of naltrexone maintenance treatment, including one woman who reported currently being on naltrexone. No 2009 IHS participants reported a history of engagement in LAAM treatment for heroin dependence.

More than one third (39%) of 2009 IHS participants reported a history of having sought help or treatment to modify or reduce their alcohol and/or drug use, including 38% of men and 43% of women (Table 5.7.4).

Table 5.7.4 Ever sought help to modify or cut down on your drug and alcohol use

	Men		Women		Total	
	n	%	n	%	n	%
Yes	299	38.0	80	43.0	379	39.0
No	487	62.0	106	57.0	593	61.0
Total	**786**	**100.0**	**186**	**100.0**	**972**	**100.0**

According to the findings of the 2007-08 Alcohol and Other Drug Treatment Services National Minimum Data Set, which focuses on clients of government-funded alcohol and other drug treatment services, around 154,000 treatment episodes were provided by such agencies during 2007-08, an increase of about 7,000 episodes compared to 2006-07 (AIHW, 2009). Younger clients were more likely to receive treatment for cannabis use and older clients for alcohol use. Alcohol remained the most common principal drug of concern increasing to 44% of all treatment episodes in 2007-08 compared with 38% in 2002-03. Treatment for heroin use declined over time to 11% in 2007-08 compared with 18% in 2002-03; and the actual number of treatment episodes for heroin also declined. Treatment for cannabis and meth/amphetamines remained stable, at about 22% and 11% respectively.

The drugs for which 2009 IHS participants most commonly sought treatment were alcohol (54% of those who had sought assistance), followed by heroin (40%), meth/amphetamines (25%) and cannabis (23%) (Table 5.7.5). Women were substantially more likely than men to report having sought help to modify their use of heroin (60% of women who had sought help versus 34% of men) and cocaine (14% versus 9%), whereas men were substantially more likely than women to report having sought help to modify their use of alcohol (61% of men who had sought help versus 29% of women) and cannabis (24% versus 18%).

Table 5.7.5 For what drug or alcohol did you seek help (if ever sought help)

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Alcohol	181	60.5	23	28.8	204	53.8
Heroin	103	34.4	47	58.8	150	39.6
Meth/amphetamines	76	25.4	19	23.8	95	25.1
Cannabis	73	24.4	14	17.5	87	23.0
Cocaine	26	8.7	11	13.8	37	9.8
Other	25	8.4	10	12.5	35	9.2

Among 2009 IHS participants who reported a history of having sought help or treatment to modify or reduce their alcohol and/or drug use, the most common agency or individual from whom help had been sought was a prison alcohol and other drug (AOD) worker (reported by 36% of participants who reported having sought help), followed by residential rehabilitation programs (35%), an AOD organisation (24%), 12 step programs such as Alcoholics Anonymous or Narcotics Anonymous (24%), a detoxification facility (22%), a psychologist or psychiatrist (20%), a general practitioner (17%), a methadone clinic (16%) and a community drug counsellor (9%) (Table 5.7.6). Women were substantially more likely than men to report having sought treatment from a methadone clinic (30% of women who reported having sought help versus 12% of men), a detoxification facility (29% versus 20%), a GP (25% versus 14%), an AOD organisation (30% versus 23%) and a community drug counsellor (14% versus 8%). There were no interventions for which a markedly higher proportion of men than women reported having sought help.

Table 5.7.6 Where did you seek help for your drug and alcohol problem (if ever sought help)

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Prison AOD worker	109	36.5	27	33.8	136	35.9
Rehabilitation	103	34.4	31	38.8	134	35.4
AOD organisation	68	22.7	24	30.0	92	24.3
Alcoholics anonymous/ narcotics anonymous	70	23.4	20	25.0	90	23.7
Detoxification facility	59	19.7	23	28.8	82	21.6
Psychologist/ psychiatrist	61	20.4	14	17.5	75	19.8
General Practitioner	43	14.4	20	25.0	63	16.6
Methadone clinic	35	11.7	24	30.0	59	15.6
Community drug counsellor	24	8.0	11	13.8	35	9.2
Drug court	11	3.7	1	1.3	12	3.2
Salvation Army	14	4.7	3	3.8	17	4.5
Community health nurse	12	4.0	3	3.8	15	4.0
Other	41	13.7	13	16.3	54	14.2

Among 2009 IHS participants who reported a history of having sought help or treatment to modify or reduce their alcohol and/or drug use, half (49%, including 50% of men who reported having sought help and 49% of women) further reported having sought such help prior to their incarceration (Table 5.7.7). Men were substantially more likely than women to report having sought assistance only since coming into prison (23% of men who reported having sought help versus 10% of women), while women were substantially more likely than men to report having sought help both in prison and in the community (41% of women who reported having sought help versus 28% of men).

Table 5.7.7 When did you seek help for your drug and alcohol problem (if ever sought help)

	Men		Women		Total	
	n	%	n	%	n	%
Before coming into prison	148	49.5	39	48.8	187	49.3
Since coming into prison	68	22.7	8	10.0	76	20.1
Both	83	27.8	33	41.3	116	30.6
Total	299	100.0	80	100.0	379	100.0

More than one-fifth (23%) of 2009 IHS participants perceived that they currently needed "help quitting drugs," with a higher proportion of women than men reporting this to be the case (29% versus 22%) (Table 5.7.8).

Table 5.7.8 Do you think you need help quitting drugs

	Men		Women		Total	
	n	%	n	%	n	%
Yes	169	21.5	53	28.5	222	22.8
No	617	78.5	133	71.5	750	77.2
Total	**786**	**100.0**	**186**	**100.0**	**972**	**100.0**

Among the 222 IHS participants in 2009 who reported perceiving that they currently needed help quitting drugs, the drug or drugs most commonly nominated were opioids (heroin and/or methadone; 44%), followed by alcohol (37%), meth/amphetamines (35%), cannabis (32%) and cocaine (14%) (Table 5.7.9). Men were more likely than women to perceive that they needed help with quitting alcohol (41% versus 25%), cannabis (36% versus 21%) and/or meth/amphetamines (37% versus 26%); whereas women were more likely to perceive that they needed help quitting opioids (62% versus 38%) and/or cocaine (19% versus 12%).

Table 5.7.9 For what kind of drugs or alcohol do you need help quitting (if any)

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Heroin/ methadone	64	37.9	33	62.3	97	43.7
Alcohol	69	40.8	13	24.5	82	36.9
Methamphetamines	63	37.3	14	26.4	77	34.7
Cannabis	60	35.5	11	20.8	71	32.0
Cocaine	21	12.4	10	18.9	31	14.0
Other	24	14.2	10	18.9	34	15.3

Other help required to quit drugs and alcohol:

- 'Change the people I hang out with.'
- 'Continue with who I am seeing and get into the drug program. Support after I leave the system (e.g. job and housing).'
- 'Counselling and skills for how to live life without drugs.'
- 'If I could give up the tobacco, I think I could stop the cannabis.'
- 'Need more things to keep me busy so I don't think about drinking.'

Twenty three percent of 2009 IHS participants, including 30% of women and 22% of men, reported a history of having "overdosed or become unconscious as a result of taking drugs" (Table 5.7.10). Note that this question did not specify *which* drugs caused the overdose.

Table 5.7.10 Ever overdosed or become unconscious from taking drugs

	Men		Women		Total	
	n	%	n	%	n	%
Yes	169	21.5	56	30.1	225	23.1
No	617	78.5	130	69.9	747	76.9
Total	**786**	**100.0**	**186**	**100.0**	**972**	**100.0**

Eight percent of the sample reported having overdosed once, while 5%, including 4% of men and 7% of women, reported having overdosed five or more times (Table 5.7.11). Among the 909 IDUs who participated in the 2008 IDRS, 45% reported a history of heroin overdose. Among IDUs who reported having overdosed on heroin, a median of three heroin overdoses were reported (range 1-67) (Stafford et al., 2009).

Table 5.7.11 Number of times overdose on drugs

	Men		Women		Total	
	n	%	n	%	n	%
Never	617	79.7	130	70.3	747	77.9
1	58	7.5	15	8.1	73	7.6
2	38	4.9	19	10.3	57	5.9
3	22	2.8	8	4.3	30	3.1
4	7	0.9	1	0.5	8	0.8
5+	32	4.1	12	6.5	44	4.6
Total	**774**	**100.0**	**185**	**100.0**	**959**	**100.0**

The great majority (95%) of overdoses reported by 2009 IHS participants were reported to have occurred in the community, including 100% of overdoses reported by women. No women reported having overdosed in prison, compared with twelve men (equating to 7% of men who reported a history of overdose) who reported having overdosed either only in prison, or both in prison and in the community.

Just over half (51%) of participants who reported a history of overdose further reported that they had been treated with Narcan, including 61% of women and 48% of men; while 7% of the sample, including 8% of men and 5% of women, were unsure whether they had been treated with Narcan following their overdose(s).

General comments about alcohol and other drugs:

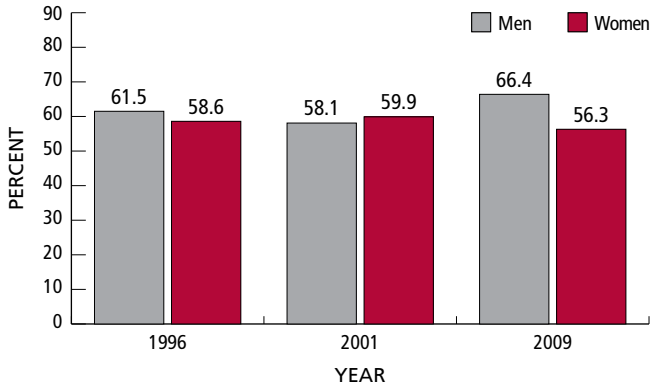
- 'I had given up drugs and alcohol before coming into prison and did program in prison for my own education so can help other Aboriginals and the younger generation.'
- 'A course should be set up by older inmates telling younger ones how it can wreck your life by taking drugs and alcohol.'

5.8 Tattooing and body piercing

Skin penetration procedures such as tattooing and piercing are biologically plausible modes of blood borne virus (BBV) transmission due to potential percutaneous blood exposure following lapses in infection control (Shepard et al., 2005). Nevertheless, evidence for their role in acquisition of infection in the community remains equivocal (Topp et al., 2009b). Tattoos are common among prison inmates and can serve a range of symbolic functions relating to gang membership, a degree of individualism in a highly regimented and homogenous environment, and a form of release from the prison environment. Notably, research conducted among military recruits (Ko et al. 1992), non-injecting drug users (Gyarmathy et al., 2002; Howe et al., 2005), orthopaedic patients (Haley & Fischer, 2001), hospital attendees (Nishioka et al., 2002) and currently or previously incarcerated individuals (e.g. Hellard et al., 2004; Post et al., 2001; Samuel et al., 2001, 2005), suggests that rather than tattooing per se, the BBV transmission risk may be specific to receipt of tattoos performed by non-professionals. In the prison environment, in which tattooing is illegal, professional tattooists are rarely available, and tattooing equipment is contraband and therefore extremely scarce, the risks of BBV transmission are amplified due to the likelihood that any tattoo received in prison will be administered by a non-professional using potentially contaminated equipment. The high background prevalence of BBVs including HBV and HCV among prison inmates serves only to increase the risks.

The proportion of IHS participants who reported having at least one tattoo decreased slightly between 1996 and 2001, from 61% to 58%, and then increased in 2009 to 64% (Table 5.8.1). Men were substantially more likely than women to report having one or more tattoos (66% versus 56%), a gender differential that was not observed in either the 1996 or 2001 IHSs.

Table/Fig 5.8.1 Have at least one tattoo



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	377	613	61.5	406	699	58.1	523	788	66.4
Women	68	116	58.6	91	152	59.9	107	190	56.3
Total	445	729	61.0	497	851	58.4	630	978	64.4

Men were not only more likely than women to have at least one tattoo, but were also more likely to have more than one tattoo (Table 5.8.2). More than one-quarter (29%) of men reported having five or more tattoos, compared with just 11% of women.

Table 5.8.2 Number of tattoos

	Men		Women		Total	
	n	%	n	%	n	%
0	265	33.6	83	43.7	348	35.6
1-4	293	37.2	87	45.8	380	38.9
5-10	141	17.9	18	9.5	159	16.3
11-20	33	4.2	1	0.5	34	3.5
21+	56	7.1	1	0.5	57	5.8
Total	788	100.0	190	100.0	978	100.0

Among 2009 IHS participants who reported having at least one tattoo, a substantial proportion of both men (39%) and women (21%) reported that they had obtained at least one tattoo while in prison (Table 5.8.3), while 16% of men and 9% of women reported that all of their tattoos had been administered while they were in prison. Women were substantially more likely than men to report having obtained all of their tattoos in the community (79% versus 61%).

Table 5.8.3 Location tattoos obtained (if any tattoos)

	Men		Women		Total	
	n	%	n	%	n	%
Community only	318	60.8	85	79.4	403	64.0
Prison only	85	16.3	10	9.3	95	15.1
Both prison and community	120	22.9	12	11.2	132	21.0
Total	**523**	**100.0**	**107**	**100.0**	**630**	**100.0**

Among 2009 IHS participants who reported having obtained at least one tattoo in the community, close to three quarters (72%) reported that all of the tattoos they had obtained in the community were administered by a professional tattoo artist or in a professional studio (Table 5.8.4). Twenty eight percent of men and 26% of women with tattoos that had been administered in the community reported that at least one such tattoo had been administered by a non-professional. Men with tattoos that had been administered in the community were slightly more likely than women to report that all such tattoos had been administered by a non-professional (18% versus 14%).

Table 5.8.4 Who did the tattoos in the community (if any tattoos)

	Men		Women		Total	
	n	%	n	%	n	%
Professional tattoo artist/ studio	315	71.9	72	74.2	387	72.3
Non-professional	79	18.0	14	14.4	93	17.4
Both professional + non-professional	44	10.0	11	11.3	55	10.3
Total	**438**	**100.0**	**97**	**100.0**	**535**	**100.0**

Among 2009 IHS participants who reported having had at least one tattoo administered in the community by a non-professional, the majority reported either that new tattooing equipment was used (41%) or that the tattooing equipment had been cleaned before their tattoo was administered (47%). Men were substantially more likely than women to report that brand new equipment was used (43% versus 32%), whereas women were more likely to report that the equipment was cleaned prior to use (52% versus 46%) or that the equipment was neither new nor cleaned prior to use (12% versus 5%).

It is a policy of Corrective Services NSW to provide the hospital grade disinfectant Fincol to prison inmates for the purposes of decontaminating injecting, tattooing and piercing equipment prior to its reuse in order to reduce the risk of BBV transmission. Nevertheless, apart from the problems identified by some IHS participants in accessing Fincol, it also remains the case that guidelines for the effective decontamination of tattooing and piercing equipment do not exist. Moreover, even in the case of injecting equipment, for which cleaning guidelines do exist (see section 5.6), it is not clear that inmates are either aware of the guidelines or in a position to implement them while in prison.

Among 2009 IHS participants who reported having had at least one tattoo administered in prison (Table 5.8.5), the majority reported either that the tattooing equipment had been cleaned before their tattoo was administered (50%), or that new tattooing equipment was used (34%). Women were more likely than men to report that brand new equipment was used (41% versus 34%) or that the equipment was neither new nor cleaned prior to use (9% versus 4%). Men were more likely to report that the equipment was cleaned prior to use (57% versus 50%).

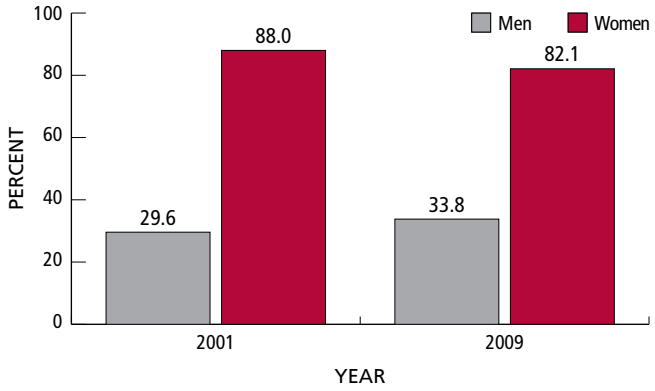
Table 5.8.5 Cleaning before use of tattooing equipment in prison

	Men		Women		Total	
	n	%	n	%	n	%
Yes	117	57.1	11	50.0	128	56.4
No	9	4.4	2	9.1	11	4.8
Don't know	10	4.9	0	0.0	10	4.4
Brand new equipment was used	69	33.7	9	40.9	78	34.4
Total	**205**	**100.0**	**22**	**100.0**	**227**	**100.0**

Among 2009 IHS participants who reported that they had received a tattoo in prison using equipment that had been cleaned prior to its use, the majority (62%) reported that cleaning had consisted of, or included, being soaked in bleach, with men substantially more likely than women to report that this was the case (64% versus 44%). Of all the cleaning methods identified, this is the one most likely to effectively decontaminate needles and syringes, dependent upon the contact time between the bleach and the equipment. Information on contact time was not sought from IHS participants, preventing an estimation of the proportion of potentially effective cleaning episodes. Boiling water (which is not recommended for cleaning of injecting equipment because warm/hot water causes blood to coagulate and provides a dry-reservoir for viruses [Harm Reduction Coalition, 2005]) was reported as a cleaning method by 13% of both men and women who had received a tattoo in prison with equipment that had been cleaned prior to use. Women were substantially more likely than men to report that they did not know what methods had been used to clean the tattoo equipment prior to it being used to administer their tattoo(s).

The proportion of IHS participants who reported having at least one body piercing (including ear piercing) increased slightly from 40% in 2001 to 43% in 2009 (Table 5.8.6). Women were substantially more likely than men to report having one or more piercings (82% versus 34%), a gender differential that was also observed in the 2001 IHS.

Table/Fig 5.8.6 Have at least one piercing (including ear piercing)



	2001			2009		
	n	Total	%	n	Total	%
Men	201	680	29.6	266	788	33.8
Women	125	142	88.0	156	190	82.1
Total	**326**	**822**	**39.7**	**422**	**978**	**43.1**

Women were not only more likely than men to have at least one piercing, but were also more likely to have more than one piercing (Table 5.8.7). More than half (52%) of women reported having three or more piercings, compared with just 10% of men.

Table 5.8.7 Number of piercings (including ear piercing)

	Men		Women		Total	
	n	%	n	%	n	%
None	522	66.2	34	17.9	556	56.9
1	116	14.7	12	6.3	128	13.1
2	70	8.9	45	23.7	115	11.8
3	31	3.9	24	12.6	55	5.6
4+	49	6.2	75	39.5	124	12.7
Total	**788**	**100.0**	**190**	**100.0**	**978**	**100.0**

Unsurprisingly, the most common location of body piercings among both men and women was in the ear (90% of participants who reported at least one piercing). Tongues (23% of women, 11% of men), noses (19% of women, 7% of men) and nipples (18% of men, 7% of women) were other common locations for participants who had a piercing.

Piercing in prison appears to be somewhat less common than tattooing. Among 2009 IHS participants who reported having at least one piercing, relatively small proportions of both men (14%) and women (14%) reported that they had obtained at least one piercing while in prison (Table 5.8.8), and just 9% of men and 3% of women reported that all of their piercings had been administered while they were in prison. The majority of both men and women (86%) reported that all of their piercings had been obtained in the community.

Table 5.8.8 Where were piercings obtained (if any piercings)

	Men		Women		Total	
	n	%	n	%	n	%
Community only	228	85.7	133	85.8	361	85.7
Prison only	24	9.0	6	3.9	30	7.1
Both prison and community	14	5.3	16	10.3	30	7.1
Total	**266**	**100.0**	**155**	**100.0**	**421**	**100.0**

Among the relatively small number (N=60) of 2009 IHS participants who reported having had at least one piercing administered in prison, the majority reported either that the piercing equipment had been cleaned before their piercing was administered (70%) or that new piercing equipment was used (25%). Two men (5%) reported that the equipment had not been cleaned before use, while just one woman acknowledged that she did not know whether the piercing equipment had been cleaned.

5.9 Sexual health

Six 2009 IHS participants (5 men, 1 woman) reported never having "had sex", defined for the purposes of this Survey as engaging in vaginal or anal sex. Remaining participants reported having first engaged in vaginal or anal intercourse at a median age of 14 years among men (range 5-30 years) and 15 years among women (range 7-30 years) (Table 5.9.1). Given the high prevalence of childhood sexual abuse documented previously among prison inmates (Butler et al., 2001), some participants' reported age of first sex may refer to an episode of abuse involving intercourse; whereas for others it may relate to age of first consensual sex. In NSW, the age at which it is legal to engage in sexual relations is 16 years.

Table 5.9.1 Age of first sexual (vaginal or anal) intercourse characteristics

	Men	Women	Total
N	747	177	924
Mean (± sd)	14.6 (± 2.6)	15.4 (± 2.8)	14.8 (± 2.7)
Median	14.0	15.0	15.0
Range	5 - 30	7 - 30	5 - 30

The median age of the partner with whom 2009 IHS participants first engaged in anal or vaginal intercourse was 16 years among men (range 7-60 years) and 18 years among women (range 12-48 years). Seventeen percent of 2009 IHS participants (13% of men and 33% of women) reported first having sexual intercourse with a partner five or more years older (Table 5.9.2). These proportions are higher than among Australia's general population, among whom 7% of men and 14% of women reported having experienced their first vaginal intercourse with a partner five or more years older (Rissel et al., 2003a). Such comparative differences reflect the sexual vulnerability of inmate populations when young (Richters et al., 2008), and particularly among young women who are subsequently imprisoned as adults.

Table 5.9.2 Partner's age relative to participant's age at first sexual (vaginal or anal) intercourse

	Men		Women		Total	
	n	%	n	%	n	%
20+ years older	8	1.1	5	3.0	13	1.4
10 - 19 years older	23	3.1	15	8.9	38	4.2
5 - 9 years older	63	8.5	36	21.3	99	10.9
1 - 4 years older	273	36.9	89	52.7	362	39.9
Same age	311	42.1	22	13.0	333	36.7
1 - 4 years younger	59	8.0	1	0.6	60	6.6
5+ years younger	2	0.3	1	0.6	3	0.3
Total	**739**	**100.0**	**169**	**100.0**	**908**	**100.0**

The great majority of 2009 IHS participants (99% of men and 97% of women) reported first engaging in sexual (vaginal or anal) intercourse with a partner of the "opposite sex" (we use this terminology out of convention rather than because we believe that men and women are sexual opposites) (Table 5.9.3).

Table 5.9.3 Gender of participant's partner at first sexual (vaginal or anal) intercourse

	Men		Women		Total	
	n	%	n	%	n	%
Men	8	1.0	174	97.2	182	19.1
Women	764	99.0	5	2.8	769	80.9
Total	**772**	**100.0**	**179**	**100.0**	**951**	**100.0**

The majority (92%) of 2009 IHS participants identified as heterosexual (Table 5.9.4). Women were substantially more likely than men to identify as homosexual (5% versus <1%) or bisexual (18% versus 3%). These results are consistent with those of the 2005 *Sexual Health and Attitudes of Australian Prisoners* (SHAAP) study (Richters et al., 2008), which documented a substantially higher proportion of lesbian and bisexual women among female prison inmates when compared to women in the general population. A similar pattern has been documented among clients of Australia's publicly funded needle and syringe programs, where a relatively high proportion of female clients identify as bisexual, and bisexual identification among females is strongly associated with reporting a history of sex work (NCHECR, 2009; Topp et al., 2008).

Table 5.9.4 Sexual identity

	Men		Women		Total	
	n	%	n	%	n	%
Heterosexual	752	96.4	139	75.5	891	92.4
Bisexual	22	2.8	33	17.9	55	5.7
Homosexual	3	0.4	10	5.4	13	1.3
Other	3	0.4	2	1.1	5	0.5
Total	**780**	**100.0**	**184**	**100.0**	**964**	**100.0**

Small proportions of 2009 IHS participants who identified as heterosexual reported having engaged at some time in sexual activity with a partner of the same gender during their lifetime (Table 5.9.5). Among men, whereas 3.6% identified as homosexual, bisexual or 'other', a slightly larger proportion (4.4%) reported having engaged in male-to-male sexual activity. Likewise, among women, whereas 24.1% identified as homosexual, bisexual or 'other', 27.2% reported having engaged in female-to-female sexual activity. Such results underscore that sexual identity is based on more than the concrete fact of with whom an individual has engaged in sexual activity (Richters et al., 2008).

Although participants were not questioned about where their various forms of sexual activity had occurred (for example, while in the community or while in prison), results may also reflect, at least in part, that prison inmates may feel compelled to resort to sexual activity while in prison that they would not choose to engage in while in the community. This may be activity undertaken for pleasure, but may also be as a result of coercion, as payment for a prison debt, or for protection (Richters et al., 2008). Nevertheless, in a detailed study of sexual behaviour and attitudes among NSW prison inmates, Richters et al. (2008) found that the great majority of men who reported male-to-male sexual contact within prison also reported having engaged in such activity outside of prison; and suggested that the common impression that most sex between men in prison is 'situational' and occurs between men who have not had same-sex in other settings, is erroneous.

Table 5.9.5 Sexual activity

	Men		Women		Total	
	n	%	n	%	n	%
Exclusively heterosexual	746	95.6	134	72.8	880	91.3
Any homosexual activity	34	4.4	50	27.2	84	8.7
Total	**780**	**100.0**	**184**	**100.0**	**964**	**100.0**

Although a higher proportion of male than female 2009 IHS participants reported having had no sexual partners (defined for these purposes as including partners with whom the participant had engaged in vaginal, anal and/or oral sex) in the preceding year (44% versus 35%), men were also more likely to report having had multiple sexual partners during that period (26% versus 22%); and were twice as likely to report having had three or more partners within that time (18% versus 9%) (Table 5.9.6). This pattern, wherein men report a higher number of sexual partners than women, is common in sex surveys across a number of populations; Richters et al. (2008) suggest that men are likely to over-report their number of sexual partners.

Table 5.9.6 Number of sexual partners in past year

	Men		Women		Total	
	n	%	n	%	n	%
0	335	43.7	62	34.8	397	42.0
1	231	30.1	76	42.7	307	32.5
2	65	8.5	24	13.5	89	9.4
3 - 4	67	8.7	12	6.7	79	8.4
5 - 9	35	4.6	4	2.2	39	4.1
10+	34	4.4	0	0.0	34	3.6
Total	**767**	**100.0**	**178**	**100.0**	**945**	**100.0**

Among men who reported having engaged in sexual activity in the preceding year, the great majority (97%) reported that their partner(s)' gender was female (Table 5.9.7). The proportion of women who reported having engaged in sexual activity in the preceding year only with men was substantially smaller (74%); women were substantially more likely than men to report having engaged in sexual activity with a member of the same gender (15% versus 2%) or with partners of both genders (11% versus <1%).

Table 5.9.7 Gender of sexual partners in past year

	Men		Women		Total	
	n	%	n	%	n	%
Men	9	2.0	88	73.9	97	17.3
Women	431	97.3	18	15.1	449	79.9
Both	3	0.7	13	10.9	16	2.8
Total	**443**	**100.0**	**119**	**100.0**	**562**	**100.0**

Sixty percent of 2009 IHS participants reported having had 10 or more lifetime sexual partners (with whom they had engaged in vaginal, anal and/or oral sexual activity), with men substantially more likely than women to report that this was the case (65% versus 35%). Around one in eight men and one in 16 women reported having had 60 or more sexual partners in their lifetime (Table 5.9.8). These results are consistent with those of the SHAAP study (Richters et al., 2008), which demonstrated that prison inmates report a significantly higher number of lifetime sexual partners than do the general population.

Table 5.9.8 Number of lifetime sexual partners

	Men		Women		Total	
	n	%	n	%	n	%
1 - 4	107	15.4	68	39.8	175	20.2
5 - 9	134	19.3	43	25.1	177	20.5
10 - 19	139	20.0	29	17.0	168	19.4
20 - 39	155	22.3	16	9.4	171	19.8
40 - 59	75	10.8	5	2.9	80	9.2
60+	84	12.1	10	5.8	94	10.9
Total	**694**	**100.0**	**171**	**100.0**	**865**	**100.0**

Ninety six percent of male 2009 IHS participants reported having engaged in sexual activity only with women in their lifetime (Table 5.9.9), whereas less than three quarters (74%) of women reported having engaged in sexual activity only with men. Women were substantially more likely than men to report having engaged in sexual activity with a member of the same gender (4% versus <1%) or with both genders (22% versus 4%).

Table 5.9.9 Gender of lifetime sexual partners

	Men		Women		Total	
	n	%	n	%	n	%
Men	3	0.4	135	73.8	138	14.3
Women	749	96.1	7	3.8	756	78.6
Both	27	3.5	41	22.4	68	7.1
Total	**779**	**100.0**	**183**	**100.0**	**962**	**100.0**

Among 2009 IHS participants, women were substantially more likely to report having engaged in sex work at some time in their lives (14% versus 1%). The proportions of male and female participants who disclosed participation in sex work was substantially lower than among respondents to the SHAAP study (Richters et al., 2008), which documented a history of sex work among 8% of male inmates and 27% of female inmates, but were also higher than those reported among the general population (Rissel et al., 2003b).

Just a small proportion (4%) of 2009 IHS participants reported having engaged in vaginal, anal or oral sexual activity with another inmate, with women substantially more likely than men to report that this was the case (12% versus 2%) (Table 5.9.10). The great majority of this sexual activity was reported to be consensual. Among the 16 men who disclosed having engaged in sexual activity with another inmate, 15 reported that this sexual activity was consensual; likewise, among the 22 women who disclosed sexual activity with another inmate, 21 described this as consensual.

Table 5.9.10 Had sex with another inmate since coming into prison

	Men		Women		Total	
	n	%	n	%	n	%
Yes	16	2.1	22	12.0	38	3.9
No	764	97.9	162	88.0	926	96.1
Total	780	100.0	184	100.0	964	100.0

One comment about sexual health was:

- 'Conjugal visits should be looked at for inmates in relationships.'

Condoms/Dental Dams

Condoms (in men's prisons) and dental dams (in women's) were introduced into NSW prisons in 1996 following a legal challenge instituted in the NSW Supreme Court by 52 inmates (Yap et al., 2007). Under the 1996 prison policy, condoms and dental dams were not to be used for any purpose other than sexual activity with another consenting inmate within a prison cell. They are distributed through health centres and vending machines located in prison wings and are dispensed in a pack containing one condom, a sachet of lubricant and a plastic Ziplock bag for disposal purposes. By 2005, the condom program was distributing approximately 30,000 condoms and dental dams per month to NSW inmates (Yap et al., 2007). Despite concerns among politicians, prison custodial and health authorities, and inmates themselves that provision of such means of protection from BBVs and STIs would (i) encourage inmates to have sex; (ii) lead to an increase in sexual assaults in prison; (iii) provide inmates with a means to conceal contraband items; and (iv) provide inmates with an item that could be used as a weapon, research has documented no evidence of serious adverse consequences associated with the distribution of condoms and dental dams (Yap et al., 2007).

The majority (62%) of 2009 IHS participants reported never using condoms and/or dental dams with their sexual partners in the year before their current incarceration (Table 5.9.11), with a higher proportion of women than men reporting having never used condoms during that period (69% versus 60%). Men were slightly more likely than women to report having used condoms and/or dams "all" or "most of the time" (22% versus 19%).

Table 5.9.11 Frequency of use of condoms and/or dental dams in the year prior to incarceration

	Men		Women		Total	
	n	%	n	%	n	%
All the time	87	11.2	16	8.7	103	10.7
Most of the time	80	10.3	18	9.8	98	10.2
Occasionally	139	17.8	22	12.0	161	16.7
Never	466	59.7	127	69.0	593	61.5
Don't know	8	1.0	1	0.5	9	0.9
Total	780	100.0	184	100.0	964	100.0

Among 2009 IHS participants who reported never having used condoms and/or dental dams in the year prior to their current incarceration, the most common reason offered by both men and women was that they did not need to use them because they knew their partners were free from infections (Table 5.9.12). Men were substantially more likely than women to report that they never used condoms and/or dams because they didn't like the feeling (22% versus 6%). Apathy, intoxication and a lack of availability of condoms/dams were also offered as reasons for not using them. A substantial proportion of women indicated that they were 'trying to conceive a baby' (recorded as an 'other' reason).

Table 5.9.12 Reasons never use condoms and/or dental dams in the year prior to incarceration

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Knew partners were clean	293	62.9	76	59.8	369	62.2
Dislike the feeling	103	22.1	8	6.3	111	18.7
Couldn't be bothered	35	7.5	7	5.5	42	7.1
Unavailable	17	3.6	0	0.0	17	2.9
Impulsive	12	2.6	1	0.8	13	2.2
Intoxicated on drugs/ alcohol	10	2.1	0	0.0	10	1.7
Other	68	14.6	40	31.5	108	18.2

The great majority of both male (95%) and female (90%) 2009 IHS participants reported being aware of the CSNSW policy to provide prison inmates with condoms and/or dental dams. A much smaller proportion (15%) of the sample reported having tried to access condoms and/or dams in prison, including 16% of males and 12% of females.

Among the 145 IHS participants in 2009 who reported having attempted to access condoms and/or dams in prison, the majority (91%) described them as "easy" or "very easy" to obtain (Table 5.9.13). Women were substantially more likely than men to consider condoms/dams "difficult" to obtain (18% versus 3%).

Table 5.9.13 Ease of obtaining condoms and/or dental dams in prison (if ever tried to obtain them)

	Men		Women		Total	
	n	%	n	%	n	%
Very easy	72	58.5	9	40.9	81	55.9
Easy	44	35.8	7	31.8	51	35.2
Difficult	4	3.3	4	18.2	8	5.5
Not available	3	2.4	2	9.1	5	3.4
Total	123	100.0	22	100.0	145	100.0

Overall, 41% of 2009 IHS participants (45% of men and 23% of women) reported being aware of inmates using condoms and dams for purposes other than sex. The SHAAP study (Richters et al., 2008) documented reports of male inmates using condoms more often as a masturbatory aid (known as 'Fifi') than for anal intercourse. The 2001 IHS (Butler & Milner, 2003) documented a range of uses of condoms and dental dams among inmates, including for storage of contraband items, to make water and/or urine bombs, and for use as hairbands among the women. The use of lubricant as hair gel was also documented in the earlier Survey. Although condoms have been used to conceal contraband items such as tobacco and illicit drugs, it is important to note that their introduction was not associated with an increase in the prevalence of injecting drug use in prisons. As Yap et al. (2007) argue, "(p)risoners would undoubtedly find any means of storing contraband even if condoms were unavailable. In a controlled and resource-poor setting, inmates display great inventiveness in employing any new resources for a variety of purposes…" (p.221).

Sexually Transmissible Infections

Two thirds (68%) of 2009 IHS participants reported never having been diagnosed with a sexually transmissible infection (STI) (Table 5.9.14), with a higher proportion of men than women reporting this to be the case (69% versus 63%). Men were more likely than women to report having been diagnosed with pubic lice (12% versus 4%), syphilis (3% versus 1%) and gonorrhoea (5% versus 3%); whereas women were more likely to report having been diagnosed with chlamydia (10% versus 5%), genital warts (5% versus 3%) and genital herpes (4% versus 2%). Among women, reports of vaginal candidiasis diagnosis were relatively common (9%), whereas pelvic inflammatory disease, bacterial vaginosis and Trichomaniasis appeared to be less so.

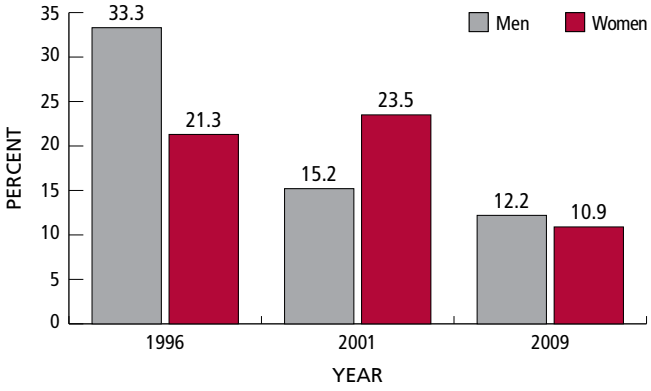
Table 5.9.14 Ever diagnosed with a sexually transmissible infection

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
No STIs	548	68.8	125	62.8	673	67.6
Gonorrhoea	40	5.1	5	2.7	45	4.7
Genital warts	24	3.1	10	5.4	34	3.5
Genital herpes	14	1.8	8	4.3	22	2.3
Chlamydia	41	5.3	18	9.8	59	6.1
Pubic lice	87	11.2	7	3.8	94	9.8
Syphilis	25	3.2	2	1.1	27	2.8
Urethritis	9	1.2	1	0.5	10	1.0
Cold sores	74	9.5	15	8.2	89	9.2
Other STI	7	0.9	1	0.5	8	0.8
Pelvic inflammatory disease	–	–	3	1.6	–	–
Bacterial vaginosis	–	–	4	2.2	–	–
Candidiasis	–	–	16	8.7	–	–
Trichomaniasis	–	–	3	1.6	–	–

Sexual Violence

The proportion of IHS participants who reported being aware of sexual assaults taking place in prison in the preceding year declined markedly between 1996 and 2001, from 32% to 17%, and then decreased further in 2009 to 12% of the sample (Table 5.9.15). Among 2009 participants, there was little difference in the proportion of males and females who reported being aware of a recent sexual assault in prison (12% versus 11%); however, in earlier Surveys, substantial (and inconsistent) differences between genders in awareness of sexual assault were documented.

Table/Fig 5.9.15 Awareness of any sexual assaults in prison in the past year



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	196	588	33.3	103	676	15.2	95	780	12.2
Women	23	108	21.3	35	149	23.5	20	184	10.9
Total	219	696	31.5	138	825	16.7	115	964	11.9

The majority of 2009 IHS participants who reported awareness of a sexual assault having occurred in prison within the preceding year reported being aware of one or two such assaults; nevertheless, a total of 2% of the sample (2% of both men and women) reported being aware of four or more such assaults. Among 2009 IHS participants, 17 men (equating to 2% of men) and 9 women (equating to 5% of women) reported having been sexually harassed or threatened with sex by another inmate.

Female 2009 IHS participants were substantially more likely than males to report that since the age of 16 years, they had been subjected to at least one form of sexual violence (29% versus 2%) (Table 5.9.16). Women were also more likely to report that they had been subjected to such sexual violence on more than one occasion (22% versus 2%). Twenty two percent of women reported having engaged in vaginal or anal sexual activity with a partner who threatened violence (compared with <1% of men); 21% of women reported having been subjected to actual violence during sexual activity (versus 1% of men); and 18% of women reported having had a partner who used their weight or size to immobilise the participant during sexual activity (versus 2% of men).

Table 5.9.16 Any sexual violence since age of 16 years

	Men		Women		Total	
	n	%	n	%	n	%
No	761	97.6	131	71.2	892	92.5
Yes, once	7	0.9	13	7.1	20	2.1
Yes, more than once	12	1.5	40	21.7	52	5.4
Total	780	100.0	184	100.0	964	100.0

Two thirds (66%) of female 2009 IHS participants reported having been involved in at least one violent relationship, compared with 28% of males (Table 5.9.17). Women were also substantially more likely than men to report having been involved in two or more violent relationships (28% versus 10%).

Table 5.9.17 Number of violent relationships involved in

	Men		Women		Total	
	n	%	n	%	n	%
0	565	72.4	63	34.2	628	65.1
1	134	17.2	70	38.0	204	21.2
2	49	6.3	24	13.0	73	7.6
3+	32	4.1	27	14.7	59	6.1
Total	780	100.0	184	100.0	964	100.0

5.10 Health service utilisation

The majority (86%) of 2009 IHS participants reported having accessed, at some time, at least one health service in the community (Table 5.10.1), with women substantially more likely than men to report that this was the case (96% versus 83%). Women were more likely than men to have accessed every type of community health service listed, but were particularly more likely to report having gone to general practitioners (80% versus 59%) and medical centres (61% versus 40%). Just over one in six men (17%) had never accessed healthcare in the community.

Table 5.10.1 Health services accessed in the community

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
No health services	135	17.0	8	4.1	143	14.4
General practitioner	471	59.3	156	79.6	627	63.3
Hospital	433	54.5	130	66.3	563	56.9
Medical centre	319	40.2	120	61.2	439	44.3
Community health centre	179	22.5	75	38.3	254	25.7
Home nursing	27	3.4	18	9.2	45	4.5
Other	80	10.1	44	22.4	124	12.5

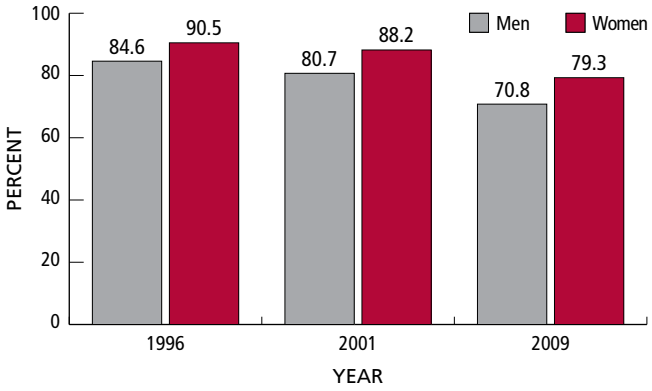
Fifty seven percent of 2009 Aboriginal and/or Torres Strait Islander IHS participants reported having accessed Aboriginal Health Services in the community, with Aboriginal women slightly more likely than Aboriginal men to report that this was the case (60% versus 56%) (Table 5.10.2).

Table 5.10.2 Aboriginal Health Services accessed in the community (if Aboriginal origin)

	Men		Women		Total	
	n	%	n	%	n	%
Yes	144	56.0	32	60.4	176	56.8
No	113	44.0	21	39.6	134	43.2
Total	**257**	**100.0**	**53**	**100.0**	**310**	**100.0**

Close to three quarters (73%) of the 2009 IHS sample reported that they had had at least one HIV test during their lives (Table 5.10.3), with a higher proportion of women than men reporting this to be the case (79% versus 71%). This gender difference is consistent with the findings of earlier IHSs, although the proportion of participants reporting a history of HIV testing decreased from 86% in 1996 to 82% in 2001 and again to 73% in 2009. Between 86% and 88% of samples of Australian NSP clients report a history of HIV testing (NCHECR, 2009).

Table/Fig 5.10.3 Ever have HIV Test



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	522	617	84.6	562	696	80.7	564	797	70.8
Women	105	116	90.5	134	152	88.2	157	198	79.3
Total	**627**	**733**	**85.5**	**696**	**848**	**82.1**	**721**	**995**	**72.5**

Half of 2009 IHS participants who reported a history of HIV testing reported that they had been tested only in prison (as opposed to the community) (Table 5.10.4), with a greater proportion of men than women reporting this to be the case (54% versus 39%). Conversely, women were more likely than men to report having been tested both in prison and in the community (36% versus 22%), although similar proportions of men and women reported having been tested only in the community (24% versus 26%).

Given that the majority of participants who reported having been tested for HIV also reported that testing had occurred in prison (Table 5.10.4), the decline in the proportion of IHS samples reporting a history of HIV testing may be related to change in Justice Health screening policies. In 1991, legislation required the mandatory HIV screening of all prison entrants, which was conducted by the (then) Corrections Health Service. This program was superseded in 1994 by the Voluntary BBV Screening Program, under which HIV screening was offered to all those entering custody. In 2002, targeted screening of all inmates, including prison entrants, who reported high risk behaviour (including male-to-male sexual activity and injecting drug use), priority

groups including inmates of Aboriginal origin and those from culturally and linguistically diverse backgrounds, and people entering prison for the first time, was introduced. This program depended on self-referral and referral by prison health care providers. In 2007, the Early Detection Program was introduced, as it was recognised that prisoners as a group were at risk of BBV infection. Entry into this program is dependent on self-referral and referral by prison health care providers.

Table 5.10.4 Location of HIV testing (if ever tested)

	Men		Women		Total	
	n	%	n	%	n	%
Prison only	302	53.5	61	38.9	363	50.3
Both prison and community	126	22.3	56	35.7	182	25.2
Community only	134	23.8	40	25.5	174	24.1
Don't know	2	0.4	0	0.0	2	0.3
Total	**564**	**100.0**	**157**	**100.0**	**721**	**100.0**

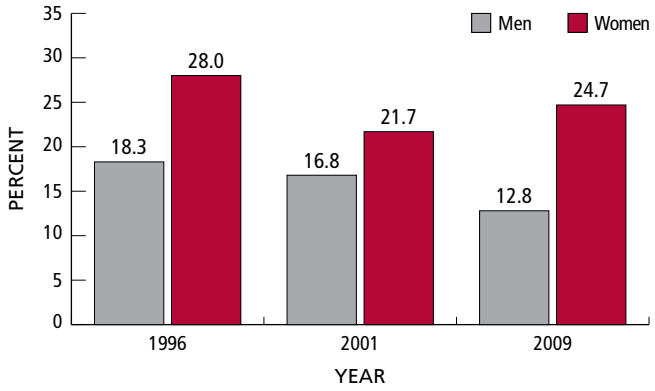
More than half (54%) of 2009 IHS participants reported having been screened for at least one BBV (HIV and/or viral hepatitis) or an STI while in prison (Table 5.10.5), with a higher proportion of women than men reporting this to be the case (63% versus 52%).

Table 5.10.5 Ever tested for HIV, hepatitis or STI while in prison

	Men		Women		Total	
	n	%	n	%	n	%
Yes	409	51.7	123	63.4	532	54.0
No	382	48.3	71	36.6	453	46.0
Total	**791**	**100.0**	**194**	**100.0**	**985**	**100.0**

Overall, the proportion of IHS participants who reported having been admitted as an inpatient to a general or psychiatric hospital for a stay of at least one night in the past year decreased from 20% in 1996 to 18% in 2001 to 15% in 2009 (Table 5.10.6). The decline has been gradual and steady among men (from 18% to 17% to 13%), whereas the pattern for women has been a little more variable, declining from 28% in 1996 to 22% in 2001 and then increasing to 25% in 2009. The overall results and the results for men are relatively comparable with those of the NSW Population Health Survey (Centre for Epidemiology and Research, 2009), which found that in 2008, 14% of adults aged 16 years or older in NSW were admitted to a hospital for at least one night, including 11% of men. However, among women aged 16 years or older in the NSW general population, 17% reported an inpatient hospital admission within the preceding year, substantially lower than the 25% of female IHS participants who made equivalent reports.

Table/Fig 5.10.6 Hospital inpatient admissions in the past year



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	113	617	18.3	119	708	16.8	101	792	12.8
Women	33	118	28.0	33	152	21.7	48	194	24.7
Total	**146**	**735**	**19.9**	**152**	**860**	**17.7**	**149**	**986**	**15.1**

Twenty-five percent of women and 13% of men reported at least one hospital inpatient admission in the past year (Table 5.10.7). The majority reported having only one admission, although women were more likely than men (5% versus 2%) to have had three or more hospital admissions in the past year. Further, 37% of men and 44% of women who reported a hospital admission in the past year reported that at least one such admission had occurred while they were in prison.

Table 5.10.7 Number of hospital inpatient admissions in the past year

	Men		Women		Total	
	n	%	n	%	n	%
0	691	87.2	146	75.3	837	84.9
1	63	8.0	24	12.4	87	8.8
2	25	3.2	15	7.7	40	4.1
3+	13	1.6	9	4.6	22	2.2
Total	**792**	**100.0**	**194**	**100.0**	**986**	**100.0**

Among 2009 IHS participants, 19% of men reported a recent hospital outpatient visit, compared to 36% of women (Table 5.10.8). Among the 222 participants who reported having presented to a hospital outpatient clinic within the preceding year, the majority (53%) reported having done so just once. Further, 61% of men (N=92) and 80% of women (N=56) reported that at least one such outpatient visit had occurred while they were in prison. The 1996 and 2001 Surveys combined hospital outpatient visits with Emergency Department presentations in the same question; consequently data over time is not comparable and is not presented here.

Table 5.10.8 Number of hospital outpatient visits in the past year

	Men		Women		Total	
	n	%	n	%	n	%
0	640	80.8	124	63.9	764	77.5
1	84	10.6	34	17.5	118	12.0
2	32	4.0	16	8.2	48	4.9
3+	36	4.5	19	9.8	55	5.6
Total	792	100.0	194	100.0	986	100.0

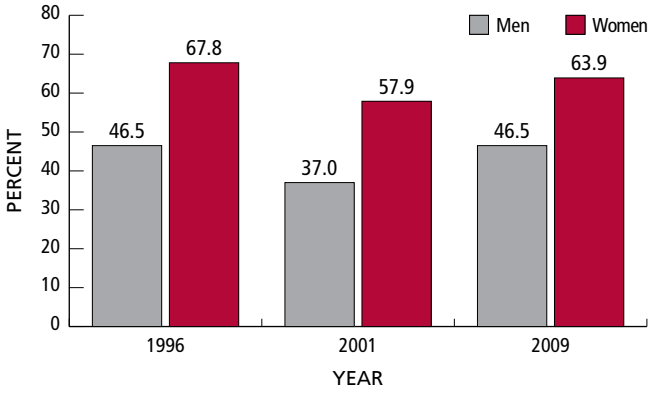
Nearly one in five men (19%) and 29% of women indicated that they had presented to a hospital Emergency Department in the past year (Table 5.10.9). This proportion of IHS participants who reported presenting to an Emergency Department was higher than among the general community, where 17% of women aged 16 years or older in NSW, and 18% of men, reported having presented to a hospital Emergency Department within the preceding year (Centre for Epidemiology and Research, 2009). Female IHS participants were more likely than male to report two or more Emergency Department presentations (15% versus 7%). Further, 41% of men (N=62) and 46% of women (N=26) reported that at least one such presentation had occurred while they were in prison.

Table 5.10.9 Number of Emergency Department presentations in the past year

	Men		Women		Total	
	n	%	n	%	n	%
0	639	80.8	138	71.1	777	78.9
1	100	12.6	27	13.9	127	12.9
2	31	3.9	18	9.3	49	5.0
3+	21	2.7	11	5.7	32	3.2
Total	791	100.0	194	100.0	985	100.0

Over all the years in which the IHS has been conducted, between 40% and 50% of participants reported regularly visiting the prison health centre for medications on repeat prescriptions, such as methadone or insulin (Table 5.10.10), with a consistently higher proportion of women than men reporting this to be the case. Among 2009 participants, 64% of women and 47% of men reported regularly visiting the prison clinic to acquire such medications.

Table/Fig 5.10.10 Regularly visit the prison health centre for repeat prescription medications



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	284	611	46.5	262	708	37.0	368	791	46.5
Women	80	118	67.8	88	152	57.9	124	194	63.9
Total	364	729	49.9	350	860	40.7	492	985	49.9

General comments about healthcare in prison:

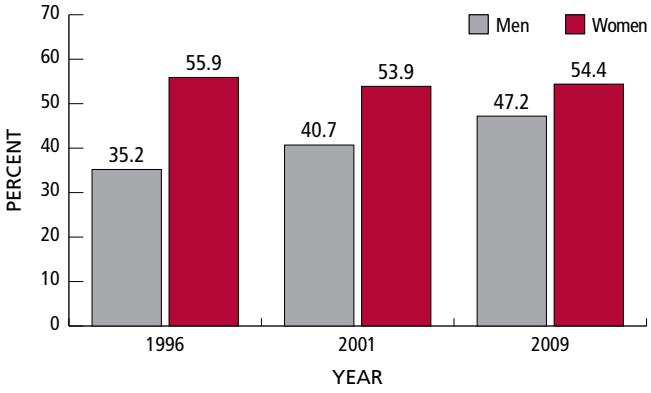
- 'Need better access to dental health.'
- 'The health staff in prisons should be given more time to do their job properly. To not work under so much pressure.'
- 'Inmates should get better dental treatment before their teeth rot away. Methadone affects teeth and they need help quickly.'
- 'Like to increase the confidentiality. Need to be able to talk to the medical staff without others listening in and quicker access to medical staff.'
- 'Need doctors to be more available. Need doctors who will listen.'
- 'Staff are overworked and under-paid. They need to be rotated. Generally, staff are helpful and need more resources. Need to educate the inmates on health issues and how to call support lines.'
- 'They could be quicker with their referrals to see the doctor. By the time you see the doctor, your sickness is over.'

6. Mental health

6.1 Psychiatric history

The proportion of IHS participants who reported having ever received assessment or treatment by a psychiatrist or doctor for an "emotional or mental problem" steadily increased, from 39% in 1996, to 43% in 2001, and again to 49% in 2009 (Table 6.1.1). Although in all years in which the IHS has been conducted, a higher proportion of women than men reported a history of receiving such assessment or treatment, the gender differential has steadily narrowed; in 2009, this gap translated to 54% of women and 47% of men who reported having received mental health assessment or treatment.

Table/Fig 6.1.1 Ever assessed or treated by a doctor or psychiatrist for an emotional or mental problem



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	218	620	35.2	286	703	40.7	373	790	47.2
Women	66	118	55.9	82	152	53.9	106	195	54.4
Total	284	738	38.5	368	855	43.0	479	985	48.6

Participants in the 2009 IHS who reported having received assessment or treatment by a doctor or psychiatrist further specified which of a number of specific mental health conditions they had been advised by a doctor or psychiatrist that they suffered (Table 6.1.2). Participants who reported not having received assessment or treatment are included in the Table below in the row titled "none of the above" in order to depict the self-reported prevalence of these mental health conditions for the total sample, rather than for the subgroup of participants who reported having received assessment or treatment. The most common mental health conditions which a psychiatrist or doctor had advised participants they suffered were depression (35% of the sample), anxiety (25%) and drug dependence (21%) disorders, all of which were reported by a higher proportion of women than men. Of the less prevalent conditions, personality disorders and manic depressive psychoses were also more commonly reported among women, whereas attention deficit/hyperactivity disorders (ADHD) and alcohol dependence were more commonly reported among men. Close to one in ten (9%) participants reported having been advised that they suffered from schizophrenia, with no gender difference in the self-reported prevalence of this condition.

Table 6.1.2 Self-reported mental health conditions

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Depression	259	33.1	86	44.8	345	35.4
Anxiety	175	22.3	65	33.9	240	24.6
Drug dependence	158	20.2	49	25.5	207	21.3
Alcohol dependence	100	12.8	19	10.0	119	12.2
Personality disorder	70	9.0	29	15.3	99	10.2
ADD/ ADHD	93	11.8	6	3.1	99	10.1
Manic depressive psychosis	65	8.3	24	12.6	89	9.2
Schizophrenia	69	8.8	17	8.9	86	8.8
Other	62	7.9	24	12.6	86	8.8
None of the above	417	52.8	89	45.6	506	51.4

Among 2009 IHS participants who reported having been told by a doctor or psychiatrist that they suffered from any of a range of specific mental health conditions, sufferers of all conditions reported first being advised of the condition at a mean age in the mid-20s with the exception of ADHD, of which participants reported first being advised at a mean age of 12.5 years (SD 9.2; range 1-49) (Table 6.1.3). Women reported being advised at an earlier mean age than men that they suffered from the majority of mental health conditions, with the exceptions of alcohol and drug dependence, for both of which men reported being advised at an earlier age. In particular, women reported being advised at an earlier age than men that they suffered from manic depressive psychosis (23.3 years versus 27.3 years). There was little difference in the mean age at which men and women reported having been advised by a doctor or psychiatrist that they suffered from schizophrenia (24.3 and 24.0 years of age, respectively).

Table 6.1.3 Mean age first told mental health condition

(Multiple response)	Men n	Men Mean age (± sd) Range	Women n	Women Mean age (± sd) Range	Total n	Total Mean age (± sd) Range
Depression	255	26.9 (±11.5) 7 - 58	83	24.0 (±11.2) 8 - 55	338	26.2 (±11.5) 7 - 58
Anxiety	167	28.5 (±11.9) 7 - 65	61	25.6 (±11.1) 8 - 57	228	27.7 (±11.7) 7 - 65
Drug dependence	155	21.6 (±8.3) 10 - 51	49	22.4 (±9.5) 13 - 53	204	21.8 (±8.6) 10 - 53
Alcohol dependence	100	24.0 (±10.5) 12 - 56	18	25.1 (±11.2) 14 - 52	118	24.2 (±10.6) 2 - 56
ADD/ ADHD	87	12.6 (±9.4) 1 - 49	4	11.5 (±1.0) 10 - 12	91	12.5 (±9.2) 1 - 49
Personality disorder	69	27.7 (±12.9) 7 - 56	29	26.5 (±10.8) 15 - 47	98	27.4 (±12.3) 7 - 56
Schizophrenia	68	24.3 (±10.4) 7 - 60	16	24.0 (±8.6) 16 - 42	84	24.2 (±10.0) 7 - 60
Manic depressive psychosis	57	27.3 (±11.0) 8 - 51	18	23.3 (±8.3) 13 - 42	75	26.4 (±10.5) 8 - 51

As noted above, 51% of 2009 IHS participants reported never having received assessment or treatment from a doctor or psychiatrist for an emotional or mental problem. Among those 466 participants who had received mental health treatment, one in five (20%) had never seen a psychiatrist (Table 6.1.4). More than one third (38%) of participants had seen a psychiatrist more than a year prior to their incarceration.

Table 6.1.4 When last see psychiatrist prior to incarceration (if ever mental health treatment)

	Men n	Men %	Women n	Women %	Total n	Total %
Never seen a psychiatrist	72	19.8	19	18.8	91	19.5
In week before prison	12	3.3	5	5.0	17	3.6
1 week - <1 month before prison	39	10.7	14	13.9	53	11.4
1 - 3 months before prison	27	7.4	13	12.9	40	8.6
4 - <12 months before prison	43	11.8	14	13.9	57	12.2
1+ years before prison	140	38.4	35	34.7	175	37.6
Don't know	32	8.8	1	1.0	33	7.1
Total	365	100.0	101	100.0	466	100.0

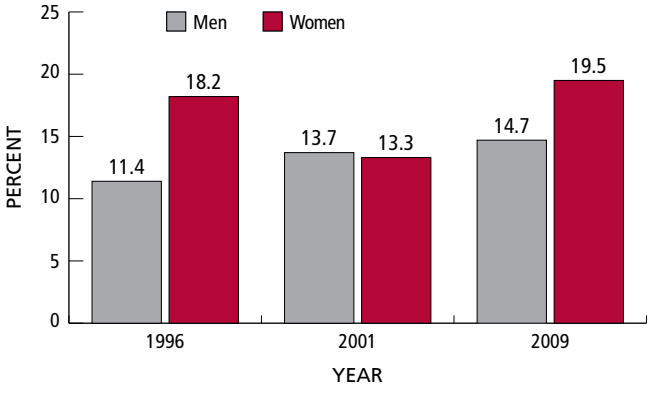
Among participants who had ever been assessed or treated for a mental health problem, the majority (63%) had no contact with a community mental health service in the three months prior to their incarceration, with a higher proportion of men than women reporting this to be the case (66% versus 52%) (Table 6.1.5). Women were more likely to indicate they had regular contact with a mental health service in the community with just under one in four (24%) indicating that they contacted a mental health service four or more times in that time period, compared to just 13% of men. A small proportion of the sample (3%) were unsure whether they had had contact with a mental health service in the three months prior to their current incarceration.

Table 6.1.5 Frequency contact mental health services in the three months prior to incarceration (if ever mental health treatment)

	Men n	Men %	Women n	Women %	Total n	Total %
Not at all	242	66.1	52	51.5	294	63.0
Once only	38	10.4	8	7.9	46	10.0
Two to three times	29	7.9	14	13.9	43	9.2
Four or more times	47	12.8	24	23.8	71	15.2
Don't know	10	2.7	3	3.0	13	2.8
Total	366	100.0	101	100.0	467	100.0

The proportion of IHS participants who reported ever having been admitted to a psychiatric unit gradually increased from 13% in 1996 to 14% in 2001 to 16% in 2009 (Table 6.1.6). In 2009, a higher proportion of women than men reported ever having been admitted to a psychiatric unit (20% versus 15%).

Table/Fig 6.1.6 Ever admitted to a psychiatric unit



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	75	657	11.4	95	694	13.7	115	782	14.7
Women	24	132	18.2	20	150	13.3	37	190	19.5
Total	99	789	12.6	115	844	13.6	152	972	15.6

Among the 152 IHS participants in 2009 who reported ever being admitted to a psychiatric unit, a similar proportion had been admitted once only (43%) or between 2-5 times (45%) in their lifetime (Table 6.1.7). A slightly higher proportion of women than men reported having been admitted to a psychiatric unit on six or more occasions (14% versus 11%).

Table 6.1.7 Number of psychiatric admissions (if ever admitted to psychiatric unit)

	Men		Women		Total	
	n	%	n	%	n	%
1	50	43.5	16	43.2	66	43.4
2 - 5	52	45.2	16	43.2	68	44.7
6+	13	11.3	5	13.5	18	11.8
Total	115	100.0	37	100.0	152	100.0

The great majority (86%) of 2009 IHS participants who reported a history of at least one psychiatric admission further reported that these admissions had occurred in the community, with higher rates of community-based admissions for women (95%) than men (83%) (Table 6.1.8). Reports of psychiatric admissions from prison only were uncommon, having occurred for just eight participants.

Table 6.1.8 Location of psychiatric admissions (if ever admitted to psychiatric unit)

	Men		Women		Total	
	n	%	n	%	n	%
In community	95	82.6	35	94.6	130	85.5
Both community and prison	13	11.3	1	2.7	14	9.2
In prison	7	6.1	1	2.7	8	5.3
Total	115	100.0	37	100.0	152	100.0

More than half (53%) of participants who had ever been admitted to a psychiatric unit indicated that they had been admitted for less than two weeks (Table 6.1.9). A higher proportion of women than men reported having been admitted for four or more weeks (41% versus 28%).

Table 6.1.9 Duration of longest psychiatric admission (if ever admitted to psychiatric unit)

	Men		Women		Total	
	n	%	n	%	n	%
<1 week	36	31.3	8	21.6	44	28.9
1 - <2 weeks	24	20.9	12	32.4	36	23.7
2 - <4 weeks	23	20.0	2	5.4	25	16.4
4 - 8 weeks	10	8.7	6	16.2	16	10.5
>8 weeks	22	19.1	9	24.3	31	20.4
Total	115	100.0	37	100.0	152	100.0

The majority (61%) of 2009 IHS participants who reported a history of at least one psychiatric admission further reported that they were discharged from their most recent psychiatric admission more than two years preceding the IHS interview (Table 6.1.10). Less than a quarter (23%) reported having been discharged from a psychiatric admission within the preceding year, with a higher proportion of men than women reporting a psychiatric discharge during this period (25% versus 16%).

Table 6.1.10 Timing of most recent psychiatric discharge (if ever admitted to psychiatric unit)

	Men		Women		Total	
	n	%	n	%	n	%
<4 weeks	3	2.6	0	0.0	3	2.0
4 - <12 weeks ago	5	4.3	1	2.7	6	3.9
3 - <6 months ago	7	6.1	3	8.1	10	6.6
6 - <12 months ago	14	12.2	2	5.4	16	10.5
1 - <2 years ago	18	15.7	7	18.9	25	16.4
2+ years ago	68	59.1	24	64.9	92	60.5
Total	115	100.0	37	100.0	152	100.0

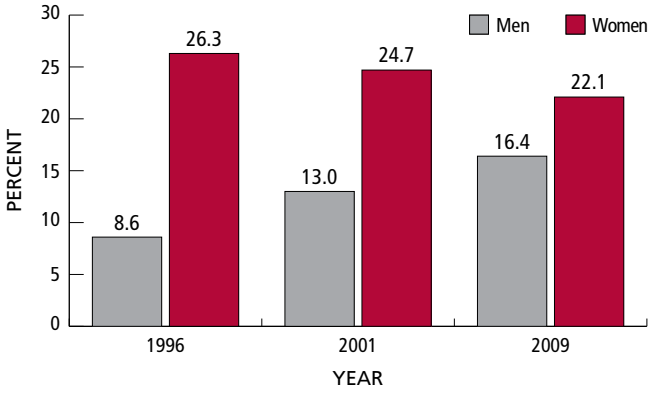
Among 2009 IHS participants who had been admitted at least once to a psychiatric unit, the source of referral for the most recent admission was most likely to be the police (36%), followed by a doctor (23%) and self-referral (18%) (Table 6.1.11). Men were more likely than women to be referred by the police (39% versus 27%), while women were more likely than men to be referred by doctors (27% versus 22%).

Table 6.1.11 Source of referral for most recent psychiatric admission (if ever admitted to psychiatric unit)

	Men		Women		Total	
	n	%	n	%	n	%
Police	45	39.1	10	27.0	55	36.2
Doctor	25	21.7	10	27.0	35	23.0
Self-referral	21	18.3	6	16.2	27	17.8
Family / Friends	12	10.4	5	13.5	17	11.2
Other criminal justice system	7	6.1	5	13.5	12	7.9
Other government, etc	5	4.3	1	2.7	6	3.9
Total	115	100.0	37	100.0	152	100.0

The proportion of IHS participants who reported currently taking at least one psychiatric medication steadily increased from 11% in 1996 to 15% in 2001 to 18% in 2009. However, the increase has been reported by men, whereas a decrease in the proportion of women reporting current psychiatric medications has been observed over the same years (Table 6.1.12). In all years in which the Survey has been conducted, a higher proportion of women than men reported currently taking psychiatric medication, although the gender differential has decreased over time. In 2009, this difference translated to 22% of women who reported currently taking psychiatric medications, compared to 16% of men.

Table/Fig 6.1.12 Current use of psychiatric medications



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	53	619	8.6	91	701	13.0	128	782	16.4
Women	31	118	26.3	37	150	24.7	42	190	22.1
Total	84	737	11.4	128	851	15.0	170	972	17.5

As noted above, 18% of 2009 IHS participants reported currently taking at least one psychiatric medication. Seventeen percent of women and 13% of men reported currently taking anti-depressants, while 10% of men and 6% of women (equating to 7% of the total sample) reported taking anti-psychotics, a class which included major tranquilisers of both tablet and injection form. This should not be taken to imply that 7% of the sample were currently psychotic; many of these participants were likely to have been prescribed major tranquilisers for their sedative/calming effects, rather than their anti-psychotic properties. Among the 170 participants in 2009 who indicated they were using prescribed psychiatric medications, 50% of women and 25% of men indicated they always took their medication as prescribed in the six months prior to being incarcerated.

Around one in eight (13%) 2009 IHS participants reported having been assessed by a mental health nurse in the courts, with a slightly higher proportion of women than men reporting this to be the case (15% versus 12%). Eight participants (<1% of the sample) reported being unsure whether they had been seen by a mental health nurse in the courts (Table 6.1.13).

Table 6.1.13 Ever assessed by a mental health nurse in the courts

	Men		Women		Total	
	n	%	n	%	n	%
Yes	95	12.0	29	15.2	124	12.7
No	687	87.1	161	84.3	848	86.5
Don't know	7	0.9	1	0.5	8	0.8
Total	789	100.0	191	100.0	980	100.0

Among the 124 IHS participants in 2009 who reported having been assessed by a mental health nurse in the courts, more than half (61%) further reported that they had been assessed more than one year preceding the IHS interviews (Table 6.1.14). Men were more likely than women to report that such a period of time had elapsed since they were seen (65% versus 48%).

Table 6.1.14 Time since assessed by a mental health nurse in the courts (if ever seen)

	Men		Women		Total	
	n	%	n	%	n	%
< 1 month ago	4	4.2	5	17.2	9	7.3
1 - 3 months ago	8	8.4	1	3.4	9	7.3
4 - 12 months ago	19	20.0	9	31.0	28	22.6
1 - < 2 years ago	22	23.2	6	20.7	28	22.6
2+ years ago	40	42.1	8	27.6	48	38.7
Don't know	2	2.1	0	0.0	2	1.6
Total	95	100.0	29	100.0	124	100.0

The majority (85%) of 2009 IHS participants who reported having been assessed by a mental health nurse in the courts further reported that the nurse had submitted a mental health report to the court, with men substantially more likely than women to report that this was the case (88% versus 72%). Six participants (two men and four women) who reported having been seen by a mental health nurse in the courts were unsure whether a report was subsequently submitted to the court.

Close to two thirds (62%) of 2009 IHS participants who reported having been seen by a mental health nurse in the courts considered that the service had been helpful for their mental health or legal problems, with a slightly higher proportion of women than men reporting this perception (66% versus 61%). Twelve participants were unsure whether the service had been helpful to them, with men more likely to report such uncertainty than women (11% versus 7%). Twenty eight percent of both men and women did not consider that the service had been helpful.

One third (34%) of 2009 IHS participants reported having received support, counselling or treatment for a "mental problem" from a psychologist or counsellor at some time in their lives, with women substantially more likely to report that this was the case than men (46% versus 31%) (Table 6.1.15).

Table 6.1.15 Ever receive support, counselling or treatment for a mental problem from a psychologist or counsellor

	Men		Women		Total	
	n	%	n	%	n	%
Yes	241	30.5	88	46.1	329	33.6
No	548	69.5	103	53.9	651	66.4
Total	789	100.0	191	100.0	980	100.0

Ten percent of 2009 IHS participants reported currently receiving another form of treatment or support for an "emotional or mental problem," with women more likely than men to report that this was the case (14% versus 9%). Further details provided in response to open-ended questions indicated that these participants referred mostly to different forms of counselling.

Among 2009 IHS participants who had previously been released from prison, 15% reported having been referred to a community mental health service on their most recent release into the community, with women almost three times as likely as men to report that this was the case (31% versus 12%). Of the 43 participants who reported being referred to a mental health service the last time they were released from prison, 70% further reported attending the service on release, with little difference between the proportions of men and women who reported this to be the case.

General comments about mental health:

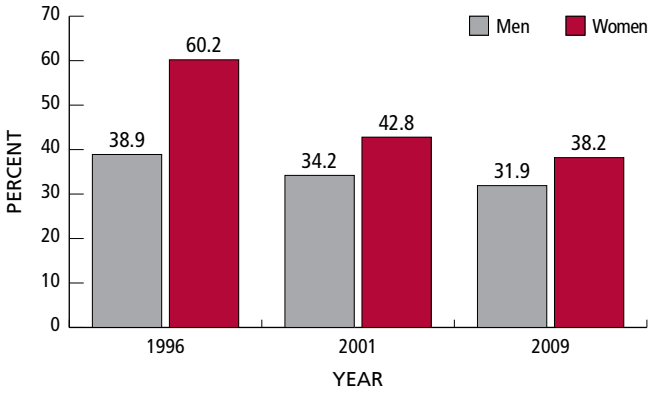
- 'Just want to make sure that I will be alright when released, that my mental health is cared for and that drugs don't control my life.'
- 'Need a psychiatrist here for people suffering from depression. Hard for other inmates to talk to each other because of gaol politics. More anger management courses.'
- 'Want to understand myself better as get stressed and would like to be able to see psychologist and counsellor for advice for when get out.'

6.2 Suicide

Prison populations are characterised by a range of variables associated with suicide, including hopelessness, traumatic histories, significant loss and grief, social isolation, lack of support, and poor coping skills (e.g., Finkel & Bout, 2002; Konrad et al., 2007; Maris et al., 1992; Maris, 2002). Incarceration itself may precipitate fear of the unknown, fear of physical or sexual violence, uncertainty and fear about the future, embarrassment and guilt over the offence, and fear or stress related to poor environmental conditions, which may all contribute to increased risk of suicide (Konrad et al., 2007). The high prevalence of mental illness and/or drug and alcohol misuse among prison inmates also predisposes many of them to suicide (Fazel et al., 2006; Hayes, 2006; Kariminia et al., 2007; Kinner, 2006). Such characteristics are likely to account for the significantly elevated risk of dying by suicide among prison inmates and ex-inmates relative to the general population (Kariminia et al., 2006).

One third (33%) of the 2009 IHS sample reported ever having "thought about committing suicide" (Table 6.2.1), with women somewhat more likely to report this was the case than men (38% versus 32%). This gender differential decreased markedly since the 1996 IHS, when 60% of women reported a history of suicidal ideation, compared with 39% of men. The proportions of overall IHS samples with a history of suicidal ideation steadily decreased, from 42% in 1996 to 36% in 2001 to 33% in the most recent Survey.

Table/Fig 6.2.1 Ever thought about committing suicide



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	241	620	38.9	240	702	34.2	252	789	31.9
Women	71	118	60.2	65	152	42.8	73	191	38.2
Total	312	738	42.3	305	854	35.7	325	980	33.2

The majority (70%) of 2009 IHS participants who reported a history of suicidal ideation further reported that the most recent instance of such thought patterns was more than twelve months prior to the Survey (Table 6.2.2). A slightly higher proportion of women than men reported suicidal thoughts in the four weeks preceding the Survey (12% versus 9%).

Table 6.2.2 Timing of most recent suicidal thoughts (if ever thought about suicide)

	Men		Women		Total	
	n	%	n	%	n	%
In the past week	9	3.6	4	5.5	13	4.0
1 - <4 weeks ago	14	5.6	5	6.8	19	5.8
1 - <6 months ago	31	12.3	7	9.6	38	11.7
6 - <12 months ago	21	8.3	6	8.2	27	8.3
1+ years ago	177	70.2	51	69.9	228	70.2
Total	252	100.0	73	100.0	325	100.0

A total of 10% of the 2009 IHS sample (N=98) reported having thought about suicide at least once in the past year, 50% of whom reported having done so less often than monthly (Table 6.2.3). Twenty participants indicated that they thought about suicide on a daily or weekly basis in the preceding year.

Table 6.2.3 Frequency of most recent suicidal thoughts in the past year (if thought about suicide in the past year)

	Men		Women		Total	
	n	%	n	%	n	%
Daily	11	14.5	3	13.6	14	14.3
Weekly	14	18.4	6	27.3	20	20.4
Monthly	13	17.2	2	9.1	15	15.3
Less than monthly	38	50.0	11	50.0	49	50.0
Total	76	100.0	22	100.0	98	100.0

Among 2009 IHS participants with a history of suicidal ideation, the majority (62%) reported that relative to their thought patterns while at liberty in the community, their suicidal thoughts had decreased since their current incarceration (Table 6.2.4). This finding may be attributed to the increased availability of mental health treatment in prison that participants may not access in the community. A further 20% reported that their suicidal thoughts had neither increased nor decreased since their incarceration, whereas 18% reported that they had experienced an increase in their suicidal thoughts during incarceration. Women were not only more likely than men to report a history of suicidal ideation, but were also more likely to report an increase in suicidal thoughts since their incarceration (25% of women compared to 16% of men).

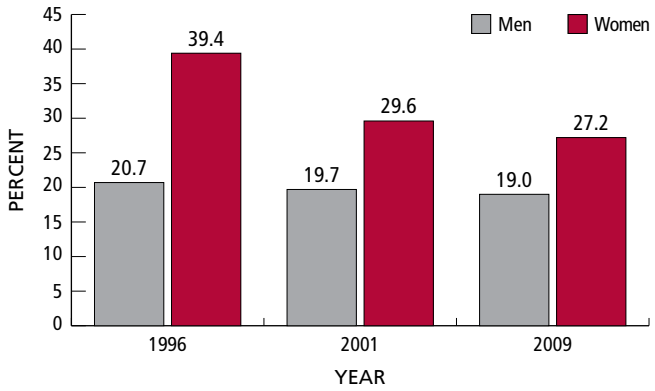
Table 6.2.4 Changes in suicidal thoughts since in prison (if ever thought about suicide)

	Men		Women		Total	
	n	%	n	%	n	%
Decreased	161	63.9	41	56.2	202	62.2
Remained the same	52	20.6	14	19.2	66	20.3
Increased	39	15.5	18	24.7	57	17.5
Total	252	100.0	73	100.0	325	100.0

One fifth (21%) of the 2009 IHS sample reported ever having attempted suicide (Table 6.2.5), with women more likely to report this was the case than men (27% versus 19%). The proportions of overall IHS samples who reported a history of suicide attempts decreased slightly, from 24% in 1996, to 22% in 2001 to 21% in the most recent Survey. Consistent with the patterns of reported suicidal ideation described above, the gender differential in reported history of suicide attempts decreased since the 1996 IHS, when 39% of women reported a history of suicide attempts, compared with 21% of men.

Women are known to attempt suicide more often than men, but men have a higher rate of success when they make suicide attempts. For example, of 1,881 deaths by suicide registered in Australia in 2007, 77% were men (ABS, 2009); while in the 2007 National Survey of Mental Health and Well-being, 0.3% of men and 0.5% of women reported having made a suicide attempt in the previous twelve months. A further 1.8% of men and 2.7% of women reported having suicidal thoughts in the previous twelve months (ABS, 2008). Results consistent with this pattern were observed in a retrospective cohort study of 85,203 adult offenders who had been in full-time custody in NSW prisons between 1988 and 2002. Kariminia et al. (2007) documented a higher suicide rate among men than women both in prison (129 versus 56 per 100,000 person-years) and after release (135 versus 82 per 100,000 person-years).

Table/Fig 6.2.5 Ever attempt suicide



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	136	657	20.7	138	700	19.7	150	788	19.0
Women	52	132	39.4	45	152	29.6	52	191	27.2
Total	188	789	23.8	183	852	21.5	202	979	20.6

Among the 21% of the 2009 IHS sample who reported a history of at least one suicide attempt, 60% further reported having made more than one suicide attempt (Table 6.2.6). An equal proportion (35%) of men and women reported three or more suicide attempts.

Table 6.2.6 Number of suicide attempts (if ever attempted suicide)

	Men		Women		Total	
	n	%	n	%	n	%
1	61	41.2	19	36.5	80	40.0
2	36	24.3	15	28.8	51	25.5
3	23	15.5	10	19.2	33	16.5
4	6	4.1	2	3.8	8	4.0
5+	22	14.9	6	11.5	28	14.0
Total	148	100.0	52	100.0	200	100.0

Among women who had attempted suicide, slashing or stabbing was the most common method chosen (reported by 50% of women with a history of suicide attempts), closely followed by attempting to overdose using tablets (48%) (Table 6.2.7). Smaller proportions of women reported having attempted suicide via overdosing by injection (21%) and hanging (17%). Among men, the most common methods were slashing/stabbing (43% of men with a history of suicide attempts), followed by hanging (36%), overdosing on tablets (35%) and overdosing by injection (17%). Whereas 9% of men with a history of suicide attempts had chosen to use a firearm, no women reported having chosen this method. Previous research on suicide among prison inmates and former inmates documented hanging as the most common fatal suicide method among men after release, and self-poisoning the most common among women after release from prison. Hanging was implicated in 94% of all men's suicide deaths, and 100% of women's, during incarceration (Kariminia et al., 2007).

Table 6.2.7 Methods used for suicide attempts (if ever attempted suicide)

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Slashing/stabbing	64	42.7	26	50.0	90	44.6
Overdose - tablets	52	34.7	25	48.1	77	38.1
Hanging	54	36.0	9	17.3	63	31.2
Overdose - injection	26	17.3	11	21.2	37	18.3
Motor vehicle accident	13	8.7	2	3.8	15	7.4
Firearms/gunshot	13	8.7	0	0.0	13	6.4
Jumping	9	6.0	3	5.8	12	5.9
Other	26	17.3	6	11.5	32	15.8

Although suicide was the leading cause of death among NSW prison inmates between 1995 and 2005 (O'Driscoll et al., 2007), it is still the case that suicide attempts are far more likely to be made in the community than in prison (Kariminia et al., 2007). Consistent with this previous research, 71% of 2009 IHS participants with a history of suicide attempts reported having made such attempts only in the community, compared with 14% of participants who reported having attempted suicide only while in prison. Women were more likely than men to have attempted suicide in the community (83% versus 67%) but less likely to have done so in prison (8% versus 16%). Fifteen percent of participants who had attempted suicide reported having done so both in the community and prison (Table 6.2.8). Kariminia et al. (2007), who found that the two weeks post-release period was a time of especially elevated suicide risk, particularly for men, argue that suicide attempts may be more likely in the community because suicides in prison receive considerable attention from authorities. Programs, policies and even architectural considerations are implemented to minimise the risk of suicide during incarceration. In contrast, far less attention is paid to the post-release period, when the duty of care shifts from custodial authorities to the community.

Table 6.2.8 Location of suicide attempts (if ever attempted suicide)

	Men		Women		Total	
	n	%	n	%	n	%
In community	101	67.3	43	82.7	144	71.3
Both community and prison	25	16.7	5	9.6	30	14.9
In prison	24	16.0	4	7.7	28	13.9
Total	150	100.0	52	100.0	202	100.0

The majority (64%) of 2009 IHS participants who reported a history of suicide attempts reported that they "really wanted to die at the time" (Table 6.2.9). Women were more likely than men to report that they wanted to die sometimes (19% versus 9%), whereas men were more likely to report that they did not know whether they really wanted to die at the time (10% versus 4%).

Table 6.2.9 'Really wanted to die' (if ever attempted suicide)

	Men		Women		Total	
	n	%	n	%	n	%
Yes, always	97	64.7	32	61.5	129	63.9
Sometimes	13	8.7	10	19.2	23	11.4
Always no	25	16.7	8	15.4	33	16.3
Don't know	15	10.0	2	3.8	17	8.4
Total	**150**	**100.0**	**52**	**100.0**	**202**	**100.0**

The majority (78%) of 2009 IHS participants who reported having attempted suicide further reported that they had never told anybody that they were considering suicide, with no difference in the proportion of men and women who reported this was the case (Table 6.2.10). Men were more likely than women to report that they had always told someone (12% versus 6%), whereas women were more likely to report that they had sometimes told someone (17% versus 9%).

Table 6.2.10 Told anyone considering suicide (if ever attempted suicide)

	Men		Women		Total	
	n	%	n	%	n	%
Yes, always	18	12.0	3	5.8	21	10.4
Sometimes	14	9.3	9	17.3	23	11.4
Always no	118	78.7	40	76.9	158	78.2
Total	**150**	**100.0**	**52**	**100.0**	**202**	**100.0**

Among 2009 IHS participants who reported having told someone they were thinking of committing suicide at least sometimes, both men and women most commonly reported having told a family member (Table 6.2.11), with women slightly more likely than men to report this was the case (12% versus 9%). Men were more likely to report having told a friend (7% versus 4%) or custodial staff (4% versus 0%), whereas women were more likely to report having told a doctor or nurse (6% versus 1%). Small numbers of participants also reported having told other inmates, telephone counselling services and psychologists or psychiatrists that they were contemplating suicide.

Table 6.2.11 Who told considering suicide (if ever attempted suicide)

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
No one	118	78.7	40	76.9	158	78.2
Family member	14	9.3	6	11.5	20	9.9
Friend	10	6.7	2	3.8	12	5.9
Custodial staff	6	4.0	0	0.0	6	3.0
Doctor/nurse	2	1.3	3	5.8	5	2.5
Other inmate	3	2.0	1	1.9	4	2.0
Psychologist/ psychiatrist	3	2.0	1	1.9	4	2.0
Phone counselling service	2	1.3	1	1.9	3	1.5

Reasons not talk to anybody when considering suicide:

- 'At the time you think there is no point in going on. Life for a blackfella doesn't improve. You still get treated like shit no matter what your name is.'
- 'Didn't want anyone to talk to and didn't want to be stopped.'
- 'Because if I talk to anyone they strip you to your undies and put you in a cell where they watch you 24/7 and it's freezing in there.'
- 'Alcohol stopped me from thinking clearly.'
- 'Am a loner. Only person was my partner and he was part of the problem.'
- 'Cause they would stop me.'
- 'Didn't think anyone would listen.'
- 'I'd been molested by my family and couldn't talk to anyone.'
- 'Just wanted to check out the next life to see if it was any better.'
- 'The whole point of doing it is not to tell someone.'
- 'When I get depressed I shut down and talk to no one.'

Half (50%) of the 2009 IHS participants who reported having attempted suicide further reported that they had never "thought about committing suicide for some time before the attempt(s)" (Table 6.2.12). Men were more likely than women to report not having thought about suicide for some time before their attempt (51% versus 46%). One in five (21%) participants reported that they had sometimes thought about their suicide for some time, and close to one third (29%) reported that they had always thought about suicide for some time before attempting it.

Table 6.2.12 Extent of consideration of suicide prior to its attempt (if ever attempted suicide)

	Men		Women		Total	
	n	%	n	%	n	%
Yes, always	43	28.7	16	30.8	59	29.2
Sometimes	30	20.0	12	23.1	42	20.8
Always no	77	51.3	24	46.2	101	50.0
Total	**150**	**100.0**	**52**	**100.0**	**202**	**100.0**

Given the results reported in Table 6.2.12, it is consistent that almost two-thirds (64%) of 2009 IHS participants who reported having attempted suicide further reported that at least one of their suicide attempts was the result of a sudden impulse or urge. Men were slightly more likely than women to report that this was the case (65% versus 61%).

Among 2009 IHS participants who reported having attempted suicide, 36% reported having made a plan to suicide which ultimately they did not carry out. Women were more likely than men to report that this was the case (40% versus 34%).

Among 2009 IHS participants who reported having made a plan to suicide which they did not carry out, the most common reason for not doing so was due to concerns about their family and/or friends (58%) (Table 6.2.13). Women were substantially more likely than men to report that concern for their loved ones prevented them from carrying out their plan to suicide (71% versus 53%). The next most common reason was having a change of heart (31%), with a higher proportion of men than women reporting this to be the reason that they did not carry out their plan (33% versus 24%). Men were also more likely to report that they thought that things would improve (14% versus 10%). Limited opportunity to commit suicide in prison was reported as a reason for not carrying out a plan by only one male participant, and by no women. Two men and one woman reported that counselling was the reason they did not carry out their plan to suicide.

Table 6.2.13 Reasons not carry out suicide plans (if ever made a suicide plan)

	Men		Women		Total	
(Multiple response)	n	%	n	%	n	%
Family / partner concerns	27	52.9	15	71.4	42	58.3
Change of heart	17	33.3	5	23.8	22	30.6
Thought that things would improve	7	13.7	2	9.5	9	12.5
Counselling	2	3.9	1	4.8	3	4.2
Physically prevented	2	3.9	0	0.0	2	2.8
Lack of courage	1	2.0	1	4.8	2	2.8
Limited opportunities in prison	1	2.0	0	0.0	1	1.4
Other	8	15.7	3	14.3	11	15.3

The majority (83%) of 2009 IHS participants with a history of suicide attempts reported that their most recent attempt had occurred twelve or more months preceding the Survey. No participants reported having attempted suicide within the week preceding the Survey (Table 6.2.14), although one male participant and two women reported that they had attempted suicide within the preceding four weeks. There was little gender difference in the timing of the most recent suicide attempt among 2009 IHS participants.

Table 6.2.14 Timing of most recent suicide attempt (if ever attempted suicide)

	Men		Women		Total	
	n	%	n	%	n	%
In the past week	0	0.0	0	0.0	0	0.0
1 - <4 weeks ago	1	0.7	2	3.8	3	1.5
1 - <6 months ago	9	6.0	3	5.8	12	5.9
6 - <12 months ago	16	10.7	4	7.7	20	9.9
1+ years ago	124	82.7	43	82.7	167	82.7
Total	**150**	**100.0**	**52**	**100.0**	**202**	**100.0**

A total of eight 2009 IHS participants, five men and three women, described themselves as "likely" or "very likely" to attempt suicide during their current incarceration. Nine percent of participants reported that they were "unlikely" to do so, and 89% (90% of men and 86% of women) reported that they were "definitely not" likely to do so (Table 6.2.15).

Table 6.2.15 Likelihood of attempting suicide during current incarceration

	Men		Women		Total	
	n	%	n	%	n	%
Very likely	3	0.4	1	0.5	4	0.4
Likely	2	0.3	2	1.0	4	0.4
Unlikely	68	8.6	18	9.4	86	8.8
Definitely not	705	89.5	165	86.4	870	88.9
Don't know	10	1.3	5	2.6	15	1.5
Total	**788**	**100.0**	**191**	**100.0**	**979**	**100.0**

Reassuringly, just a small proportion (3%) of 2009 IHS participants reported that they considered it "very likely" or "likely" that their lives would end by suicide, and the majority (80%) reported that this was "definitely not" likely to be the case (Table 6.2.16). Three percent of the sample reported not knowing the likelihood of their lives ending by suicide.

Table 6.2.16 Likelihood of life ending through suicide

	Men		Women		Total	
	n	%	n	%	n	%
Very likely	11	1.4	0	0.0	11	1.1
Likely	11	1.4	4	2.1	15	1.5
Unlikely	109	13.8	35	18.3	144	14.7
Definitely not	636	80.7	146	76.4	782	79.9
Don't know	21	2.7	6	3.1	27	2.8
Total	**788**	**100.0**	**191**	**100.0**	**979**	**100.0**

Eighty four percent of 2009 IHS participants reported that the problems they were confronted with would "definitely not" be resolved if they committed suicide, and a further 6% reported that they would "probably not" be resolved (Table 6.2.17). Six percent reported not knowing whether this would be the case, but 4% of men and 3% of women reported that their problems would "probably" or "definitely" be resolved by suicide.

Table 6.2.17 Perception that problems would be resolved by suicide

	Men		Women		Total	
	n	%	n	%	n	%
Definitely not	667	84.6	159	83.2	826	84.4
Probably not	44	5.6	11	5.8	55	5.6
Don't know	47	6.0	15	7.9	62	6.3
Probably yes	17	2.2	4	2.1	21	2.1
Definitely yes	13	1.6	2	1.0	15	1.5
Total	**788**	**100.0**	**191**	**100.0**	**979**	**100.0**

General comment about suicide:

- 'Most of my suicide attempts were because I was scared of being in prison, but I realise now that nothing is worth taking our own life.'

6.3 Self harm

There is some overlap between deliberate self-harm and attempted suicide, and in some cases, the two can be difficult to distinguish because the person's intent (to die or not to die) is ambiguous. Official statistics on self-harm relate to cases of self-harm requiring hospitalisations, and are therefore almost certainly underestimates, because an unknown proportion of cases are treated in private and never come to the attention of professional services (Steenkamp & Harrison, 2000). Moreover, most people who contact health services after an episode of deliberate self-harm present to Emergency Departments. They may or may not be admitted as hospital inpatients, and the injury may or not be recorded as intentional.

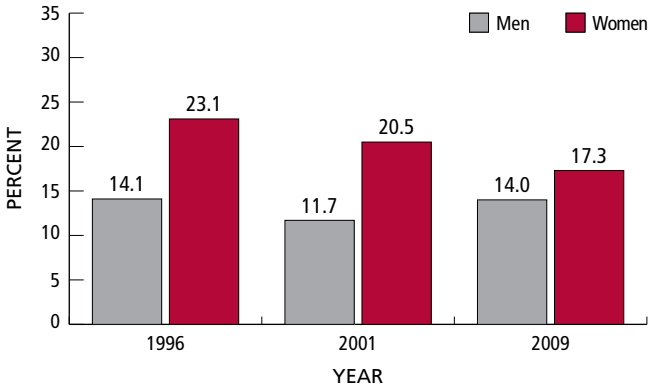
In 2003-04, there were 24,087 cases of hospitalisation for self-harm in Australia, accounting for 7% of all hospital admissions due to injury and poisoning in that year (Berry & Harrison, 2007). Although the death rates from suicide are three to four times greater in men than in women, hospitalisation rates for intentional self-harm are consistently higher in women than in men. For example, women accounted for 62% of hospitalised self-harm cases in 2003-04. This is thought to be because men use more lethal self-harm methods than women (Population Health Division, 2008).

Among the general population, self-harm episodes leading to hospitalisation are most common among young women aged 15-24 years. In NSW, the numbers of young women hospitalised for self-harm decreased after a peak in 2005-06 of 483.0 per 100,000 women aged 15-24; nevertheless, the numbers remain significantly higher than among any other age group. In 2006-07, women aged 15-24 years were hospitalised after self-harm at a rate of 435.6 per 100,000 population, compared to 185.3 per 100,000 among women of all ages, and 199.0 per 100,000 men aged 15-24 years (Population Health Division, 2008).

For the purposes of the IHS, self-harm is defined as incidents in which a person self-inflicts deliberate harm, but does so in the absence of intent to kill themselves. Questions about self-harm specified that participants should exclude any consideration of genuine attempts to take their own lives.

Fifteen percent of 2009 IHS participants reported a history of deliberate attempts to harm themselves in the absence of genuine intent to take their own lives (Table 6.3.1), with a slightly higher proportion of women than men reporting this to be the case (17% versus 14%). The proportion of IHS participants who reported a history of self harm remained relatively stable between 1996 (16%), 2001 (13%) and 2009 (15%). However, the gender differential, whereby a larger proportion of women than men reported a history of self-harm, decreased in 2009 relative to the two previous IHSs, when the proportion of women who reported a history of self harm was substantially larger than the proportion of men.

Table/Fig 6.3.1 Ever self-harmed (excluding suicide attempts)



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	87	618	14.1	82	701	11.7	110	788	14.0
Women	27	117	23.1	31	151	20.5	33	191	17.3
Total	114	735	15.5	113	852	13.3	143	979	14.6

Among 2009 IHS participants who reported a history of self-harm, around one-third (34%) reported having harmed themselves on a single occasion only (Table 6.3.2). One in four (25%) of those who reported a history of self-harm reported harming themselves on five or more occasions, with a higher proportion of women than men reporting this to be the case (30% versus 23%).

Table 6.3.2 Number of times self-harmed (if any self-harm)

	Men		Women		Total	
	n	%	n	%	n	%
1	39	35.5	10	30.3	49	34.3
2	21	19.1	9	27.3	30	21.0
3	11	10.0	3	9.1	14	9.8
4	14	12.7	1	3.0	15	10.5
5+	25	22.7	10	30.3	35	24.5
Total	110	100.0	33	100.0	143	100.0

Among participants who reported a history of self-harm, the most common method used by both men and women during the most recent self-harm episode was slashing or stabbing (deliberately cutting the body) (Table 6.3.3). Women were more likely than men to report banging their heads against or punching walls (21% versus 15%), whereas men were more likely than women to report burning themselves (9% versus 6%). Among individuals hospitalised for self-harm in Australia in 2003-04, self-poisoning was the most common method, used by 77% of men and 88% of women (Berry & Harrison, 2007). Men were more likely to have used more violent methods than women, including sharp objects (15% of men versus 10% of women), and hanging, strangulation or suffocation (3% versus <1%).

Table 6.3.3 Method used in most recent self-harm episode (if any self-harm)

	Men		Women		Total	
	n	%	n	%	n	%
Slashing/stabbing	63	57.3	20	60.6	83	58.0
Head banging/ punching walls	16	14.5	7	21.2	23	16.1
Burning	10	9.1	2	6.1	12	8.4
Overdose	4	3.6	2	6.1	6	4.2
Strangulation	4	3.6	1	3.0	5	3.5
Other	13	11.8	1	3.0	14	9.8
Total	**110**	**100.0**	**33**	**100.0**	**143**	**100.0**

Among 2009 IHS participants who reported a history of self-harm, 71% reported that their most recent episode of self-harm occurred in the community, while 29% reported that their most recent episode occurred in prison (Table 6.3.4). Men were more likely than women to report that their most recent self-harm episode occurred in prison rather than the community (32% versus 21%).

Table 6.3.4 Location of most recent self-harm episode (if any self-harm)

	Men		Women		Total	
	n	%	n	%	n	%
In community	75	68.2	26	78.8	101	70.6
Prison	35	31.8	7	21.2	42	29.4
Total	**110**	**100.0**	**33**	**100.0**	**143**	**100.0**

Among women who reported a history of self-harm, the most common motivation reported for the most recent episode of self-harm was as a response to personal problems (27% of women who reported a history of self-harm, compared with 17% of men) (Table 6.3.5). The most common motivation reported by men was to relieve tension (21%, versus 24% of women). Such affect-regulating motivations for self-harm are consistent with those reported in the literature on self-harm behaviours among both clinical and general population samples (e.g., Briere & Gil, 1998). Women were more likely than men to report that their most recent self-harm episode was associated with drug abuse or detoxification from drugs (12% versus 6%) whereas men were more likely to report that they were attempting to make other people listen to them (7% versus 3%). Consistent with the latter motivation, self-harm is conceived by some authors and clinicians as a primitive form of communication, a way to seek help from or influence others (Favazza & Conterio, 1989).

Table 6.3.5 Motivations for most recent self-harm episode (if any self-harm)

	Men		Women		Total	
	n	%	n	%	n	%
To relieve tension	23	20.9	8	24.2	31	21.7
Personal problems	19	17.3	9	27.3	28	19.6
Depression / Despair	21	19.1	7	21.2	28	19.6
Drug abuse / detox	7	6.4	4	12.1	11	7.7
To make others listen to you	8	7.3	1	3.0	9	6.3
Other	32	29.1	4	12.1	36	25.2
Total	**110**	**100.0**	**33**	**100.0**	**143**	**100.0**

Among 2009 IHS participants who reported a history of self-harm, 73% reported that their most recent episode of self-harm had occurred more than twelve months preceding the Survey (Table 6.3.6). Women were more likely than men to report that their most recent self-harm episode had occurred within the preceding twelve months (36% versus 25%); however, men were more likely to report that they had harmed themselves during their current incarceration (21% versus 15%).

Reasons for self-harm:

- 'Anger with depression and the way my life is running.'
- 'Being silly trying to tattoo myself.'
- 'Drunk and to get attention and help.'
- 'Girlfriend was slashing up so I showed her how to do it properly.'
- 'I was stupid.'
- 'The voices were telling me to do it.'
- 'Friends daring to do it and being silly.'

Table 6.3.6 Timing of most recent self-harm episode (if any self-harm)

	Men		Women		Total	
	n	%	n	%	n	%
In the past month	2	1.8	0	0.0	2	1.4
1 - <6 months ago	19	17.3	6	18.2	25	17.5
6 - <12 months ago	6	5.5	6	18.2	12	8.4
1+ years ago	83	75.5	21	63.6	104	72.7
Total	110	100.0	33	100.0	143	100.0

Among 2009 IHS participants who reported a history of self-harm, the majority (81%) reported that they had not harmed themselves during their current incarceration (Table 6.3.7). Of those that reported having done so, more than half (equating to 11% of all of those with a history of self-harm) further reported having done so on a single occasion, with men more likely than women to report having harmed themselves just once during their current incarceration (12% of men with a history of self-harm compared to 6% of women). Women with a history of self-harm were more likely than men to report having harmed themselves on five or more occasions during their current incarceration (6% versus 3%).

Table 6.3.7 Number of self-harm episodes during current incarceration (if any self-harm)

	Men		Women		Total	
	n	%	n	%	n	%
0	87	79.8	28	84.8	115	81.0
1	13	11.9	2	6.1	15	10.6
2	3	2.8	1	3.0	4	2.8
3	3	2.8	0	0.0	3	2.1
4	0	0.0	0	0.0	0	0.0
5+	3	2.8	2	6.1	5	3.5
Total	109	100.0	33	100.0	142	100.0

The majority of 2009 IHS participants who reported a history of self-harm further reported that they never thought about self-harming for some time before they undertook it (Table 6.3.8), with around two-thirds of both men (66%) and women (70%) with a history of self-harm reporting this to be the case. A higher proportion of men than women reported that they always considered self-harm for some time prior to undertaking it (19% versus 15%); whereas equal proportions of men and women (around one in seven participants who reported a history of self-harm) reported that they sometimes thought about self-harm for some time prior to undertaking it.

Table 6.3.8 Think about self-harm for some time prior to its undertaking (if any self-harm)

	Men		Women		Total	
	n	%	n	%	n	%
Yes, always	21	19.1	5	15.2	26	18.2
Sometimes	17	15.5	5	15.2	22	15.4
Always no	72	65.5	23	69.7	95	66.4
Total	110	100.0	33	100.0	143	100.0

Consistent with the results reported above, the majority of 2009 IHS participants who reported a history of self-harm further reported that their self-harm occurred as the result of a sudden impulse or urge (Table 6.3.9), with women who reported a history of self-harm more likely than men to report this was the case (67% versus 58%). Men with a history of self-harm were more likely than women to report that their self-harm never occurred as a result of a sudden impulse or urge (22% versus 12%).

Table 6.3.9 Self-harm occurs as a result of a sudden impulse or urge (if any self-harm)

	Men		Women		Total	
	n	%	n	%	n	%
Yes, always	64	58.2	22	66.7	86	60.1
Sometimes	22	20.0	7	21.2	29	20.3
Always no	24	21.8	4	12.1	28	19.6
Total	110	100.0	33	100.0	143	100.0

Among 2009 IHS participants who reported a history of self-harm, the majority of both men (84%) and women (76%) reported that they had not talked to anyone about their feelings before undertaking self-harm. Despite low rates of communicating about their feelings among both genders, the fact that a higher proportion of women than men had talked to another person might suggest that women may have forms of social support more readily available to them than men. Women were more likely than men to report talking to a family member prior to undertaking self-harm (12% of women who reported a history of self-harm versus 5% of men). Three percent of men with a history of self-harm reported having talked to a custodial staff member, whereas no women reported having done so.

Reason not talk to anyone before self-harm:

- 'I didn't feel that anyone would listen or care at the time.'
- 'Because I'm not a big talker.'
- 'Don't know who to speak to about stuff like that.'
- 'Impulse reaction – no time to talk first.'
- 'Ever since I was young I never had anyone to talk to. Bottle things up; when anyone makes me angry I explode. Take my anger out on others.'

More than half (58%) of 2009 IHS participants who reported a history of self-harm considered it less likely that they would harm themselves while in prison than while in the community (Table 6.3.10), with women substantially more likely than men to report that they were less likely to harm themselves in prison than in the community (73% versus 54%). A higher proportion of men than women reported that they were more likely to harm themselves while in prison (20% versus 15%); that the likelihood was about the same (17% versus 12%); or that they did not know whether they were more likely to harm themselves while in prison (9% of men and no women).

Table 6.3.10 More likely to self-harm in prison or community (if any self-harm)

	Men		Women		Total	
	n	%	n	%	n	%
More likely in prison	22	20.0	5	15.2	27	18.9
About the same	19	17.3	4	12.1	23	16.1
Less likely in prison	59	53.6	24	72.7	83	58.0
Don't know	10	9.1	0	0.0	10	7.0
Total	110	100.0	33	100.0	143	100.0

Ninety percent of 2009 IHS participants who reported a history of self-harm further reported that they did not think they would harm themselves before their release from their current incarceration, with a slightly higher proportion of men than women reporting this to be the case (91% of men versus 88% of women). Five men (5%) and no women (0%) reported that they thought they would harm themselves before their release, whereas women were more likely than men to report that they did not know whether they would harm themselves before release (12% versus 5%).

6.4 Beck Depression Inventory

The Beck Depression Inventory Second Edition (BDI-II, 1996) is a 21-item self-report instrument intended to assess the existence and severity of symptoms of depression as listed in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* Fourth Edition (DSM-IV) (APA, 1994). All IHS participants were administered the BDI-II.

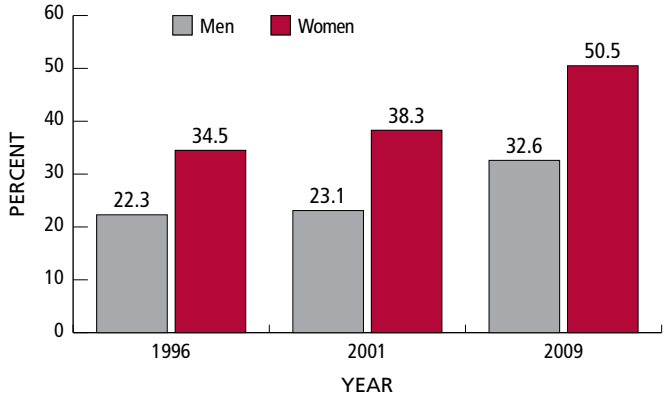
The BDI-II scores of the majority (64%) of 2009 IHS participants were indicative of minimal to mild depression (Table 6.4.1). Women had notably higher rates than men of moderate to severe depression.

Table 6.4.1 Beck Depression Inventory score

	Men		Women		Total	
	n	%	n	%	n	%
Minimal	267	34.0	47	25.3	314	32.3
Mild	262	33.4	45	24.2	307	31.6
Moderate	207	26.4	62	33.3	269	27.7
Severe	49	6.2	32	17.2	81	8.3
Total	785	100.0	186	100.0	971	100.0

Table 6.4.2 depicts an increasing proportion of IHS participants who scored in the moderate to severe range between 1996 (24%), 2001 (26%) and 2009 (36%). Of particular note is that the proportion of women with moderate to severe depression increased from 35% in 1996 to 38% in 2001 to 51% in 2009.

Table/Fig 6.4.2 Moderate/severe depression



	1996			2001			2009		
	n	Total	%	n	Total	%	n	Total	%
Men	130	584	22.3	162	700	23.1	256	785	32.6
Women	38	110	34.5	57	149	38.3	94	186	50.5
Total	168	694	24.2	219	849	25.8	350	971	36.0

6.5 Impulsivity

The Barratt Impulsivity Scale (Barratt & Stanford, 1995) is a widely used measure of impulsive personality traits. An individual who scores 70 or above on this 30-item self-report questionnaire is considered to have impulsive tendencies. Impulsivity is associated with a greater likelihood to offend, and thus is an important attribute to measure (Krueger et al., 1994).

Amended ethics approval was sought mid-way into the implementation of the 2009 Inmate Health Survey to include the Barratt Impulsivity Scale. Following obtainment of ethics approval from all relevant committees, 273 participants were administered the questionnaire, the majority of whom were men (N=257). Half (51%) of participants who completed the impulsivity scale screened positive for impulsive behaviour, with a higher proportion of women (56%) found to be impulsive than men (51%) (Table 6.5.1).

Table 6.5.1 Impulsive personality (Barratt's Impulsivity score 70 or more)

	Men		Women		Total	
	n	%	n	%	n	%
Yes	130	50.6	9	56.3	139	50.9
No	127	49.4	7	43.4	134	49.1
Total	257	100.0	16	100.0	273	100.0

General comments at the end of the questionnaire:

- 'Find interview pleasant. Pretty satisfied with what we get around here. As long as you treat everyone with courtesy and respect, that's what you get.'
- 'I get more satisfaction now because of the treatment and the life changing steps being taken. Although my imprisonment was hard to take, it has been the best thing for me to see what my life can be.'
- 'It's good, the survey you are conducting. It will benefit us prisoners in the future. The information gathered should be helpful. It's reassuring.'
- 'Just take it one day at a time and you can get through it. Don't push anyone's buttons.'
- 'Thank the department that they are doing this survey. Should be done throughout Australia.'

Summary and Conclusions

Meeting the health needs of the inmate population in NSW constitutes a significant challenge. Prison health care is not only provided in a complex environment but, as the 2009 Inmate Health Survey demonstrates, prison inmates are a complex, high-needs population. However, the correctional environment also provides a unique opportunity to improve the health status of a group who suffer poor health and may have minimal contact with health services in the community. Importantly, the 2009 Inmate Health Survey provides Justice Health, its key stakeholders and the community with reliable evidence of the health needs of individuals incarcerated in NSW. As such, the key findings from the 2009 Inmate Health Survey provide all agencies and sectors involved in the provision of services to patients in custody with evidence to guide policy and practice.

This broad-ranging examination of prisoner health, the third in the Inmate Health Survey (IHS) series, continues the essential endeavour of documenting the social determinants of health, the physical and mental health, and the risk and protective behaviours, of NSW prison inmates. Conducted among a stratified random sample of 996 inmates, with an over-representation of women and of Aboriginal Australians, this study included a detailed physical health assessment, together with a self-report component covering a number of domains. The incorporation of a number of indicators included in one or both of the 1996 and 2001 IHSs has allowed for an examination of trends over time in a range of aspects of prisoner health, thus providing an appropriate evidence base from which to develop, implement, evaluate and refine service and policy advances within Justice Health. It is imperative that sound empirical evidence of this nature underlies attempts to target services towards the areas of greatest need among NSW prison inmates, and to evaluate interventions designed to improve their health and well-being.

That prison inmates are characterised by manifold disadvantage has clearly and repeatedly been documented, with histories of disrupted family and social backgrounds; abuse, neglect and trauma; poor educational attainment and consequent limited employment opportunities; unstable housing; parental incarceration; juvenile detention; dysfunctional relationships and domestic violence; and previous episodes of imprisonment, all highly prevalent among samples of prison inmates, including that described in the present report. With such multiple risk factors for poor health, it is hardly surprising that prison inmates are further characterised by physical and mental health far below that enjoyed by the general population. The majority of indicators described in this report were not directly comparable with measures used in State and national Surveys of health outcomes and behaviours. Nevertheless, placing results, where possible, in that broader context, consistently indicated poorer outcomes among the IHS sample than among Australia's general population of adults.

Key findings

A high level of disease burden was evident among 2009 IHS participants. These findings are entirely in line with those of the 1996 and 2001 Surveys. A selection of results are summarised below to illustrate this pattern.

- ***Tobacco smoking:*** More than three quarters of 2009 IHS participants (75% of men and 80% of women) reported current tobacco smoking, markedly higher than the 17% of Australia's general adult population who reported daily tobacco smoking in 2007 (AIHW, 2008). The prevalence of smoking among the general population decreased steadily from 25% in 1993 to 17% in 2007, whereas the prevalence of smoking among IHS participants remained stable between 1996 and 2009 (77% versus 76%).
- ***Alcohol and other drugs:*** The decline in the proportion of participants who reported ever having injected drugs, from 57% in 2001 to 43% in 2009, was striking. The reduction was evident among both men (53% to 40%) and women (74% to 52%). There was a major decrease in the lifetime prevalence of heroin injection, from 47% in 2001 to 32% in 2009, and an increase in the lifetime prevalence of crystalline methamphetamine injection, from 4% in 2001 to 23% in 2009. Both changes reflect the dynamics of Australia's broader illicit drug markets.
- ***Blood borne viruses:*** A substantial decrease was recorded between 2001 and 2009 in the proportion of participants who tested positive to hepatitis C antibodies (indicating exposure to the virus), from 64% to 45% among women, and 40% to 28% among men. The proportion of participants who tested positive to hepatitis B core antibodies (indicating exposure to the virus) also declined, from 35% on 1996 to 29% in 2001 and again to 26% in 2009; while the rate of vaccine-conferred immunity to HBV increased from 35% in 2001 to 38% in 2009.

- *Mental health:* The proportion of inmates who reported having been assessed or treated by a doctor or psychiatrist for a mental health problem increased steadily from 39% in 1996 to 43% in 2001 to 49% in 2009. The most common disorders for which 2009 IHS participants reported having been assessed or treated were depressive (35%), anxiety (25%) and drug dependence (21%) disorders, all of which were reported by a higher proportion of women than men.
- *Access to health care:* Among 2009 IHS participants, 17% of men and 4% of women reported never having accessed any form of health care in the community. As such, the care provided to these individuals during their incarceration(s) constitutes their first formal access to the health system. Accordingly, access to Justice Health clinics and programs may improve the health of inmates in ways that reach beyond the period of imprisonment, by presenting an opportunity for people with limited or no access to health care in the community to become familiar and comfortable with navigating the broader health care system. The core business of Justice Health is to screen, assess and refer patients (inmates), and to commence treatment wherever possible and appropriate. Such activity might relieve at least some pressure on the limited resources of community health services.

The health of the 2009 IHS sample is clearly below that enjoyed by the broader Australian community. However, it should be noted that for many Inmates, incarceration does provide an opportunity to address their health issues in a relatively stable environment in which access to, and continuity of, health care may be easier to achieve than in their personal circumstances in the community.

Implications for policy

The 2009 Inmate Health Survey provides important information to inform policy and practice across a range of sectors. The demographic characteristics of the inmate population are important for the education, housing and employment sectors. Clearly, disadvantage in these areas is over-represented among the inmate population. It is beyond the scope of this report to speculate on appropriate policy responses to such demographic findings. However, it is clear that whatever the cause, inability to obtain stable accommodation, ongoing employment and a minimum standard of education are linked to incarceration. Likewise, generational incarceration and contact with the criminal justice system early in life are both over-represented among the IHS study population. The above issues have been covered in more depth by other researchers; however, this survey provides the opportunity to link these findings with health status.

Health service delivery in custodial settings is influenced by a range of factors, many of which are outside of the control of the health sector. There is an acknowledged need for custodial systems that ensure safety and security of the inmate population. The model of health service delivery to inmates in NSW involves two separate organisations with responsibility for security and health care respectively. There is growing recognition nationally and internationally that this model provides the best outcomes for patient care. However, it also creates added complexity. Many of the substantial health needs identified in this report require access to patients for health service delivery. There is variation across NSW in the daily routines in place at correctional centres. The impact of both the limitations on access and variations in daily routines at correctional centres is often more limited opportunities for health service delivery. As such, a key policy response to this report would be for the health and social sectors to work together with the criminal justice sector to maximise access to patients in custody for the purpose of health service provision. This is particularly relevant in any attempt to address the burden of mental illness among inmates. Ongoing access to mental health nursing and psychiatric care in the least restrictive environment possible is critical to mental health outcomes.

This Survey also demonstrated high rates of smoking within the study population, together with a high prevalence of desire to quit smoking. Justice Health has made significant achievements in reducing smoking rates by establishing a totally smoke free Forensic Hospital. However, the issue of smoking within correctional centres remains contentious. While the management of all correctional centres in NSW rests with CSNSW, Justice Health has developed a number of Smoking Cessation programs, including one targeted at Aboriginal inmates, to assist inmates to quit smoking.

Justice Health has initiated recent service delivery changes that may begin to address the substantial burden of chronic disease among prison inmates indicated by IHS results. Consistent with NSW Health Statewide Directives for Area Health Services to shift the focus from acute care to the assessment and management of chronic disease, Justice Health undertook a comprehensive review of its service delivery procedures and is in the process of rolling out three new forms of documentation for the assessment and management of chronic disease: the Comprehensive Health Assessment Plan (CHAP), the Annual Health Assessment (AHA) and the Health Assessment Review Plan (HARP).

Justice Health has a key role in disseminating the findings of the 2009 NSW Inmate Health Survey. This includes sharing the information with key stakeholders across government, non-government and consumer groups who work in the health and criminal justice systems. In particular, provision of findings to the inmates themselves is essential to empowering them to access health services in the community, improve their health literacy and make better choices to improve their health. Justice Health has a Consumer and Community Group which assists in building these linkages with prisoners and their advocates.

However, the burden of disease demonstrated in the 2009 IHS should be interpreted cautiously. In particular, although a substantial majority of the health indicators among the IHS participants were poorer than comparable indicators in the community, all the inmates surveyed would have been assessed and many received treatment from Justice Health following their entry into custody. It is at the initial assessment upon entering custody that the most acute health needs are identified and treatment is commenced. These include acute mental health, drug and alcohol, infectious diseases and a range of physical health issues. The implication for the IHS findings is that study participants may in fact have an improved health status when compared to those who are entering custody. Conversely, those interviewed for this study may be more informed about their health issues as a result of assessment and treatment provided by Justice Health and as a result more able to report these health concerns during interview.

The focus of health service provision by Justice Health is on screening, assessment and referral. This means that the responsibility for providing health treatment to this patient group does not commence and conclude with Justice Health. Depending on the length of stay in custody, Justice Health provides an avenue for identification of health needs, an opportunity to commence treatment and assistance in the establishment of linkages in the community for ongoing care. The implication is that improvement of the outcomes of this patient group over the longer term requires integration, or at a minimum, the development of effective linkages between the services provided to those in custody and those services provided pre- and post- custody.

There are already a number of examples of these linkages being established particularly in the areas of release planning within mental health, drug and alcohol and population health. Furthermore, in recent years Justice Health has expanded court-based services in the community to divert mentally ill into treatment prior to entering custody. As such the framework for integration between health services in the community and health services provided in custody has been established. The findings of the Survey suggest a key strategy to improve the health status of this group is to bolster this integration.

Limitations

Limitations of the 2009 IHS data should be kept in mind when considering the results of this study and their implications. In particular, the significant change in methodology, from face-to-face interviews with inmates in the 1996 and 2001 IHSs, to the use of a computer-assisted telephone interview (CATI) system in 2009, may have impacted on data quality. For example, despite assurances that CSNSW would not monitor telephone interviews, it may be possible that participants were less honest about their responses regarding illegal behaviours such as using drugs in prison than they may have been in a face-to-face interview. However, telephone interviews have been found in health surveys to provide comparable results on data quality when compared with in-person interviews (Aquilino, 1992; Aquilino & Wright, 1996; Biemer 2001; Cannell et al., 1981; de Leeuw & van der Zouwen, 1988). Sykes and Collins (1988) reported higher rates of alcohol consumption through telephone interviewing versus face to face, attributed to recipients feeling more comfortable disclosing this information over the telephone than face to face. The 2000 National Alcohol Survey (NAS) made a decision to shift the mode of data collection from face to face to telephone and compared results. A study was conducted on a subsample of 411 participants, assessing the differences in reports of alcohol use and alcohol-related harm, using telephone and in-person interviews. No differences were reported between the two modes and their findings supported the use of telephone interviewing in large national surveys to obtain alcohol use and alcohol-related harms data (Midanik & Greenfield, 2003).

Further, a lower proportion of participants consented to provide blood samples for serological screening in 2009 compared to 2001 (78% versus 94%, respectively). Although there is no reason to suspect that participants who did not provide a blood sample were more likely than those who did to have been exposed to a blood borne virus such as hepatitis C, the decrease in the rate of screening may have affected the representativeness of the serological findings, and should be noted.

The survey team was not able to meet the recruitment targets in some correctional centres. However, it should be noted that the distribution of inmates in the different correctional centres varied over the 10 months the study was implemented and rather than revising the recruitment targets, the original estimates were adhered to. Regular sample checks were completed to ensure all the age, gender and Aboriginality strata were adequately represented. If they were not, additional sampling in the necessary strata was undertaken.

Another possible limitation of the study was the duration of the interview, which took an average of 73 minutes (range 21 to 198 minutes) to complete. It is possible that participants became fatigued talking for this long on the telephone and so responded to some of the later sections in the survey (such as the mental health and drug and alcohol sections) less carefully. Interviewers were able to "pause" and subsequently resume a survey if the participant wanted a break. A further limitation is that translation services were not available for non-English speaking inmates so they were not able to be included in the survey.

A limited number of computer programming errors in the CATI system resulted in not all participants being asked all the questions relevant to them. These unfortunate instances have been described in the report where appropriate, or excluded in instances where the data were considered invalid as a result of the restricted sample responses.

Future directions

Ongoing developments in and improvements to health service delivery to individuals in custody in NSW have improved access to treatment in many areas. The constantly evolving field of health care and developments in health service delivery nevertheless ensures the imperative to continue to examine the health status of this patient population and to continue to expand and refine the evidence base on which solid policy and practice must ultimately be built.

Since the conduct of the 2001 IHS, two new hospitals catering to inmates and the mentally ill have commenced operation; two new mental health screening units have been established; and the range and scope of health service delivery within NSW correctional centres has significantly expanded, with increased staff numbers employed in Justice Health in the areas of mental health, drug and alcohol and population health. It is, of course, impossible to attribute any changes over time in the health of the inmate population to these service developments through the use of a cross-sectional study design, as is employed in the serial IHSs. Rather, the findings of the 2009 IHS provide an evidence base to inform prioritisation and planning in health service development.

Findings that may be particularly informative for the health sector include the changing nature of drug use among the inmate population with declines in heroin use and increases in amphetamine use. Although consistent with experience in the community, this change needs to be reflected in the models of care provided to those in custody. Likewise, reductions in the proportion of participants who tested positive to hepatitis C antibodies were substantial. Justice Health has one of the largest hepatitis C treatment programs in Australia.

Future iterations of the IHS will strike a balance between including questions and measures used in earlier Surveys, and moving towards using questions directly comparable with those of State and national surveys of health outcomes and behaviours. Inclusion of items from epidemiological surveillance studies of a range of populations will allow IHS results to be interpreted within the broader public health context.

The present report will be complemented by a second report, which examines in detail the differentials in the health and welfare outcomes of Aboriginal and non-Aboriginal prison inmates in NSW. This second report will provide additional evidence to guide policies and programs designed to improve the health of this particularly vulnerable prison sub-population.

The outcomes of the 2009 IHS will also be disseminated through the preparation and submission of papers to peer-reviewed scientific journals, in which more detailed analyses will examine the relationships between the various data presented in this report, and in which hypothesis testing will be undertaken. Subjecting these data to peer review will ensure that their utility is maximised through the clear elucidation of their research, policy and practice implications.

The *CHRCJ Strategic Plan 2010-2015 (CHRCJ, 2009)* lists as a key direction for the Centre the evaluation of the efficacy and cost-effectiveness of clinical interventions and programs. The IHS will continue to monitor and document the health of the inmate population, but future service and program evaluations will provide additional evidence which Justice Health will be able to utilise in the development and refinement of frontline clinical services.

Conclusion

Almost all prison inmates are returned to the communities from which they were incarcerated. The clear implications of this fact are that (i) good prisoner health is good public health; (ii) good public health will make good use of the opportunities presented by the population held captive in prisons; and (iii) prisons can and should contribute to the health of communities by helping to improve the health of some of society's most disadvantaged and marginalised people. Consistent with this goal, public health advocates must seek to better educate the public on the way in which the needs of prison inmates directly impact on their own needs; and to continue to lobby for the political will, leadership and funding to design and manage prisons in which the risks to health are reduced to a minimum; essential prison duties such as the maintenance of security are undertaken in a caring atmosphere that recognises the inherent dignity and the human rights of every inmate; health and preventative services are provided in a manner equivalent to that provided in the community; and a whole-of-prison approach to promoting health and welfare is the norm (WHO, 2007).

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Appendix: Questionnaire

2009 NSW Inmate Health Survey

Justice Health

CONFIDENTIAL

CATI Interviewer to confirm details below:

ID NUMBER: ☐☐☐☐☐☐

Date of birth: ☐☐/☐☐/☐☐☐☐

Prison: _____

Interview time: _____

Interview date: ☐☐/☐☐/☐☐☐☐

Spoken Introduction: *Hello, my name is*

_____

from Justice Health. I'm calling to do the interview.

Before starting, I want to remind you that everything you tell me will be kept confidential and that you are not required to answer any questions that you don't want to.

JUSTICE HEALTH STATEWIDE SERVICE | NSW HEALTH

1. PRISON HISTORY

I am now going to ask you some questions about your prison history.

1.1 Is this your first time in prison?

1 = Yes → Q1.5
0 = No ☐

1.2 If NO, including this sentence how many times have you been in an adult prison? *(Code 999 if don't know)*

_____ ☐

1.3 If NO, during your lifetime, what is the total amount of time you have spent in adult prisons?

1 = less than 6 months
2 = 6 -<12 months
3 = 1-<2 years
4 = 2-<5 years
5 = 5-<10 years
6 = 10 years plus
7 = Don't know ☐

1.4 If NO, how old were you when you were first imprisoned? ☐

1.5 What is your current sentence status?

1 = Sentenced
2 = Remand
3 = Don't know ☐

1.6 How long have you been in prison during this incarceration?

1 = less than 1 month
2 = 1-<3 months
3 = 3-<6 months
4 = 6 months to <1 year
5 = 1 -<2 years
6 = 2-<5 years
7 = 5-<10 years
8 = 10 years plus
9 = Don't know ☐

1.7 How many other people share your cell? *[Interviewer: if none, code as 00]* ☐

2. DEMOGRAPHICS

I'm now going to ask you some questions about where you were born and about your family.

2.1 Which country were you born in?

1 = Australia → Q2.3
0 = Other (Specify) ☐

2.2 If born overseas, how many years have you lived in Australia? ☐

2.3 In what country were your parents born? (Multiple response) *[Interviewer: if inmates doesn't know code as 999)*

_____ 1. Mother ☐

_____ 2. Father ☐

2.4 What language was spoken at the home you grew up in?

_____ ☐

2.5 Are you of Aboriginal or Torres Strait Islander origin?

1 = No → Q2.8
2 = Yes, Aboriginal
3 = Yes, Torres Strait Islander
4 = Yes, Both Aboriginal & Torres Strait Islander
5 = Don't know
6 = Refused ☐

2.6 If YES, ABORIGINAL person, which part (Location) of NSW or Australia do you come from (Specify)?

_____ ☐

2.7 If Yes, Aboriginal person, what mob or people do you come from?

_____ ☐

2.8 In which suburb and state did you spend most time in the 12 months before coming into prison? *[Interviewer: ask inmate to spell suburb if unclear]*

_____ ☐

2.9 Have you ever been married or lived with your partner as a couple?

1 = Yes
0 = No ☐

2.10 In terms of your legal marital status are you?

1 = Single (never married)
2 = Regular partner
3 = Married (includes living defacto)
4 = Separated
5 = Divorced
6 = Widowed ☐

2.11 What type of accommodation were you living in immediately before coming into prison?

1 = Renting
2 = Own home or with own family
3 = Unsettled lodgings (eg. squat, B&B, hostel, caravan)
4 = Sleeping rough (no fixed abode)
5 = Hospital
6 = Other (Specify) ☐

_____

2.12 How many changes in accommodation did you have in the last six months before coming to prison this time? *(Note: This includes coming in and out of prison.)*

1 = None, lived in same place whole time
2 = Moved once
3 = Moved 2-3 times
4 = Moved 4-5 times
5 = Moved 6 or more times
6 = No fixed accommodation ☐

2.13 Who were you living with before coming to prison this time (excluding children)?

1 = Alone
2 = Partner
3 = Parent(s)
4 = Siblings
5 = Other family members
6 = Flat or house mates
7 = Friends
8 = Criminal associates
9 = Other (Specify) ☐

2.14 Last time you were released from prison, did you have any problems with your accommodation within 6 months of being released?

1 = Yes
0 = No ☐

3. EDUCATION/OCCUPATION

I'm now going to ask you some questions about your schooling and employment.

3.1 What is the highest educational qualification you have completed?

1 = Never attended school (→ Q3.8)
2 = Completed primary school only
3 = Left school with no qualification
4 = School certificate
5 = HSC/VCE/Leaving certificate
6 = College certificate/Diploma
7 = Technical or Trade qualification
8 = Degree / tertiary qualification
9 = Don't know ☐

3.2 At what age did you leave school?

_____ ☐

3.3 Overall, how many different schools did you attend before you eventually left school? *[Interviewer: this excludes pre-school. If Don't know code 999]*

_____ ☐

3.4 Have you ever attended any special schools?

1 = Yes
0 = No → Q3.6 ☐

3.5 If YES, how many different special schools? *(If don't know, code 999)*

_____ ☐

3.6 Have you ever been expelled from a school?

1 = Yes
0 = No → Q3.8 ☐

3.7 If YES, how many times were you expelled? *(If don't know code 999)*

_____ ☐

3.8 Were you working in the **SIX MONTHS** before coming into prison?

1 = Yes
0 = No → Q3.10 ☐

3.9 If YES, what was your last job before coming into prison?

1 = Labourer and related worker
2 = Tradespeople
3 = Salespeople/personal service worker
4 = Professionals
5 = Managers and administrators
6 = Plan and machine operators and drivers
7 = Clerks
8 = Self-employed
9 = Para-professionals
10 = Working for the dole
11 = Other (Specify) ..... ☐

3.10 If NO, how long had you been unemployed (months)? ..... ☐

3.11 Were you receiving any of the following pensions or benefits in the six months before coming into prison regardless of whether or not you were working? (Multiple response) (1=Yes, 0=No)

1. Age pension ..... ☐
2. Disability support pension ..... ☐
3. Widow's pension ..... ☐
4. Carer's pension ..... ☐
5. Supporting parent's benefit ..... ☐
6. Sickness benefit ..... ☐
7. Unemployment benefit ..... ☐
8. Other (Specify) ..... ☐
9. No pension → Q3.13 ..... ☐

3.12 If YES, receiving a pension or benefit, how long had you been on it (months) *[Interviewer: if more than one pension, record longest one]*

_____ ☐

3.13 What is your usual occupation or trade?

1 = Labourer and related worker
2 = Tradespeople
3 = Salespeople/personal service worker
4 = Professionals
5 = Managers and administrators
6 = Plan and machine operators and drivers
7 = Clerks
8 = Self-employed
9 = Para-professionals
10 = Working for the dole
11 = Other (Specify)

_____ ☐

3.14 Do you have a job / occupation in prison?

1 = Yes
0 = No → Q3.16 ..... ☐

3.15 If YES, what is your job / occupation in prison?

_____ ☐

3.16 Have you completed any education courses during the current sentence?

1 = Yes
0 = No → Q3.18 ..... ☐

3.17 If YES, which course?

1 = AVETI
2 = TAFE
3 = Traineeship
4 = Distance education
5 = Other (Specify)

_____ ☐

3.18 Before you were 16 years old, were you ever placed in care. By this I mean did you spend any part of your childhood living away from your natural parents. *[Interviewer: this does not include juvenile detention]*

1 = Yes
0 = No → Q3.28 ..... ☐

3.19 If YES, which type of care? (Multiple response) (1=Yes, 0=No)

1. Foster care ..... ☐
2. With an extended family ..... ☐
3. In a home ..... ☐
4. Other (Specify)

_____ ☐

3.20 If YES, on how many different occasions were you placed in care? *[Interviewer: this does not include juvenile detention]* ..... ☐

3.21 If YES, thinking about the first time you were placed in care, how old were you when this happened? *[Interviewer: this does not include juvenile detention]* ..... ☐

3.22 If YES, thinking about the first time you were placed in care, why did this occur? (Specify) *[Interviewer: this does not include juvenile detention]*

_____ ☐

3.23 If YES, thinking about the first time you were placed in care, what type of care was this?

1 = Foster family
2 = Adopted family
3 = Child welfare agency
4 = Kinship care (removal to care of relatives)
5 = Other (Specify)

_____ ☐

3.24 If YES, thinking about the first time you were placed in care, were you under any of the following:

1 = Wardship order
2 = Care and protection order
3 = No order
4 = Don't know
5 = Other (Specify)

_____ ☐

3.25 If YES, what was the longest single period in which you were placed in care?
[Interviewer: record in months]..... ☐

3.26 *(Removed)*

3.27 If YES, overall how long did you spend in care before you were 16? *[Interviewer: this does not include juvenile detention]*

1 = <6 months
2 = 6 months - <1 year
3 = 1- <2 years
4 = 2 - <5 years
5 = 5+ years (Entire childhood) ..... ☐

3.28 Did you spend any time in a juvenile detention centre?

1 = Yes
0 = No → Q3.32..... ☐

3.29 If YES, how old were you when you first went to a juvenile detention centre? ..... ☐

3.30 If YES, thinking about the first time you went to a juvenile detention centre, what was the most serious offence which caused you to be sent there? (Specify)

_____ ☐

3.31 If YES, on how many separate occasions did you spend time in a juvenile detention centre?..... ☐

I'm now going to ask you some questions about any children you may have.

3.32 How many children under the age of 16 do you have including foster children and step-children?
[If none, code as 00 → Q3.35*]*..... ☐

3.33 If HAS CHILDREN, how many of these children were dependent on you immediately before coming into prison?..... ☐

3.34 If HAS CHILDREN, thinking about your children where are they living now?
(Multiple response) *[Interviewer: indicate number of children in each category should add up to total number of children in Q3.32]*

1. Living with mother/father ..... ☐
2. Living with other relatives ..... ☐
3. Juvenile detention centre ..... ☐
4. Foster family ..... ☐
5. Adopted family..... ☐
6. On the streets..... ☐
7. Child welfare institution..... ☐
8. Living with you in gaol **(women only)** ..... ☐
9. Don't know ..... ☐
10. Other (Specify)

_____ ☐

3.35 Thinking about before you were 16 years old, were you raised by both of your natural parents?
(Multiple response) (1=Yes, 0=No)

1. 0 -10 years ..... ☐
2. 11 - 16 years ..... ☐

3.36 Were either of your parents ever sent to prison when you were a child?

1 = Yes
0 = No → Q3.38
3 = Don't know → Q3.38..... ☐

3.37 If YES, which one(s):
(Multiple response) (1=Yes, 0=No)

1. Mother..... ☐
2. Father..... ☐

3.38 Were either of your parents in care when they were children?

1 = Yes
0 = No → Section 4
3 = Don't know → Section 4 ..... ☐

3.39 If YES, which one(s):
(Multiple response) (1=Yes, 0=No)

1. Mother..... ☐
2. Father..... ☐

4. HEALTH STATUS

I'm now going to ask you some questions about your health.

Have you ever been told by a doctor that you have any of the following illnesses / conditions?

(1=Yes, 0=No)

4.1 Arthritis ☐

4.2 Epilepsy or Seizures ☐

4.3 If YES, thinking about the last time this happened, were you withdrawing from drugs or alcohol (Specify)?

1. Drugs
2. Alcohol
3. Both
4. Neither ☐

4.4 If YES, which drugs were you withdrawing from? (Specify):

_____

_____ ☐

4.5 Diabetes ☐

4.6 If YES, do you take insulin for diabetes

1 = Yes
0 = No ☐

4.7 Asthma ☐

4.8 Kidney problems ☐

4.9 Back problems ☐

4.10 Haemorrhoids ('piles') ☐

4.11 Cancers / Tumours ☐

4.12 If YES, obtain details:

_____

_____ ☐

4.13 High blood pressure / hypertension ☐

4.14 Chest / Angina pain ☐

4.15 Heart murmur ☐

4.16 Palpitations / rapid heart beat ☐

4.17 Other heart conditions (Specify)

_____ ☐

4.18 Poor eyesight ☐

4.19 Gall stones ☐

4.20 Prostate problems (MEN ONLY) ☐

4.21 Peptic ulcers ☐

4.22 Hepatitis

1. Hepatitis A ☐
2. Hepatitis B ☐
3. Hepatitis C ☐
4. Other hepatitis (Specify)_____ ☐

4.23 Have you ever had an HIV test?

1 = Yes
0 = No → Q4.25 ☐

4.24 If YES, where did that take place?

1 = Community only
2 = Prison only
3 = Both Prison and the Community
4 = Don't know ☐

4.25 If YES, what was the result?

1 = Positive
2 = Negative
3 = Don't know ☐

4.26 Are there any other medical problems that haven't been mentioned that you would like to tell me about (Specify)?

1._____ ☐

2._____ ☐

3._____ ☐

5. DISABILITY / ILLNESS

I'm now going to ask you some questions about any illnesses or disabilities that have troubled you for about **SIX MONTHS** *or more. [Interviewer: record in order of severity for up to 3 conditions]*

CONDITION 1

5.1 Do you **now** have any illness or disabilities that have troubled you for about **SIX MONTHS** or more?

1 = Yes
0 = No → Section 6 ..... ☐

5.2 If YES, what

_____ ☐

5.3 How does this illness or disability limit your activities?
[Interviewer: prompt if necessary eg. unable to exercise. If not limiting, code as 00]

_____

_____ ☐

5.4 In the last **TWO WEEKS**, did you cut down on any activities because of the injury or illness?
[Interviewer: if didn't cut down code as 00]

_____

_____ ☐

CONDITION 2

5.5 Is there another illness or disability you would like to tell me about?

1 = Yes
0 = No → Section 6 ..... ☐

5.6 If YES, what?

_____ ☐

5.7 How does this illness or disability limit your activities?
[Interviewer: prompt if necessary eg. unable to exercise. If not limiting, code as 00]

_____

_____ ☐

5.8 In the last **TWO WEEKS**, did you cut down on any activities because of the injury or illness?
[Interviewer: if didn't cut down code as 00]

_____

_____ ☐

CONDITION 3

5.9 Is there another illness or disability you would like to tell me about?

1 = Yes
0 = No → Section 6 ..... ☐

5.10 If YES, what?

_____ ☐

5.11 How does this illness or disability limit your activities?
[Interviewer: prompt if necessary eg. unable to exercise. If not limiting, code as 00]

_____

_____ ☐

5.12 In the last **TWO WEEKS**, did you cut down on any activities because of the injury or illness?
[Interviewer: if didn't cut down code as 00]

_____

_____ ☐

5.13 Are there any other disabilities which you have not mentioned above (Specify)?

_____

_____ ☐

6. MEDICATIONS

I'm now going to ask you about medications you are on.

6.1 In the last two weeks, did you take any of the following that were **prescribed for you?**

TAKEN (1 = Yes, 0 = No)

1. Allergy medication ☐
2. Skin ointments or creams (such as heat rubs, Tiger Balm, or creams for rashes) ☐
3. Laxatives ☐
4. Medications for your stomach ☐
5. Blood pressure ☐
6. Heart problems ☐
7. Anti-Coagulants ☐
8. Angina Patches ☐
9. Asthma medication ☐
10. Insulin for diabetes ☐
11. Other medications for diabetes ☐
12. Antibiotics ☐
13. Vitamins / minerals ☐
14. Anti-epileptics ☐
15. Methadone ☐
16. Cough mixtures ☐
17. Pain-killers ☐
18. Headache tablets ☐
19. Sleeping tablets ☐
20. Nicotine patches ☐
21. Other (Specify) ☐

_____

6.2 Are there any pills or medications that you have taken in the last **TWO WEEKS** that were not prescribed for you by a doctor that you may have gotten from another inmate or bought yourself?

TAKEN (1 = Yes, 0 = No)

1. Tranquillisers or sedatives ☐
2. Anti-depressants ☐
3. Psychiatric medication ☐
4. Other 1. _____ ☐
5. Other 2: _____ ☐

7. DIABETES

I'm now going to ask you some questions about diabetes and blood sugar.

7.1 Excluding the blood sugar test given as part of this survey, have you had a blood sugar test in the last **12 MONTHS**?

1 = Yes
0 = No → Q7.3 ☐

7.2 If YES, where was this test done?

1 = In prison
2 = In the community
3 = Both prison & community
4 = Can't remember ☐

7.3 Excluding the test given as part of this survey, have you ever been told by a doctor or nurse that you had high blood sugar?

1 = Yes
0 = No → Q7.5 ☐

7.4 If YES, how old were you when told that you had high blood sugar (yy)?

_____ ☐

7.5 Have you ever been told by a doctor or nurse that you had diabetes?

1 = Yes
0 = No → Section 8 ☐

7.6 If YES, how old were you when told that you had had diabetes (yy)?

_____ ☐

7.7 Are you currently receiving any of the following treatments for diabetes?

(Multiple response) (1=Yes, 0=No)

1. Special diet ☐
2. Tablets ☐
3. Injections ☐
4. No treatment → Section 8 ☐

7.8 If YES, receiving treatment for diabetes, are you satisfied with the treatment you receive in prison?

1 = Yes → Section 8
0 = No ☐

7.9 If NO, why not?

_____ ☐

8. ASTHMA

*I'm now going to ask you some question about asthma. You told me earlier that you suffered from asthma. (If **Q4.7=yes**)*
[Interviewer: if not asthmatic → Section 9]

8.1 Approximately how many times have you had an asthma attack or difficulty breathing in the **last 3 MONTHS**?..... ☐

8.2 Do you have a current asthma management plan?

1 = Yes
0 = No → Q8.4 .....…

8.3 If YES, what?
(Multiple response) (1=Yes, 0=No)

1. Exercise ..... ☐
2. Reduced smoking ..... ☐
3. Medication ..... ☐
4. Breathing exercises ..... ☐
5. Other (Specify)

_____ ☐

8.4 If taking medication for asthma, which ones? (Specify) (Multiple response)

1._____ ☐
2._____ ☐
3._____ ☐

ASTHMA MEDICATION 1

8.5 How often do you take this medication?

1 = Daily or more than daily
2 = More than weekly but not daily
3 = Less than weekly
(1-4 times per month)
4 = Less than this ..... ☐

ASTHMA MEDICATION 2

8.6 How often do you take this medication?

1 = Daily or more than daily
2 = More than weekly but not daily
3 = Less than weekly
(1-4 times per month)
4 = Less than this ..... ☐

ASTHMA MEDICATION 3

8.7 How often do you take this medication?

1 = Daily or more than daily
2 = More than weekly but not daily
3 = Less than weekly
(1-4 times per month)
4 = Less than this ..... ☐

8.8 How often in the last **12 MONTHS** have you measured your breathing with a peak flow meter?

1 = Never
2 = Once only
3 = Monthly
4 = Every three months
5 = Every six months
6 = Other (Specify) ..... ☐

8.9 Are you satisfied with the treatment you receive in prison for asthma?

1 = Yes → Section 9
0 = No..... ☐

8.10 If NO, why not?

_____ ☐

9. IMMUNISATION

The next few questions are about any vaccinations you might have received.

9.1 Have you ever had a tetanus injection?

1 = Yes
0 = No → Q9.3
3 = Don't know..... ☐

9.2 If YES, can you remember when you last had this tetanus injection (yyyy)?

_____ ☐

9.3 Have you ever received an injection/vaccination against measles?

1 = Yes
0 = No
3 = Don't know..... ☐

9.4 Have you ever received an injection/vaccination against Hepatitis B?

1 = Yes
0 = No → Q9.6
3 = Don't know..... ☐

9.5 If YES, did you receive the full course of 3 injections?

1 = Yes
2 = No
3 = Currently receiving course
4 = Don't know..... ☐

9.6 Have you ever received an injection/vaccination against Hepatitis A?

1 = Yes
0 = No → Q9.8
3 = Don't know ☐

9.7 If YES, did you receive the full course of 2 injections for Hepatitis A?

1 = Yes
2 = No
3 = Currently receiving course
4 = Don't know ☐

9.8 Have you ever received an injection or vaccination against German measles (Rubella)?

1 = Yes
0 = No
3 = Don't know ☐

10. EXERCISE

I'm now going to ask you some questions about exercise and sporting activities.

In the last **FOUR WEEKS**, how many times did you do any of the following activities (code number of times and how long spent doing activity)? (Multiple response)

*[Interviewer: **Vigorous** walking refers to activity which made the subject "puff and pant". **Moderate** walking refers to continuous walking for at least 10 minutes. Average time is per occasion.]*

	10.1 Number of times	10.2 Average Time (mins)
1. Vigorous walking	☐	☐
2. Moderate walking	☐	☐
3. Running / jogging	☐	☐
4. Circuit training / aerobics / exercises	☐	☐
5. Exercise bike	☐	☐
6. Weight training	☐	☐
7. Football / soccer / cricket	☐	☐
8. Tennis / squash	☐	☐
9. Basketball / netball	☐	☐
10. Other (Specify) _____	☐	☐
11. None	☐	☐

10.3 If done **NO EXERCISE**, why not?

_____ ☐

10.4 In the **12 MONTHS** before you came into prison, would you describe yourself as:

1 = Very physically active
2 = Fairly physically active
3 = Not very physically active
4 = Not at all physically active
5 = Don't know ☐

10.5 Compared with before you came into prison, would you say that you are now:

1 = More active
2 = About as active
3 = Less active
4 = Don't know ☐

10.6 Would you say that you are:

1 = Very overweight
2 = Overweight
3 = Normal weight
4 = Underweight
5 = Very underweight
6 = Don't know ☐

11. SKIN PROTECTION

The next few questions are about protecting your skin from the sun.

11.1 Do you wear a hat or cap when in the sun?

1 = Most of the time
2 = Sometimes
3 = Rarely / never ☐

11.2 Do you deliberately wear less clothing so as to get the sun on your skin (eg: take your shirt off when working or playing sport in the sun)?

1 = Most of the time
2 = Sometimes
3 = Rarely / never ☐

11.3 Do you wear sunglasses when in the sun?

1 = Most of the time
2 = Sometimes
3 = Rarely / never ☐

11.4 Do you use sun block to protect your skin from the sun?

1 = Most of the time
2 = Sometimes
3 = Rarely / never ☐

11.5 Do you have access to sun block or sun creams?

1 = Yes → Q11.7
0 = No..... ☐

11.6 If NO, what problems have you had getting it?

_____

_____ ☐

11.7 On average, about how many hours do you spend outside each day?

1 = None
2 = <1 hour
3 = 1-2 hours
4 = >2 - <4 hours
5 = >4 - <6 hours
6 = >6 hours ..... ☐

11.8 Thinking of last summer, how often did you get sunburnt, so your skin was still sore the next day?

1 = Not at all
2 = Once
3 = Twice
4 = 3 or 4 times
5 = 5 or more times
6 = Don't know ..... ☐

11.9 In the last **12 MONTHS**, how often have you, or someone else, checked all or most of your skin for changes that could mean skin cancer? Don't include checking you skin after accidentally noticing something.

1 = Not at all
2 = Once
3 = Twice
4 = 3 or 4 times
5 = 5 or more times
6 = Don't know ..... ☐

12. INJURY

Next, a few questions about any injuries or accidents. [Interviewer: if necessary, write a text description of the injury]

In the last **THREE MONTHS** did you have any accidents or injuries for which you may have seen a doctor or nurse or even gone to hospital? *[interviewer: this includes accidents received before prison. If more than four injuries, include the four most serious]*

1 = Yes
0 = No → Q12.10 ..... ☐

12.1 **INJURY:** (fracture, burn, open wound (cut), dislocation.)	12.2 **CAUSE:** (car, drug use, MV passenger, machinery , pedestrian)	12.3 **INTENT:** (accidental, sexual assault, legal intervention)	12.4 **PLACE:** (prison (say where), farm, street, sports area)	12.5 **ACTIVITY:** (sport, work, leisure, in cell.)	12.6 **ACTION:** (doctor, hospital nurse, treated self.)	12.7 **DATE:** (month) In prison Out prison
INJURY 1						
1	1	1	1	1	1	1
INJURY 2						
2	2	2	2	2	2	2
INJURY 3						
3	3	3	3	3	3	3
INJURY 4						
4	4	4	4	4	4	4

12.8 Have any of these accidents left you with a lasting injury or disability?

1 = Yes
0 = No → Q12.10
3 = Don't know → Q12.10..... ☐

12.9 If YES, what?

_____ ☐

_____

12.10 In the **PAST 12 MONTHS** have you had a physical injury that was deliberately caused by:
(Multiple response) (1=Yes, 0=No)

1. Inmate..... ☐
2. Father..... ☐
3. Mother..... ☐
4. Police ..... ☐
5. Boyfriend/girlfriend..... ☐
6. Other (Specify) ☐

_____

12.11 Have you ever had a head injury where you became unconscious or "blacked out"?

1 = Yes
0 = No → Q12.39 ☐

12.12 If YES, how many times has this happened in your life? ☐

If YES, I want you to give me some more information regarding the three most severe head injuries you have suffered. (Skip based on the number reported)

HEAD INJURY 1

12.13 For how long were you unconscious (blacked out)?

1 = Only a brief moment
2 = More than 10 minutes
3 = More than 30 minutes
4 = More than 24 hours
5 = Don't know ☐

12.14 If YES, when did this occur?

1 = Within the past week
2 = Between 1 week - <1 month ago
3 = Between 1 month - <6 months ago
4 = 6 months - < 2 years ago
5 = 2 years -< 5 years
6 = 5 years -< 10 years
7 = Over 10 years ago ☐

12.15 If YES, what caused you to become unconscious? (Specify) *[Interviewer: if necessary you can prompt the inmate eg. car crash, struck with object, hit in a fight]*

_____ ☐

12.16 If YES, did you sustain a skull fracture?

1 = Yes
0 = No
3 = Don't know ☐

12.17 If YES, did you have a bleed in your head?

1 = Yes
0 = No
3 = Don't know ☐

12.18 If YES, did you have a surgical operation on your head?

1 = Yes
0 = No ☐

12.19 If YES, did you experience any of the following effects? (Multiple response) (1=Yes, 0=No)

1. Weakness in any part of your body ☐
2. Poor concentration ☐
3. Memory loss ☐
4. Problems finding the right words when speaking ☐
5. Problems with co-ordination or balance ☐
6. Personality change ☐
7. Anxiety or depression ☐
8. Other (Specify)

_____ ☐

12.20 Which of these effects have not resolved? (Multiple response; 1=Resolved, 2=Unresolved)

1. Weakness in any part of your body ☐
2. Poor concentration ☐
3. Memory loss ☐
4. Problems finding the right words when speaking ☐
5. Problems with co-ordination or balance ☐
6. Personality change ☐
7. Anxiety or depression ☐
8. Other (Specify)

_____ ☐

HEAD INJURY 2

12.21 For how long were you unconscious (blacked out)?

1 = Only a brief moment
2 = More than 10 minutes
3 = More than 30 minutes
4 = More than 24 hours
5 = Don't know ☐

12.22 If YES, when did this occur?

1 = Within the past week
2 = Between 1 week - <1 month ago
3 = Between 1 month - <6 months ago
4 = 6 months - < 2 years ago
5 = 2 years -< 5 years
6 = 5 years -< 10 years
7 = Over 10 years ago ☐

12.23 If YES, what caused you to become unconscious? (Specify) [Interviewer: if necessary you can prompt the inmate eg. car crash, struck with object, hit in a fight]

_____ ☐

_____

12.24 If YES, did you sustain a skull fracture?

1 = Yes
0 = No
3 = Don't know ..... ☐

12.25 If YES, did you have a bleed in your head?

1 = Yes
0 = No
3 = Don't know ..... ☐

12.26 If YES, did you have a surgical operation on your head?

1 = Yes
0 = No ..... ☐

12.27 If YES, did you experience any of the following effects? (Multiple response) (1=Yes, 0=No)

1. Weakness in any part of your body ..... ☐
2. Poor concentration ..... ☐
3. Memory loss ..... ☐
4. Problems finding the right words when speaking ..... ☐
5. Problems with co-ordination or balance ..... ☐
6. Personality change ..... ☐
7. Anxiety or depression ..... ☐
8. Other (Specify)

_____ ☐

12.28 Which of these effects have not resolved? (Multiple response; 1=Resolved, 2=Unresolved)

1. Weakness in any part of your body ..... ☐
2. Poor concentration ..... ☐
3. Memory loss ..... ☐
4. Problems finding the right words when speaking ..... ☐
5. Problems with co-ordination or balance ..... ☐
6. Personality change ..... ☐
7. Anxiety or depression ..... ☐
8. Other (Specify)

_____ ☐

(If only two head injuries → Q12.37)

HEAD INJURY 3

12.29 For how long were you unconscious (blacked out)?

1 = Only a brief moment
2 = More than 10 minutes
3 = More than 30 minutes
4 = More than 24 hours
5 = Don't know ..... ☐

12.30 If YES, when did this occur?

1 = Within the past week
2 = Between 1 week - <1 month ago
3 = Between 1 month - <6 months ago
4 = 6 months - < 2 years ago
5 = 2 years -< 5 years
6 = 5 years -< 10 years
7 = Over 10 years ago ..... ☐

12.31 If YES, what caused you to become unconscious? (Specify) *[Interviewer: if necessary you can prompt the inmate eg. car crash, struck with object, hit in a fight]*

_____ ☐

12.32 If YES, did you sustain a skull fracture?

1 = Yes
0 = No
3 = Don't know ..... ☐

12.33 If YES, did you have a bleed in your head?

1 = Yes
0 = No
3 = Don't know ..... ☐

12.34 If YES, did you have a surgical operation on your head?

1 = Yes
0 = No ..... ☐

12.35 If YES, did you experience any of the following effects? (Multiple response) (1=Yes, 0=No)

1. Weakness in any part of your body ..... ☐
2. Poor concentration ..... ☐
3. Memory loss ..... ☐
4. Problems finding the right words when speaking ..... ☐
5. Problems with co-ordination or balance ..... ☐
6. Personality change ..... ☐
7. Anxiety or depression ..... ☐
8. Other (Specify)

_____ ☐

12.36 Which of these effects have not resolved?
(Multiple response 1=resolved, 2=unresolved)

1. Weakness in any part of your body ☐
2. Poor concentration ☐
3. Memory loss ☐
4. Problems finding the right words when speaking ☐
5. Problems with co-ordination or balance ☐
6. Personality change ☐
7. Anxiety or depression ☐
8. Other (Specify)

_____ ☐

12.37 Have you ever had any tests or scans which have confirmed any damage to the brain as a result of these head injuries?

1 = Yes
0 = No → Q12.39 ☐

12.38 If YES, please specify which test(s) were conducted and the results if you know them:

_____

_____

12.39 Have you ever participated in the following sports at a competitive level?
(Multiple response) (1=Yes, 0=No)

Professional Boxing ☐
Amateur Boxing ☐
Wrestling ☐
Football ☐

13. DIET & NUTRITION

Next, a few questions about the food you eat.

13.1 Do you usually have sweetener in your tea or coffee?

1 = Yes
0 = No
3 = Don't drink tea or coffee ☐

13.2 How do you usually spread the butter or margarine on your bread?

1 = Thickly
2 = Medium
3 = Thinly
4 = Don't use butter or margarine
5 = Don't know ☐

13.3 Do you usually add salt to your food without tasting it first?

1 = Yes
0 = No ☐

13.4 How often do you eat fruit?

1 = More than once a day
2 = Once a day
3 = 3 - 6 days a week
4 = 1 - 2 days a week
5 = At least once a month
6 = Less than once a month
7 = Rarely/never ☐

13.5 How often do you eat vegetables or salad?

1 = More than once a day
2 = Once a day
3 = 3 - 6 days a week
4 = 1 - 2 days a week
5 = At least once a month
6 = Less than once a month
7 = Rarely/never ☐

13.6 How often do you eat fries/hot chips?

1 = More than once a day
2 = Once a day
3 = 3 - 6 days a week
4 = 1 - 2 days a week
5 = At least once a month
6 = Less than once a month
7 = Rarely/never ☐

13.7 How often do you eat bread or rolls?

1 = More than once a day
2 = Once a day
3 = 3 - 6 days a week
4 = 1 - 2 days a week
5 = At least once a month
6 = Less than once a month
7 = Rarely/never ☐

13.8 How often do you eat biscuits or cakes?

1 = More than once a day
2 = Once a day
3 = 3 - 6 days a week
4 = 1 - 2 days a week
5 = At least once a month
6 = Less than once a month
7 = Rarely/never ☐

13.9 How often do you eat sweets/lollies?

1 = More than once a day
2 = Once a day
3 = 3 - 6 days a week
4 = 1 - 2 days a week
5 = At least once a month
6 = Less than once a month
7 = Rarely/never ☐

13.10 Name the three most common food items you purchase from the buy-up list?

(Multiple response)

1._____

2 . _____

3._____

13.11 Are you happy with the food you receive in prison?

1 = Yes
0 = No
3 = Don't know ☐

13.12 Please explain:

_____

_____ ☐

13.13 Do you think that there are too many or too few healthy foods available on the buy-up list? By healthy I mean food that is low in fat, salt, and sugar and high in fibre.

1 = Too many
2 = Too few
3 = Don't know ☐

13.14 Do you think that prison food is:

1 = Too healthy
2 = About right
3 = Too unhealthy ☐

14. SF-12

These questions are about how you see your own health, how you feel and how well you are able to do your usual activities. If you are unsure about how to answer a question, give the best answer you can.

14.1 In general, would you say your health is:

1 = Excellent
2 = Very good
3 = Good
4 = Fair
5 = Poor ☐

The following items are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?

14.2 First, moderate activities, such as moving a table, pushing a trolley. Does your health now limit you a lot, limit you a little or not limit you at all?

1 = Yes, limited a lot
2 = Yes, limited a little
3 = No, not limited at all ☐

14.3 Climbing **several** flights of stairs. Does your health now limit you a lot, limit you a little or not limit you at all?

1 = Yes, limited a lot
2 = Yes, limited a little
3 = No, not limited at all ☐

14.4 During the **PAST 4 WEEKS**, have you accomplished less than you would like as a result of your physical health?

1 = Yes
0 = No ☐

14.5 During the **PAST 4 WEEKS**, were you limited in the kind of work or other regular activities you do as a result of your physical health?

1 = Yes
0 = No ☐

14.6 During the **PAST 4 WEEKS**, have you accomplished less than you would like to as a result of any emotional problems, such as feeling depressed or anxious?

1 = Yes
0 = No ☐

14.7 During the **PAST 4 WEEKS**, did you not do work or other regular activities as carefully as usual as a result of any emotional problems, such as feeling depressed or anxious?

1 = Yes
0 = No ☐

14.8 During the **PAST 4 WEEKS**, how much did pain interfere with your normal work?

1 = Not at all
2 = A little bit
3 = Moderately
4 = Quite a bit
5 = Extremely ☐

These questions are about how you feel and how things have been with you during the **PAST 4 WEEKS**. *For each question, please give the one answer that comes closest to the way you have been feeling.*

14.9 How much during the **PAST 4 WEEKS** have you felt calm and peaceful?

1 = All of the time
2 = Most of the time
3 = A good bit of the time
4 = Some of the time
5 = A little of the time
6 = None of the time ☐

14.10 How much during the **PAST 4 WEEKS** did you have a lot of energy?

1 = All of the time
2 = Most of the time
3 = A good bit of the time
4 = Some of the time
5 = A little of the time
6 = None of the time ☐

14.11 How much during the **PAST 4 WEEKS** have you felt down?

1 = All of the time
2 = Most of the time
3 = A good bit of the time
4 = Some of the time
5 = A little of the time
6 = None of the time ☐

14.12 During the **PAST 4 WEEKS**, how much of the time has **your physical health or emotional problems** interfered with your social activities?

1 = All of the time
2 = Most of the time
3 = Some of the time
4 = A little of the time
5 = None of the time ☐

15. MENS' HEALTH

MALES ONLY

I'm now going to ask you a few questions about any times that you may have examined yourself for abnormalities.

15.1 Have you **EVER** examined your testicles ("balls") for abnormal lumps?

1 = Yes
0 = No ☐

15.2 If YES, how often do you examine them?

1 = Once only
2 = Weekly
3 = Monthly
4 = Less than this ☐

15.3 Do you know how to properly examine your testicles for lumps?

1 = Yes
0 = No ☐

15.4 Would you like more information on this subject?

1 = Yes
0 = No ☐

16. WOMEN'S HEALTH

FEMALES ONLY

I'm now going to ask you some questions specifically about women's health.

16.1 Have you ever examined your breasts for lumps or abnormalities?

1 = Yes
0 = No → Q16.3
3 = Don't know → Q16.3 ☐

16.2 If YES, how often do you examine them?

1 = Once only
2 = About once a year
3 = About twice a year
4 = Monthly
5 = Other (Specify)

_____ ☐

16.3 Do you know how to properly examine your breasts for lumps?

1 = Yes
0 = No ☐

16.4 Would you like further information about how to examine your breasts for lumps?

1 = Yes
0 = No ☐

16.5 Have you ever had a PAP smear?

1 = Yes
0 = No → Q16.9
3 = Don't know → Q16.9 ☐

16.6 If YES, was this

1 = In the last six months
2 = 6 months - <12 months
3 = 1 year - <2 years
4 = 2 years - <4 years
5 = 4 years - <6 years
6 = 6 years or more
7 = Can't remember ☐

16.7 Do you know what the result was?

1 = Normal
2 = Abnormal
3 = Don't know ☐

16.8 How often do you have PAP smears?

1 = Once only
2 = Yearly
3 = Twice a year
4 = Once every two years
5 = Other (Specify)

_____ ☐

16.9 Are you currently pregnant?

1 = Yes
0 = No
3 = Don't know ☐

16.10 How many times have you been pregnant?

[Interviewer: if none, code as 00 → Q16.21]

_____ ☐

16.11 If YES, previous pregnancies, what is the date you last found out that you were pregnant (MM.YYYY)

_____ ☐

16.12 How many miscarriages have you had? *[Interviewer: if none, code as 00 → Q16.15]*

_____ ☐

16.13 If YES, thinking about the first time you had a miscarriage, how old were you?

_____ ☐

16.14 If YES, thinking about the last time you had a miscarriage, how old were you? *[Interviewer: if only one miscarriage ignore this question]*

..... ☐

16.15 How many abortions/terminations have you had? *[Interviewer: if none code as 00 and → Q16.18]*

..... ☐

16.16 If YES, thinking about the FIRST time you had an abortion/termination, how old were you when this happened?

..... ☐

16.17 If YES, thinking about the LAST time you had an abortion/termination, how old were you when this happened? *[Interviewer: if only one Abortion skip this question]*

..... ☐

16.18 How many children have you given birth to (include still-born)? *[Interviewer: if no children code as 00 and → Q16.21]*

..... ☐

16.19 If YES HAD CHILDREN, how old were you when your first child was born?

..... ☐

16.20 If YES HAD CHILDREN, thinking about the LAST time you had a child, how old were you when this happened? *[Interviewer: if only one child skip this question]*

..... ☐

16.21 In the last **FOUR WEEKS**, have you made yourself sick or vomited to control your body shape or weight or to counteract the effects of eating?

1 = Yes
0 = No → Q16.23 ☐

16.22 If YES, on how many days in the last four weeks have you done this?

..... ☐

16.23 In the last **FOUR WEEKS**, have you taken pills to control your body shape or weight or to counteract the effects of eating?

1 = Yes
0 = No → Q16.26 ☐

16.24 If YES, on how many days in the last four weeks have you done this?

..... ☐

16.25 What pills did you take?

_____ ☐

16.26 Are you happy with your weight?

1 = Yes → Q16.28
0 = No
3 = Don't know → Q16.28 ☐

16.27 If NO, by how much do you want your weight to change?

1 = A bit thinner/fatter
2 = Slightly thinner/fatter
3 = Much thinner/fatter ☐

16.28 In the **12 MONTHS** before you came into prison, did a partner or spouse or someone close to you: (Multiple response) (1=Yes, 0=No)

1. Physically hurt you (eg: hit, slap or kick you) ☐
2. Forced you to take part in unwanted sexual activities ☐
3. Tried to limit your contact with family or friends ☐
4. Verbally abused you (called you names to put you down or make you feel bad) ☐
5. Stopped you knowing about or having access to money ☐

17. ABORIGINAL HEALTH

ABORIGINAL INMATES ONLY

I'm now going to ask you some questions related to your Aboriginal origin. Some of these questions may upset you. You do not have to answer if you don't want to.

17.1 Were you removed from your parents as a child?

1 = Yes
0 = No → Inmate Access survey
3 = Don't know→ Inmate Access survey ☐

17.2 If YES, at what age were you removed?

..... ☐

17.3 If YES, for how long were you removed? (years)

..... ☐

17.4 If YES, in whose care were you placed? (Multiple response) (1=Yes, 0=No)

1. Institution (Specify)

_____ ☐

2. Other family - Aboriginal ☐
3. Other family - non-Aboriginal ☐

17.5 Were you eventually returned to your family?

1 = Yes
0 = No ☐

17.6 Were your parents forcibly removed from their family as children?

1 = Yes
0 = No → Q17.8 ☐

17.7 If YES, which parent(s)?

1 = Yes - mother
2 = Yes - father
3 = Yes - both
4 = Don't know ☐

17.8 Have you used any of the following services for Aboriginal people since coming into gaol? (Multiple response) (1=Yes, 0=No)

1. DoCS Aboriginal welfare worker ☐
2. DoCS Aboriginal Drug & Alcohol worker ☐
3. DoCS Aboriginal psychologist ☐
4. Medical officer from Aboriginal medical Service (AMS) ☐
5. Aboriginal health worker from an AMS ☐
6. Justice Health Aboriginal health worker ☐
7. Other Aboriginal worker (Specify)

_____ ☐

17.9 If YES for each service used, were you satisfied with the service you received? (Multiple response)

1 = Yes
0 = No
3 = Don't know ☐

17.10 Please explain why you were or were not satisfied with the service you received.

_____

_____ ☐

17.11 Have you participated in **any** of the Justice Health Aboriginal health promotion programs, such as the Vascular Health, Men's Health, Disease Prevention or Oral Health programs?

1 = Yes
0 = No → Q17.17
3 = Don't Know → Q17.17 ..... ☐

17.12 If YES, which program did you participate in? (Multiple response item) (1=Yes, 0=No)

1 = Vascular Health ..... ☐
2 = Men's Health ..... ☐
3 = Disease Prevention..... ☐
4 = Oral Health..... ☐
5 = Other, specify
_____ ☐

17.13 If yes for each program specified, did you learn something from the program? (Multiple response item)

(1=Yes, 0=No, 3=Don't know)

1. Vascular Health..... ☐
2. Men's Health ..... ☐
3. Disease Prevention..... ☐
4. Oral Health..... ☐
5. Other program, specify
_____ ☐

17.14 If yes for each program specified, did you change your behaviour because of what you learned at the program? (Multiple response item)

(1=Yes, 0=No, 3=Don't know)

1. Vascular Health..... ☐
2. Men's Health ..... ☐
3. Disease Prevention..... ☐
4. Oral Health..... ☐
5. Other program, specify
_____ ☐

17.15 If yes for each program specified, were you satisfied with the program? (Multiple response item)

(1=Yes, 0=No, 3=Don't know)

1. Vascular Health..... ☐
2. Men's Health ..... ☐
3. Disease Prevention..... ☐
4. Oral Health..... ☐
5. Other program, specify
_____ ☐

17.16 Do you have any suggestions for how the programs could be improved?

_____

_____

_____

Inmate Access Survey

1. ABORIGINAL HEALTH SERVICES

1.1 If you are of Aboriginal origin, have you ever accessed Aboriginal Health Services in the Community?

1 = Yes
0 = No → Section 2 ..... ☐

1.2 If YES, how would you compare Aboriginal Health Services provided in this prison to those provided in the community?

1 = Excellent
2 = Good
3 = Average
4 = Poor
5 = Very poor ..... ☐

1.3 Would you like to provide more detail?

_____

_____

_____

Now I'd like to ask you about your experience of receiving healthcare in prison and the community.

2. HEALTH CARE SERVICES

2.1 Before coming into prison this time have you ever gone to any of the following types of health care services?
(Multiple response) (1=Yes, 0=No)

1. Hospital ..... ☐
2. Community health centre ..... ☐
3. General practitioner ..... ☐
4. Medical centre ..... ☐
5. Home nursing – community nurse ..... ☐
6. Other, specify

_____

7. None → Section 3 ..... ☐

2.2 If YES, how does the clinic services at your current prison compare to the service you received before you came into prison?

1 = Excellent
2 = Good
3 = Average
4 = Poor
5 = Very poor
6 = Don't know ..... ☐

3. CLINIC SERVICES INFORMATION

3.1 On reception to this prison, were you given information about the clinic services?

1 = Yes
0 = No → Q3.4
3 = Don't know → Q3.4 ..... ☐

3.2 If YES, how would you rate the information that was given to you at reception by the healthcare staff?

1 = Excellent
2 = Good
3 = Average
4 = Poor
5 = Very poor ..... ☐

3.3 Would you like to provide more detail?

_____

_____

_____

3.4 How did you find out about the services that this prison clinic provides?
(Multiple response) (1=Yes, 0=No)

1. Inmate Development Committee ..... ☐
2. Other inmates ..... ☐
3. Officers ..... ☐
4. Signs ..... ☐
5. Health staff ..... ☐
6. Family/visitors ..... ☐
7. Official visitor ..... ☐
8. Hep C Review ..... ☐
9. Community Restorative Centre ..... ☐
10. Framed *(Prisoner magazine)* ..... ☐
11. Other, specify

_____

4. CLINIC STAFF

4.1 Have you ever visited a prison clinic?

1 = Yes
0 = No → Q4.19 ..... ☐

4.2 The last time you wanted to go to the clinic how long was your name on the prison clinic list before you were seen by the healthcare staff?

Days ..... ☐

4.3 Who is the most helpful when you want to go to the clinic?

1 = Healthcare staff
2 = Dept of Corrective Services Officers
3 = Welfare
4 = Probation and parole
5 = Other inmates
6 = Inmate Development Committee staff
7 = Psychology
8 = Alcohol and other Drug officer
9 = Other, specify

_____

10 = Don't know ☐

4.4 Who is the least helpful when you want to go to the clinic?

1 = Healthcare staff
2 = Dept of Corrective Services Officers
3 = Welfare
4 = Probation and parole
5 = Other inmates
6 = Inmate Development Committee staff
7 = Psychology
8 = Alcohol and other Drug officer
9 = Other, specify

_____

10 = Don't know ☐

4.5 Would you like to provide more detail?

_____

_____

_____

4.6 When you came to this prison clinic who did you want to see?

1 = Doctor
2 = Dentist
3 = Psychiatrist
4 = Nurse
5 = Other, specify

_____ ☐

6 = Don't know

4.7 When you came to this prison clinic who did you actually see?

1 = Doctor
2 = Dentist
3 = Psychiatrist
4 = Nurse
5 = Other, specify

_____ ☐

4.8 How would you rate your level of satisfaction with the person you saw?

1 = Excellent
2 = Good
3 = Average
4 = Poor
5 = Very poor ☐

4.9 When you saw the staff at the prison clinic did you feel comfortable talking to them about your health?

1 = Yes
0 = No..... ☐

4.10 Would you like to provide more detail?

_____

_____

_____

4.11 How do you think we can improve the healthcare at this prison clinic?

_____

_____

_____

4.12 On your last visit to this prison clinic, did you want to be involved in your treatment decisions?

1 = Yes
0 = No
3 = Don't know..... ☐

4.13 Were you given the opportunity to do so?

1 = Yes
0 = No..... ☐

4.14 On your last visit to this prison clinic, were you provided with information about your treatment?

1 = Yes
0 = No..... ☐

4.15 How would you rate the information that was provided to you?

1 = Excellent
2 = Good
3 = Average
4 = Poor
5 = Very poor ☐

4.16 How would you rate the range of healthcare services provided by this prison clinic?

1 = Excellent
2 = Good
3 = Average
4 = Poor
5 = Very poor
6 = Don't know ☐

4.17 Do the hours that this prison clinic is open meet your needs?

1 = Yes → Q4.19
0 = No..... ☐

4.18 If NO, can you suggest better hours?

_____

_____

4.19 Whilst you have been in prison this time have you booked into a medical appointment outside the prison?

1 = Yes
0 = No → Section 5..... ☐

4.20 Did you actually attend this appointment?

1 = Yes
0 = No..... ☐

4.21 Whilst you have been in prison this time has a medical appointment that was made for a service outside of prison ever been cancelled?

1 = Yes
0 = No → Section 5..... ☐

4.22 Did you cancel the appointment?

1 = Yes
0 = No → Section 5..... ☐

The next questions are about possible factors that influenced your decision to cancel the appointment.

4.23 You felt that you would lose your prison job.

1 = No influence
2 = Minimal influence
3 = Moderate influence
4 = Major influence ☐

4.24 You felt you could lose your cell placement and your friends.

1 = No influence
2 = Minimal influence
3 = Moderate influence
4 = Major influence ☐

4.25 You were concerned about being moved to a Maximum Security Prison.

1 = No influence
2 = Minimal influence
3 = Moderate influence
4 = Major influence ☐

4.26 Would you have gone to Long Bay if there was a Minimum Security Facility available there?

1 = Yes
0 = No..... ☐

4.27 You were concerned about not being able to receive visits from family and friends.

1 = No influence
2 = Minimal influence
3 = Moderate influence
4 = Major influence ☐

4.28 Your medical condition had improved and you felt you no longer needed the appointment.

1 = No influence
2 = Minimal influence
3 = Moderate influence
4 = Major influence ☐

4.29 You had been waiting a long time for your appointment.

1 = No influence
2 = Minimal influence
3 = Moderate influence
4 = Major influence ☐

4.30 You were concerned about travelling in a prison transport vehicle.

1 = No influence
2 = Minimal influence
3 = Moderate influence
4 = Major influence ☐

4.31 Other factors, please specify

_____

_____

_____

4.32 Do you have any suggestions on how Justice Health can make it easier for you to keep your medical appointments in the future?

_____

_____

_____

5. BBV TESTING

5.1 Excluding this survey, have you ever been tested for HIV, hepatitis, or a sexually-transmitted disease while you were in prison?

1 = Yes
0 = No → Section 6 ☐

5.2 If YES, did you receive any counselling or information from the nurse or doctor about the test before it was carried out?

1 = Yes, always
2 = Yes, sometimes
3 = No → Q5.4 ☐

5.3 If YES received counselling or information, was it helpful to you?

1 = Yes
0 = No
3 = Don't know ☐

5.4 If YES, did you receive the results from this test?

1 = Yes, always
2 = Yes, sometimes
3 = No→ Section 6 ☐

5.5 If YES, did you receive information or counselling from the nurse or doctor about the test when the results were given back to you?

1 = Yes, always
2 = Yes, sometimes
3 = No→ Section 6 ☐

5.6 If YES received counselling or information, was it helpful to you?

1 = Yes
0 = No
3 = Don't know ☐

6. AWARENESS

6.1 Who do you think can read your health record?
(Multiple response) (1=Yes, 0=No)

1. Doctor ☐
2. Nurse ☐
3. Clinic officer ☐
4. Case worker ☐
5. Psychologist ☐
6. AOD worker ☐
7. Welfare officer ☐
8. Probation and parole ☐
9. Governor ☐
10. Lawyer/solicitor ☐
11. Official visitor ☐
12. Other, specify

_____ ☐

6.2 Who do you think employs the health staff that work at this prison clinic.

1 = NSW Health Department
2 = Department of Corrective Services(DCS)
3 = Both NSW Health and DCS
4 = Private owners of the Centre (Junee)
5 = Don't know
6 = Other, specify

_____ ☐

7. HOSPITAL INPATIENT VISITS

7.1 During the last twelve months, have you been admitted to a general hospital or psychiatric hospital as an inpatient and stayed overnight or longer?

1 = Yes
0 = No → Section 8 ☐

7.2 If YES, how many times in the last twelve months were you admitted to a general hospital or psychiatric hospital as an inpatient and stayed overnight or longer? ☐

7.3 How many of these admissions happened while you were in prison? ☐

7.4 Thinking about your most recent admission to hospital, how would you rate the healthcare you received?

1 = Excellent
2 = Fairly good
3 = OK
4 = Not too good
5 = Not good at all ☐

8. OUTPATIENT VISITS

8.1 During the last twelve months, have you visited the outpatient clinic at a hospital about your own health but did not stay overnight?

1 = Yes
0 = No → Section 9 ☐

8.2 If YES, how many times in the last twelve months did you visit the outpatients clinic at a hospital about your own health but did not stay overnight? ☐

8.3 How many of these outpatient visits happened while you were in prison? ☐

8.4 Thinking about your last visit to the outpatients, how would you rate the healthcare you received?

1 = Excellent
2 = Fairly good
3 = OK
4 = Not too good
5 = Not good at all ☐

9. EMERGENCY DEPARTMENT VISITS

9.1 During the last twelve months, have you attended an emergency department about your own health?

1 = Yes
0 = No → Section 10 ☐

9.2 If YES, how many times in the last twelve months did you visit the emergency department about your own health? ☐

9.3 How many of these emergency department visits happened while you were in prison? ☐

9.4 Thinking about your last visit to the emergency department, how would you rate the healthcare you received?

1 = Excellent
2 = Fairly good
3 = OK
4 = Not too good
5 = Not good at all ☐

10. USE OF PRISON CLINIC

10.1 Do you visit the clinic regularly to pick up pills or medicines for repeat prescriptions such as methadone or insulin?

1 = Yes
0 = No → Q10.3 ☐

10.2 If YES, what do you attend for? (eg. Methadone)

_____

_____

10.3 Excluding visits to the clinic for repeat prescriptions, how many times have you visited the clinic to see the nurse about your health in the last four weeks?

times ☐

10.4 Thinking about your most recent visit to the clinic, how would you rate the healthcare you received?

1 = Excellent
2 = Fairly good
3 = OK
4 = Not too good
5 = Not good at all ☐

10.5 When was the last time you saw a doctor about your own health?

1 = In the last week
2 = >1 week and < =1 month
3 = >1 month and <=6 months
4 = >6 months and <=1 year
5 = >1 year and <=5 years
6 = >5 years
7 = Never seen a doctor → Section 11
8 = Can't remember ☐

10.6 Thinking about this last visit, was this with a prison doctor?

1 = Yes
0 = No ☐

10.7 Thinking about this visit to the doctor, how would you rate the healthcare you received?

1 = Excellent
2 = Fairly good
3 = OK
4 = Not too good
5 = Not good at all ☐

11. OTHER HEALTH SERVICES

11.1 Have you seen any of these other health professionals about your own health in the last four weeks? (Multiple response) (1=Yes, 0=No)

1. Optician/optometrist ☐
2. Physiotherapist ☐
3. Psychologist ☐
4. Psychiatrist ☐
5. Social worker/welfare officer ☐
6. Podiatrist/chiropodist ☐
7. Public health nurse ☐
8. Mental health nurse ☐
9. Drug and alcohol counsellor ☐
10. Dental nurse ☐
11. Dentist ☐
12. Other health professional, specify
_____ ☐
13. None of these → Section 12 ☐

11.2 (For each health professional seen in 11.1), Thinking about your last visit to (Specify), how would you rate the healthcare you received? (Multiple response)

1 = Excellent ☐
2 = Fairly good ☐
3 = OK ☐
4 = Not too good ☐
5 = Not good at all ☐

12. HEALTH SERVICE APPRAISAL

The next questions are about your experience receiving healthcare in prison.

12.1 I am satisfied with the healthcare I receive in prison.

1 = Agree
0 = Not sure
3 = Disagree ☐

12.2 If I have a health problem, I can easily see a health professional in prison.

1 = Agree
0 = Not sure
3 = Disagree ☐

12.3 Those who provide my healthcare in prison treat me in a friendly and courteous manner.

1 = Agree
0 = Not sure
3 = Disagree ☐

12.4 Those who provide my healthcare in prison are competent and well-trained.

1 = Agree
0 = Not sure
3 = Disagree ☐

12.5 What things do you think could improve healthcare in prisons? (Multiple response) (1=Yes, 0=No)

1. Longer hours at the clinic ☐
2. More access to the doctor ☐
3. Shorter waiting times to see specialists ☐
4. Shorter waiting time for hospital ☐
5. Shorter waiting time to see the dentist ☐
6. Choice of doctors ☐
7. Less travelling time to see specialists ☐
8. Improved attitude of nurses ☐
9. Improved attitude of doctors ☐
10. Improved attitude of dentists ☐
11. Access to local specialists ☐
12. More Aboriginal health workers ☐
13. Other, specify
_____ ☐

12.6 Would you say you used the following services:
1=More in prison than in the community
2=About the same in prison as in the community
3=Less in prison than in the community
(Multiple response)

1. Seeing a doctor ☐
2. Seeing a specialist doctor ☐
3. Seeing a nurse ☐
4. Seeing a dentist ☐
5. Seeing a psychiatrist ☐
6. Seeing a drug and alcohol counsellor ☐
7. Seeing a psychologist ☐
8. Seeing an optometrist ☐
9. Seeing an Aboriginal Health worker ☐

12.7 How would you compare the health services you receive in prison with health services outside prison?

1 = Better in prison
2 = About the same
3 = Worse in prison
4 = Don't know

☐

12.8 Any other comments you would like to make?

_____

_____

_____

Mental Health Survey

1. PSYCHIATRIC HISTORY

I'm now going to ask you some questions about your mental health status.

1.1 Have you ever received treatment or assessment by a psychiatrist or doctor, for an emotional or mental problem?

1 = Yes
0 = No → Q1.15 ☐

1.2 ↴

1.2a If YES, have you ever been told by a psychiatrist or doctor that you have any of the following?

(Multiple response) (1=Yes, 0=No)

1. Depression ☐
2. Schizophrenia ☐
3. Manic depressive psychosis ☐
4. Anxiety ☐
5. Personality disorder ☐
6. Alcohol dependence ☐
7. Drug dependence ☐
8. ADD/ADHD ☐
9. Other mental illness (Specify) ☐

_____

1.2b If YES, for each condition specified, how old were you the first time you were told by a psychiatrist or doctor that you had this mental problem? (Multiple response) ☐

1.3 If YES, prior to incarceration, when did you last see the psychiatrist?

1 = Less than 1 week
2 = Between 1 and 4 weeks prior
3 = Between 1 and 3 months prior
4 = Between 4 and 12 months prior
5 = More than a year prior
6 = Don't know
7 = Never seen a psychiatrist ☐

1.4 If YES, in the 3 months prior to incarceration, how often did you have contact with a mental health service?

1 = Not at all
2 = Once only
3 = Two-three times
4 = Four or more times
5 = Don't know ☐

1.5 If YES, have you ever been admitted to a psychiatric unit or ward in a hospital?

1 = Yes
0 = No→Q1.12 ☐

1.6 If YES, HOW MANY admissions have you had to a psychiatric unit or psychiatric ward?

1 = Once only
2 = Between 2 and 5
3 = Over 5 ☐

1.7 If YES, WHERE was this:

1 = In the community
2 = In prison
3 = Both community and prison ☐

1.8 If YES, thinking about the LONGEST admission, how long did you spend in the psychiatric unit or psychiatric ward?

1 = Less than I week
2 = Between 1 and <=2 weeks
3 = Between 2 and <=4 weeks
4 = Between 4 and <=8 weeks
5 = More than 8 weeks ☐

1.9 If YES, thinking about the MOST RECENT visit to a psychiatric unit or psychiatric ward, how long ago was it since you were discharged?

1 = In the last 2 weeks
2 = 2 -< 4 weeks
3 = 4 - < 12 weeks
4 = 3 -< 6 months
5 = 6 months -< 1 year
6 = 1 -< 2 years
7 = Over 2 years ☐

1.10 If YES, for this MOST RECENT visit, about how long did you spend in the hospital / unit?

1 = Less than 1 week
2 = 1-< 2 weeks
3 = 2 -< 4 weeks
4 = 4 -< 8 weeks
5 = Over 8 weeks ☐

1.11 If YES, for this most recent admission, how were you REFERRED to the hospital / unit?

1 = Family or friends
2 = Doctor
3 = Police
4 = Self-referral
5 = Other (Specify)

_____ ☐

1.12 Are you currently taking any psychiatric medication?

1 = Yes
0 = No→Q1.15 ☐

1.13 If YES, what type of medication?

1. Major Tranquillisers - Tablets ☐
2. Major Tranquillisers - Injections ☐
3. Lithium ☐
4. Anti-Depressants ☐
5. Minor Tranquillisers (eg benzo's) ☐
6. Psychostimulants (eg. Ritalin) ☐
7. Anti-psychotics… ☐
8. Other (Specify) ☐

_____

1.14 If YES, in the six months prior to incarceration, were you taking your psychiatric medications as prescribed (ie, daily or regular pills/injections)?

1 = Yes, always
2 = No, it varied
3 = No, I stopped taking them.
4 = No, I was not on prescribed medication
5 = Never prescribed ☐

1.15 Have you ever been seen by a mental health nurse in the courts?

1 = Yes
0 = No → Q1.19
3 = Don't know → Q1.19 ☐

1.16 If YES, approximately how long ago were you seen by a nurse in the courts?

1 = Less than I month ago
2 = Between 1 and 3 months ago
3 = Between 4 and 12 months ago
4 = Between 1-2 years ago
5 = More than 2 years ago
6 = Don't know ☐

1.17 If YES, was a report submitted to the court?

1 = Yes
0 = No
3 = Don't know ☐

1.18 If YES, was the service helpful for your mental health or legal problems?

1 = Yes
0 = No
3 = Don't know ☐

1.19 Are you currently receiving any other forms of treatment or support for an emotional or mental problem?

1 = Yes
0 = No → Q1.21 ☐

1.20 If YES, please specify the treatment

_____ ☐

1.21 Have you ever had support, counselling or treatment for a mental problem from a psychologist or counsellor?

1 = Yes
0 = No → Q1.23 ☐

1.22 If YES, please specify the treatment

_____

If previous incarcerations, ask the following:

1.23 When you were released from prison last time, were you referred to a mental health service?

1 = Yes
0 = No → Q1.25
3 = Don't know → Q1.25 ☐

1.24 If YES referred, did you attend?

1 = Yes
0 = No
3 = Don't know ☐

1.25 If you are NOT currently receiving psychiatric treatment, do you believe that you should be receiving it?

1 = Yes
0 = No →Section 2 ☐

1.26 If YES, what for?
(Multiple response) (1=Yes, 0=No)

1. Stress / not coping ☐
2. Alcohol dependence ☐
3. Drug dependence ☐
4. Depression ☐
5. Anger management ☐
6. Sexual abuse ☐
7. Other (Specify) ☐

_____

2. SUICIDE

I'm now going to ask you some questions about any times that you may have tried to kill yourself or thought about trying to kill yourself. [Interviewer: this does not include self-harm]

2.1 Have you ever THOUGHT about committing suicide?

1 = Yes
0 = No → Q2.5 ☐

2.2 If YES, when did you last think about suicide?

1 = In the past week
2 = 1 week -< 4 weeks ago
3 = 1 month -< 6 months ago
4 = 6 months -< 1 year ago
5 = More than 1 year ago ☐

2.3 If YES, over the past **12 MONTHS** how often have you THOUGHT about suicide?

1 = Daily
2 = Weekly
3 = Monthly
4 = Less than this ☐

2.4 If YES, since coming into gaol, would you say that your thoughts about suicide have:

1 = Decreased
2 = Remained the same
3 = Increased ☐

2.5 Have you ever ATTEMPTED suicide?

1 = Yes
0 = No → Q2.25 ☐

2.6 If YES, about how many times? ☐

2.7 If YES, what method or methods did you use? *[Interviewer: code all that apply]*

1. Hanging ☐
2. Overdose - tablets ☐
3. Overdose - injection ☐
4. Firearms / gunshot ☐
5. Slashing / stabbing ☐
6. Other (Specify)

_____ ☐

2.8 If YES, where did these suicide attempts occur?

1 = In the community
2 = In prison
3 = In both prison and the community ☐

2.9 If YES, regarding your suicide attempts, did you really want to die at the time?

1 = Yes always
2 = Sometimes
3 = Always no
4 = Don't know ☐

2.10 If YES, did you tell anybody that you were considering suicide?

1 = Yes always
2 = Sometimes
3 = Always no → Q2.12 ☐

2.11 If YES who did you tell?
(Multiple response) (1=Yes, 0=No)

1. Other inmate ☐
2. Doctor ☐
3. Family member ☐
4. Custodial staff ☐
5. Nurse ☐
6. Friend ☐
7. Phone counselling service ☐
8. Psychologist / psychiatrist ☐
9. Other (Specify)

_____ ☐

2.12 If NO, why didn't you talk to anyone?

_____ ☐

2.13 If YES, did you think about committing suicide for some time before the attempt(s)?

1 = Yes always
2 = Sometimes
3 = Always no ☐

2.14 If YES, were any of these attempts the result of a sudden impulse or urge?

1 = Yes
0 = No ☐

2.15 If YES, have you ever made a plan to suicide and NOT carried it out?

1 = Yes
0 = No ☐

2.16 If YES, what stopped you carrying it out?

_____ ☐

2.17 If YES, thinking about your last suicide attempt, how long ago did this occur?

1 = In the past week
2 = 1 week -< 4 weeks ago
3 = 1 month -< 6 months ago
4 = 6 months -<= 1 year ago
5 = Over 1 year ago ☐

2.18 If YES, where did this LAST suicide attempt occur?

1 = In the community
2 = In prison ☐

2.19 If YES, what method did you use for this last attempt?

1 = Hanging
2 = Overdose - tablets
3 = Overdose - injection
4 = Firearms / gunshot
5 = Slashing / stabbing
6 = Other (Specify)

_____ ☐

2.20 If YES, did you tell anybody that you were considering suicide the last time?

1 = Yes
0 = No
3 = Don't know ☐

2.21 If YES who did you tell?
(Multiple response) (1=Yes, 0=No)

1. Other inmate ☐
2. Doctor ☐
3. Family member ☐
4. Custodial staff ☐
5. Nurse ☐
6. Friend ☐
7. Phone counselling service ☐
8. Psychologist / psychiatrist ☐
9. Other (Specify)

_____ ☐

2.22 If NO, why didn't you talk to anyone

_____ ☐

2.23 If YES, did you think about committing suicide for some time before this last attempt?

1 = Yes
0 = No
3 = Don't know ☐

2.24 If YES, was this last attempt the result of a sudden impulse or urge?

1 = Yes
0 = No ☐

2.25 Do you consider yourself likely to attempt suicide during this imprisonment?

1 = Very likely
2 = Likely
3 = Unlikely
4 = Definitely not
5 = Don't know ☐

2.26 How likely do you think it is that your life will end by suicide?

1 = Very likely
2 = Likely
3 = Unlikely
4 = Definitely not
5 = Don't know ☐

2.27 Do you believe any of the problems confronting you would be solved if you committed suicide?

1 = Definitely not
2 = Probably not
3 = Don't know
4 = Probably yes
5 = Definitely yes ☐

3. SELF HARM

3.1 Excluding suicide attempts, have you ever deliberately harmed or injured yourself? *[Interviewer: stress that this does not include suicide attempts]*

1 = Yes
0 = No→ Section 4 ☐

3.2 If YES, how many times?

1 = Once
2 = Twice
3 = Three times
4 = Four times
5 = Very often ☐

If YES, thinking about the last three times that you harmed yourself:

SELF-HARM 1 (MOST RECENT TIME):

3.3 What method did you use?

_____ ☐

3.4 If YES, where did it occur?

1 = In the community
2 = In prison ☐

3.5 If YES, why did you self-harm, was it:

1 = To get help
2 = To relieve tension
3 = To get what you want
4 = To make others listen to you
5 = Moving gaol
6 = Other (Specify)

_____ ☐

3.6 If YES, how long ago did this most recent self-harm incident occur?

1 = In the past week
2 = 1 week -< 4 weeks ago
3 = 1 month -< 6 months ago
4 = 6 months -<= 1 year ago
5 = Over 1 year ago..... ☐

SELF-HARM 2 (SECOND MOST RECENT TIME):

3.7 What method did you use?

_____ ☐

3.8 Where did it occur?

1 = In the community
2 = In prison..... ☐

3.9 Why did you self-harm, was it:

1 = To get help
2 = To relieve tension
3 = To get what you want
4 = To make others listen to you
5 = Moving gaol
6 = Other (Specify)

_____ ☐

3.10 If YES, how long ago did this second most recent self-harm occur?

1 = In the past week
2 = 1 week -< 4 weeks ago
3 = 1 month -< 6 months ago
4 = 6 months -<= 1 year ago
5 = Over 1 year ago..... ☐

SELF-HARM 3 (THIRD MOST RECENT TIME):

3.11 What method did you use?

_____ ☐

3.12 Where did it occur?

1 = In the community
2 = In prison..... ☐

3.13 Why did you self-harm, was it:

1 = To get help
2 = To relieve tension
3 = To get what you want
4 = To make others listen to you
5 = Moving gaol
6 = Other (Specify)

_____ ☐

3.14 If YES, how long ago did this last self-harm occur?

1 = In the past week
2 = 1 week -< 4 weeks ago
3 = 1 month -< 6 months ago
4 = 6 months -<= 1 year ago
5 = Over 1 year ago..... ☐

3.15 Have you harmed yourself during THIS IMPRISONMENT?

1 = Yes
0 = No → Q3.19..... ☐

3.16 If YES, how many times have you self-harmed during this current imprisonment?..... ☐

3.17 If YES, how long ago did this third most recent self-harm occur?

1 = In the past week
2 = 1 week -< 4 weeks ago
3 = 1 month -< 6 months ago
4 = 6 months -< 1 year ago
5 = Over 1 year ago..... ☐

3.18 If YES, thinking about the last time you harmed yourself DURING THIS IMPRISONMENT, what method did you use? *(List provided to interviewer)*

_____ ☐

3.19 In general, before you self harm, do you think about it for some time?

1 = Yes always
2 = Sometimes
3 = Always no ..... ☐

3.20 In general, does your self harm occur suddenly on impulse or urge?

1 = Yes always
2 = Sometimes
3 = Always no ..... ☐

3.21 In general, did you talk to anybody about your feelings before you tried to harm yourself?

1 = Yes
0 = No → Q3.23..... ☐

3.22 If YES who did you talk to?

1 = Other inmate
2 = Doctor
3 = Family
4 = Custodial staff
5 = Nurse
6 = Other (Specify)

_____ ☐

3.23 If NO, why wouldn't you talk to anyone? (Specify)

_____

3.24 Are you more likely to harm yourself in prison than in the community?

1 = More likely in prison
2 = About the same
3 = Less likely in prison
4 = Don't know ☐

3.25 Do you think you will harm yourself before your release?

1 = Yes
0 = No
3 = Don't know ☐

3.26 If YES, why?

_____

_____

4. ALCOHOL USE

Interviewer:
One drink =
2 middies of low alcohol beer
1 middie of ordinary beer
1 small glass of wine
1 small glass of fortified wine
1 nip of spirits (30ml)
Just less than a bottle of wine cooler

The following questions relate to drinking in the YEAR BEFORE *you came into gaol.*

4.1 How often during the last year (before you were in prison) did you have a drink containing alcohol?

1 = Never → Q4.13
2 = Monthly or less
3 = 2-4 times a month
4 = 2-3 times a week
5 = 4+ times a week ☐

4.2 How many drinks containing alcohol did you have on a typical day when you were drinking?

1 = 1-2
2 = 3-4
3 = 5-6
4 = 7-9
5 = 10+ ☐

4.3 How often did you have six or more drinks on one occasion?

1 = Never
2 = Less than monthly
3 = Monthly
4 = Weekly
5 = Daily or almost daily ☐

4.4 How often during the last year (before you were in prison) have you failed to do what was normally expected from you because of **drinking**?

1 = Never
2 = Less than monthly
3 = Monthly
4 = Weekly
5 = Daily or almost daily ☐

4.5 How often (before you were in prison) did you find that you were not able to stop drinking once you have started?

1 = Never
2 = Less than monthly
3 = Monthly
4 = Weekly
5 = Daily or almost daily ☐

4.6 How often (before you were in prison) were you unable to remember what happened the night before because you had been drinking?

1 = Never
2 = Less than monthly
3 = Monthly
4 = Weekly
5 = Daily or almost daily ☐

4.7 How often (before you were in prison) did you need a first drink in the morning to get yourself going after a heavy drinking session?

1 = Never
2 = Less than monthly
3 = Monthly
4 = Weekly
5 = Daily or almost daily ☐

4.8 How often (before you were in prison) did you have a feeling of guilt or remorse after drinking?

1 = Never
2 = Less than monthly
3 = Monthly
4 = Weekly
5 = Daily or almost daily ☐

4.9 Have you or someone else ever been injured as a result of your drinking?

1 = No
2 = Yes but not in the last year
3 = Yes during last year ☐

4.10 Has a relative or a friend or a doctor or other health worker been concerned about your drinking or suggested you cut down?

1 = No
2 = Yes but not in the last year
3 = Yes during the last year ☐

4.11 Have you ever consumed alcohol in prison?

1 = Yes
0 = No → Q4.13 ☐

4.12 If YES how often:

1 = Every day
2 = Once a week
3 = Once a month
4 = Less than once a month ☐

4.13 Have you felt that any of the following people ever had problems such as family, health, work or the law due to their use of alcohol?
(Multiple response) 1 = Yes, 0 = No

1. Mother ☐
2. Father ☐
3. Husband/wife/partner ☐
4. Children ☐
5. Other family members ☐

5. SMOKING

Next, some questions about smoking.

5.1 Have you ever smoked a full cigarette?

1 = Yes
0 = No → Q5.29 ☐

5.2 If YES, smoked full cigarette, about how old were you when you smoked your first full cigarette (years)? ☐

5.3 Do you smoke now?

1 = Yes
0 = No → Q5.25 ☐

5.4 If YES which of the following statements best describes your CURRENT use of tobacco/cigarettes (select one only)?

1 = Now smoke occasionally, but less than once a week

2 = Now smoke occasionally, not everyday, but at least once a week

Now smoke regularly, every day or most days about:

3 = 5 to 10 cigarettes a day
4 = 11 to 20 cigarettes a day
5 = 21 to 30 cigarettes a day
6 = Over 30 cigarettes a day ☐

5.5 If a current smoker, do you smoke mainly hand-rolled cigarettes? 1=Yes; 0=No ☐

5.6 If YES, about how many bags (50g) of tobacco do you use PER WEEK? ☐

5.7 Have you ever tried to quit smoking?

1 = Yes
0 = No → Q5.16 ☐

5.8 When was your most recent quit attempt?

1 = In the last month
2 = 1-< 6 months ago
3 = 6-<12 months ago
4 = 1-<3 years ago
5 = 3 -<=5 years ago
6 = Over 5 years ago ☐

5.9 Have you ever tried nicotine replacement therapy (eg. patches, gum) to help you quit smoking?

1 = Yes
0 = No ☐

5.10 Would you use nicotine patches to help you to quit smoking if the cost in prison was:
(Multiple response) (1=Yes, 0=No)

1. The same price as cigarettes ☐
2. Cheaper than cigarettes ☐
3. Free ☐

5.11 Have you ever tried to quit smoking while in prison?

1 = Yes
0 = No ☐

5.12 Was it easier or harder to try to quit smoking while in prison than it is in the community?

1 = Easier in prison
2 = About the same
3 = Harder in prison ☐

5.13 While in prison, have the health staff encouraged you to quit smoking?

1 = Yes
0 = No
3 = Don't know ☐

5.14 Do you find it helpful when the health staff encourage you to quit smoking?

1 = Yes
0 = No
3 = Don't know ☐

5.15 In the past 12 months have you taken any of the following measures in regard to smoking?
(Multiple response) (1=Yes, 0=No)

1. Successfully given up smoking for more than 1 month ☐
2. Tried unsuccessfully to give up smoking ☐
3. Changed to cigarette brands with lower tar or nicotine content ☐
4. Reduced the amount of tobacco you smoke in a day ☐
5. Used nicotine replacement therapy (skip if Q5.9=no) ☐
6. Attended a QUIT smoking program in prison ☐
7. Other (Specify) ☐

_____

5.16 Are you planning to give up smoking?

1 = No
2 = Yes, but not in the next 3 months
3 = Yes, within the next 3 months ☐

5.17 Would you like to quit smoking?

1 = Yes
0 = No ☐

5.18 Do you require assistance to help you quit smoking?

1 = Yes
0 = No ☐

5.19 What would assist you to quit smoking? (Specify)

_____

_____

5.20 Do you think that you are addicted to smoking?

1 = Yes
0 = No
3 = Don't know ☐

5.21 Did you smoke cigarettes in the 12 months before you came into prison?

1 = Yes → Q5.24
0 = No ☐

5.22 If NO, did you take up smoking again when you came back into prison?

1 = Yes
0 = No→Q5.24 ☐

5.23 Why did you take up smoking again?

_____

_____

5.24 Compared with before you came into prison, would you say that you now smoke:

1 = More
2 = About the same
3 = Less ☐

5.25 If NOT a current smoker, which of the following statements best describes your past use of tobacco/ cigarettes?
(Select one only)

1 = Don't smoke now and have smoked less than 100 cigarettes in my whole life

2 = Don't smoke now but during my life I have smoked more than 100 cigarettes ☐

5.26 When did you quit smoking?

1 = In the last year
2 = 1-<3 years ago
3 = 3-<5 years ago
4 = 5-<10 years ago
5 = 10+ years ago ☐

5.27 What helped you to quit smoking?

_____

_____

5.28 How many quit attempts did you have before you managed to quit?

1 = 1-2
2 = 3-5
3 = 6-10
4 = 11-20
5 = 20+
6 = Don't know ☐

5.29 Do you think that smoking should be allowed in enclosed public areas in prison (for example work place, study areas, waiting areas, visiting rooms)?

1 = Yes
0 = No
3 = Don't know ☐

5.30 How would you feel if there were increased restrictions on the areas you can smoke in gaol?

_____

_____

5.31 Do you currently share a cell / dorm / unit with a smoker(s)?

1 = Yes
0 = No ☐

5.32 In the past 12 months, have you ever felt the bad health effects from the cigarettes of other people, apart from just disliking the smoke?

1 = Yes
0 = No
3 = Don't know ☐

5.33 Do you think that non-smokers should have to share cells with smokers?

1 = Yes
0 = No
3 = Don't know ☐

6. TATTOOING & BODY PIERCING

Next, a few questions about any tattoos you may have had and any body piercing.

6.1 Do you have any tattoos?

1 = Yes
0 = No→ Q6.8 ☐

6.2 If YES, how many tattoos do you have?

1 = 1-4
2 = 5-10
3 = 11-20
4 = More than 20 ☐

6.3 Where were the tattoos done?

1 = Outside prison
2 = Inside prison
3 = Both in prison and the community ☐

6.4 If YES, tattoos done outside prison, who did the tattoos?

1 = Professional tattoo artist / studio
0 = Non-professional
3 = Both ☐

6.5 If YES, tattoos done outside by non-professional, was the equipment cleaned before use?

1 = Yes
0 = No
3 = Don't know ☐

6.6 If YES, tattooed in prison, was the equipment cleaned before you were tattooed?

1 = Yes
0 = No
3 = Don't know ☐

6.7 If YES, EQUIPMENT CLEANED, how was this done?

1 = Wiped
2 = Soaked in bleach
3 = Boiling water
4 = Cold water
5 = Don't know
6 = Other (Specify)

_____ ☐

6.8 How many body piercings do you have *[Interviewer: if none code as 00 → S9]* ☐

6.9 If >0 body piercings, In what part of the body do you have this piercing?
(Multiple response) (1=Yes, 0=No)

1. Ear ☐
2. Nose ☐
3. Nipple ☐
4. Genital ☐
5. Lip ☐
6. Eyebrow ☐
7. Tongue ☐
8. Other (Specify)

_____ ☐

6.10 If YES, where were these body piercings done?

1 = Outside prison
2 = Inside prison
3 = Both in prison and the community ☐

6.11 If YES, BODY PIERCINGS DONE **IN PRISON**, was the equipment cleaned before you were pierced?

1 = Yes
0 = No
3 = Don't know ☐

6.12 If YES, EQUIPMENT CLEANED, how was this done?

1 = Wiped
2 = Soaked in bleach
3 = Boiling water
4 = Cold water
5 = Don't know
6 = Other (Specify)

_____ ☐

7. DRUG USE

The next few questions are about drug use. [Interviewer: regular drug use in the 12 months before prison means daily or almost daily use]

7.0 Have you ever used illicit drugs (eg. Cannabis, heroin, amphetamines)?

1 = Yes
0 = No..... ☐

If never used drugs → Q7.33

1=Yes, 0=No	7.1 Ever Used Drug	7.2 Used regularly in 12 months before prison	7.3 Ever used drug in prison	7.4 Ever injected drug	7.5 Ever injected drug in prison
1. Cannabis	☐	☐	☐	☐	☐
2. Heroin	☐	☐	☐	☐	☐
3. Other opiates (morphine, Pethidine, physeptone)	☐	☐	☐	☐	☐
4. Amphetamines/Speed	☐	☐	☐	☐	☐
5. Cocaine or coke	☐	☐	☐	☐	☐
6. Ice	☐	☐	☐	☐	☐
7. Ecstasy/ Designer drugs	☐	☐	☐	☐	☐
8. LSD or acid	☐	☐	☐	☐	☐
9. Your Methadone or Buprenorphine	☐	☐	☐	☐	☐
10. Other's Methadone or Buprenorphine	☐	☐	☐	☐	☐
11. Tranquillisers/Benzos (Temazepam, Valium, etc)	☐	☐	☐	☐	☐
12. Poppers/Amyl Nitrate	☐	☐	☐	☐	☐
13. Steroids	☐	☐	☐	☐	☐
14. Solvents/petrol	☐	☐	☐	☐	☐
15. Other (Specify): _____	☐	☐	☐	☐	☐
16. Other (Specify): _____	☐	☐	☐	☐	☐

If never injected → Q7.33

7.6 If YES, INJECTED DRUGS, how old were you when you first injected drugs? .....

7.7 If YES, INJECTED DRUGS, how long ago was it since you last injected?

1 = < 1 week
2 = 1 -<2 weeks
3 = 2 - <4 weeks
4 = 1 - <6 months
5 = 6 months -< 1 year
6 = 1 -< 2 years
7 = 2 -< 5 years
8 = 5 -<= 10 years
9 = >10 years .....

7.8 If YES, was this last injection in prison?

1 = Yes
0 = No.....

7.9 If INJECTED IN PRISON DURING THE LAST MONTH, how often did you inject in the last month?
[Interviewer: Check that the prisoner has been in prison for at least one month and answered 1,2 or 3 above]

1 = More than once most days
2 = Daily
3 = More than weekly, but not daily
4 = Less than weekly (on 1 to 4 days)
5 = Not in last month .....

7.10 If YES INJECTED DRUGS IN PRISON, the last time you shot up HOW MANY TIMES did you use a needle & syringe after someone else had used it (even if it was cleaned)?

1 = More than 5 times
2 = 3 to 5 times
3 = Twice
4 = Once
5 = None.....

7.11 If YES INJECTED DRUGS IN PRISON, the last time you shot up, HOW MANY PEOPLE used the needle & syringe before you (even if it was cleaned)?

1 = More than 5 peopled
2 = 3 to 5 people
3 = 2 people
4 = 1 person
5 = None
6 = Don't know.....

7.12 If YES INJECTED DRUGS IN PRISON, did you share any of the following equipment after someone else had used it?
(Multiple response) (1=Yes, 0=No)

1. Spoon .....
2. Water.....
3. Filter.....
4. Tourniquet.....
5. Drug.....
6. Solution/mix .....

7.13 If YES, the last time you shot up in prison, was the needle cleaned before you used it?

1 = Yes
0 = No → Q7.15
3 = Don't know.....

7.14 If YES, what method did you use to clean the needle?

1 = 2x2x2
2 = 3x3x3
3 = 15min soak in hot water
4 = 3 minute soak in bleach
5 = Rinsed with hot then cold water
6 = Rinsed with cold water only
7 = Rinsed with Milton / bleach
8 = Other (Specify)

_____

9 = Don't know (someone else cleaned it) .....

7.15 If NO, why didn't you clean it?

1 = Not enough time
0 = No bleach available
3 = Forgot
4 = New needle so no need
5 = No one else used the needle except me
6 = Owner of the needle won't allow cleaning with bleach
7 = Other (Specify)

_____

7.16 Have you ever bought a clean needle and syringe in gaol?

1 = Yes
0 = No.....

7.17 In the MONTH BEFORE COMING INTO PRISON, how often did you use a NEW sterile needle and syringe when injecting?

1 = All the time
2 = Most of the time
3 = Half of the time
4 = Some of the time
5 = Never .....

7.18 Have you heard about Needle and Syringe Program (NSP) services in the community?

1 = Yes
0 = No → Q7.23 ☐

7.19 Have you ever used Needle and Syringe Program services in the community?

1 = Yes
0 = No → Q7.23
3 = Don't know → Q7.23 ☐

7.20 How would you rate your overall experience of going to Needle and Syringe Program services in the community?

1 = Very negative
2 = Negative
3 = Neither
4 = Positive
5 = Very positive
6 = Don't know/couldn't say..... ☐

7.21 Have you **ever** asked needle and syringe program staff to assist you with any of the following? (Multiple response) (1=Yes, 0=No)

1. Information about safe injecting technique..... ☐
2. Information about safer drug use ..... ☐
3. Information about cutting back/quitting drug use ..... ☐
4. Information about legal issues/rights..... ☐
5. Information about welfare issues (eg housing)..... ☐
6. Other information (Specify)

_____ ☐

7. Referral to drug treatment service..... ☐
8. Referral to BBV/sexual health service ..... ☐
9. Referral to general health service ..... ☐
10. Referral to legal service..... ☐
11. Referral to welfare service (eg housing)..... ☐
12. Referral to other service (Specify)

_____ ☐

7.22 For each item answered yes to in 7.21, How satisfied were you with the assistance you received from needle and syringe program staff for these issues? (Multiple response)

1 = Not at all satisfied
2 = Somewhat satisfied
3 = Moderately satisfied
4 = Very satisfied
5 = Extremely satisfied
6 = Not applicable ☐

7.23 In the 12 months before you were imprisoned, how often did you get injecting equipment from each of the following sources? (Multiple response)

1 = Never
2 = Rarely
3 = Sometimes
4 = Usually
5 = Always
6 = Not applicable

1. Needle and syringe program. That is, an office or building where needles and syringes are provided for free..... ☐
2. Pharmacy or chemist ..... ☐
3. Needle and syringe vending machine..... ☐
4. Mobile outreach service (eg health workers that visit places were drug users might be found to give out injecting equipment)..... ☐
5. Personal sources eg partner, friend, dealer, family or acquaintance ..... ☐

7.24 In the 12 months before you were imprisoned, where did you MAINLY get your injecting equipment?

1 = Needle and syringe program
2 = Pharmacy or chemist
3 = Needle and syringe vending machine
4 = Mobile outreach service
5 = Personal sources eg partner, friend, dealer, family or acquaintance
6 = Hasn't used in 12 months prior to prison..... ☐

7.25 In the 12 months before you were imprisoned, what stopped you from going to a needle and syringe program service **every** time you needed injecting equipment?
(Multiple response)

1 = Yes, stopped me from going to NSP
0 = No, did not impact on attendance at NSP
3 = Not applicable

1. Didn't know NSPs existed ☐
2. Didn't know where to find an NSP ☐
3. NSPs too far away ☐
4. Not too far away but too inconvenient for travel ☐
5. Too close to methadone clinic ☐
6. Too busy to go to NSP ☐
7. Don't want to waste time after scoring drugs ☐
8. Inject so often it's hard to get enough equipment ☐
9. NSPs not open when I need them ☐
10. Only provide limited supplies ☐
11. Don't stock the equipment I need ☐
12. Don't like/feel judged by NSP staff ☐
13. Don't feel comfortable attending NSPs ☐
14. Worried about being identified by police ☐
15. Worried about being identified by family/friends ☐
16. Language/cultural difference with NSP staff. ☐
17. Don't need NSPs/get equipment elsewhere ☐
18. Other reason (Specify)

_____ ☐

7.26 Using the list provided in 7.25, what was the main reason that stopped you from going to a needle and syringe program service **every** time you needed injecting equipment?
(Write in the number) ☐

7.27 In the 12 months before you were imprisoned, how often did you dispose of used injecting equipment in the following locations? (Multiple response)

1 = Never
2 = Rarely
3 = Sometimes
4 = Usually
5 = Always
6 = Not applicable

1. In a container and then into a rubbish bin ☐
2. Loose into a rubbish bin ☐
3. In a fitpack or other container provided by a needle and syringe program or a pharmacy. ☐
4. Return to pharmacy or NSP (includes phoning an outreach service to pick up used equipment) ☐
5. Public needle disposal bin ☐
6. Street/park/beach/other public area ☐
7. Kings Cross Supervised injecting Centre ☐
8. Friend/partner/dealer/family's place ☐
9. Other, specify

_____ ☐

7.28 Rate the following statements according to your current beliefs (Multiple response)

1 = Strongly disagree
2 = Disagree
3 = Neither agree nor disagree
4 = Agree
5 = Strongly agree

1. Using clean needles and syringes helps to protect me from infectious diseases ☐
2. I am willing to go out of my way to get clean needles and syringes in the community. ☐
3. There is no point in me trying to use clean needles and syringes ☐

7.29 In the MONTH BEFORE COMING INTO PRISON how often did you get needles & syringes from a needle exchange or chemist?

1 = Daily or more than daily
2 = More than weekly, but not daily
3 = Less than weekly (on 1 to 4 days)
4 = Never ☐

7.30 If YES used heroin (Q7.1.2), thinking about the first time you ever used heroin, where was this? [Interviewer: this can refer to injecting during previous imprisonments]

1 = Adult prison
2 = Juvenile detention centre
3 = Community ☐

7.31 If yes used heroin (Q7.1.2), have you ever taken heroin in prison rather than cannabis as a way of avoiding having a dirty urine test?

1 = Yes
0 = No ☐

7.32 If yes used heroin (Q7.1.2), have you ever taken heroin in prison as a substitute for the lack of alcohol or cannabis?

1 = Yes
0 = No ☐

7.33 Can you tell me three ways in which you can catch hepatitis C? *[Interviewer: do not prompt inmate. If no idea, write down "no idea"]*

_____

_____

_____

7.34 Overall, how easy would you say it is to get drugs in prisons?

1 = Very difficult
2 = Quite difficult
3 = Quite easy
4 = Very easy
5 = Don't know ☐

7.35 At the time of committing the offence for this imprisonment, were you drunk, 'high' or 'stoned'?

1 = No → Q7.38
2 = Alcohol
3 = Drugs
4 = Both drugs and alcohol
5 = Don't know ☐

7.36 If yes, drunk, 'high' or 'stoned' at time of committing offence, what substances had you taken? (Multiple response) 1=Yes, 0=No

1. Alcohol ☐
2. Cannabis (dope) ☐
3. Amphetamines (speed) ☐
4. Methamphetamines (Ice) ☐
5. Heroin ☐
6. Cocaine (coke) ☐
7. Other, specify

_____ ☐

8. Don't know ☐

7.37 If yes, drunk, 'high' or 'stoned' at time of committing offence, what substance do you think was affecting you the most?

1 = Alcohol
2 = Cannabis (dope)
3 = Amphetamines (speed)
4 = Methamphetamines (Ice)
5 = Heroin
6 = Cocaine (coke)
7 = Other, specify

_____

8 = Don't know ☐

7.38 At the time of committing the offence for this imprisonment, were you committing crime to buy alcohol or drugs?

1 = No
2 = Yes, to buy alcohol
3 = Yes, to buy drugs
4 = Yes, to buy both alcohol and drugs
5 = Don't know ☐

7.39 Thinking about your current sentence, would you say that it was linked to drugs?

1 = Yes
0 = No
3 = Don't know ☐

8. ACCESS TO BLEACH

8.1 Have you ever tried to get bleach in prison to clean fits or injecting equipment?

1 = Yes
0 = No → Q8.4 ☐

8.2 If YES, how easy was it to get bleach in prison?

1 = Very easy → Q8.4
2 = Easy → Q8.4
3 = Difficult
4 = Not available → Q8.4 ☐

8.3 If DIFFICULT, why? (Specify)

_____

_____

8.4 Were you aware of inmates doing any of the following with bleach?
(Multiple response) 1 = Yes, 0 = No

1. Drinking bleach ☐
2. Throwing it in someone's eyes ☐
3. Injecting bleach ☐
4. Getting searched after asking for bleach ☐
5. Name recorded if they asked for bleach ☐
6. Injecting more because bleach was available ☐
7. Other (Specify) ☐

_____

8.5 Are you aware that it is a policy of the Department of Corrective Services to provide inmates with bleach?

1 = Yes
0 = No ☐

9. DRUG TREATMENT

9.1 Have you ever been on a methadone programme?

1 = Yes, am on it now
2 = Yes, in the past
3 = No but on the waiting list → Q9.5
4 = No never → Q9.5 ☐

9.2 If YES on methadone, were you on a methadone programme immediately before you came into gaol?

1 = Yes
0 = No ☐

9.3 If YES, what dose were you on - milligrams?
[Interviewer: if can't remember code as 00] ☐

9.4 If YES, currently on methadone, do you believe that you are on the correct dose?

1 = Yes
0 = No
3 = Don't know ☐

9.5 If NOT currently on methadone, do you think you should be on the prison methadone programme?

1 = Yes
0 = No
3 = Don't know ☐

Have you ever been on any of the following: naltrexone, buprenorphine or LAAM?

9.6 Naltrexone

1 = Yes, am on it now
2 = Yes, in the past
3 = No but on the waiting list
4 = No never ☐

9.7 Buprenorphine

1 = Yes, am on it now
2 = Yes, in the past
3 = No but on the waiting list
4 = No never ☐

9.8 LAAM

1 = Yes, am on it now
2 = Yes, in the past
3 = No but on the waiting list
4 = No never ☐

9.9 Have you ever sought help or treatment to modify or cut down your alcohol or drug use? (eg: GP, detoxification or withdrawal programmes, narcotics anonymous, alcoholics anonymous)

1 = Yes
0 = No → Q9.13 ☐

9.10 If YES, what kind of drugs/alcohol?
(Multiple response) (1=Yes, 0=No)

1. Alcohol ☐
2. Heroin/methadone ☐
3. Amphetamines/ice ☐
4. Cocaine ☐
5. Cannabis ☐
6. Other, specify ☐

_____

9.11 If YES, specify the organisations

Organisation 1: _____ ☐

_____

Organisation 2: _____ ☐

_____

9.12 Was this before or since you came into prison?

1 = Before coming into prison
2 = Since coming into prison
3 = Both ☐

9.13 Do you think that you need help with quitting drugs?

1 = Yes
0 = No → Q9.16 ☐

9.14 If YES, what kind of drugs? (Multiple response)

1 = Alcohol ..... ☐
2 = Heroin/methadone ..... ☐
3 = Amphetamines/ice..... ☐
4 = Cocaine..... ☐
5 = Cannabis..... ☐
6 = Other, specify ☐

_____

9.15 If YES NEED HELP, what sort of help do you require (Specify)? ☐

_____

9.16 Have you ever overdosed or become unconscious as a result of taking drugs?

1 = Yes
0 = No → Section 10..... ☐

9.17 If YES, how many times..... ☐

9.18 If YES, where did these episodes occur?

1 = In the community → Q9.20
2 = In prison
3 = Both community and prison ..... ☐

9.19 If YES, unconscious in prison, did you receive any help from health staff?

1 = Yes
0 = No..... ☐

9.20 If YES, were you treated with Narcan?

1 = Yes
0 = No..... ☐

10. CONTACT WITH FAMILY

Next, a few questions about contact with your family

10.1 In the last **FOUR WEEKS**, how often have you had family and/or friends visit you at the prison?

1 = No contact
2 = 1 visit
3 = 2- 4 visits
4 = More than 4 visits ..... ☐

10.2 How often in the last **2 WEEKS** have you had contact with family and/or friends by phone or letter?

1 = No contact
2 = 1 letter/ phone call
3 = 2 - 4 letters/ phone calls
4 = More than 4 letters / phone calls ..... ☐

11. SEXUAL HISTORY

The next questions are about your sexual behaviour. Remember, if you don't want to answer any of these questions, this is ok.

11.1 How old were you when you first had sex? *[Interviewer: state that this includes vaginal or anal sex. if never had sex code as 00 and → Section 12]*..... ☐

11.2 How old was your partner when you first had sex? ..... ☐

11.3 Was this with a man or a woman?

1 = Man
2 = Woman..... ☐

11.4 Which of the following best describes you?

1 = Heterosexual or straight
2 = Homosexual (lesbian or gay)
3 = Bisexual
4 = Other (Specify) ☐

_____

11.5 In the past 12 months, how many partners have you had sex with? *[Interviewer: specify that this includes vaginal, anal or oral sex]* ..... ☐

11.6 Were these partners?

1 = Men
2 = Women
3 = Both men and women..... ☐

11.7 In your lifetime, approximately how many partners have you had sexual intercourse with? *[Interviewer: specify that this includes vaginal, anal or oral sex]* ..... ☐

11.8 Were these partners?

1 = Men
2 = Women
3 = Both men and women..... ☐

11.9 Have you ever worked as a sex worker?

1 = Yes
0 = No → Q11.12..... ☐

11.10 If YES, what is the total length of time you worked as a sex worker?

1 = Once only
2 = < 1 month
3 = 1 - <6 months
4 = 6 months -< 1 year
5 = 1 -<= 5 years
6 = > 5 years
7 = Don't remember..... ☐

11.11 What kinds of sex work have you engaged in?
(Multiple response) (1=Yes, 0=No)

1. Brothel ☐
2. Small 'house' ☐
3. Escort agency ☐
4. Private ☐
5. Massage ☐
6. Street work ☐
7. Private operator ☐
8. Pimp ☐
9. Other (Specify) ☐

_____

11.12 Have you ever been diagnosed with any of the following?
(Multiple response) (1=Yes, 0=No)

1. Gonorrhoea ("clap") ☐
2. Genital warts ☐
3. Genital herpes ☐
4. Chlamydia ☐
5. Pubic lice or crabs ☐
6. Syphilis ("pox") ☐
7. Urethiritis or NSU ☐
8. Cold sores (oral herpes) ☐
9. Other STD ☐

WOMEN ONLY

10. PID ☐
11. Bacterial vaginosis ☐
12. Candidiasis ☐
13. Trichomaniasis ☐

11.13 In the past 12 months, or since you came into prison, have you been aware of any sexual assaults taking place in prison?

1 = Yes
0 = No
3 = Don't know ☐

11.14 If YES, how many separate incidents have you become aware of? ☐

11.15 If YES, when did the last sexual assault occur that you are aware of?

1 = In the last week
2 = 1 week - <1 month
3 = 1 month - <3 months
4 = 3 months - <6 months
5 = 6 months ago or more ☐

11.16 If YES, can you describe what happened?

_____

_____

_____

11.17 Have you ever been sexually harassed or threatened with sex by another inmate?

1 = Yes
0 = No → Q11.19 ☐

11.18 If YES, please explain what happened?

_____

_____

_____

11.19 Have you ever had sex with another inmate since coming into prison? *[Interviewer: specify that this includes vaginal, anal or oral sex]*

1 = Yes
0 = No → Q11.24 ☐

11.20 If YES, did you consent to it?

1 = Yes → Q11.24
0 = No
3 = Sometimes ☐

11.21 If NO or SOMETIMES, how often did you have sex without your consent?

1 = Once only
2 = Occasionally
3 = Monthly
4 = Weekly
5 = Daily ☐

11.22 If NO or SOMETIMES, was this for any of the following reasons?
(Multiple response) (1=Yes, 0=No)

1. To protecting yourself from other inmates..... ☐
2. To repay a debt to someone ..... ☐
3. Other reason (Specify)

_____

11.23 If NO or SOMETIMES, did you talk to anyone about this when it happened?

1 = Yes
0 = No..... ☐

SINCE THE AGE OF 16 has any man or woman including your current partner ever had vaginal or anal sex that involved any of the following? *[Interviewer: if more than once, record age at most recent episode]*

1= No
2= Yes, once
3= Yes, more than once

	11.24 How often?	11.25 Your age (yy)
1. Other person using their weight or size to immobilise you	☐	☐
2. Threat of violence	☐	☐
3. Actual violence eg: hitting or using a weapon	☐	☐

11.26 How many violent relationships have you been involved in?

1 = None
2 = One violent relationship
3 = Two violent relationships
4 = More than two violent relationships..... ☐

11.27 Do you feel that you need counselling or support to help with any of the issues regarding this?

1 = Yes
0 = No
3 = Don't know..... ☐

12. CONDOMS / DENTAL DAMS USE

12.1 In the 12 months before you came into prison, how often did you use condoms/dental dams with your sexual partner(s)?

1 = All the time
2 = Most of the time
3 = Occasionally
4 = Never
5 = Don't know..... ☐

12.2 If NEVER used condoms/dental dams, please say why?

_____ ☐

12.3 Are you aware that it is a policy of the Department of Corrective Services to provide inmates with condoms / dental dams? *[Interviewer: if screening a male refer to condoms, if screening a female refer to dental dams]*

1 = Yes
0 = No..... ☐

12.4 Have you ever tried to get condoms / dental dams in prison?

1 = Yes → Q12.6
0 = No..... ☐

12.5 If NO why not? (Specify)

_____ ☐

12.6 If YES, how easy was it to get condoms / dental dams in prison?

1 = Very easy → Q12.8
2 = Easy → Q12.8
3 = Difficult
4 = Not available → Q12.8 ☐

12.7 If DIFFICULT, why? (Specify)

_____ ☐

12.8 Are you aware of any prisoners using the condoms / dental dams for things other than sex?

1 = Yes
0 = No → Section 13..... ☐

12.9 If YES, please specify

_____ ☐

13. BECK DEPRESSION INVENTORY

Read out each group of statements carefully and then circle the one (0, 1, 2 or 3) which best describes the way you have been feeling the past week, including today. If several statements within a group seem to apply equally well, circle each one. Be sure to read out all of the statement in each group before answering.

13.1 0 = I do not feel sad.
1 = I feel sad.
2 = I am sad all the time and I can't snap out of it.
3 = I am so sad or unhappy that I can't stand it ☐

13.2 0 = I am not particularly discouraged about the future.
1 = I feel discouraged about the future.
2 = I feel I have nothing to look forward to.
3 = I feel that the future is hopeless and that things cannot improve ☐

13.3 0 = I do not feel like a failure.
1 = I feel I have failed more than the average person.
2 = As I look back on my life, all I can see is a lot of failures.
3 = I feel I am a complete failure as a person ☐

13.4 0 = I get as much satisfaction out of things as I used to.
1 = I don't enjoy things the way I used to.
2 = I don't get real satisfaction out of anything any more.
3 = I am dissatisfied or bored with everything ☐

13.5 0 = I don't feel particularly guilty.
1 = I feel guilty a good deal of the time.
2 = I feel quite guilty most of the time.
3 = I feel guilty all of the time ☐

13.6 0 = I don't feel I am being punished.
1 = I feel I may be punished.
2 = I expect to be punished.
3 = I feel I am being punished ☐

13.7 0 = I don't feel disappointed in myself.
1 = I am disappointed in myself.
2 = I am disgusted with myself.
3 = I hate myself ☐

13.8 0 = I don't feel I am any worse than anybody else.
1 = I am critical of myself for my weaknesses or mistakes.
2 = I blame myself all the time for my faults.
3 = I blame myself for everything bad that happens ☐

13.9 0 = I don't have any thoughts of killing myself.
1 = I have thoughts of killing myself, but I would not carry them out.
2 = I would like to kill myself.
3 = I would kill myself if I had the chance ☐

13.10 0 = I don't cry any more than usual.
1 = I cry more now than I used to.
2 = I cry all the time now.
3 = I used to be able to cry, but now I can't cry even though I want to ☐

13.11 0 = I am no more irritated now than I ever am.
1 = I get annoyed or irritated more easily than I used to.
2 = I feel irritated all the time now.
3 = I don't get irritated at all by the things that used to irritate me ☐

13.12 0 = I have not lost interest in other people.
1 = I am less interested in other people than I used to be.
2 = I have lost most of my interest in other people.
3 = I have lost all of my interest in other people ☐

13.13 0 = I make decisions about as well as I ever could.
1 = I put off making decisions more than I used to.
2 = I have greater difficulty in making decisions than before.
3 = I can't make decisions at all any more ☐

13.14 0 = I don't feel l look any worse than I used to.
1 = I am worried that I am looking old or unattractive.
2 = I feel that there are permanent changes in my appearance that make me look unattractive.
3 = I believe that l look ugly ☐

13.15 0 = I can work about as well as before.
1 = It takes an extra effort to get started at doing something.
2 = I have to push myself very hard to do anything.
3 = I can't do any work at all ☐

13.16 0 = I can sleep as well as usual.
1 = I don't sleep as well as I used to.
2 = I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
3 =I wake up several hours earlier than I used to and cannot get back to sleep ☐

13.17 0 = I don't get more tired than usual
1 = I get tired more easily than I used to.
2 = I get tired from doing almost anything.
3 = I am too tired to do anything ☐

13.18 0 = My appetite is no worse than usual.
1 = My appetite is not as good as it used to be.
2 = My appetite is much worse now
3 = I have no appetite at all any more ☐

13.19 0 = I haven't lost much weight, if any, lately.
1 = I have lost more than 5 pounds.
2 = I have lost more than 10 pounds.
3 = I have lost mole than 15 pounds ☐

13.20 I am purposely trying to lose weight by eating less. YES = 1, NO = 0 ☐

13.21 0 = I am no more worried about my health than usual.
1 = I am worried about physical problems such as aches and pains, or upset stomach or constipation
2 = I am very worried about my physical problems and it's hard to think of much else.
3 = I am so worried about my physical problems that I cannot think about anything else ☐

13.22 0 = I have not noticed any recent change in my interest in sex.
1 = I am less interested in sex than I used to be.
2 = I am much less interested in sex now
3 = I have lost interest in sex completely ☐

14. COMMENTS

I would now like to give you the opportunity to make any comments about the survey or matters relating to health care in prison. If there is anything you would like me to write down please tell me know.

Thank you for your time. Your answers will remain confidential.

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