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From corrections to community: a set of indicators of the health of Australia's prisoners

Introduction

This bulletin presents the first set of national indicators for prisoners' health in Australia. The indicators are one outcome of the National Prisoner Health Information Development project, and have been developed in consultation with experts in the field. Reporting on them will assist in monitoring the health of prisoners, informing prisoner health service planning and delivery, and evaluating the provision of services. The first data collection for these indicators was conducted during 2009 and the inaugural national report on indicators of the health of Australia's prisoners is expected to be released in early 2010.

Background

Prisoner populations are acknowledged as having some of the worst health in the community. High rates of chronic disease, bloodborne viruses and sexually transmitted infections, psychiatric illness and injury are found in this population group. Several Australian studies have demonstrated increased mortality among prisoners. Despite this, limited information exists on their health needs and service requirements. Although some information is available from state-based surveys, these are not national in scope. The only national data currently available relates to human immunodeficiency virus (HIV) notifications and deaths in custody.

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Responsibility for the provision of health services to prisoners rests with state and territory governments, where current health-care practices vary substantially.

In 2003, the Standing Committee on Aboriginal and Torres Strait Islander Health (SCATSIH) commissioned work on the development of policy guidelines and operational standards for the provision of health-care services to Aboriginal and Torres Strait Islander people held within Australia's prisons and juvenile detention centres. This was in response to the high rates of Indigenous incarceration in Australia and a need to ensure that the health needs of prisoners were being met.

In 2004, the Australian Institute of Health and Welfare (AIHW) put a proposal to SCATSIH recommending the development of a national data collection on prisoner health. Given the common interest in this area by a number of organisations and groups, the AIHW hosted a workshop involving SCATSIH, the Centre for Health Research in Criminal Justice (New South Wales Health) and state and territory governments in September 2004. The participants recommended the formation of a group to oversee the development of a national data collection on prisoner health.

In March 2005 this group, known as the Prisoner Health Information Group (PHIG), had its first meeting. The role of the group is to help improve the health and wellbeing of prisoners throughout Australia, through the effective monitoring of health and health services available in the jurisdictions. It provides advice and assistance to the AIHW in the development and provision of statistics and information on prisoners' health. The AIHW has, with the assistance and advice of PHIG, developed a set of national indicators of the health of Australia's prisoners. Members include representatives from the Department of Corrective Services, the AIHW, the Centre for Health Research in Criminal Justice, the Australian Bureau of Statistics (ABS), the National Drug Research Institute, the Australian Council of Prisoner Health Services, and the Corrective Services Administrators Conference. In 2007, the membership of the group was extended to include a representative, from all states and territories, involved in prisoner health care.

At the inaugural PHIG meeting on the 8 March 2005, members agreed to establish a Technical Expert Group, comprising members of relevant stakeholder organisations, to provide technical advice and assistance for the project.

During the developmental phase of this project, two reports were published by the AIHW. The first of these, *Towards a national prisoner health information system* (2006), highlighted the lack of national information on prisoner health and suggested that an audit be conducted as a first step towards implementing a national data collection for prisoners' health. The second report, *Prisoner health in Australia: contemporary information collection and a way forward* (2007), outlined the results of that audit of current data collections across the states and territories, and laid the foundation for the next stage of the project—the development of national prisoner health indicators.

Funding for the development of the indicators was made available by the Australian Health Ministers Advisory Council (AHMAC), through the Standing Committee on Aboriginal and Torres Strait Islander Health and the National Advisory Group on Aboriginal and Torres Strait Islander Health Information Development.

How the indicators were chosen

The national prisoner health indicators have been developed through a staged approach, with the process of selecting the indicators influenced by their policy relevance in monitoring key aspects of prisoner health, and the availability and collectability of the supporting data. Also underpinning the selection of indicators were the stages of the imprisonment process and the National Health Performance Framework (NHPF) (detailed below). As most of the indicators on prisoners' health were not readily available from existing electronic sources and needed to be collected by the jurisdictions, the PHIG aimed to develop a set of indicators that were feasible to collect and would not impose an unrealistic collection burden on the jurisdictions.

Conceptual framework: Data collection points

The PHIG identified four key time points at which to collect information on prisoners' health:

- at reception
- in custody
- at the time of release into the community, and
- post-release (i.e. in the community).

At each of these time points, health status, factors influencing health and health needs are likely to differ significantly. Collection of information at each of these time points would allow the positive and negative effects of incarceration to be assessed (AIHW 2007).

It is recognised that developing indicators across all the conceptual stages will require time. At this stage, the national prisoner health indicators cover mainly prison entrants (at reception) and prisoners in custody (Table 1.1).

Table 1.1 Data collection points of current indicators

Data collection point	Number of current indicators
Reception	34
Custody	27
Release	1
Post-release	1

Note: The post-release indicator will not be reported on in the inaugural report as further data development is required.

National Health Performance Framework (NHPF)

The PHIG agreed to use the NHPF as the framework for the indicators. This framework was developed by the National Health Performance Committee (NHPC). This committee was established by the Australian Health Ministers Conference in 1999, to develop and maintain a national health performance framework and to support benchmarking for health system improvement and the provision of information on national health system performance. As part of its terms of reference, the NHPC agreed to develop a broad framework that could be used as the basis for its annual report to health ministers. This resulted in the publication in August 2001 of the *National Health Performance Framework* report, which outlined the new framework.

The framework was endorsed by the AHMAC in 2001. It was subsequently reviewed by the NHPC in 2007-08, with a revised framework agreed by the National Health Information Standards and Statistics Committee and noted by Health Ministers in September 2009. It consists of three domains: health status, determinants of health and health system performance (see Appendix 1). A mapping of the prisoner health indicators to the NHPF can be found in Table 1.2.

As with the conceptual framework, developing indicators that cover key domains of the NHPF will take some time. Not all aspects of the NHPF domains are covered by the indicators at this stage, and others require further data development before they can be reported on. The agreed indicators therefore cover mainly health conditions, health behaviours and the responsiveness and accessibility, for prisoners, of the health system (Table 1.2).

Table 1.2: Mapping of Indicators to the National Health Performance Framework

Health status How healthy are Australians? Is it the same for everyone? Where is the most opportunity for improvement?			
Health conditions	**Human function**	**Wellbeing**	**Deaths**
Mental illness, psychological distress, asthma, cancer, cardiovascular disease, arthritis, diabetes, head injury, hepatitis B & C, HIV, notifications of notifiable diseases, hospital transfers, problems managed in clinics, pregnant prisoners		Self-harm	Prisoner mortality rate, post-release mortality
Determinants of Health Are the factors determining good health changing for the better? Is it the same for everyone? Where and for whom are these factors changing?			
Environmental factors	**Community and socioeconomic factors**	**Health behaviours**	**Bio-medical factors**
	Educational attainment	Consultation with health professionals in the community and in prison, pap smears, risk of alcohol-related harm, tobacco use, smoking status, illicit drug use including injected drugs, shared injecting equipment, unsafe sexual practices, pregnancy	

Health System Performance Does the health system deliver value for money and is it sustainable? What is the level of quality of care across the range of patient care needs? Is it the same for everyone?		
Effectiveness	**Safety**	**Responsiveness**
Aboriginal Community Controlled Health Organisation or Aboriginal Medical Service visits		Referral to mental health services, identification of suicide or self-harm risk, immunisation programs
Continuity of Care	**Accessibility**	**Efficiency and sustainability**
Health-related discharge planning	Pharmacotherapy medication for opioid dependence, prison clinic usage, repeat medications, medication for hepatitis C	Health staff to prisoner ratios

National Health Priority Areas

During the development of the national prisoner health indicators, consideration was given to Australia's National Health Priority Areas Initiative. This Initiative was Australia's response to the World Health Organization's global strategy *Health for All by the year 2000*. An initial set of priority areas was agreed in 1996, with subsequent additions made in 1997, 1999, 2002 and 2008. The agreed areas are:

- arthritis and musculoskeletal conditions
- asthma
- cancer control
- cardiovascular health
- diabetes mellitus
- injury prevention and control
- mental health
- obesity.

With the exception of obesity, these National Health Priority Areas are all included in the national prisoner health indicators.

Table 1.3 presents the 63 national indicators to be reported on, along with a brief justification explaining the relevance and importance of each indicator to the health of Australia's prisoners.

National Prisoner Health Indicators

Table 1.3 Details of Indicators

Indicator	Measures	Justification
Mental health	Proportion of prison entrants who report that they have been told by a doctor, psychiatrist or psychologist that they have a mental health disorder (including drug and alcohol abuse)	The 2007 National Survey of Mental Health and Wellbeing (NSMHWB) found that 20% of the population aged between 16 and 85 had a mental disorder in the twelve months prior to the Survey (AIHW 2008a). Work in the NSW prisoner population using the same tool as the NSMHWB found extremely high rates of mental illness among prisoners compared with the general community (Butler et al. 2006). Under the National Action Plan on Mental Health 2006–11, jurisdictions are required to provide details on the prevalence of mental illness among people who are newly sentenced to prison and enhance mental health services for people in contact with the justice system (Council of Australian Governments 2006). Mental health is a National Health Priority Area (NHPA).
	Proportion of prison entrants who are currently taking medication for a mental health disorder	Medicines are a critical element in the treatment of many mental health disorders (DoHA 2005).
	Proportion of prison entrants by level of psychological distress experienced in the past 4 weeks (self-report) Proportion of prison entrants who indicate that their current distress is related to their present incarceration	The Kessler Psychological Distress Scale (K10) will be used to measure psychological distress. It contains 10 items asking about feelings such as nervousness, hopelessness, restlessness, depression and worthlessness. A strong association has been shown between the K10 scale and current diagnosis of anxiety and affective disorders as well as a lesser (but significant) association with other mental disorder categories (ABS 2003a). The 2004–05 National Aboriginal and Torres Strait Islander Health Survey (NATSIHS) found Indigenous Australians were twice as likely to report high or very high levels of psychological distress as non-Indigenous Australians (ABS 2006).
	Proportion of prisoners in custody whose reason for attending the prison clinic was psychological	Mental health disorders are especially prevalent in prisoner populations (Butler et al. 2006). Indigenous women prisoners were more likely than non-Indigenous women prisoners to be diagnosed with psychoses, depression and obsessive–compulsive disorder (Butler et al. 2007).
	Proportion of prison entrants who, at reception, were referred to mental health services for observation and further assessment	The World Health Organization and International Red Cross recommend that 'the detection, prevention and proper treatment of mental disorders, together with the promotion of good mental health, should be both a part of the public health goals within prison, and central to good prison management'.

Indicator	Measure	Justification
Physical health and injuries	Proportion of prisoners in custody whose reason for attending the prison clinic was for a health check Proportion of prisoners in custody whose reason for attending the prison clinic was for a blood or urine test/result Proportion of prisoners in custody whose reason for attending the prison clinic was skin Proportion of prisoners in custody whose reason for attending the prison clinic was musculoskeletal Proportion of prisoners in custody whose reason for attending the prison clinic was respiratory Proportion of prisoners in custody whose reason for attending the prison clinic was digestive Proportion of prisoners in custody whose reason for attending the prison clinic was musculoskeletal injury	Prisons may be violent environments with a high risk of exposure to physical assaults, self-harm, and unintentional injuries (ARCHI 2006). Attending the prison health clinic is the equivalent of visiting a general practitioner (GP) in the community. The Bettering the Evaluation and Care of Health (BEACH) study reports on the types of problems managed in Australian general practice (Britt et al. 2008). An analysis of the types of problems managed in prison clinics will provide an indication of the similarities and differences between common health complaints of prisoners and those of the general population. The 2007–08 BEACH study found that check-ups, skin, musculoskeletal, respiratory and digestive problems were some of the most common reasons for people visiting a general practitioner (Britt et al. 2008). Blood and urine tests are very useful for providing information to assist in the diagnosis, monitoring and treatment of a wide range of diseases. Within the prison system there is a continuing need to monitor the level of drug use to minimise the incidence of drug related deaths or injury.
	Proportion of prison entrants who report that they have ever received a blow to the head resulting in a loss of consciousness	Head injury is associated with a range of physical, cognitive, emotional and behavioural effects. Prisoners have a high prevalence of head injury, which results in cognitive problems, such as memory and learning disabilities, vision and hearing difficulties (Schofield et al. 2006a & 2006b) A number of studies have suggested a link between traumatic brain injury and offending behaviour (Freedman & Hemenway 2000).
Chronic conditions	Proportion of prisoner entrants who report that they have been told by a doctor or nurse that they have asthma, and who still have the condition currently Proportion of prisoners in custody whose reason for attending the prison clinic was asthma	Chronic disease, although not immediately life-threatening, can contribute to a significant disease burden. Management and treatment of chronic diseases can be very costly to the individual and the overall health system. Many chronic diseases can be prevented early by tackling known risk factors. Asthma is a chronic inflammatory disorder of the airways. This inflammation causes recurrent episodes of wheezing, breathlessness, chest tightness and coughing, particularly in the night or in the morning. Asthma is triggered by a range of genetic, age and gender factors. Environmental triggers induce airway narrowing, with triggers including exercise, viral infections, irritants (such as smoking and other air pollutants), specific allergens (house dust mites and mould spores) and some food preservatives (AIHW 2006a). Asthma is one of the NHPAs.
	Proportion of prisoner entrants who report that they have been told by a doctor or nurse that they have cancer, and who still have the condition currently Proportion of prisoners in custody whose reason for attending the prison clinic was a malignancy	In Australia, cancer is a notifiable disease and all states and territories have established registries to collect data on cancer incidence and mortality. Cancer control is one of the NHPAs (DoHA 2009a; 2009b). Cancer pain management among prison inmates is an emerging problem with the most frequently cited barriers to pain management being drug misuse or diversion and lack of inmate credibility (Lin & Matthew 2005). A commentary from the USA on the management of incarcerated cancer patients reported that the median overall survival for cancer patients in prison was substantially inferior to that of a non-incarcerated, age, sex and race matched Surveillance, Epidemiology and End Results based cohort (Markman 2007).

Indicator	Measure	Justification
	Proportion of prison entrants who report that they have been told by a doctor or nurse that they have cardiovascular disease, and who still have the condition currently Proportion of prisoners in custody whose reason for attending the prison clinic was cardiovascular disease	The prisoner population has a high prevalence of risk factors for cardiovascular disease including high cholesterol, high blood pressure, obesity and smoking (AIHW 2007).
	Proportion of prison entrants who report that they have been told by a doctor or nurse that they have arthritis, and who still have the condition currently Proportion of prisoners in custody whose reason for attending the prison clinic was arthritis	Arthritis is a NHPA (DoHA 2009a). Arthritis is among the world's leading causes of long-term pain and disability, causing pain, deformity, mobility restriction and functional impairment, and affecting mental health and quality of life (Lidgren 2003). Arthritis associated disability affects an estimated 3% of the Australian population and becomes more common with age (AIHW 2008b). In the wider community arthritis is one of the more common reasons for the use of health-care services, with 6.3 out of every 100 GP encounters in 2007–08 being for arthritis (Britt et al. 2008).
	Proportion of prison entrants who report that they have ever been told by a doctor or nurse that they have diabetes, and who still have the condition currently Proportion of prisoners in custody whose reason for attending the prison clinic was diabetes	In 2004–05 an estimated 3.6% of the Australian population had diagnosed diabetes (AIHW 2008c). In the wider community diabetes is one of the more common reasons for the use of health-care services with 3.9 out of every 100 GP encounters in 2007–08 being for diabetes (Britt et al. 2008). The prisoner population has a high prevalence of risk factors for diabetes including elevated blood glucose levels, obesity and smoking (AIHW 2007).
Communicable diseases	Proportion or prisoners in custody whose reason for attending the prison clinic was a communicable disease	Communicable diseases are a significant public health priority in Australia. Prisoners have much higher levels than the rest of the community of hepatitis C and other communicable diseases (AIHW 2006b). A history of incarceration is an independent risk factor for hepatitis C transmission, due to the high prevalence of hepatitis C infection among custodial populations and the prevalence of high risk behaviours, such as tattooing and body piercing, within these institutions (DoHA 2008a; DoHA 2008b).
	Proportion of prison entrants testing positive to hepatitis C antibody	Hepatitis C is a bloodborne viral disease, which is transmitted from one person to another through blood to blood contact. It can result in problems such as liver failure, liver cancer and cirrhosis (DoHA 2008a). According to the National Notifiable Disease Surveillance System (NNDSS), in 2008 there were 11,300 notifications of hepatitis C in Australia (DoHA 2009b). The majority of hepatitis C infections in Australia occur due to unsafe injecting drug-use practices, such as sharing of injecting equipment (DoHA 2008a). The National Prison Entrants' Bloodborne Virus and Risk Behaviour Survey (NPEBBV&RBS) will provide data on the prevalence of hepatitis C among the prisoner population.
	Proportion of prisoners in custody currently receiving medication for hepatitis C	Given the high prevalence of hepatitis C in Australian prisons, the need for appropriate medication is also high. The medications most commonly used to treat hepatitis C virus are subsidised by the Commonwealth (AIHW 2007).
	Proportion of prison entrants testing positive to hepatitis B antibody	Hepatitis B is a viral disease, which is transmitted from one person to another through unprotected sexual intercourse, blood to blood contact, and from mother to child during pregnancy or at birth. According to the NNDSS, in 2008 there were 6,800 notifications of hepatitis B in Australia (DoHA 2009b). The NPEBBV&RBS will provide data on the prevalence of hepatitis B among the prisoner population.

Indicator	Measures	Justification
	Proportion of prison entrants testing positive for HIV	Injecting drug use is one of the strongest risk factors for HIV in prison populations (Poulin, Alary et al. 2007). A Western Australian study has also shown that Indigenous Australians are at greater risk of HIV transmission than non-Indigenous Australians (Wright, Thompson et al. 2007). Prisons have high numbers of both injecting drug users and Indigenous people. The NPEBBV&RBS will provide data on the prevalence of HIV among the prisoner population.
	Proportion of notifications of a notifiable disease for prisoners in custody	In 2006, many diseases and conditions were nationally notifiable in Australia. Notifiable diseases include bloodborne diseases, sexually transmitted infections, gastrointestinal diseases, vector borne diseases and vaccine preventable diseases (DoHA 2009b). The prison population has a high rate of communicable disease given their propensity for risky behaviour, particularly those related to the spread of bloodborne and other infectious diseases, for example intravenous drug use (AIHW 2006b).
	Proportion of prison entrants who report having had unprotected sex with a new or casual partner in the last month	Unprotected sex can involve risks such as unintended pregnancies, the transmission of sexually transmitted infections and hepatitis B.
Women's health	Proportion of prisoners who are pregnant in custody	Imprisonment may place pregnant women and their unborn child at increased health risk due to prison related stressors. Alternatively it may enhance pregnancy outcomes for women from disadvantaged backgrounds as it provides shelter, regular meals and medical care (Scott & Gerbasi 2005).
	Proportion of female prison entrants who report that they have ever been pregnant Mean/median age at first pregnancy for female prison entrants	There are numerous health, psychological and socioeconomic consequences of early, unplanned or unwanted pregnancies. The long-term health implications of becoming pregnant during the teenage years include pelvic inflammatory disease, infertility, cervical cancer and susceptibility to HIV infection (Amu & Appiah 2006). For women aged less than 15 years, pregnancy is associated with a higher risk for gestational hypertension, anaemia, poor nutritional status, preterm delivery and both maternal and neonatal mortality (Amy & Loeber 2007). Teenage parenthood has been linked to lower levels of completed education, poverty, welfare dependence, domestic violence and poor partner relationships (Fergusson, Boden et al. 2007).
	Proportion of female prison entrants who report that they have had a Pap smear in the last 2 years	Early detection and treatment of cervical cancer leads to a reduction of morbidity and mortality due to the disease. It is recommended that women aged 18–70 years, who have ever been sexually active, have a Pap smear every two years (Couzos & Murray 2008).
Self-harm	Proportion of prison entrants who report that they have ever intentionally harmed themselves Proportion of prison entrants who report that they have thought of harming themselves in the last 12 months	Prisoners are known to be at an increased risk of self-harm (Kirchner, Forns et al. 2008). Information on self-harm should be shared with custodial authorities to ensure appropriate placement and checks within the system.
	Proportion of prison entrants identified as currently at risk of suicide or self-harm	Entry to prison can be a time of increased vulnerability and risk of suicide or self-harming behaviours. All prisoners on reception are assessed to identify those at current risk, for closer observation and monitoring.

Indicator	Measures	Justification
Mortality	Mortality rate for prisoners in custody	Death rates are the most widely used population health measure.
	Mortality rate for sudden and unexpected deaths, for people who have been released from prison within the last week[1]	The risk of death for ex-prisoners is substantially elevated during the post-release period, with the risk being greatest in the days and weeks immediately following release (Kariminia et al. 2007). The most common causes of death post-release are related to drug overdose, suicide, circulatory system problems or accidents (AIHW 2007).
Alcohol and other drug use	The proportion of prison entrants who report a risk of alcohol-related harm (self-report)	Excessive alcohol consumption is associated with poor health and social problems and is a major risk factor for conditions such as liver disease, pancreatitis, diabetes and some types of cancer. The 2004–05 NATSIHS found that Indigenous Australians were twice as likely as non-Indigenous Australians to drink at short-term risky/high-risk levels at least once a week in the previous 12 months; and Indigenous adults were around 1.5 times as likely as non-Indigenous adults to drink at long-term risky/high-risk levels (ABS 2006). Alcohol use has been linked to criminal behaviour (Marteau 2008).The prisoner population is characterised by very high rates of high-risk drinking (Butler & Milner 2003; Victorian Department of Justice 2003; Hockings et al. 2002). The risk of alcohol-related harm can be determined using the World Health Organization's Alcohol Use Disorder Identification Test.
	Mean age at which prison entrants smoked their first full cigarette Proportion of prison entrants who report that they currently smoke tobacco	Smoking is a major risk factor for coronary heart disease, stroke, cancer and a variety of other diseases and conditions. Smoking prevalence is higher among prisoners than in the non-incarcerated adult population. The prevalence of tobacco use among the Indigenous population is higher than for other Australians (AHMAC 2008).
	Proportion of prison entrants who report that they engaged in illicit drug use in the last 12 months	Most prisoners have used illicit drugs at some time in their life, with two-thirds regularly using drugs at the time of incarceration (AIHW 2006b). Drug use poses risk in itself through impure or overly-pure content, but also through shared use of injecting equipment and the associated transmission of bloodborne viruses.
	Proportion of prison entrants who report that they have injected drugs	Over half of the prisoners surveyed in the four-state Bloodborne Virus Surveys reported injecting drug use in the previous months —New South Wales (69%), Queensland (61%), Western Australia (62%) and Tasmania (54%). Indigenous prisoners reported injecting drug use at a slightly higher rate than non-Indigenous prisoners (64% vs 58%) (Butler et al. 2005).
	Proportion of prison entrants who report that they have shared injecting equipment	Bloodborne viruses can be transmitted via the sharing of needles (Kraemer, Gately et al. 2009). Cleaning injecting equipment with full strength bleach improves the chance of avoiding transmission of hepatitis C (DoHA 2008b).
	Proportion or prison entrants who report being on pharmacotherapy medication for opioid dependence Proportion of prisoners in custody who received medication for opioid dependence	Opioid substitution therapies (methadone or buprenorphine) are available to varying degrees in some Australian prisons (AIHW 2007). The broad goal of treatment for opioid dependence is to reduce the health, social and economic harms, to individuals and the community, arising from illicit opioid use. Pharmacotherapies for opioid dependence should be part of a comprehensive treatment program, with access to counselling and other ancillary services available to all individuals (Intergovernmental Committee on Drugs Working Group 2007).

1 This indicator will not be reported on in the inaugural report as further data development is required.

Indicator	Measures	Justification
Use of health services	Proportion of prison entrants who, in the last 12 months, consulted a medical professional for their own health within the community	Access to health services is central in supporting peoples' health.
	Proportion of prison entrants who, in the last 12 months, consulted a medical professional for their own health at prison	For many, prison is a rare opportunity to contact health services. Aboriginal prisoners have reported using prison health services more while in prison compared with the community (Butler, Kariminia & Levy 2007).
	Proportion of prison entrants who, in the last 12 months, needed to consult with a medical professional in the community, but did not Proportion of prison entrants who, in the last 12 months, needed to consult with a medical professional whilst in prison, but did not	There are a number of reasons why people who need to see a medical professional choose not to. These include cost, discrimination, service not culturally appropriate, distance and transport; and attitudinal factors such as the perception that the appointment is less urgent, that the physician would not help, or the perceived severity of the health condition and the perceived benefits of the consultation, weighed against the costs of an associated health behaviour.
	Proportion of prison entrants by reason for not seeking medical contact in the past 12 months when required	Access to health services in prison can be limited depending on the security classification of the prison and limitations placed by the physical environment (Greifinger et al. 2007); and by the health service's resources.
	Proportion of prisoners in custody who used the prison clinic	Prison health clinics provide a similar service to that provided by general practitioners in the non-prison community. Prisoners visit the clinic more than a demographically equivalent population in the community (Feron et al. 2005). Recording data on patient encounters and the reasons behind them will: improve understanding of the role of the health-care system in prisoners' health; provide information on the average number of occasions of service provided by prison health-care providers in a given time period, and provide information on the accessibility of health-care services to prisoners.
	Proportion of clinic visits initiated by prisoners	Prisoners initiate clinic visits for many reasons including: lack of access to informal health care; relief of boredom; obtaining of medication for anxiety or sleep disturbances related to imprisonment, and for administrative purposes (Feron et al. 2005).
	Proportion of clinic visits by medical practitioner type	In prison, nurses are responsible for providing most of an individual's primary health care through the prison clinic. If nursing staff are unable to assist a prisoner, they can refer them to a prison doctor or allied health worker. Most prisons have general practitioners who either work at the prison or visit on a regular basis (AIHW 2007).
	Proportion of prisoners in custody who received repeat medication	Data on repeat medication is a proxy for the prevalence of illness or disease in Australia's prisons and will be helpful in the planning of health services required for individual prisoners.
	Rate of hospital transfers for prisoners in custody	Prisoners may be transferred to hospital either for emergencies (such as heart attack) or for planned outpatient visits for treatment or tests. Prisoners requiring hospital inpatient treatment may be transferred to secure wards in community hospitals for specialised treatment (AIHW 2007). Data on hospital transfers provides an indicator of the occurrence of serious acute illness and conditions requiring inpatient hospital treatment, and the access to, and use of hospital resources, by prisoners.

Indicator	Measures	Justification
Prison clinics	Proportion of prisons that receive visits by an Aboriginal Community Controlled Health Organisation or an Aboriginal Medical Service at least once a month	Culturally appropriate health services aim to ensure that patients receive effective and respectful care that is provided in a manner compatible with their cultural and religious health beliefs and practices and preferred language. Given the large number of Aboriginal and Torres Strait Islander people within Australia's prisons, it is important to establish whether prisoners have access to culturally appropriate services.
	Proportion of prisons that offer immunisation programs according to the current national immunisation guidelines	Immunisation is highly effective in reducing morbidity and mortality caused by vaccine-preventable diseases. As prisoners are at risk of acquiring influenza, hepatitis A and hepatitis B, the National Immunisation Guidelines recommend that prisoners should be vaccinated against these infections (NHMRC 2008).
	Proportion of prisons that have a health-related discharge plan in place for more than 75% of prisoners at the time of their release	Planning and managing prisoner re-entry or reintegration into the community, including continuity of health services, can benefit both the prisoner and the community. In general, prisoners have poorer health than the wider community. As most prisoners return to the community, it is important to the overall health of the community that their health needs are addressed while in prison, and support is continued whilst in the community.
	Ratio of full time equivalent health staff working within the correctional system to the total number of prisoners	The provision of health-care services to prisoners is dependent upon the availability of suitably qualified staff. This information is used to assess the staffing and operation of prison clinics, and appropriate health staff to prisoner ratios.
Educational achievement	Proportion of prison entrants by highest level of completed education	Education is one of the social determinants of health. Generally, those with the lowest health status also have low educational and literacy levels. Compared with the general population prisoners have low levels of education attainment (Woodward 2003). Lower levels of education have been associated with repeat imprisonment (ABS 2003b).

Indicator and data limitations

The national prisoner indicators aim to provide a comprehensive picture of the health of Australia's prisoners, however for a number of indicators there is a lack of either national or recent data.

The indicator on mortality rates post-release requires significant development. Data from the National Coroners Information System, which includes whether or not the deceased person was released from an institution during the week before death, are currently only collected from four jurisdictions and are available only in hard copy format. This information will over time become electronic, and the remaining jurisdictions may also begin to supply these data.

Data sources

National Prisoner Health Census

The National Prisoner Health Census is the main data source for the reporting of the National Prisoner Health Indicators. The inaugural census was held during 2009 and captured data on prison entrants and visits to the prison clinic for one week and repeat medications taken by prisoners for one day.

National Prison Entrants Bloodborne Virus and Risk Behaviour Survey (NPEBBV&RBS)

The NPEBBV&RBS is held biennially in all states and territories. It is a census of prison entrants during a two week period and provides estimates of prevalence of bloodborne viruses. Testing is conducted for HIV, hepatitis B and hepatitis C. The data can be categorised by age, sex and Indigenous status.

Prisoners in Australia (Australian Bureau of Statistics)

This publication presents national statistics on prisoners who were in custody on 30 June each year (ABS 2008). These statistics describe the characteristics of prisoners, sentence lengths, and offences for which offenders are imprisoned, and provide a basis for measuring change over time.

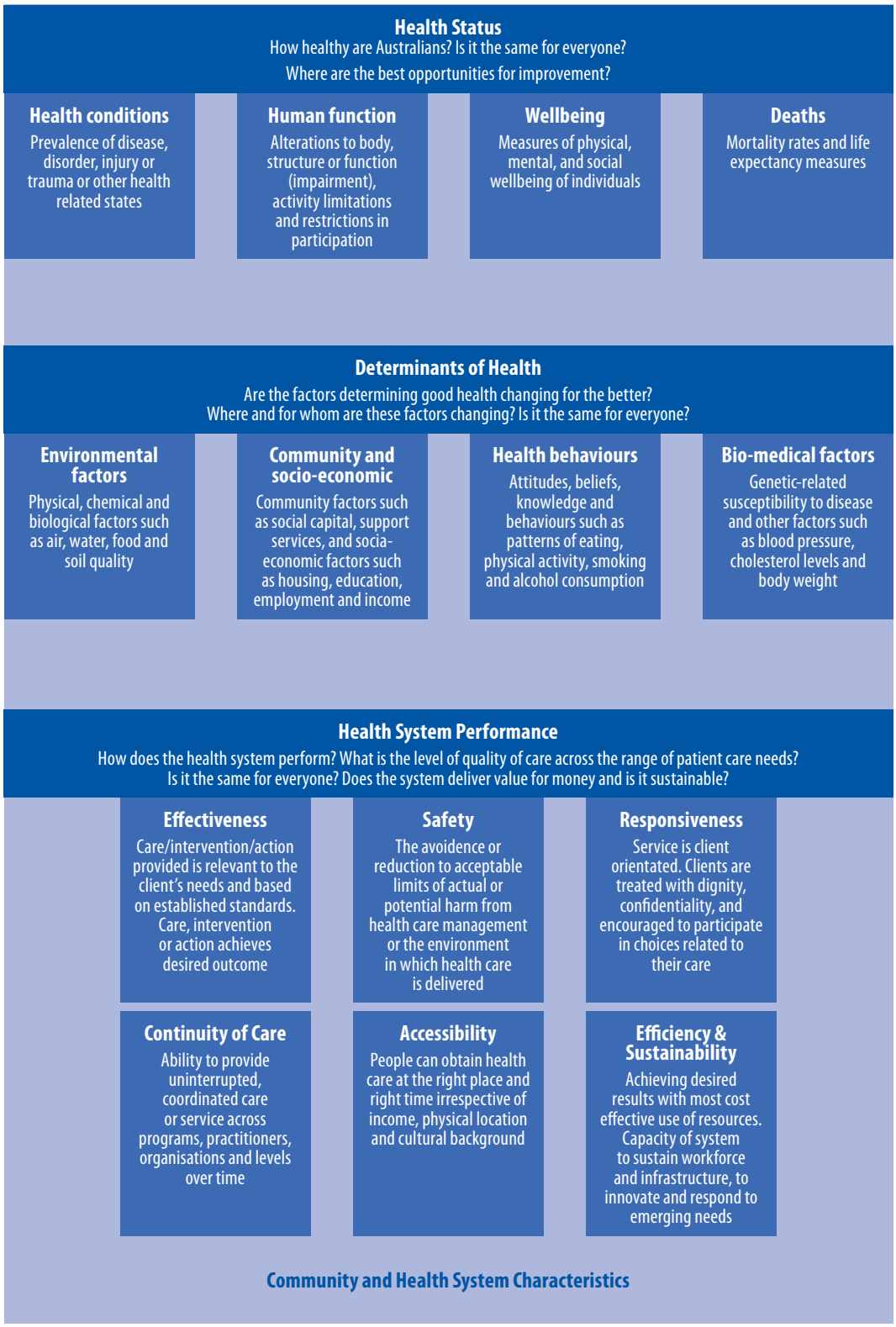
Highly Specialised Drugs Program

A highly specialised drug (HSD) is a medicine for the treatment of chronic conditions that, due to its clinical use or other special features, is restricted to supply through public and private hospitals with access to appropriate specialist facilities. Australian Government funding for the specialised medicine is provided under the HSD Program. Medications most commonly used to treat hepatitis C virus are included in this program and records are kept on the number of prisoners that receive these medications.

National Notifiable Diseases Surveillance System (NNDSS)

The NNDSS was established in 1990 under the auspices of the Communicable Diseases Network Australia. The system co-ordinates the national surveillance of more than 50 communicable diseases or disease groups. Under this scheme, notifications are made to the state or territory health authorities under the provisions of the public health legislation in their jurisdiction. Computerised, de-identified unit records of notifications are supplied to the Australian Government Department of Health and Ageing on a daily basis, for collation, analysis and publication on the Internet, (updated three times per week), and in the quarterly journal Communicable Diseases Intelligence.

Appendix 1: National Health Performance Framework



Source: National Health Performance Committee (2009).

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Prisoner health: key national indicators

Health status: how healthy are Australia's prisoners?

Health conditions

Mental health	Proportion of prison entrants who report that they have been told by a doctor, psychiatrist or psychologist that they have a mental health disorder (including drug and alcohol abuse) Proportion of prison entrants who are currently taking medication for a mental health disorder Proportion of prison entrants by level of psychological distress experienced in the past 4 weeks (self-report) Proportion of prison entrants who indicate their current distress is related to the present incarceration
Injury or trauma	Proportion of prison entrants who report that they have ever received a blow to the head resulting in a loss of consciousness Proportion of prisoners in custody whose reason for attending the prison clinic was musculoskeletal injury
Chronic disease (selected: asthma, cancer, cardiovascular disease, arthritis, diabetes)	Proportion of prisoner entrants who report that they have been told by a doctor or nurse that they have asthma, and who still have the condition currently Proportion of prisoners in custody whose reason for attending the prison clinic was asthma Proportion of prisoner entrants who report that they have been told by a doctor or nurse that they have cancer, and who still have the condition currently Proportion of prisoners in custody whose reason for attending the prison clinic was a malignancy Proportion of prison entrants who report that they have been told by a doctor or nurse that they have cardiovascular disease, and who still have the condition currently Proportion of prisoners in custody whose reason for attending the prison clinic was cardiovascular disease Proportion of prison entrants who report that they have been told by a doctor or nurse that they have arthritis, and who still have the condition currently Proportion of prisoners in custody whose reason for attending the prison clinic was arthritis Proportion of prison entrants who report that they have ever been told by a doctor or nurse that they have diabetes, and who still have the condition currently Proportion of prisoners in custody whose reason for attending the prison clinic was diabetes
Communicable diseases	Proportion or prisoners in custody whose reason for attending the prison clinic was a communicable disease Proportion of prison entrants testing positive to hepatitis C antibody Proportion of prison entrants testing positive to hepatitis B antibody Proportion of prison entrants testing positive for HIV Proportion of notifications of a notifiable disease for prisoners in custody
Other health related states	Rate of hospital transfers for prisoners in custody Proportion of prisoners in custody whose reason for attending the prison clinic was for a health check Proportion of prisoners in custody whose reason for attending the prison clinic was for a blood or urine test/result Proportion of prisoners in custody whose reason for attending the prison clinic was skin Proportion of prisoners in custody whose reason for attending the prison clinic was musculoskeletal Proportion of prisoners in custody whose reason for attending the prison clinic was respiratory Proportion of prisoners in custody whose reason for attending the prison clinic was digestive Proportion of prisoners in custody whose reason for attending the prison clinic was psychological Proportion of pregnant prisoners in custody

Wellbeing

Physical, mental and social wellbeing	Proportion of prison entrants who report that they have ever intentionally harmed themselves Proportion of prison entrants who report that they have thought of harming themselves in the last 12 months

Deaths

Mortality	Mortality rate for prisoners in custody Mortality rate for sudden and unexpected deaths for people who have been released from prison within the last week[1]

Determinants of health: factors influencing the health of prisoners

Community and socioeconomic factors	Proportion of prison entrants by highest level of completed education
Health behaviours	Proportion of prison entrants who, in the last 12 months, consulted a medical professional for their own health within the community Proportion of prison entrants who, in the last 12 months, consulted a medical professional for their own health at prison Proportion of prison entrants who, in the last 12 months, needed to consult with a medical professional in the community, but did not Proportion of prison entrants who, in the last 12 months, needed to consult with a medical professional whilst in prison, but did not Proportion of prison entrants by reason for not seeking medical contact in the past 12 months when required Proportion of female prison entrants who report that they have had a Pap smear in the last 2 years Proportion of female prison entrants who report that they have ever been pregnant Mean/median age at first pregnancy for female prison entrants The proportion of prison entrants who report a risk of alcohol-related harm (self-report) Mean age at which prison entrants smoked their first full cigarette Proportion of prison entrants who report that they currently smoke tobacco Proportion of prison entrants who report that they engaged in illicit drug use in the last 12 months Proportion of prison entrants who report that they have injected drugs Proportion of prison entrants who report that they have shared injecting equipment Proportion of prison entrants who report having had unprotected sex with a new or casual partner in the last month

Health system performance: prison clinics performance

Effectiveness	Proportion of prisons that receive visits by an Aboriginal Community Controlled Health Organisation or an Aboriginal Medical Service at least once a month
Responsiveness	Proportion of prison entrants who, at reception, were referred to mental health services for observation and further assessment Proportion of prison entrants identified as currently at risk of suicide or self-harm Proportion of prisons that offer immunisation programs according to the current national immunisation guidelines
Accessibility	Proportion of prison entrants who report being on pharmacotherapy medication for opioid dependence Proportion of prisoners in custody who used the prison clinic Proportion of clinic visits initiated by prisoner Proportion of clinic visits by medical practitioner type Proportion of prisoners in custody who received repeat medication Proportion of prisoners in custody who received medication for opioid dependence Proportion of prisoners in custody currently receiving medication for hepatitis C
Continuity of care	Proportion of prisons that have a health-related discharge plan in place for more than 75% of prisoners, at the time of their release
Efficiency and sustainability	Ratio of full time equivalent health staff working within the correctional system to the total number of prisoners

1 This indicator will not be reported on in the inaugural report as further data development is required.

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