

Health needs of prisoners at HMP Cardiff

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Section 1

Introduction, background and methods

Introduction

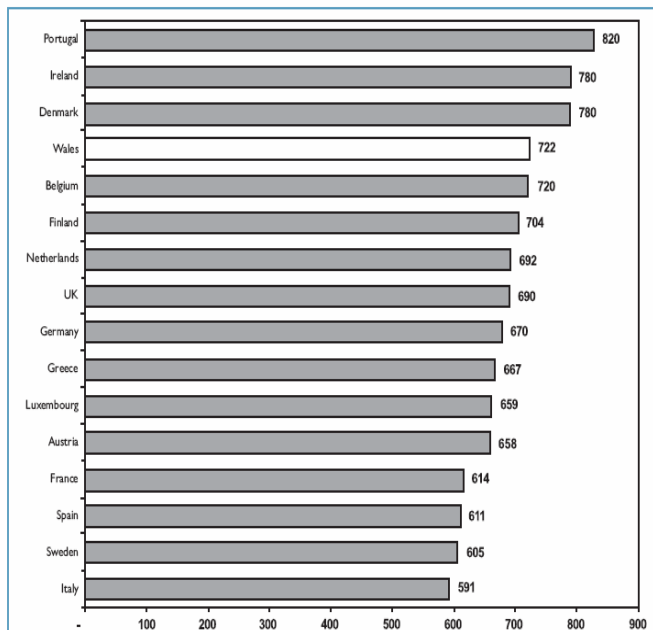
This prison health needs assessment has been commissioned on behalf of Cardiff Local Health Board (LHB) and HMP Cardiff in order to inform the updating of the prison Health Improvement Programme and to develop a new Health Delivery Plan for HMP Cardiff.

Background

Health in Wales

Overall population health in Wales tends to be worse than in England, and considerably worse than in many rich European countries. In addition socioeconomic inequalities and associated health inequalities are generally wider in Wales and the UK than in other rich European countries, and recent evidence shows that those health inequalities have widened since the late 1990s. Again Wales tends to fare worse than in England. The reason for this picture of poor and unequal national health status is that Wales often appears at the bottom end of European league tables for many of the inter-related socio-economic factors that adversely affect public health.

Figure 1.1 Mortality rates in selected EU countries, 2000



* European Age-Standardised Mortality Rates per 100,000 population

Belgium rate is for 1997. Denmark is for 1999

Source: Office for National Statistics (calculations by Health Solutions Wales)

Later in this report we see how the health of prisoners is amongst the worst in society, contributing to social inequalities in health.

Health and prisons: the policy context

International

The international dimension to prison health should be remembered. The World Health Organization (WHO) Health In Prisons Project (HIPP), which first came into being in partnership with the UK Government in 1995, arose because of the recognition that there was

a gap between health services for the public and prison health and problems with public health. It recognised that prison populations in general suffered from worse health, but that prisons also offered an opportunity for improving health and tackling inequality. This ongoing project, based in the University of Central Lancaster (the WHO Collaborating Centre), jointly hosted with the Department of Health in England, is a source of information and best practice across Europe on a range of public and prison health issues which are relevant to many of the problems in Wales also.

Other UK countries

In England the WHO HIPP is recognised in the in the 2004 UK Government White Paper Choosing Health: Making Healthy Choices Easier referring to the NHS and health in England.

Traditionally health services for prisoners tended to be managed and provided by HM Prison Service or commissioned by the private company running the prison. In England, the responsibility for commissioning prison health care has moved from the Prison Service to Primary Care Trusts (PCTs). The PCTs are expected to take a public health approach to prison health and address the root causes of ill health amongst prisoners.

Wales

There is increasing health policy emphasis in Wales on tackling the root causes of poor health and on reducing social health inequalities. Local Health and Wellbeing Strategies are an opportunity to begin to tackle this agenda. In addition, there is an increasing desire to see health services based on need, of high quality, and provided at the most appropriate level of care. The thrust of the Wanless review of health and social care in Wales was that care services needed to concentrate on being a health service rather than an illness service, that there should be much greater emphasis on tackling the root causes of ill health and on disease prevention, and that services should be provided in ways that facilitate the detecting and treating of illness at an early stage.

Taking a public health approach, emphasising a needs-led service, instead of demand-led, will be even more relevant, especially given Wales' poor health status, compared to England, and much of the rest of Europe.

In April 2003, the responsibility and funding for the health services in public sector prisons in Wales transferred to the Welsh Assembly (WAG). In 2006, this was devolved to Cardiff, Monmouthshire and Swansea Local Health Boards, each with at least one public sector prison within its boundaries. The situation is different for LHBs with private sector prisons.

Prison Service Order 3200 (PSO 3200, HMP Service, 2003) is the result of the formal partnership between the Prison Service and the NHS, and states explicitly that prisoners should expect to have access to health services that are broadly equivalent to those the general public receives from the NHS. Furthermore, this means that prisons should provide health education, patient education, prevention and other health promotion interventions. Efforts should be made to build the physical, mental and social health of prisoners as part of a whole prison approach and to prevent the deterioration of prisoners' health during or because of custody. Prisoners are also to be encouraged to adopt healthy behaviours that can be taken back into the community upon release.

It states that this approach should be built upon evidence of what works best in prison-based health promotion. It should feed into other already established elements of the prison regime, and already existing mandatory actions to ensure that specific health needs are assessed and wherever possible met through the prison/NHS partnership and local plans. The PSO also states that there should be clear line management arrangements in place which indicate an individual with explicit responsibility for leading health promotion work across the prison. Five major areas are covered by this order, namely:

- Mental health promotion and well being
- Smoking
- Healthy eating and nutrition
- Healthy lifestyles, including sex and relationships and active living

- Drug and other substance misuse

The recent *Joining Together in Wales – Reducing Re-offending Action Plan 2007/08* published jointly between NOMS Wales and the WAG sets out a clear set of priorities in terms of the main offender pathways for the next twelve months and beyond. It builds on previous work (Social Exclusion Unit, 2002) that recognized the seriousness of re-offending, and is the result of the consultation that has happened after *Joining Together in Wales* was originally published in 2006. Most of the identified pathways in the action plan are relevant to prisoner health improvement to some degree, but of special interest are the Health and Social Care Pathway, the Substance Misuse Pathway, the Accommodation Pathway and the Education, Training and Employment Pathway. Their extensive and adequate implementation throughout the criminal justice system would achieve considerable health improvement in offenders, including those who are imprisoned.

Cardiff

A health needs assessment by Bro Taf Health Authority with HMP Cardiff was initially carried out in 2001. This led to a prison Health Improvement Programme in 2003 and a Health Delivery Plan for 2005-8. Since the last needs assessment Cardiff LHB has also produced a Health, Wellbeing and Social Care strategy for the county and city, in association with its partners on the Cardiff Health and Wellbeing Partnership.

In 2005, HMP Cardiff was given generally good reports by both the HM Chief Inspector of Prisons and the Independent Monitoring Board (IMB), in so far as they assessed health and health care services. The former noted much improvement on the previous inspection and concluded that Cardiff provided a generally safe, healthy environment for prisoners, and singled out good work in healthcare and resettlement. The latter noted that the Prison Improvement Plan had had a positive effect on improving conditions in the prison and again highlighted good work carried out by healthcare, resettlement and education. Much has been developed since both these reports.

Scope of this needs assessment

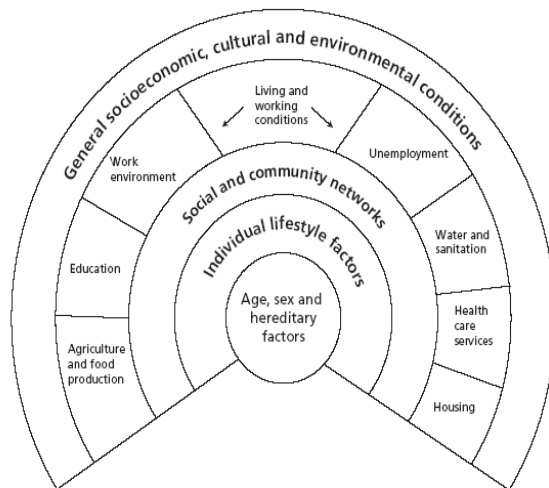
Defined population assessed

Remand and convicted/sentenced inmates of HMP Cardiff of all ages, regardless of their previous place of residence or homelessness status, during 2006.

Health

Health is much more than not being ill. Perfect health would be a state of complete physical, mental and social well-being and not just the absence of illness. This view of health is endorsed by the World Health Organization (WHO). Health is related to quality of life, and is affected by a complex interconnection of individual and community-level factors throughout life.

Figure 1.2 The wider social factors that determine social inequalities in population health



Source: adapted from Dahlgren and Whitehead

We propose to use a broad social rather than a 'medical' or 'disease' model of health for the needs assessment. We will take an overall population perspective, in addition to considering individual clients.

The scope of the needs assessment considers general well-being, as well as emotional, psychological and mental health, and physical health

We consider prevention, detection, harm reduction, and a treatment and amelioration, and rehabilitation.

Social and behavioural factors

Having poor personal and life skills is associated with worse health. Poor personal skills in particular can lead to poor emotional, psychological and mental health, and can lead to an increased risk of poor peer relationships and starting and continuing risky health-related behaviour, including substance misuse, and associated criminal, offending, and anti-social behaviour. The scope of the needs assessment considers the complex underlying social factors that tend to lead to poor personal and life skills and risky health-related behaviour.

Levels of service and intervention

We consider services available to inmates for prevention, detection, harm reduction, and treatment and amelioration for the key health problems, as well as the underlying social and behavioural causes.

We consider not only services available within HMP Cardiff, but also relevant services available to inmates outside the prison during their remand or sentence, and following their release. Services provided by the statutory, non-statutory, and independent sectors will be considered, as well as informal and lay care provided by friends and family carers, and the interface between them all, where information is available.

Need

We use a broad definition of 'need':

'that which individuals or communities require to achieve, maintain or restore an acceptable level of social independence or quality of life'.

Key to this definition is quality of life and social factors, and their link with health, health-related risk taking behaviour, personal and life skills, and criminal, offending and anti-social behaviour.

User demand for health and other services invariably outstrips the available supply of services. A needs assessment approaches the issue by first taking a population approach

rather than solely considering the individual client, and secondly by differentiating between the 'need' and 'demand' for a service. For example, services can be demanded by people even when they are not needed (e.g. they may be ineffective or partially effective for their stated purpose). Key to assessing 'need' is understanding the level of the main health (and health-related social) problems in a defined population. Additionally, we need to know which models of service and which interventions to deal with the health problems are effective, and which are ineffective. This information must then be used to assess existing services in order to then rationally plan effective services to prevent, detect, treat and ameliorate the identified health problems within existing resources and barriers to implementation.

Un-met need will occur where there is a health problem in a defined population and area that could be addressed by effective services, but where there are no services present, or services are present but cannot be accessed by the client group, or there are inadequate or ineffective services present.

Methods

The fieldwork and other research for this needs assessment was carried out between November and April 2007. A variety of methods and sources were used to:

- describe the demography of the inmate prison population – average resident population where possible, but also new receptions
- assess factors that affect the health of prisoners, including the causes, prevalence and consequences of health-related behaviours
- the incidence, prevalence and severity of health problems that currently affect the prison population
- approaches and effective interventions for tackling the identified health and health-related problems

Key stakeholders were identified by discussion with the health management group – names, titles, and roles have not been listed so as not to attribute comments or facts incorporated in this report to particular individuals.

Key informants including staff and prisoners were confidentially interviewed using semi-structured interviews to gain information about the overall structure and processes of the current provision of care, for identifying perceived health problems and priorities, and perceived problems with supply and demand of healthcare and other services within the prison.

Relevant data was supplied by the prison to ascertain the demographic profile and socio-economic indicators of the prison population.

Relevant activity data was supplied by the prison in relation to certain healthcare and other health-related programmes.

A limited literature review from key electronic sources was used in order to identify

- likely health problems in the prison population - review of scientific research and reports that identifies the expected incidence and prevalence of common and/or serious health problems in prisons that can be applied to the local Cardiff prison population
- how prison health services are supplied elsewhere
- current expected norms or standards of provision
- effective approaches and interventions to tackle the health in prison, and effective interventions and models of care for prison populations with the health problems identified

Secondary information sources such as relevant reports regarding the nature of the regime, services and programmes available, and healthcare available at HMP Cardiff were identified from key stakeholders. We also included

- previous needs assessments and health reports at HMP Cardiff
- other local needs assessments and health reports, and reports relating to the main communities where most inmates come from
- census and other routine health and socio-economic information sources

The information gathered was triangulated in order to identify areas where resources were being directed to areas of less priority in terms of need. We also identified unmet need in relation to identified prison population's health problems and health-related factors where inadequate priority or resource was given, or where the current approach, model of care and prevention, or individual intervention was either non-existent, inadequate or ineffective. We based our recommendations on these areas of unmet need, and known effective approaches to tackle the unmet need.

Section 2

Demography of the HMP Cardiff prisoner population

Key points

HMP Cardiff is a Category 'B' Local/Training Prison, holding male adult remand and convicted prisoners aged 21 years and over.

The prison has an operational capacity of 754. In two separate snapshot surveys in 2006 the daily population stood at 734 on one occasion and 725 in another.

The prison receives an average of 2570 new reception prisoners per year, drawn predominantly from the surrounding court catchment area in south east Wales.

There were 2248 new receptions of convicted prisoners in custody at Cardiff in 2005-6, excluding remands.

1358 were sentenced for less than 12 months, 752 were sentenced to over 12 months, and 138 prisoners were sentenced to life, or an indeterminate number of years.

Over 95.2 % of prisoners had previous convictions.

The average length of sentence was 20 months.

The average age was 31.8 years (range 21 to 72 years). The most commonly occurring (mode) age was 24 years.

The majority of offences (51%) related to violence, burglary/theft or drug related crime.

Most prisoners previously resided in the counties of south Wales, especially Cardiff, though there was a significant amount, around 111, from England.

Over 89% of prisoners described themselves as white, with 11% from BME groups.

Introduction

The age, sex and ethnic make up of a population is a very important influence on the health of any population. Demographic indicators are therefore vital in describing the health problems likely to be experienced by that population. The types of offences committed give a clue to the extent of some risky health-related behaviours because they are linked for example substance misuse and drug-related crime, violence and alcohol, and so on (see section IV).

Type of prison

HMP Cardiff is a Category 'B' Local/Training Prison, holding male adult prisoners remand and convicted prisoners aged 21 years and over, who are drawn predominantly from the surrounding court catchment area in South East Wales.

The prison population

This review will relate to the prison inmate population of HMP Cardiff for 2005-06 according to the data received by the researchers from HMP Cardiff. The prison population is very dynamic, changing all the time with a high turnover.

Number of prisoners

The prison has had an *operational capacity* of 754 male inmates from November 2004. There are no female prisoners.

The prison receives an average of 2570 new prisoners (*'new receptions'*) per year from the courts and other public prisons (mainly Swansea, Cardiff, Usk and Bristol), although on any one day during the year, owing to transfers out, parole and releases, the actual prison population should be within the operational capacity.

Age of prisoners

During 2006, a snapshot survey provided by HMP Cardiff showed a prison population of 734, within the prison's *operational capacity* of 754. However, we do understand that there have been problems of overcrowding well above the operational capacity on occasions, and especially more recently, but this has been unconfirmed to us through official channels.

The World Health Organization (WHO) defines 'young people' as aged between 10-24 years. 'Adolescence' is then defined as the ages between 10-19 years and 'youth' overlaps, referring to ages 15-24 years. Therefore the official WHO definition of *young people* and *youth* can apply to some of the younger age groups of the prison population.

Another snapshot survey (EDS 2006) showed a prison population of 725, and gave the number and percentage of prisoners by 5-year age groups. This is shown in table 2.1 below.

Table 2.1 Age of prisoners in 2006 during 1 day survey

Age group (years)	NUMBER OF PRISONERS	% OF ALL PRISONERS
21-25	235	32.4%
26-30	175	24.1%
31-35	118	16.3%
36-40	92	12.7%
41-45	32	4.4%
46-50	36	5%
51-55	17	2.3%
56-60	8	1.1%
61 +	11	1.7%
71+	1	0.1%
Total all ages	725	

Source: HMP Cardiff, EDS Services Power point

The average or mean age of the prison's population was 31.8 years, with a range of 21 to 72 years. The median (below which were 50% of the population) age was 29.6 years, and the mode (the most commonly occurring age) was 24 years.

Prisoners' area of residence prior to custody

In general the prison receives prisoners who were resident in south Wales prior to custody – around 85% of the prison population. This area includes Cardiff, Newport, Barry, Bridgend, Rhondda, Caerphilly, Swansea, Pontypridd, Merthyr, Ebbw Vale, Bargoed, Blackwood, Aberdare, Tredegar, Pontypool, Cwmbran, Abertillery and Abergavenny The prison also

receives prisoners who were resident in England, either directly from the courts or by prison transfer.

Of the 94 with Mandatory and Discretionary Life sentences, and 37 with Imprisonment for Public Protection (IPP) sentences, 57 were Welsh, 52 English, 13 Foreign Nationals, (or born outside the UK), 5 from Ireland, and 4 were from Scotland.

Types of offences

Table 2.2 shows the percentage of prisoners convicted of each type of offence on a survey day in 2006. Some prisoners had been convicted of several offences. Violence, burglary and/or theft, drugs and murder/manslaughter are the main four reasons. 95.2% had previous convictions.

Table 2.2 Types of offences committed by HMP Cardiff prisoners 2006

Current offences of prisoners	n	%
Violence	174	23.8
Burglary	102	13.9
Drugs	95	13.0
Murder & manslaughter	75	10.2
Theft	60	8.2
Driving offences	56	7.7
Robbery	46	6.3
Other	124	16.9

Source: HMP Cardiff, EDS Services

Type and length of custody

In 2005-6 HMP Cardiff dealt with 2248 convicted prisoners in custody at various points in time (excluding remands), of which 1358 were in for less than 12 months, 752 had been convicted to over 12 months. 94 were sentenced to life imprisonment, and a further 37 were of indeterminate sentence prisoners (IPP). The smallest sentence length was 5 days, the longest life or IPP. The average length of a sentence in Cardiff was 20 months.

Country of origin, ethnic, cultural, linguistic and religious background of prisoners

Of prisoners recently surveyed, 656 described themselves as White (89.4%), 38 (5.2%) as Black, 33 (4.5%) as Asian and 6 (0.8%) as mixed race.

The countries of origin for prisoners can be seen in table 2.3

Table 2.3 Country of origin of prisoners

Country	Number	%
UK	673	89.0
Jamaica	12	1.6
Pakistan	6	0.8
Irish	4	0.5
Somalia	2	0.3
Afghanistan	1	0.1
Guinea	1	0.1
Iraq	1	0.1
Israel	1	0.1
Kuwait	1	0.1
Malta	1	0.1
Netherlands	1	0.1
South Africa	1	0.1
All other nationalities	48	6.4

Source: HMP Cardiff, Skinner 2007

The linguistic background of the prisoners included English (743), Urdu (6), Arabic (3), Dutch (1), Maltese (1), Farsi (1) and French (1).

The religious background, where recorded, can be seen in table 2.4.

Table 2.4 Religious background of prisoners

Religion	Number	%
Church of Wales	160	22.2
Roman Catholic	119	16.5
Agnostic	82	11.4
Atheist	70	9.7
Church of England	68	9.4
Other Christian	63	8.8
Muslim	62	8.6
No religion	42	5.8
Other Non-Christian	35	4.9
Buddhist	10	1.4
Church of Scotland	2	0.3
Baptist	2	0.3
Hindu	1	0.1
Jewish	1	0.1
Pentecostal	1	0.1
Rastafarian	1	0.1
Seventh Day Adventist	1	0.1

Source: HMP Cardiff, Skinner 2007

Section 3

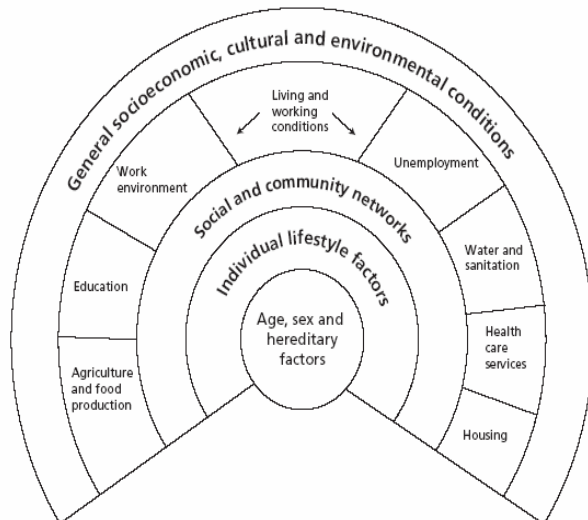
Socioeconomic factors that affect population health

Key points

Health

We previously described how health is much more than not being ill. Perfect health would be a state of complete physical, mental and social well-being and not just the absence of illness. This view of health is endorsed by the World Health Organization (WHO). Health is related to quality of life, and is affected by a complex interconnection of individual and community-level factors throughout life as depicted in figure 3.1.

Figure 3.1 The wider social factors that determine social inequalities in population health



Source: adapted from Dahlgren and Whitehead

For this report we proposed to use a broad social rather than a 'medical' or 'disease' model of health, taking an overall population perspective, in addition to considering individual prisoners.

The scope of the needs assessment considers general well-being, as well as emotional, psychological and mental health, and physical health

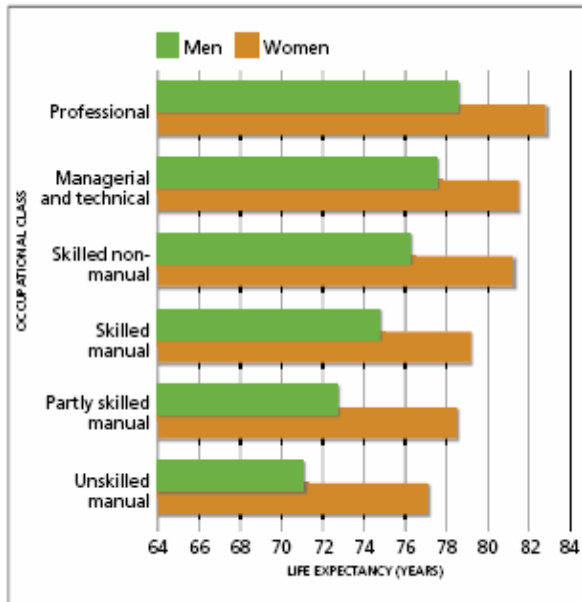
Social inequalities in health

There is a gradient of worsening health, higher mortality and lower life expectancy across all socioeconomic groups, however measured (e.g. by income, housing tenure, occupation, educational attainment, etc.), moving from the most affluent to the worse off in society (see figure 3.2 below). These findings occur to different degrees between and within all European and industrialised countries.

For individuals living in deprivation, the level of deprivation *relative to others* in their society is as important for health as the actual or absolute deprivation of the individual. The effect on population health appears to be worse if income or wealth is spread unevenly in society. This partly explains why some rich countries have better health than others – for example many

rich western continental European countries and most Scandinavian countries with more equal distribution of wealth and income have better population health than rich countries with larger social and regional inequalities such as the UK and the USA. Violence, aggression and offending behaviour tend to follow the same pattern as public health for wealth and income distribution in society.

Figure 3.2 Occupational class differences in life expectancy 1997-1999, Wales & England

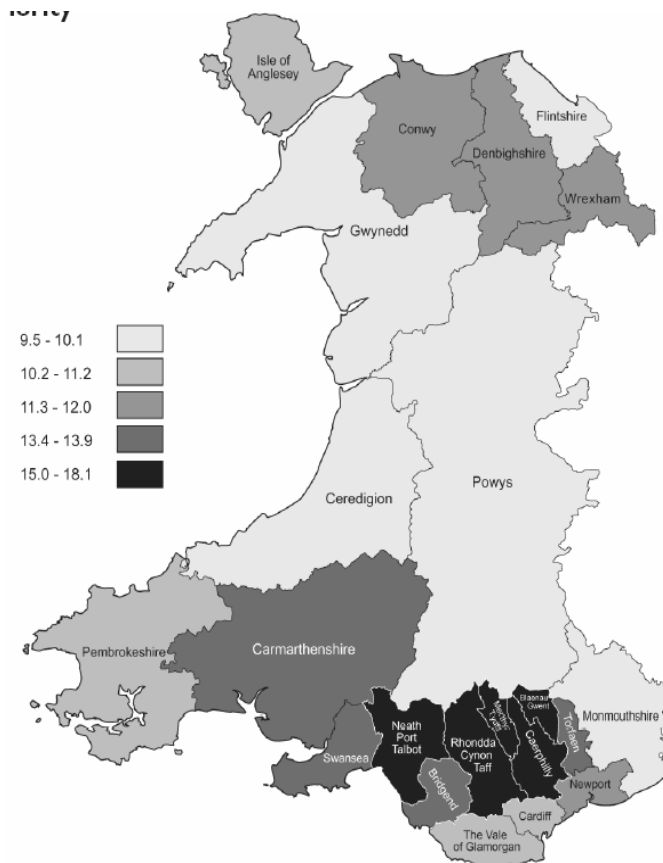


Furthermore, there is also an area effect over and above an effect on the individual. This means that even after considering individuals' levels of deprivation, living in a deprived area can still have a detrimental effect on health (see figure 3.3 below).

These facts are highly relevant to this prison needs assessment because, as we shall see, the majority of prisoners come from some of the most deprived social groups, communities and areas in south east Wales. The effects of these circumstances have already accumulated to make them probably one of the groups in Wales with the worse health, having taken their age into account.

As a result of these accumulated, linked poor social factors, many negative behavioural and life skill traits tend to develop more frequently, increasing steadily if we compare the most affluent to the worse off. These factors combine to further damage health and increase offending. Having poor personal and life skills is associated with worse health. Poor personal skills in particular can lead to poor emotional, psychological and mental health, and can lead to an increased risk of poor peer relationships and starting and continuing risky health-related behaviour, including substance misuse, and associated criminal, offending, and anti-social behaviour. In this section we examine how the complex underlying social factors tend to lead to poor personal and life skills and in the next section we see how these factors can lead to risky health-related behaviour.

Figure 3.3 Proportion (%) of people in Wales classifying their health as 'not good' in the 2001 Census, by local authority area



Effects of prison on health

Prison can affect health in many ways, especially psychological well-being and mental health, adding to the effect of poor social circumstances described in this section. In section 6 the attributes of a healthy prison to counteract such influences are highlighted.

Being imprisoned brings its own factors that can seriously affect mental health through the loss of liberty, autonomy, and the right to self-determination; through other factors related to the prison regime; and through bullying, loneliness and separation from family and children.

These factors can contribute towards withdrawal, social exclusion and isolation. The loss of privacy also influences health negatively.

The purpose and culture of the regime is also very important in terms of how it views and treats inmates, the attitudes of staff towards inmates, and the clarity and consistency of discipline and whether it is rewards and encouragement based, or primarily containment and punishment based. An unsupportive, inconsistent and punitive arrangement could exacerbate problems that already exist such as aggression and anxiety, and poor life skills.

Without proactive efforts, the prisoner's situation in terms of employment could worsen, and a further lack of motivation, negative peer pressure, boredom, poor personal skills and didactic methods can make education difficult. Income, housing and homes can be lost while in custody.

Due to living in close daily proximity to other offenders, peer influences can change and become negative. New risky health behaviours can begin and existing ones can continue or worsen. Bullying and violence or the threat of them can be damaging to psychological well-being and mental health.

Many prisoners will lose contact with social support networks when in prison.

Many people living in close proximity, especially if underlying health is poor, can increase the risk of infectious disease and overcrowding and this has a well-recognised negative effect on psychological well-being.

Lack of motivation, the regime timetable at a prison, and lack of facilities or proactive programmes of activity may lead to low physical activity, worsening mental and physical health and missing an opportunity to develop social skills. Long hours spent in cells watching TV is associated with eating junk food and being inactive. This leads to longer-term habits. The food that is provided and culture of smoking can also obviously influence health.

Underlying social causes of health inequalities

Apart from already discussed effect of the distribution of income and wealth in society on population health, violence, aggression and offending behaviour, a population's age and gender structures also has an affect (see section II). But many other social factors also combine together to affect the health and well-being of individuals and communities. Because factors with a negative influence tend to be more prevalent amongst groups or areas with increasing deprivation, they too contribute to the observed social health inequalities of an unequal society.

The breadth of these factors is clear from figure 3.1 above. It is important to remember that these factors interact and accumulate, and don't just influence individual and community health in isolation. Education and vocational skills are important, but so are social networks, family circumstances, and social and personal skills – and they are all linked.

The effects of man-made environments such as the organisational culture and the social and physical environment of workplaces, and of other institutions, such as schools, have major effects on health. Homelessness, physical housing conditions, ownership and tenancy terms, and the location, physical layout and social features of neighbourhoods in towns and villages all contribute to public health status.

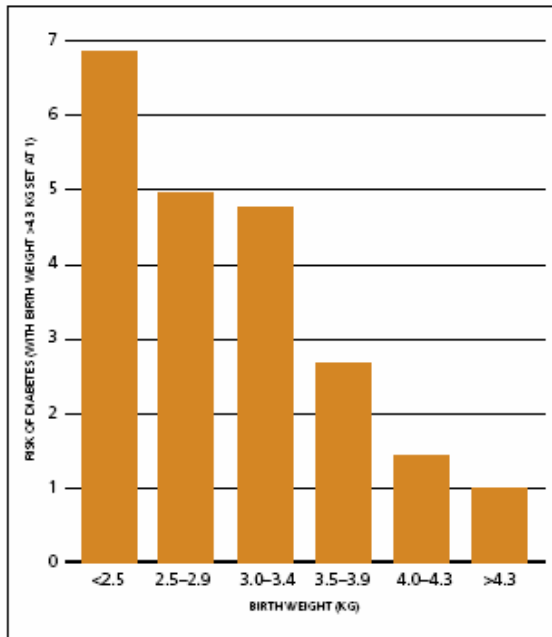
Transport patterns greatly contribute to health and health inequalities through road traffic injury rates, access to social networks, employment, services and leisure, air pollution, and levels of daily healthy walking and cycling, and thus physical activity. The way we travel is partly affected by poverty, by local and national transport policy, by commercial marketing, and by town planning.

Health inequalities for people who are increasingly worse off are not simply brought about by the direct physical or material effects of these factors. For example, living in deprivation and in deprived run-down communities with poor social integration bring about constant stresses that affect mental and psychological health over the course of a lifetime. Through complex biological pathways in the body, they have been shown to affect physical health such as cardiovascular disease and some cancers. These chronic psychological stresses also worsen health by bringing about or maintaining health-damaging individual behaviours such as dangerous drinking and smoking, and other substance misuse. So healthy, or more commonly, unhealthy lifestyles are by no means merely influenced by so-called individual free choice.

Circumstances and events throughout life from before birth affect current health and health in later life. Poor life circumstances in early life have a cumulative effect, contributing to health inequalities seen in older adults especially in terms of risks for cardiovascular disease, diabetes, respiratory disease, and some cancers. For example low birth weight is more common in lower socioeconomic groups, and it increases the risk for coronary heart disease and diabetes in later life (see figure 3.4), independent of other factors.

Figure 3.4 Risk of diabetes in men aged 64 years by their birth weight

Adjusted for body mass index



Source: WHO Solid Facts

The effects of these social determinants of health during a lifetime can be thought of as affecting an individual's 'health resources' that can be built up, expended, or replenished as we age:

- Basic biological potential at birth
- Development of physical strength and vitality
- Development of cognitive function
- Development of psychological capacities such as self-esteem, coping, secure identity
- Human capital (education and work experience)
- Social capital (socially supportive relationships and networks)

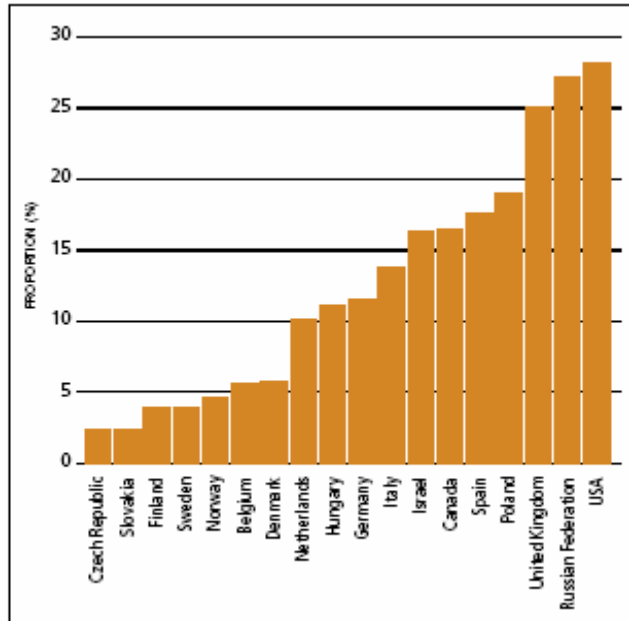
We now discuss some of the social factors that affect health in more detail.

Poverty

Poverty is one of the most important determinants of health. Compared to elsewhere in the UK and many other European countries (see figure 3.5), Wales has high rates of poverty that have been increasing, especially for children aged 16 years or younger, and worse still incomes are lower overall in Wales than several other areas of the UK (WAG 2004).

In the first quarter of 2002, 17.1% of dependent children in Wales lived in workless households compared to 15.9% in the UK as a whole. The children who were 16 years old in 2002 will be today's 21 year olds previously raised in poverty, and will include many of the young adults in HMP Cardiff, most likely still living in poverty or near to it. We can see from figure 3.6 that in the late 1990s – when many of the younger prisoners at HMP Cardiff were 16 or younger - many of the areas where prisoners at HMP Cardiff come from had high levels of under 16 year old poverty, and still do so. Not only does this imply the past level of poverty that many HMP Cardiff experienced when adolescents, but it suggests the deprivation in the communities in which the by now young men still live when they are out of prison. We know from other studies that social classes IV and V are over represented among the prison population therefore rates of poverty amongst prisoners are likely to be much higher.

Figure 3.5 Proportion of children living in poor households for selected countries (below 50% national average income)

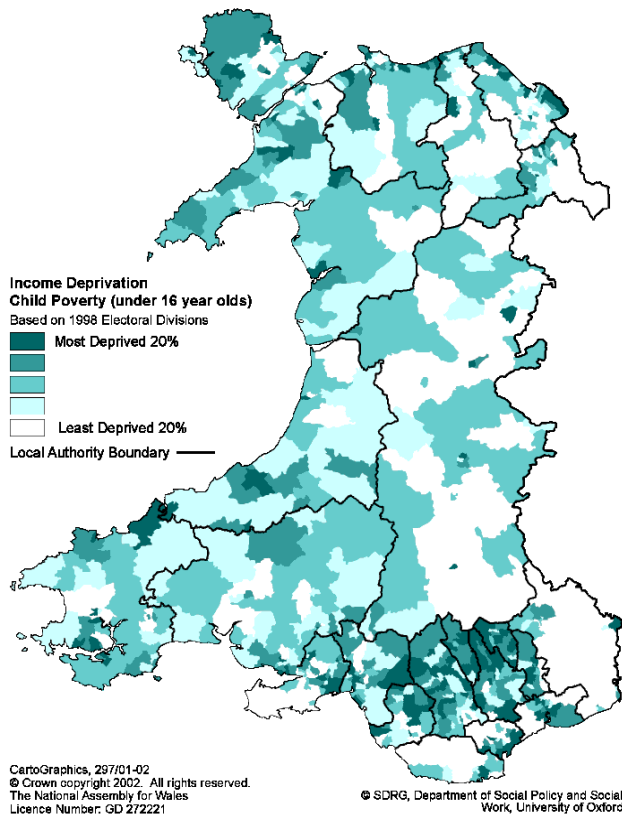


Source: WHO Solid Facts

Living in poverty places limits on the material conditions of everyday living, and affects access to the fundamental determinants of health such as adequate housing, healthy food, and opportunities to take part in society, resulting in social exclusion and limited access to social activities and services. Poverty also shapes individual health-related behaviour. Young people living in poverty will have lasting health damage as adults, especially in terms of cardiovascular disease, diabetes and some cancers.

Suicide rates and poor mental health, especially in young people, is strongly associated with poverty. A study in Scotland showed that recent increasing suicide rates for young people living in poverty were double those living in affluent areas.

Figure 3.6 Proportion of children aged under 16 years in Wales living in households reliant on means tested social security benefits 1998/99 (as defined by the Welsh Index of Multiple Deprivation: Child Poverty Index)



Children from families living in poverty will damage their health resources for their future and will have increased risk of poor health in adulthood. The risk of poverty is increased for:

- children of lone parents
- children growing up in families where there are three or more children
- children from some minority ethnic families
- children growing up in households where there is no one in full-time employment
- children in households with a disabled child or adult.

In a recent study in another south Wales prison, 12.5% of prisoners had experienced family members with an illness thus increasing the risk of their family being in poverty. Many prisoners had experienced family members with some form of mental health problem, 42.4% had had a family member with depression, 39.4% with stress and anxiety, 28.7% alcohol abuse and 19.3% reported a family history of drug abuse.

Family poverty in childhood is associated with parental smoking, poor nutrition, as well as other material deprivation. This can lead to poor physical and cognitive development and low educational attainment, and thus later adulthood low socioeconomic status, low skills, unemployment, smoking, poor nutrition and exercise, followed by their health consequences.

The remainder of this section examines some of the key health-related factors associated with poverty, common to many prisoners. It should be noted that they often co-exist and interact. Problems affecting health higher up the list (e.g. personal and life skills, negative peer pressure, poor housing and homelessness prospects, damaging family dynamics, lack of

social networks and emotional support, and so on) not only lead to other health damaging behaviours, but they hamper the effectiveness of efforts to improve education and vocational skills, and thus better quality employment, and also increase the risk of re-offending. This damages health even further.

Personal and life skills

The list is not exhaustive but by these terms we mean relationships, anger control, negotiation, self-esteem, resisting peer pressure, assertiveness, coping, prioritising, problem solving, self-discipline, parenting, citizenship, budgeting, shopping, cooking, getting information, amongst other skills.

Having poor personal and life skills is associated with worse health. Poor personal skills in particular can lead to poor emotional, psychological and mental health, and can lead to an increased risk of poor peer relationships and starting and continuing risky health-related behaviour (see next section).

Peer group influence

Adolescence and young adulthood is a vital period in human development. Young people are adjusting to the physical changes of puberty. They are also exploring their sexuality, trying to establish their own identity and independence, but they are also relying more on their groups of friends.

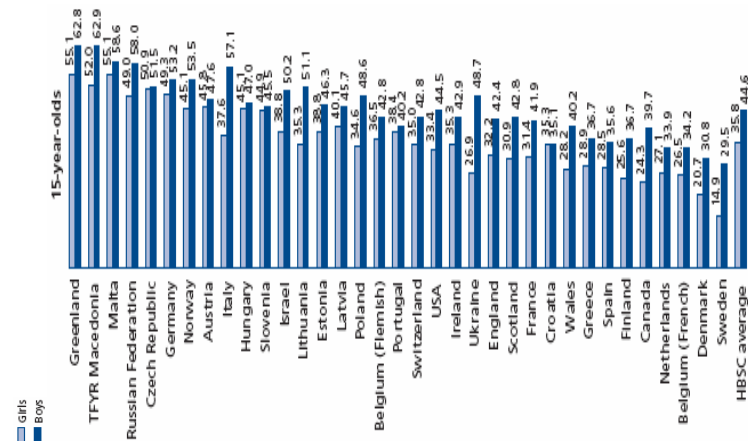
The peer group therefore greatly influences health-related behaviour of young people. It provides models of behaviour by moulding attitudes and by reinforcing norms and values that build social and cultural identity. This effect is complex but combined with the other factors listed here, it can lead to positive and negative health risk behaviours (see next section).

Young people who are not socially integrated and accepted by their peers are considerably more likely to have worse physical and emotional health. Peer group interaction tends to improve social skills and the ability to cope with stress and difficult events.

The amount of time and the circumstances in which young people spend with their friends without positive adult influence strongly predicts the kind and extent of influence of the peer group on the individual.

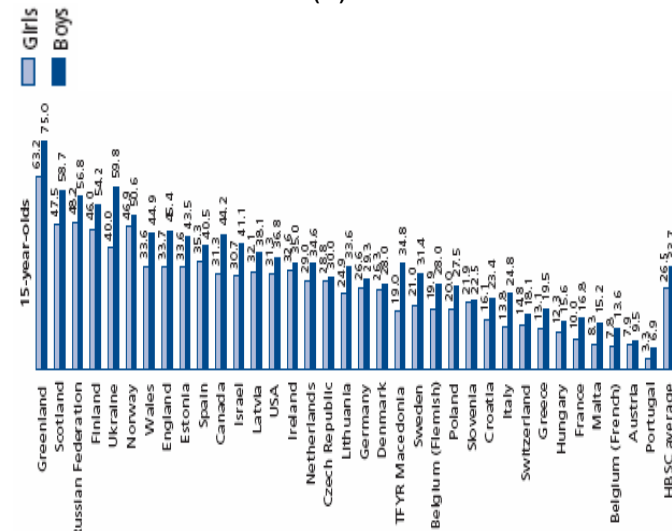
Among young people who meet frequently with peers in the evening the frequency of smoking, alcohol consumption and episodes of drunkenness, for example, is higher. The particular sub-culture of a friendship group appears to determine its risk-taking or protective behaviour pattern. We can see from figures 3.7 and 3.8 that 15 year old boys in Wales tend to spend more time together unsupervised in the evenings and in larger groups, rather than in the afternoons in smaller groups, compared to many other countries. The patterns of health-damaging behaviour learned as a result will then become ingrained and be very prevalent in deprived young men in Wales, such as the majority at HMP Cardiff.

Figure 3.7 Young people aged 15 years spending time with their friends after school in the afternoon, for selected countries 2001/2002 (%)



Source: Health behaviour in school-aged children study 2001/2002

Figure 3.8 Young people aged 15 years spending time with their friends after school in the evenings, for selected countries 2001/2002 (%)



Source: Health behaviour in school-aged children study 2001/2002

Homelessness, housing and health

According to a survey of prisoners elsewhere in south Wales, many prisoners (31.0%) lived with their parents prior to custody, and as many as 5.7% had been homeless. However, by the time of their release, over a quarter of prisoners expected to be either homeless or were unsure of their future living arrangements. This is a potentially serious threat to health, especially mental health.

The degree of poverty and relationship problems amongst prisoners indicates that they have a higher risk of being homeless or living in poor housing overall. This has serious implications for their present and future health. They will be more likely to be rough sleepers or hostel dwellers, less likely to be owner occupiers, more likely to be living in social or private rented accommodation, more likely to be living in houses in multiple occupation, and more likely to be living in overcrowded accommodation, and more likely to be living in deprived neighbourhoods.

Many common health related problems, such as poor mental health, high blood pressure, low physical activity, poor diet, obesity, coronary heart disease, stroke, respiratory diseases, cancers have a link to poor housing, planning and neighbourhood factors. Physical factors relating to individual houses where people may live are shown in table 3.1.

While each particular housing problem may have a relatively small effect on health, many problems are often concentrated in the same defective houses, often compounded by poverty and other forms of deprivation.

Housing problems affect people differently throughout their life-course, as their circumstances change. Multiple housing deprivation over a lifetime can lead to a 25% increased risk of disability or severe ill-health, independent of other factors.

There is an independent association between health and tenure. Home-ownership can be associated with a degree of security and control that is health promoting. But many cannot become homeowners or make a conscious choice to rent, and many more live on the margins of home-ownership, on the verge of or in mortgage arrears. Such insecurity is particularly damaging to mental and ultimately physical health.

Poor social renters tend to live in unhealthy neighbourhoods, with higher prevalence of physical illness and more social exclusion. Large homogenous estates of similar tenure, similar low quality dwellings, in peripheral poorly served locations with misguided spatial and transport planning, have created whole neighbourhoods not conducive to healthy living by concentrating and perpetuating health damaging socio-economic problems.

Neighbourhood characteristics and location affect health independently of the individual dwelling condition, although in reality poor housing tends to go hand in hand with neighbourhood. Differences in health between neighbourhoods have complex causes, a product of the interaction of the social determinant. In particular, overall well-being and mental health are partly related to the perception or the measured objective level of:

- the degree of social ties, participation, and networks in the community
- road safety and crime
- noise and air pollution
- facilities and services

People's health is damaged where there is a large mismatch between rental or house prices and income. This is a particular problem for many areas of Wales at present, especially for people living in poverty. Many areas where prisoners resided have these problems.

Table 3.1 Individual dwelling physical factors affecting health

Housing problem	Physical health problem	Mental health problem
Damp and mould	Respiratory problems e.g. wheeze Asthma, rhinitis, alveolitis Eczema	Depression Poor mental health in general
Cold housing (see fuel poverty later)	Worsening of coronary heart disease, increased heart attack rate Increase in strokes Increased mortality in older people Decreased resistance to respiratory infections Hypothermia Wheezing Increased injury rates in older people	Poor mental health in general
Noise	Increased blood pressure, and coronary heart disease and stroke risk	Sleep disturbance Reduced mental well-being
Overcrowding	Increased risk of infectious or respiratory disease Shorter stature	Emotional problems, developmental delay and bed-wetting, poorer educational attainment and mental adjustment in children. Social tension, irritability, impairment of social relations. Increased psychological symptoms if overcrowding /living alone
Environmental tobacco smoke	Increased respiratory symptoms in	

	exposed children Definite increased risk of coronary heart disease, stroke and lung cancer in non-smoking adults	
Indoor air pollutants from combustion for cooking and heating	Worse respiratory health, particularly in children Carbon monoxide poisoning and death if incomplete combustion/ventilation	
Radon	Pose some increased risk of lung cancer in inhabitants of affected houses, but absolute risk is small except in smokers	
Relatively poor housing in general, whatever type of tenure	Injury in the home accounting for a third of all injuries.	Reduced mental well-being Reduced attention capacities in school-aged children
Houses in multiple occupation	Increased risk of death from fire	

Homeless people can suffer the worst health of all. Rough sleepers have a very short average life expectancy. The health problems of two main homeless groups of people are summarised here:

- i) statutorily homeless individuals and households placed in temporary accommodation (e.g. B&Bs) by local authorities
- ii) single person homeless - rough sleepers and hostel users

'Structural' and 'individual' factors can lead to homelessness and its health consequences. Although specific local situations may differ, overall structural factors linked to single person homelessness in particular are:

- adverse housing and labour market trends
- rising levels of poverty in society
- social trends in family restructuring
- cuts in social security benefits

Some 'individual' risk factors for homelessness include poverty, unemployment, sexual or physical abuse, family disputes and breakdown, a background of local authority care, experience of the armed forces, drug or alcohol misuse, school exclusion, and existing poor mental or physical health. Experience of prison is an independent risk factor for being homeless. We have seen these factors already in this section and they are all inter-related.

Key events can also trigger homelessness in the context of these risk factors. For example, leaving the parental home after arguments, relationship breakdown, eviction, widowhood, discharge from the armed forces, leaving care, leaving prison, and a sharp deterioration in mental health, or an increase in alcohol or drug misuse.

In general, the first group has a higher prevalence of mental and physical health problems. In addition, people in B & B accommodation

- have difficulty maintaining hygiene - they often live, wash, eat, and sleep in one room
- tend to make high but 'inappropriate' use of accident & emergency departments, in part because of difficulty accessing primary care
- tend to have poor kitchen facilities and make use of cafes and take-aways, and their diet is generally poor
- have children likely to be of low birth weight who miss immunisations. Their children have higher than average rates of infection, especially gastroenteritis, skin disorders, and chest infections, and a higher rate of injury from accidents. Lack of space limits

their play and development, and frequent school changes disrupts education and friendships

- especially parents, suffer stress from loneliness, boredom, loss of self-esteem, and relationship problems.

The second group has a higher risk of death and disease:

- due to suicide, intentional and unintentional injury (violence and accidents), alcohol, and respiratory disease
- many physical diseases are more common, especially bronchitis, foot problems, injury, infestations, epilepsy, and tuberculosis
- alcohol and drug misuse are common
- serious mental illness is more common than the general population

Causal links between homelessness and poor health are thought to work in three main ways:

- Poor health causes homelessness – see ‘individual’ factors above
- Poor health is caused by homelessness - rough sleepers have inadequate shelter, exposing them to the weather, risk of injury, and lack of security increasing the risk of violent attack and rape, etc. Those in communal dwellings have increased exposure to infectious diseases. Poor sanitation leads to poor personal hygiene, poor diet reduces immunity, and becoming homeless is related to depression.
- Poor health is worsened by homelessness – Inadequate access to health care services is a particular problem for homeless people. People sleeping rough, or with frequent address changes, have difficulty with treatment compliance, hospital discharge arrangements, and difficulty in obtaining primary health care. Physical circumstances, alcohol and drug abuse, and prostitution worsen existing physical and psychological disorders.

Social inclusion and social cohesion

Social support operates at both the level of the individual and society. Social support for the individual, and good social relations in society are important positive determinants of health. Social support and networks may have the following features:

Table 3.2 Social networks and support

Social networks	Contacts - number and frequency Density of network
Social support	Types of support <ul style="list-style-type: none"> - Emotional - Informational - Self-appraisal - Instrumental or practical (eg financial) - Negative interaction

Social support is about relationships and is bi-directional, hence ideally mutual or reciprocal. It helps give people the emotional and practical resources they need, so they contribute to the

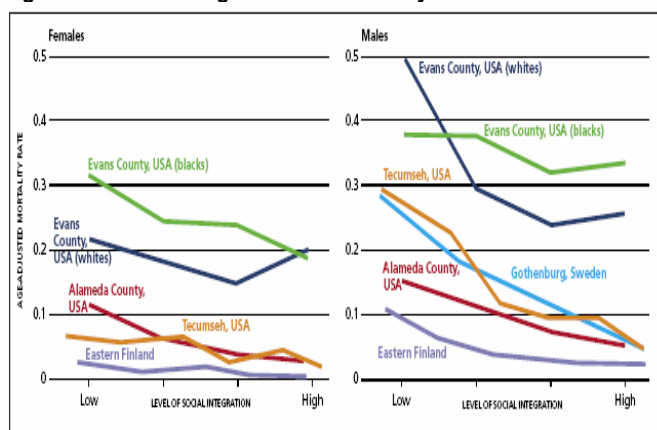
'health resources' previously described. Belonging to a social network of communication and mutual obligation makes people feel cared for, loved, esteemed and valued. This promotes health. Supportive relationships may also encourage healthier behaviour patterns. Some relationships may be health damaging, especially in the context of an unstable social environment with high competition and hostility. In addition, bad close relationships can lead to poor mental and physical health.

Some aspects of innate personality may limit the development of healthy relationships, such as hostility. Hostility is an independent risk factor for coronary heart disease. Early experience of unhappy or disruptive relationships may lead to either anxious attachment or to dissociation from relationships later in life. These patterns are thought to lead to an excessive response to stress through contributing to unhealthy behaviours such as excess eating, dangerous alcohol consumption and smoking.

Social cohesion is defined as 'the quality of social relationships and the existence of trust, mutual obligations and respect in communities or in the wider society'. Societies and communities with high levels of income inequality tend to have less social cohesion and more violent crime. This is the case in Wales and the UK compared to other rich but more equal European countries. One study of a community with high levels of social cohesion showed low rates of coronary heart disease. When social cohesion declined, heart disease rates rose, even after other factors were considered.

Individuals with social isolation and exclusion, and communities with a lack of social integration, have increased rates of premature death and lower survival rates after a heart attack (see figure 3.9).

Figure 3.9 Social integration and mortality in men and women – results of five separate studies



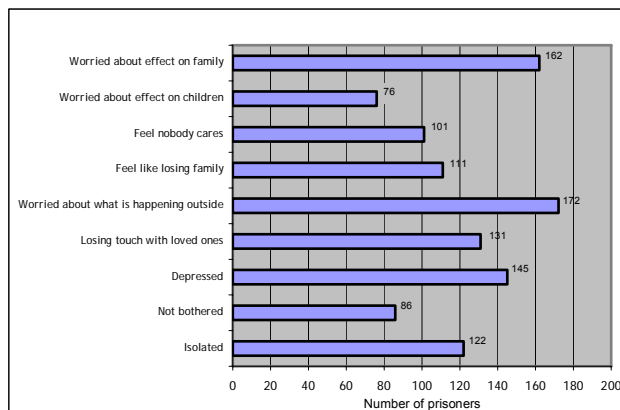
Source: WHO Solid Facts

People who get less social and emotional support from others are also more likely to experience non-fatal coronary heart disease as well as higher levels of disability from chronic diseases. Additionally, mental health is worse, and rates of depression higher. Rates of suicide are higher in socially isolated people. There appears to be agreement that emotional support reduces the effect of major life events as well as long-term stresses on psychological well-being and mental health.

The degree of emotional and practical social support available varies by socioeconomic status. Poverty contributes to social exclusion and isolation.

Again, in a survey of another south Wales prison, 13% of prisoners lived alone prior to custody. Whilst in custody, about half of prisoners received at least 1-2 visitors a week. However, a quarter of prisoners received a visitor only every 2 weeks and about a fifth received only 1 visit or less per month. This has clear implications for health, especially mental health, as shown in figure 3.10.

Figure 3.10 Effect on emotions and feelings of prisoners if they have no visitors



Source - Survey of prisoners at Parc, Bridgend:

Swansea University, 2002

Family structures and dynamics

Particular family structures or dynamics will affect the future health of children and adolescents, but invariably poverty makes such circumstances more likely. For example to the 2002 survey of prisoners in south Wales, many prisoners (31.0%) still lived with their parents or parent.

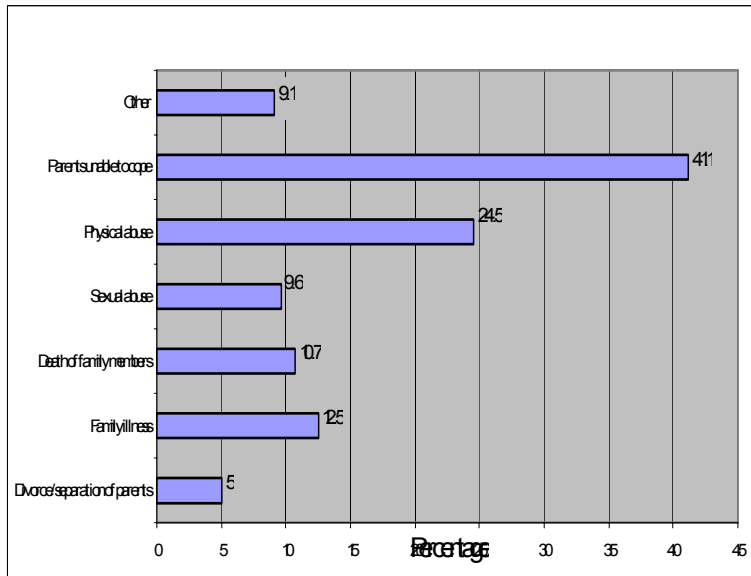
Emotional disruption, which is more common in families in poverty, also affects the chances of educational attainment. However if parental interest in education is maintained (itself a function of their educational level) this can partly alleviate the effects of other disruption such as separation or divorce.

Poor parenting and poor parental self-esteem, with a lack of close relationships leading to family conflict, can lead to reduced growth in childhood, worse health in adolescence, related to low self-esteem and poor psychological well-being. It also increases the chance of poor educational attainment in adolescence and poor self-control and aggressive behaviour (and a higher risk of school expulsion). It also increases the risk of substance abuse, as well as antisocial and criminal behaviour. In turn this tends to lead to worse health in the child's later adulthood, and repeats the cycle of increased risk of their marital breakdown, of having children early before settling with a partner, and of low self-esteem and poor coping strategies.

At the extreme of this spectrum, children who have been abused and neglected are at a higher risk still of these undesirable outcomes, and are at risk of becoming abusers of their children as adults. Overall, although the two are linked, parental behaviour appears to be more important than family structure alone.

An indication of the extent of family problems experienced by prisoners is given by the very fact that they have committed criminal offences; by the prevalence of having left school at an early age; and by the extent of adverse childhood experiences (see figure 3.11)

Figure 3.11 Childhood problems experienced by prisoners



Source: Survey of prisoners at Parc, Bridgend: Swansea University, 2002

Over 40 % stated that their parents were unable to cope. Many of the younger prisoners (31%) may still have been experiencing this phenomenon prior to custody as many were still living with their parent(s). The other most notable adverse experience is the large percentage of prisoners with a history of having experienced mainly physical but also sexual abuse. Almost a third of prisoners (32.8%) had been in care as a child, and this was for a median time of about 12 months.

The situation for Parc prisoners can be considered in the wider social context. Wales has a relatively high proportion of children living with single parents (15.5%) compared to most other countries in the Europe. The proportion living with a single parent is higher in the deprived areas where many of the inmates come from. They will therefore be at a higher risk of poverty. Another clue to family functioning relevant to health behaviour is that only 61.6% of 15 year old boys in Wales find it easy to talk to their fathers, 71% to their mothers. Again these proportions are lower than many other countries in Europe.

Educational attainment

Educational attainment and academic achievement affect health through effects on later socioeconomic position, but also more directly through raising self-esteem, resulting in higher educational attainment being independently associated with lower rates of health-related risk taking behaviour, such as smoking, drug and alcohol abuse, and unhealthy eating.

Perceived pressure at school may affect young people's feelings of strain and self-rated health, especially if they are then not rewarded with good grades or do not receive peer support. In addition, liking school is related to academic achievement, but the link works both ways in that students who like school tend to do better and vice versa. When young people do not enjoy school, they are likely to under perform, which may result in feelings of stress. Stress then can lead to subjective health complaints and low life satisfaction. If young people enjoy school they are more likely to feel good about themselves, and to report better self rated health status, and the less prone they are to smoke or drink alcohol.

In the 2002 prisoner survey almost 20% of prisoners had left education by the age of 13 years, and almost 65% had left before the minimum school leaver age of 16 years. Clearly this shows a large level of unhappiness at school and will have severely affected prisoners' educational attainment as well as the development of life skills and worsened health

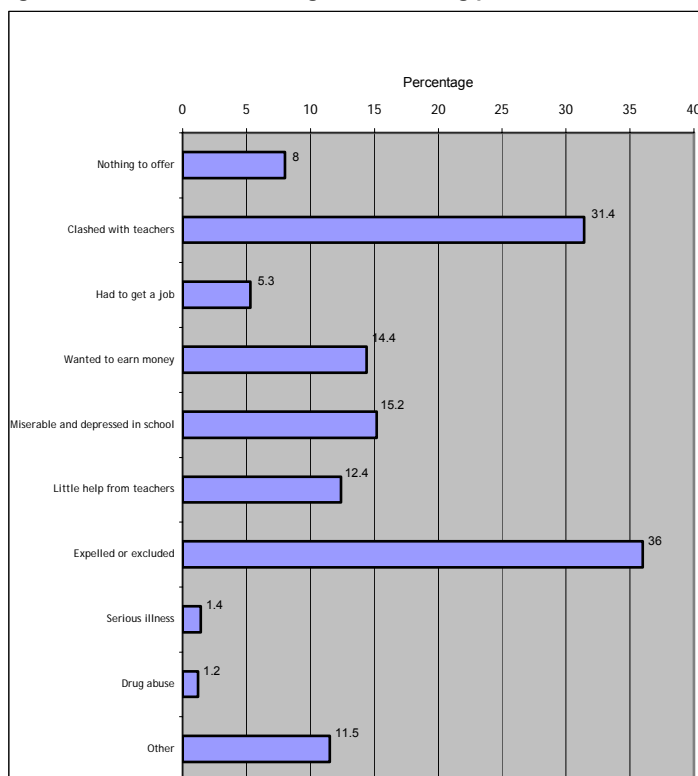
prospects. The reasons for leaving are shown below (see figure 3.12). Over a third of those who left early had been expelled or excluded, which was the main reason. Almost a third had clashed with teachers or authority figures (see relevance to help-seeking behaviour from GPs for mental health problems in section 6), and 15.2% had been depressed or miserable at school.

Of those surveyed, 34.2% had had problems with learning at school. Over 90% of these prisoners had problems with reading, spelling, writing, speaking, and listening, and almost half had problems with basic arithmetic (see Section 5 under speech, language, and communication problems)

Some clues as to why so many prisoners from south Wales left education early can be gleaned from the national picture. It appears that adolescent boys in Wales on the whole are in the middle of the European league table for enjoying school (see figure 3.13), although they are almost at the top for feeling pressurised by schoolwork (see figure 3.14)

Although the effect of peer groups, the extent of deprivation in the area, and the effects of family poverty, structure and functioning will contribute to a child or young person's experience of school, the psychosocial school environment is also a vital influence.

Figure 3.12 Reasons for leaving school among prisoners

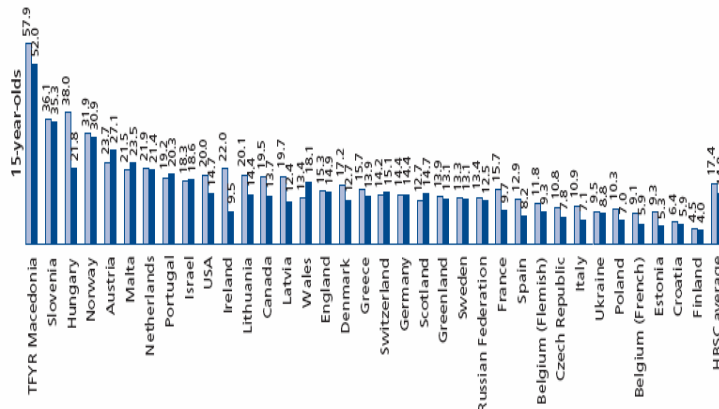


Source: Survey of prisoners at Parc,

Bridgend: Swansea University, 2002

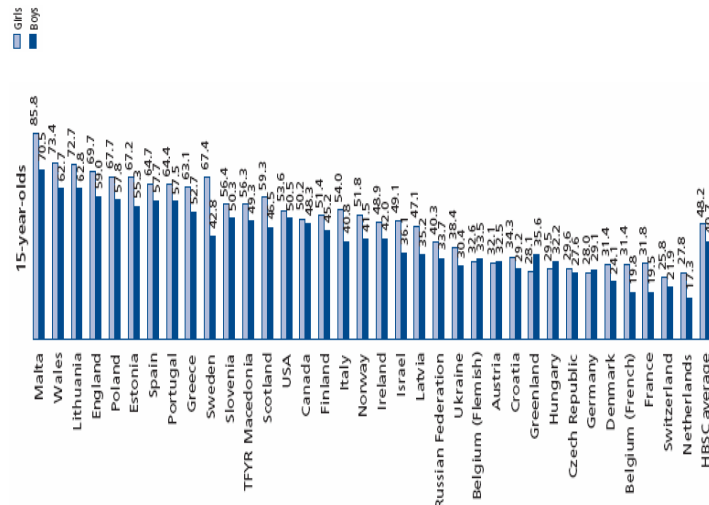
Figure 3.13 Young people aged 15 years who like school a lot, for selected countries 2001/2002 (%)





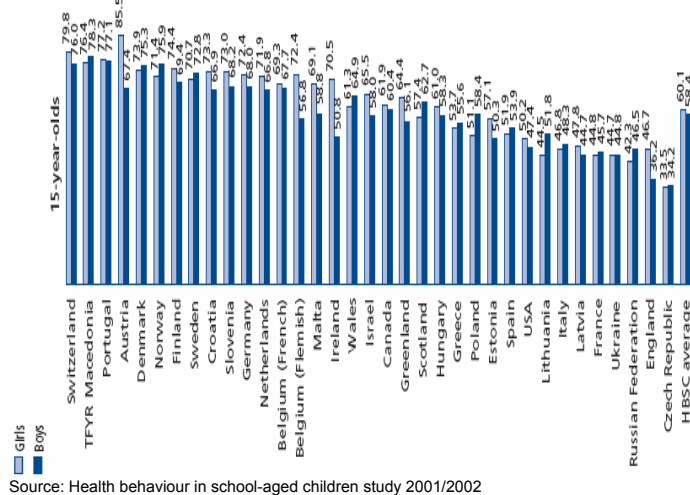
Source: Health behaviour in school-aged children study 2001/2002

Figure 3.14 Young people feeling pressured by schoolwork, for selected countries 2001/2002 (%)



Source: Health behaviour in school-aged children study 2001/2002

Figure 3.15 Young people finding peers kind and helpful, for selected countries 2001/2002 (%)



Source: Health behaviour in school-aged children study 2001/2002

Children and young people can spend 6–8 hours a day at school for many years. Their situation is therefore similar in some respects to that of adults in work environments. The psychosocial aspects of the work environment is therefore as important for children and young people as they are for adults in employment. Adolescents with bad experiences will then take their experiences in to other arenas in young adulthood, especially with figures of

authority. These factors are also important for the approach needed for education and skills teaching within the prison as many prisoners will have had a short and very negative experience of the education system, and so may need to be engaged in innovative ways in order to learn or even catch-up.

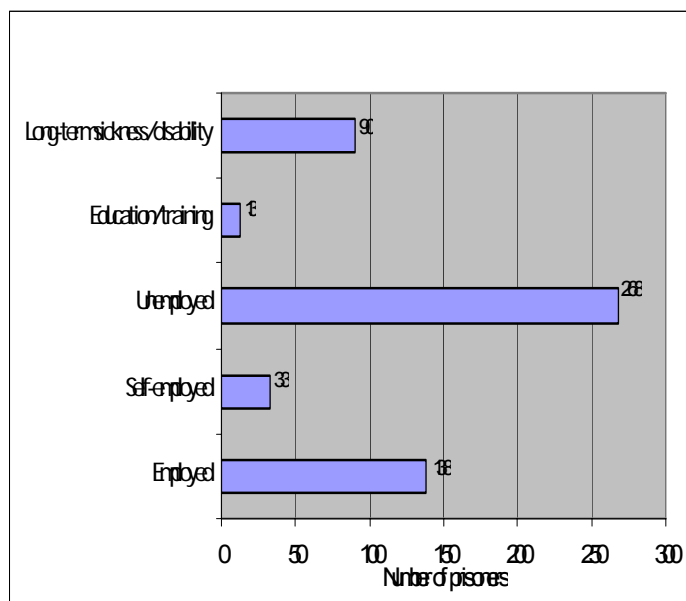
We know that peer relations are very important to health behaviour and health in adolescents. Therefore personal relationships developed in school are likely to be important to health in future adulthood. Whilst the peer environment does not appear as aggressive or competitive in Wales as in England (see figure 3.15), boys in many other countries seem to experience more supportive peer interaction. The acute problems seen in prisoners in being unhappy with school may therefore reflect a wider social problem in Wales that includes aggression, competitiveness and a lack of positive peer support, amongst other complex factors.

Employment and unemployment

Prisoners' employment status at another south Wales prison prior to custody is shown in figure 3.16. Of those of working age, almost half were unemployed, and almost half of them had been out of work for a year or more. Of those in employment, most had been in manual or skilled manual jobs. Only a very small minority were undertaking education or training. A large minority (16.6%) of those surveyed were not working owing to long-term sickness or disability.

Among prisoners surveyed, the majority (56.6%) were in employment within the prison and 16.1% were in full-time education and training. However, a significant percentage (23.0%) remained unemployed.

Figure 3.16. Employment status of prisoners in a south Wales prison



Source: Survey of prisoners at Parc, Bridgend: Swansea University, 2002

Occupations that are riskier and low paid have higher rates of job insecurity and unemployment. Studies show that unemployment is often part of a process of accumulation of disadvantage that often begins in childhood. An episode of unemployment can be part of a wider pattern of more risky and more insecure work. There is a spectrum of work insecurity, from very secure work to being unemployed and adverse health effects are not limited to those whom have no work.

We know that unemployment is more common in younger people who have previously experienced disadvantage and lower educational achievement throughout life, and that the

degree of employment success as an adult is related to material, socio-psychological, educational, and cultural opportunities and advantages during childhood.

Some of the health effects of low paid employment and unemployment are through a lack of achieving health promoting social and economic advantage in terms of income, occupational status and home ownership. The lack of finance is particularly important, but in countries with higher benefits this situation is not necessarily a consequence of unemployment. Studies show that the degree of financial hardship or debt experienced during unemployment is directly related to the severity of poorer psychological health experienced, and those that have to borrow have worse physical health as well. In Britain, levels of car and house ownership, and the quality of housing tend to be lower amongst unemployed people, all factors which have a negative effect on health.

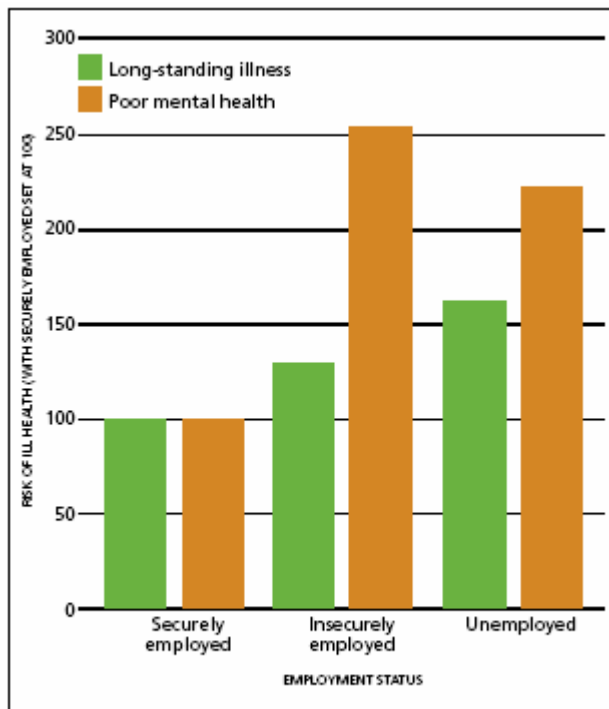
When unemployment happens, psychological and mental health deteriorates rapidly for the first year to 18 months. Loneliness and social isolation are major pathways that lead to ill-health (see later). After this time, less rapid deterioration in psychological health seems to occur, but adaptation tends to bring health-damaging lower self-esteem, alienation and cynicism. We know that for men, in general, work helps bring identity and self-esteem, status, and contributes to forming stable relationships and social networks. It can also bring daily purpose and structure. These have positive health consequences, which are lost if work is lost (or never gained), and the social stigmatization of unemployment can damage these further.

Unemployment tends to bring about relationship breakdown, which is an important male health risk. For young people in particular, not being in high quality employment limits the opportunity to develop identity, and the complex psychological skills needed to develop stable relationships. This breakdown tends to lead to higher rates of poor mental health, violent and unintentional injury from accidents, as well as increased 'self-harming'. It should be noted that changes in psychological health in unemployment bring about an increase in physical illnesses also.

Several studies have demonstrated that the risk of suicide is greatly increased in unemployed men, especially for those aged 35-44 years, but in younger men also. Parasuicide is also more common. It is thought that unemployment has this effect through causing an increase in other deleterious life events, and reducing the personal social and psychological ability to cope with them.

The effect of unemployment on health-related risk behaviour is complex and needs to be considered in the context of all the other factors, especially during adolescence, that lead to their development. Nevertheless, studies show that unemployed men tend to have higher rates of smoking at age 16 years, and on average have a low body weight for their height. As time goes on they are less likely to give up smoking, more likely to take it up if they had not previously, and were more likely to develop problem alcohol drinking. Despite initial low weight, later on during unemployment obesity tends to be more common. Episodes of unemployment can lead to alternating periods of low weight and obesity which greatly increases the risk of heart disease and stroke.

Figure 3.17 Effect of job insecurity and unemployment on health



Source – WHO Solid Facts

Unsatisfactory or insecure jobs have psychological and mental health effects (see figure 3.17), particularly anxiety and depression, increased self-reported ill-health, and increased risk for coronary heart disease. Continuing job insecurity or poor work environments are chronic stressors which increase sickness absence and health service use. These will have been the circumstances of many prisoners in manual and skilled manual employment prior to unemployment or prior to imprisonment. In addition to job insecurity, we know that psychosocial aspects of the work environment affect adults' reported health and health behaviour. Three key aspects of the work environment appear to be important:

- autonomy and control
- perceived demands
- perceived support

Areas with high unemployment also tend to have an overflow of high levels of economic inactivity, not necessarily classified as 'unemployed'. In fact, long-term unemployment and long-term sickness or disability is very common amongst prisoners.

Section 4

Socially-mediated health-related risky behaviours

Key points

Introduction

The social factors leading to health-related risk taking and other health damaging behaviour such as violence and bullying and other anti-social and criminal behaviour, alcohol misuse, smoking and other drug use, early and unsafe sex, low physical activity and poor diet, and so on, are to a large extent inter-related.

The prevalence of tobacco use, alcohol drinking and other drug use rises sharply with age, particularly between ages 11 to 15 years, but continues gradually increasing beyond that age. Importantly, risky patterns of behaviour once established, tend to persist into early and later adult life, causing present and future health problems.

Hardly any adolescents who do not smoke and do not drink alcohol go on to try other drugs, whereas up to 75% of *regular* smokers who also drink alcohol *weekly* go on to try other drugs. Adolescent smokers are three times more likely to drink alcohol and 8 times more likely to use cannabis. These behaviours can then become ingrained or develop further into adult life.

Frequent cannabis and other drug use at an early age are predictive of dropping out of school, having 'unsafe' sex, and being involved in antisocial behaviour. Substance users, even before starting to misuse alcohol, tobacco, and other drugs tend to be less self-reliant, confident, sociable, trustworthy or able to plan ahead.

Adverse socioeconomic factors predispose to poor life and personal skills, and poor psychological well-being and mental health. Cultural, peer and role model influences also combine with these factors to affect the development and maintenance of health-related risk behaviours.

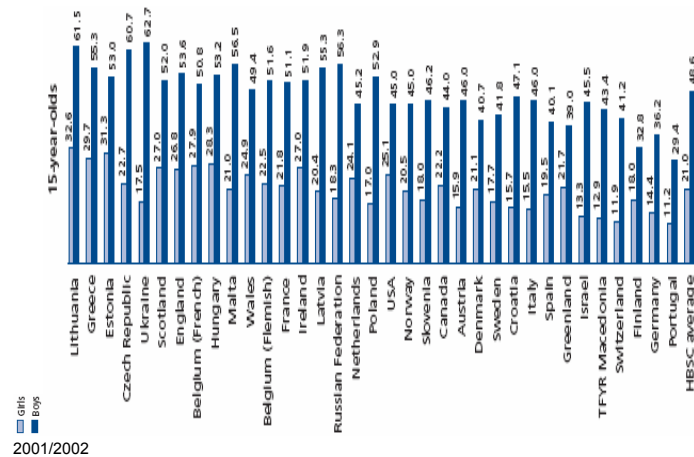
Violence

Violent behaviour is relatively common in Wales. It is much more common in adolescent boys and young men. It is one of the main reasons for offending and relates to the reason for custody for many prisoners.

One example is seen in the relatively high proportion of adolescent boys in Wales involved in fighting, compared to boys in other countries (see figure 4.1). This can also lead to convictions for offences related to violence and this kind of behaviour continues into young adulthood – the age of most prisoners at HMP Cardiff. The data on 15 year olds in Wales in figure 4.1 was collected when 21 year olds at HMP Cardiff would have been aged around 15 years, thus it probably reflects the social environment in which they grew up in the recent past.

In Wales, many convictions for violent offences are related to alcohol consumption. Consequently violent behaviour often reflects a multitude of health-damaging traits in the perpetrator as well as obvious injury and psychological effects to the victims.

Figure 4.1 Young people aged 15 years involved in physical fighting at least once in previous 12 months, for selected countries 2001/2002 (%)



Source: Health behaviour in school-aged children study

A high proportion of those convicted at HMP Cardiff are there for violent offences, with at least 35% inside convicted of assault, murder or manslaughter or sexual offences including rape (HMP Cardiff, Summary of prisoner demographics, 2006).

Bullying and abuse

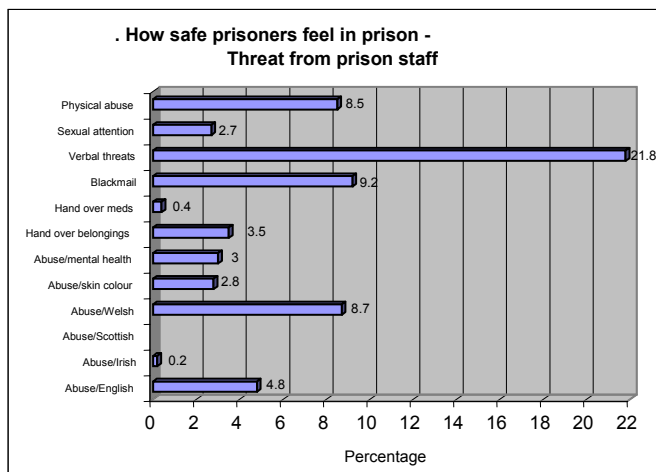
Verbal, physical, and sexual abuse, and racism and other abuse are contributory factors to poor mental health and offending behaviour in those bullied, and is a health-related behavioural problem in the perpetrators.

We know that bullying is very common amongst adolescent boys in Wales. For Welsh 15 year old boys, 17.2% were bullied at least once in the previous couple of months, 6.1% 2 or 3 times or more, and over a quarter (26.2%) admitted to bullying others at least once in previous couple of months. Again, this kind of behaviour will tend to persist into young adulthood and later as will the psychological and behavioural effects of being a victim of bullying, unless the learned behaviour is challenged and dealt with effectively in early years.

It is likely that many prisoners were also the victims, not only the perpetrators of verbal, physical and sexual abuse when younger, as was highlighted in the previous section.

All forms of bullying can and do occur amongst prisoners while in prison. For example, in a recent survey of prisoners in another south Wales prison, with a similar over 21 years socioeconomic population profile and catchment area to HMP Cardiff, about 4.0% of prisoners stated they did not feel safe sharing a cell, and 26.1% had perceived verbal threats and taunting from other prisoners as an issue for them. 20.9% perceived physical abuse by other prisoners as a problem. Just over 6% considered blackmail by other prisoners as a threat to them. Most alarmingly, prisoners in this survey stated they perceived abuse by prison officers as a threat (see figure 4.2), particularly verbal threats, but blackmail and physical abuse also appeared to be perceived as problems. In the same survey, a large minority also claim to have received abuse regarding Welshness/Englishness from officers. Between prisoners the latter form of abuse was also not uncommon.

Figure 4.2 Prisoner perceptions of safety



Source: Survey of prisoners at Parc, Bridgend: Swansea University, 2002

In the same survey, unwanted sexual attention was a small but serious problem, with 6.2% of prisoners reporting this as a perceived threat. 3.2% of prisoners claimed the perceived receipt of abuse from another prisoner owing to their skin colour was a threat to them, and 2.8% from a prison officer.

Alcohol

Heavy, risky, hazardous and harmful drinking of alcohol and also alcohol dependence are all categories of dangerous alcohol consumption – all very common and increasing in Wales. They are defined as those at risk from consumption exceeding daily, weekly or per-occasion thresholds - which includes binge drinkers - or those who experience physical, social or psychological harm from their above-threshold alcohol use without meeting criteria for dependence.

The earlier alcohol drinking begins, the more likely it will become an important part of lifestyle, with negative health consequences. It will tend to continue into adulthood, and only slightly later on, just after adolescence in young adulthood, it is associated with a higher risk of other drug use, depression, and antisocial behaviour. Other health problems of problem alcohol consumption include hypertension, haemorrhagic stroke, obesity, and liver cirrhosis, as well as an increased risk of road traffic and other injury, alcohol dependence and other behavioural and social problems. Amongst adults, deaths from and hospital admissions for alcoholic liver disease have been rising in the UK – in almost all other industrialised countries in the world the trend is downwards.

Problem alcohol drinking and alcohol dependence is a very common and a very major health problem for the prison population as well as the rest of the Welsh population – around 50% of referrals in the Welsh National Database for Substance Misuse for 2005-6 directly relate to alcohol. An analysis by the OASys Data and Evaluation Team carried out on over 120,000 Offender Assessment System (OASys) assessments in 41 probation areas between April 2004 and March 2005 found that over 37% of offenders had a current problem with alcohol use, and another 37% with binge drinking. Around 32% also had violent behaviour linked to their alcohol use (National Probation Service, 2006). In a recent survey of another south Wales prison 44.5% of prisoners claimed they drank alcohol on 4 or more days per week and consumed 6 or more alcoholic drinks on a typical day; 27.7% of prisoners believed they had a problem with alcohol on entry to prison; 20.9% prisoners stated they were suffering from alcohol withdrawal on entry to prison; 8.7% prisoners admitted to overdosing with alcohol to harm themselves or attempt suicide. Many crimes are committed under the influence of alcohol – the 2005-6 British Crime Survey shows, for example, that alcohol is involved in 44% of all violent crime.

In the UK, 21% of 15-16 year old boys have been drunk 10 times or more in the preceding year. 26% have engaged in bingeing on alcohol at least 3 times in the previous month. Only 2 or 3 other industrialised countries in the world are worse. Wales is worse still, compared to the average for the UK. A higher proportion of 15 year boys here drink alcohol regularly and hazardously (58% drink weekly, almost 60% have been drunk two or more times) than in almost all other 'western' industrialised countries in the world. Young people who get drunk have significantly worse health outcomes. This partly explains the worsening and accepted drinking culture in Wales in which younger prisoners are growing up as adolescents.

Smoking tobacco

Smoking is the greatest individual cause of preventable death and ill-health in Wales. It causes long-term illness and disability. Passive smoking is a significant health risk. Most smokers start during adolescence.

Excess death rates in smokers compared to non-smokers occur for cancers of the mouth, oesophagus, pharynx, larynx, lung, pancreas, and bladder; from chronic obstructive pulmonary disease and other respiratory diseases; from coronary heart disease, stroke and other vascular diseases; and peptic ulcers. Smoking also causes significant long-term illness and disability. Passive smoking is a significant health risk. It causes lung cancer and increases the risk of heart disease in non-smokers.

High smoking prevalence occurs in the most disadvantaged groups - smoking prevalence of 70% has been reported in lone parents with low incomes, no educational qualifications, and living in council housing. The following factors, common amongst prisoners, are associated with an increased risk of smoking and decreased likelihood of quitting:

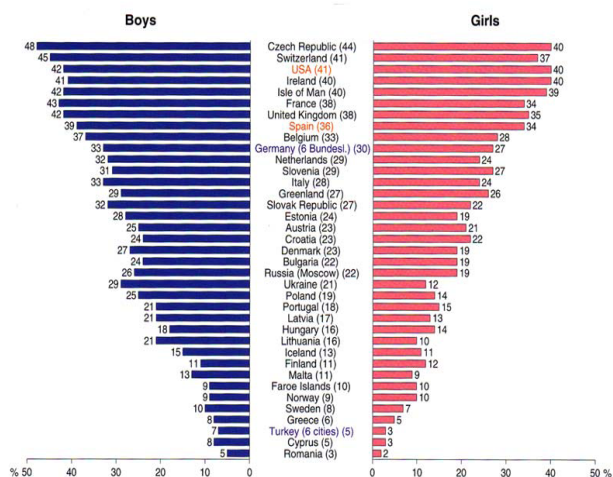
- No educational qualifications/early school-leaving age
- Living in rented accommodation
- Household traditionally involved in manual labour
- Current unemployment
- Living on means-tested benefits
- Being single (especially with children)
- Living with partner/family members/community who smoke
- Early smoking uptake
- Feeling a lack of control over life and future, and feeling isolated

Homeless people are particularly vulnerable to smoking. It has been estimated that 90% of rough sleepers smoke, 85% of night shelter residents, 68% of hostel residents, and 49% of those in private leased accommodation. It is also estimated that around 80% of the prison population are smokers, much higher than the 25% of the general population (Singleton 1999; MacAskill & Haton, 2006).

Other substance misuse

Illicit drugs are used more by adolescents aged 15-16 years in the UK than in many other European countries, according to the ESPAD study (figure 4.3).

Figure 4.3 Lifetime experience of any illicit drug. Percentages among boys and girls aged 15-16 years



Source: ESPAD Report 2003

The misuse of drugs other than alcohol, tobacco and cannabis is less common among adolescents and young people, but there are distinctive social patterns and trends, and yet again Wales compares unfavourably to many other countries. In the community, the use of all drugs (except for crack, heroin, methadone, steroids and glue) is higher among young people aged 16-24 years compared to older adults aged 35-59 years. Drug use among young people aged 20-24 years tends to be higher than for adolescents.

Young people aged 16-24 years are more likely than older adults to have used drugs in the preceding year and month. In the British Crime Survey (BCS) 2005-6, 25% had used at least one illicit drug in the previous year, and 15% in the previous month.

At least 10.3% of 20-24 year olds had tried Class A drugs in the preceding year, compared to 4.8% in the previous month. The prevalence of Class A use is slightly less in the 16-19 year group with 6.3% having tried them in the previous year and 3.1% in the previous month.

According to the BCS, there appears to have been a decrease in amphetamine, cannabis and steroid misuse from 1996 to 2005-6, and an increase in cocaine use. There was a slight increase in the use of LSD in 2005-6 amongst 16-24 year-olds.

Generally, there has been an apparent plateau for all drug types, but this is after a surge in use during the 1990s. There is some debate emerging about how 'recreational' drug use has become socially accommodated by young people (Parker 2005; Reuter & Stevens 2007), and poly-substance use – mixing psychoactive substances, including heavy alcohol use – is the current trend amongst the 16-24 age group. Cocaine use is particularly high amongst 20-24 year olds (BCS 2006), but the use of cocaine in general, amongst 16-59 year olds, has increased markedly since 1998. Also, the prices of all drugs are significantly lower.

Table 4.1 Prevalence of illicit drug use (including class A) in Britain for 16-24 year olds 2002-3

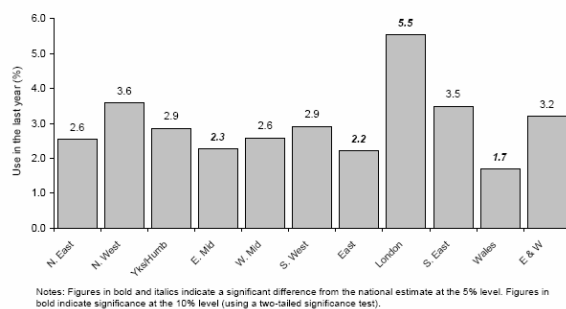
Percentage used	16–19	20–24	16–24
Amphetamines			
Last year	2.9	4.6	3.7
Last month	1.8	1.5	1.7
Cannabis			
Last year	24.6	27.2	25.8
Last month	15.3	17.1	16.2
Cocaine			
Last year	3.0	6.4	4.7
Last month	1.3	2.5	1.9
Crack			
Last year	0.4	0.5	0.5
Last month	0.1	0.3	0.2
Ecstasy			
Last year	4.0	6.9	5.4
Last month	1.9	3.3	2.6
Heroin			
Last year	0.1	0.3	0.2
Last month	–	0.3	0.1
LSD			
Last year	0.4	1.4	0.8
Last month	0.2	0.4	0.3
Magic mushrooms			
Last year	1.3	2.2	1.7
Last month	0.5	0.4	0.5
Methadone			
Last year	0.1	0.2	0.1
Last month	–	0.2	0.1
Tranquillisers			
Last year	0.3	1.3	0.8
Last month	0.1	0.7	0.4
Amyl nitrite			
Last year	4.2	4.3	4.3
Last month	1.4	2.0	1.7
Anabolic steroids			
Last year	0.0	0.2	0.1
Last month	–	0.1	0.0
Glues			
Last year	0.9	0.1	0.5
Last month	0.2	0.0	0.1
Any drug			
Last year	26.8	29.5	28.1
Last month	16.7	18.6	17.6
Class A			
Last year	6.1	10.4	8.2
Last month	3.0	4.8	3.8

Notes: '0.0' estimate is less than 0.5 but not zero, '–' = zero.
*Core and boost data. Source: 2002/03 BCS (weighted data).

Source BCS 2002/3

Overall, class A drug use tends to be lower in Wales compared to regions of England (see figure 4.4), although ecstasy use is slightly higher in general. However, there will be marked variations within Wales from area to area. A recent survey found, for example, that the cheapest ecstasy in the UK was to be found in Cardiff (Druglink 2006).

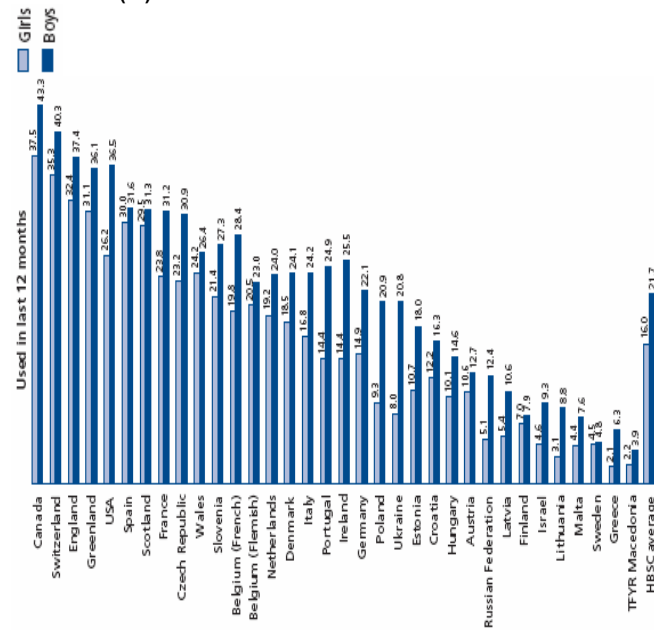
Figure 4.4 Prevalence of Class A drug use in Wales and regions of England 2002-3



Source BCS 2002/3

Thirty six percent of 15 year-old boys in Wales have tried cannabis, and about 26% had used it in the preceding year – an indicator of more frequent use (see figure 4.5). Cannabis use in adolescence is associated with other risk-taking behaviour such as alcohol misuse and smoking tobacco, although its use tends to start slightly later on average, usually between 16 and 17. Therefore the WHO's study of 15 year olds may underestimate use among older adolescents and young adults, such as those at HMP Cardiff. Around 2.4 % of 15 year olds in Wales are heavy users (more than 40 times in preceding year) of cannabis, although this is higher in boys. However, figures from the recent BCS 2005-6 survey suggest that there has been a moderate fall in the use of cannabis overall since 1998 (Roe & Man, 2006) About 13% of 16-24 year olds had used cannabis in the previous month compared to 18% in 1998.

Figure 4.5 Young people aged 15 years who have used cannabis in the last 12 months, selected countries 2001-2002 (%)



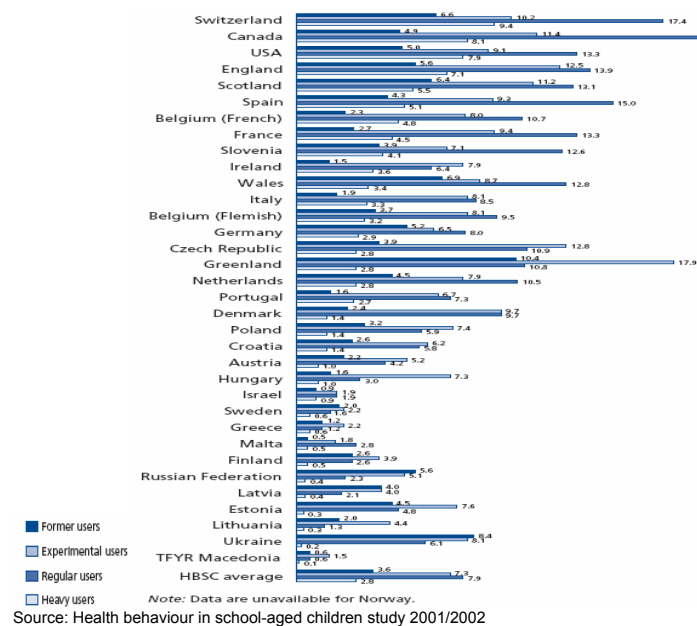
Source: Health behaviour in school-aged children study 2001/2002

Drug use in prison

Drug use is even higher in the prison population. The prevalence of illegal drug use and related drug problems in prison is common to many countries (WHO 2005). The OASys (Offender Assessment System) data for 2005-6 shows that drugs and alcohol make a significant contribution to offending behaviour – the percentage of prisoners in Wales deemed to have a significant criminogenic need because of substance misuse is 66%, as compared to overall (England and Wales) figures of 53%. Other findings confirm this problem in Wales and England generally, for example Bullock (2003) found that 89% of prisoners had used cannabis, 44% had used heroin and 40% had used either crack, cocaine or ecstasy prior to custody. Poly-drug use was also common: most Class A use was accompanied by cannabis, and a large proportion of those taking heroin combined it with crack, methadone or cocaine. In all, almost three quarters of those surveyed were using an illegal drug on a daily basis before entering prison. In a survey of another south Wales prison 52% of prisoners were taking cannabis prior to custody, 31% cocaine, 21% heroin, 13% benzodiazepines, and 12% crack. The main stated reasons for taking drugs were:

- needing to relax / calm down
- block out past trauma
- relationship problems
- block out bad thoughts
- cope with life

Figure 4.6 Young people (boys and girls) aged 15 years in four groups of cannabis user, selected countries 2001/2002 (%)



In the south Wales prison survey, drug use was contributing to their mental health problems according to 48.9% of prisoners. Almost 20% had deliberately overdosed on a drug at some stage. HMP Cardiff is no exception: in a 2005 survey, 66% of prisoners classified themselves as regular users of drugs, of which 40% classified themselves as addicted and 89% of these felt that substance misuse had played a part in their offending.

Though there is some reduction in the use of drugs whilst in prison, figures for England and Wales from the mandatory testing scheme suggest that it is still widespread (Singleton 2005), with prisoners mainly abusing cannabis and opiates - these figures correlate with self-reporting questionnaires. Around 25% had tested positive for substance misuse at some time, the majority for cannabis. This is unsurprising given that prison is place where there is a concentration of those who both promote the use of illegal drugs and consume them (WHO 2005). Drug seizures in HMP Cardiff in 2005 would seem to suggest that the commonest types of drug used by prisoners are cannabis and opiates. An earlier self-reporting questionnaire in 2003 also confirms this, with 47% admitting that they had used at least one drug whilst in prison.

Other studies of prisoners across England and Wales also suggest that some prisoners use heroin for the first time in prison (Bullock 2003) and that a shift in the drug used whilst in prison can occur, given that cannabis can be detected in urine for several weeks after use, where heroin is only a few days (Farrell et al 2000). Figures from the mandatory testing scheme (Singleton 2005) might therefore accurately show the prevalence of cannabis because of the long half-life, whereas heroin figures would show incidence only (Shewan 2006) – actual use being more widespread. In Scottish prisons, mandatory drug testing is now carried out solely for research purposes.

A survey in 2003 at HMP Cardiff reported that 18.5% of prisoners who were non-users before entering prison were now users. It also found that amongst prisoners, voluntary drug testing was seen as helpful in helping prisoners to stop.

England and Wales figures for drug use after leaving prison (Bullock 2003) would suggest that for many, prison does not have a significant impact on their use of drugs.

Drug classification and harm

The official classification of drugs according to harm is shown in table 4.2.

Injecting drug users are also at risk from infection from blood-borne viruses such as hepatitis C and B and HIV, as well as from serious bacterial infection (injecting drug use and its specific risk are discussed in more detail in section 5).

As stated above, in almost all studies, cannabis is the most commonly used drug after alcohol and tobacco among young people and prisoners in Wales. We know that adverse effects from this one drug can be: worsening of school, social, and interpersonal difficulties; increased risk taking; worsening antisocial and criminal behaviour; cognitive impairment, including memory problems; increased risk of depression; increased risk of psychosis; dependence; and effects on physical health.

Table 4.2 The classification of drugs in the UK

Class A drugs—Opiates such as diamorphine (heroin), dipipanone, pethidine, morphine; powerful stimulants such as cocaine and its derivative "crack"; hallucinogens such as lysergide (LSD) and mescaline; amphetamines prepared for injecting; methylated amphetamines such as methylenedioxymethamphetamine (MDMA, ecstasy); methadone

Class B drugs—Amphetamine (sniffed or smoked); dihydrocodeine (DF118); methylphenobarbitone

Class C drugs—Benzodiazepines such as diazepam, temazepam, chlordiazepoxide, nitrazepam; cannabis resin

Table 4.3 Desired and adverse effects of class A drugs and their administration route

Drug	Desired effects	Adverse effects
Amphetamines (sniffed or injected)	Increased self confidence and capacity for concentration; heightened alertness	Jaw clenching; teeth grinding; difficulty concentrating; dehydration; cardiac arrhythmias; sudden death
Ecstasy (oral)	Positive mood; feelings of intimacy; euphoria; increased energy	As for amphetamines
Cocaine (snorted, smoked, injected intravenously)	Positive mood; euphoria; increased energy	Muscle twitching; dizziness; confusion; anxiety and paranoia; acute myocardial infarction; cardiomyopathy; cardiac arrhythmias; cocaine psychosis; violent or aggressive behaviour; cocaine dependence syndrome
Opiates (such as heroin; burned, snorted, injected intravenously)	Euphoria; wellbeing; sedative effects	Venous collapse; abscesses; heart and other major organ damage; opiate dependence syndrome; respiratory depression; death

In general, it is claimed that Class A drugs are the most harmful; class B are harmful but less harmful than class A; class C are potentially harmful when misused. Any class B drug prepared for injection becomes class A. However, there is an ongoing debate about the validity of this type of regulatory framework in law, with many calling for a new framework based on the evidence of the harm caused by all substances (RSA 2007), and a concentration of resources focussed on harm reduction (RSA 2007, Reuter & Stevens, 2007), rather than the unproven effectiveness of enforcement efforts based on the current classification. According to alternative classifications, for example, alcohol is included, and is very harmful in comparison to many other drugs.

However, the use of other drugs - Class A's and poly-drug use in general- is also widespread amongst prisoners before they enter prison. For some, this continues in prison; poly-drug users are especially willing to take whatever drugs are available (Swann 1998). On release, the differences in use reported would seem to depend on the drug (Bullock 2003), but levels do not seem to go down significantly.

Sexual health

An important aspect of adolescent development is that of personal identity, part of which is sexual identity. This development is associated with puberty, and psychological and interpersonal relationship development. We saw in the last section the large prevalence of relationship problems amongst prisoners. Spontaneity, social immaturity, and risk taking are behaviours that can be predominant during adolescence and in young people, and they can affect sexual health. Patterns of unhealthy behaviour developed at an earlier age can endure into later life. The consequences of unhealthy relationships were discussed in the last section. The development of risky 'unsafe' sexual behaviour can potentially lead to sexually transmitted infections and unintended teenage parenthood.

Less is known about young fathers (defined as those who became fathers before the age of 22 years) than young mothers. Evidence suggests that young men are at a higher risk of becoming teenage parents or young fathers if they are:

- Young people from lower socioeconomic groups
- Young people from families who have had financial problems
- Young people in or leaving care
- Homeless young people
- School excluded, truants and young people under-performing at school
- Children of teenage mothers
- Young people involved in crime

Although there is less data than for teenage mothers, it appears that health, economic and employment outcomes for young fathers post-parenthood seem to be as poor as those of young mothers, with further consequences for their children. A considerable proportion of the young male prison population are young fathers.

Drunkenness and illicit drug taking and other risk taking behaviour are more common in young people who also tend to have risky or 'unsafe sex'. Mental health problems are also risk factors for 'unsafe' sex.

Aspects of sexual behaviour are the key risk factors for sexually transmitted infections (STIs). Young people are at an increased and increasing risk because in general they have higher numbers of sexual partners, greater numbers of concurrent partners, and change partners more frequently than older age groups.

A recent survey of 1009 adult male prisoners, median age 29 years, in 13 prisons across Wales and England showed that the lifetime number of female partners of male prisoners in Wales and England, of all age groups is considerably higher than the general population. Almost 30% of male prisoners under 25 years had 5 or more partners in the year before imprisonment, compared to only 1.5% of the general population. Sex mainly with prostitutes and also casual partners appears to explain a large proportion.

Table 4.4 Lifetime numbers of partners for prison and British National Lifestyle Survey (BNLS) samples, overall and by age group

No. of prisoners	Total		< 25 years		25-34 years		35-44 years		45-59 years	
	BNLS	Prison	BNLS	Prison	BNLS	Prison	BNLS	Prison	BNLS	Prison
0	6.6%	0.7%	20.4%	0%	3.1%	0.7%	1.9%	1.0%	1.5%	0%
1	20.6%	2.9%	16.3%	2%	15%	2.1%	20.5%	2.6%	30.5%	7.5%
2	10.6%	2.4%	9.8%	0.4%	9.2%	2.7%	10.7%	1.6%	12.6%	6.3%
3-4	18.4%	6.0%	19.4%	8.7%	18.2%	4.8%	17.1%	3.6%	18.9%	8.8%
5-9	19.4%	14.2%	17.9%	17.9%	23.1%	13%	20.9%	14%	15.8%	10.1%
10+	24.4%	73.8%	16.2%	71.0%	31.4%	76.7%	28.9%	77.2%	20.7%	67.3%
99th centile	75	350	45	150	100	250	75	450	100	500
Median	4	20	3	15.0	5	20	5	24	3	19.5
Mean	9.9	40.5	5.3	24.7	10.3	39.1	10.2	55.7	13.6	54.3
Variance	6.75	5740.0	98.1	884.9	720.5	4597.3	2383.5	7591.6	22093	13004.4
Base	8021	975	1936	248	2098	438	1966	193	2021	80
Missing	363	34	48	6	68	13	85	6	161	8

Some sexual practices other than vaginal intercourse may be a greater risk factors for STIs. The National Survey of Sexual Attitudes and Lifestyles in Britain found that 7.4% of men aged 16-17 years had experienced anal sex. Additionally in the survey, 4.3% of men aged 16-24

years reported some form of same sex practices, and 1.3% had had a same sex partner in the preceding two years.

Male prisoners were much more likely than the general population to have had anal sex with female partners, and only a small proportion used a condom for vaginal or anal sex. Male prisoners who had used drugs of any kind were significantly more likely to have had multiple female sexual partners compared to those not using drugs (although rates in both were high). They were more likely to have had sex with a woman who injected drugs, and for many drug users they were less likely to use condoms. Over 2% of male prisoners have had sex with a man in prison. About a quarter of them said they had previously been coerced into having sex.

Physical activity

Regular physical activity benefits the health of adults. However, the relationship is complex, and the type and quantity of physical activity are important.

Regular physical activity reduces the risk of cardiovascular diseases, cancer of the colon, non-insulin dependent diabetes mellitus and osteoporosis. It benefits people with arthritis, those who are overweight or obese, and those suffering from mental health problems such as anxiety and depression. Increasing physical activity can increase fitness. This can improve the quality of sleep, which in turn can improve overall health and the quality of life.

There is less research into the immediate or short-term health benefits of physical activity in young people. Some studies nevertheless identify moderate positive health effects such as aerobic fitness, blood pressure, blood lipids, skeletal health and psychological well-being. Encouragement to successfully participate in a sport or simpler activity can help self-esteem and other personal skills.

Most importantly the benefits are projected into the future because it is known that physically active children and adolescents are more likely to be active as adults.

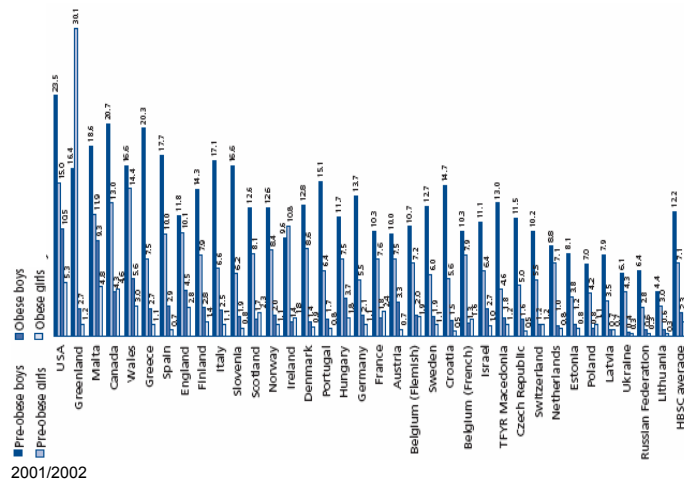
There are some drawbacks in that the risk of musculoskeletal injury increases as activity levels increase, nevertheless, long-term benefits probably outweigh risks, and injuries from physical activity can be reduced effectively.

Being overweight and obese is an increasing health problem among adolescents and adults across many countries, but particularly in Wales. It is a problem contributed to by eating habits (see below) such as eating more energy dense processed foods, an increase in sedentary behaviour such as long periods of TV watching, and decreasing levels of physical activity (the latter two tend to be inversely related). Figure 4.7 shows that 16.6% of 15 year old boys in Wales were overweight and 5.6% were obese – the highest proportion of obesity in 15 year old males in the European region, except for Malta. Only Greece, Spain, Italy and Malta have a higher proportion of overweight boys.

Current guidelines recommend the following levels of activity for young people:

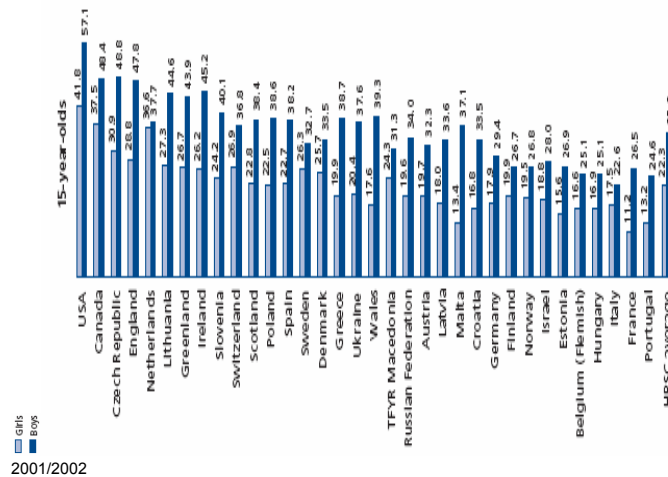
- all young people should participate in physical activity of at least a moderate intensity for one hour each day;
- for those currently undertaking little activity, the guidelines recommend a daily target of 30 minutes, initially; and
- activities specifically aimed at improving muscular strength, flexibility and bone health should be undertaken two or more days each week.

Figure 4.7 Young people aged 15 years who are overweight or obese according to BMI, selected countries 2001/2002 (%)



Source: Health behaviour in school-aged children study

Figure 4.8 Young people aged 15 years that meet the MVPA guidelines on physical activity, selected countries 2001/2002 (%)

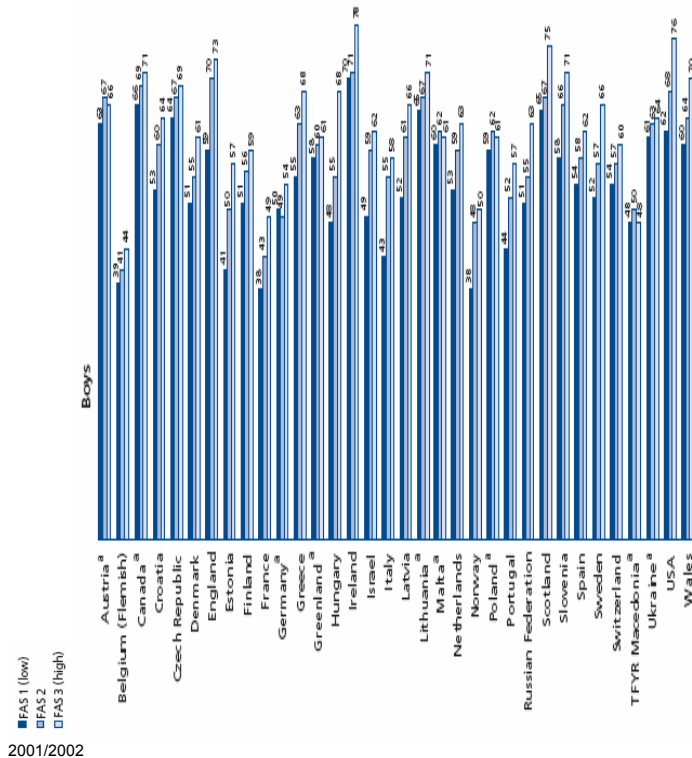


Source: Health behaviour in school-aged children study

In the HBSC study, young people were asked to add all the time spent doing physical activity each day. The MVPA measure averages the score across (a) the last week and (b) a usual week (a+b/2). An average score of five or more meets the primary guideline of at least 60 minutes of MVPA on five or more days. For the survey, physical activity was defined as any activity that increases the heart rate and results in getting out of breath some of the time.

In Wales, a minority of 39% of 15 year-old boys meet the guidelines (see figure 4.9), although this is slightly higher than several countries. Adolescents from deprived backgrounds participate in considerably less physical activity than their affluent peers, and this will have been the experience of most younger men at HMP Cardiff.

Figure 4.9 Young people who are physically active for at least 60 minutes 4-7 days a week by affluence (FAS 1 = deprived, FAS 3 = affluent), selected countries 2001/2002 (%)



Source: Health behaviour in school-aged children study

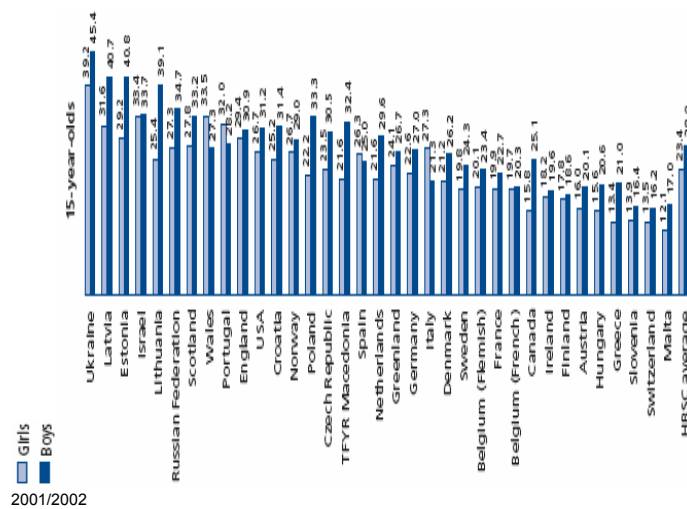
The main factors that appear to determine the level of physical activity are:

- demographic factors – boys undertake more activity than girls, and in both, but less so in girls, physical activity decreases progressively with increasing age in adolescence
- psychological factors - such as perceived competence and enjoyment
- social factors - such as encouragement from parents, siblings and peers
- physical environment - such as the availability of play, recreational and sport facilities and programmes, and a road environment and urban planning that prioritises walking, cycling and public transport over the private motor vehicle.

During the past 15 years in the UK the average annual distance cycled by adolescents has decreased by 31% and walking has decreased by 24%. Meanwhile car travel has increased by 35%.

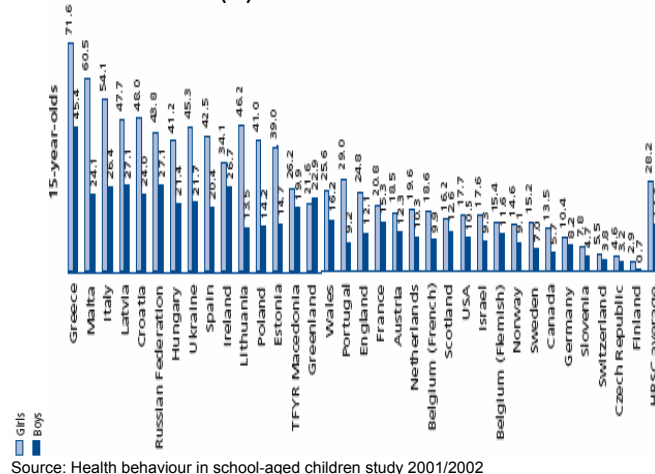
In addition, the balance between sedentary behaviours and physical activity may contribute to the relationship - as increased time spent doing sedentary behaviours leaves less time for physical activity, and so alters the balance between how much energy is consumed (through eating and drinking) and expended (through metabolism and physical activity). In Wales, the main culprit appears to be television and video/DVD watching, rather than time on the computer or doing homework. Here, 47.3 % 15 year-old boys watch ≥ 4 hours of television per day on weekends, on average, and 27.4% on weekdays (see figures 4.18 and 4.19). This finding is worrying given that associations have been found between the amount of television viewing and both obesity, and with the consumption of energy-dense foods.

Figure 4.10 Young people aged 15 years who watch ≥ 4 hours of television per day on weekdays, selected countries 2001/2002 (%)



Source: Health behaviour in school-aged children study

Figure 4.11 Young people aged 15 years who spend ≥ 3 hours per day on homework on weekdays, selected countries 2001/2002 (%)



Source: Health behaviour in school-aged children study 2001/2002

Spending many sedentary hours each day, and especially on weekends, eating 'junk food' is a serious health problem in prison, whether or not these inactive hours are spent inside or outside cells.

Food and nutrition

Eating habits are determined by many factors. The eating habits developed in childhood and adolescence tend to continue into adulthood. Clearly, eating habits will determine the nutritional status of the individual, which has a large influence on present and future health. We have already discussed how the over consumption of high calorie or energy-rich processed food can contribute to being overweight and to obesity.

Nutrition is also important to health in other ways. For example, as well as being high in sugar, such processed food is invariably very high in salt which can lead to high blood pressure, and high in saturated fats that also contribute to cardiovascular disease risk. The 'foods' are often low in dietary fibre, and low in antioxidants, vitamins and minerals and other micronutrients. The bad health effects of regular over consumption of processed food is often worsened, as it usually goes hand in hand with an over reliance on cheaper energy rich carbohydrate fillers in snacks and meals such as too much potatoes, pastry, processed white bread, rice or corn products, rather than a balanced portion of carbohydrate as a part of a varied meal. Again such a poor diet is further compounded by an association with the low consumption or virtual absence of regular daily healthy *fresh* fruit and vegetables.

A healthier diet would include moderate amounts of pulses, nuts, seeds and unprocessed cereals. Regular soya products are proving to be beneficial for cardiovascular health but at present tend to be part of rarer specialised diets than the norm. The regular consumption of

healthy oily fish or modest amounts of good quality poultry is not the norm, and meat eaters in Wales on the whole tend to eat regularly unhealthy processed meat products, sometimes with less healthy regular large portions of red meat.

Healthy eating habits early in life are more likely to be maintained into adulthood and lead to a reduced risk of chronic diseases, such as cardiovascular diseases (coronary heart disease and stroke), certain common cancers (e.g. bowel cancer), non-insulin-dependent diabetes mellitus and osteoporosis. A balanced healthy diet during childhood and adolescence is also likely to reduce the risk of immediate health problems, such as dental caries, constitutional growth delay, or being overweight and obesity.

Daily patterns of eating as well as the food content are important. Missing breakfast can lead to midmorning fatigue and interferes with cognition and learning. Such adverse effects are more pronounced in young people already with a generally poor diet. Young people who miss breakfast tend to consume snacks with a high fat and low fibre content during the remainder of the day. Eating breakfast, particularly if the meal includes fortified breakfast cereals, has been associated with improved overall nutritional status although they should not be full of salt and sugar. Young people who consume at least two meals a day tend to have a diet with a better nutrient content. We know that 58% of 15 year-old boys in Wales miss breakfast regularly, a high percentage compared to most European countries.

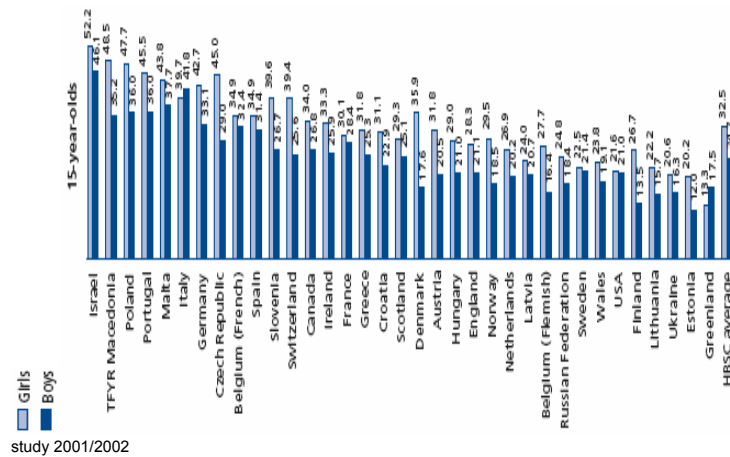
Social factors such as: income, deprivation and poverty, lack of time, knowledge of gardening, shopping, budgeting and cooking skills, and adequate gardening and cooking facilities, cultural habits and norms, healthy food availability (whether shops selling affordable healthy food are located out of town or locally, and transport availability to get to them) versus availability of processed food and fast food outlets, relative prices, national policies regulating food, school (and workplace, and hospital, and prison, etc) food policies, and to a smaller extent health education - rather than conscious deliberate choice - are the main influence on dietary intake, especially during adolescence. In particular, children and adolescents are heavily influenced by extensive point of sale, local and mass media marketing and advertising, which deliberately target them.

For young people, the weakening influence of the family and the increasing influence of peers are very important determinants of the type of food eaten and on the patterns of meals. In part, developing eating habits in adolescence is associated with trying to become independent, developing identity, and the need to express freedom from parental control and the forging of identity. This is one reason why there is an increase in meal consumption outside the home or the school, which often comprise take-away fast foods, and an increase in snacking rather than meals.

Another major influence on eating habits is cultural pressures to have an 'ideal' body shape. Although more of a problem for girls, this is now increasingly a major influence for boys and young men. The desire to be thin and the stigma of obesity may be of particular concern to young people, and this may significantly distort a healthy body image and self-esteem (see under mental health) and poor mental health, leading to unhealthy intermittent fad weight reduction diets, with associated weight fluctuation, micronutrient deficiency, and possible eating disorders or later obesity.

Current snacking and meal patterns among adolescent boys in Wales further worsen health as they may replace fruit and vegetable consumption, which are important sources of carbohydrates, vitamins and minerals. Welsh 15 year-old boys eat particularly low levels of fruit and vegetables on a daily basis (see figures 4.12 and 4.13). The survey replies from Portugal, Malta, Greece and Spain are thought to underestimate 'hidden' vegetables in their common freshly prepared dishes. In general adolescent boys tend to eat less fruit and vegetables as they get older.

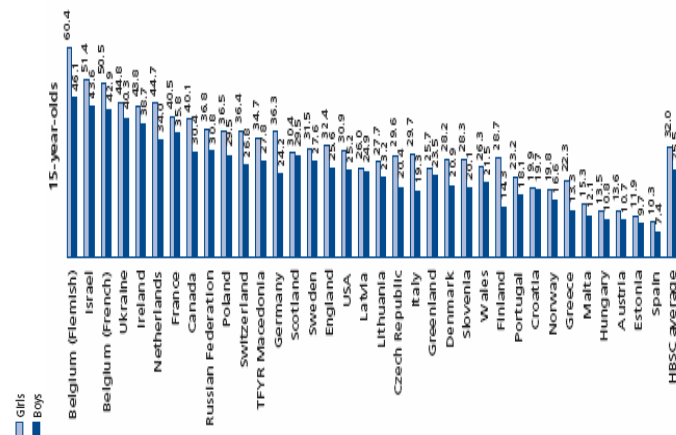
Figure 4.12 Young people aged 15 years who eat fruit every day, selected countries 2001/2002 (%)



Source: Health behaviour in school-aged children study 2001/2002

Food and drink habits are closely linked to socioeconomic status. Young people from lower socioeconomic groups consume snacks and sweets and skip breakfast more frequently, and eat less fruit and vegetables than young people from higher socioeconomic groups.

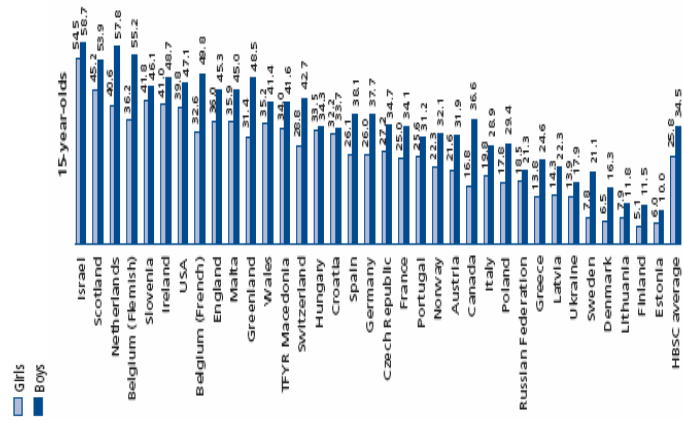
Figure 4.13 Young people aged 15 years who eat vegetables every day, selected countries 2001/2002 (%)



Source: Health behaviour in school-aged children study 2001/2002

The consumption of large volumes of sugary soft drinks (that substitute for healthier water and natural fruit juices) and sweets, which contain large amounts of calories from sugar but without any other nutritional value, contribute to obesity and dental caries, and replace more nutritious foods. They are major reasons for non-compliance with current dietary guidance. It is thought that increasing sugar-sweetened drink consumption is a major factor in the rise in obesity prevalence. Figure 4.23 shows that over 41% of 15 year old boys in Wales drink sugary drinks daily. This is one of the highest levels in Europe. Boys drink more soft drinks than girls. Similarly, a high proportion (28.5%) eat sweets every day.

Figure 4.14 Young people aged 15 years who drink soft drinks every day, selected countries 2001/2002 (%)



Source: Health behaviour in school-aged children study 2001/2002

Section 5

Main health problems affecting the prison population

Key points

The pattern of ill health and the illness behaviour seen in a population is strongly influenced by the age, gender, and the present and previous socioeconomic conditions. The predominantly young - though ageing - prison population at HMP Cardiff, with multiple forms of socio-economic deprivation has been described in previous sections. These factors have a profound influence on the prison population's present and future health and well-being. In particular, it is important to recall how present and future physical and mental ill health is connected to psychological and emotional well-being, as well as use of health services.

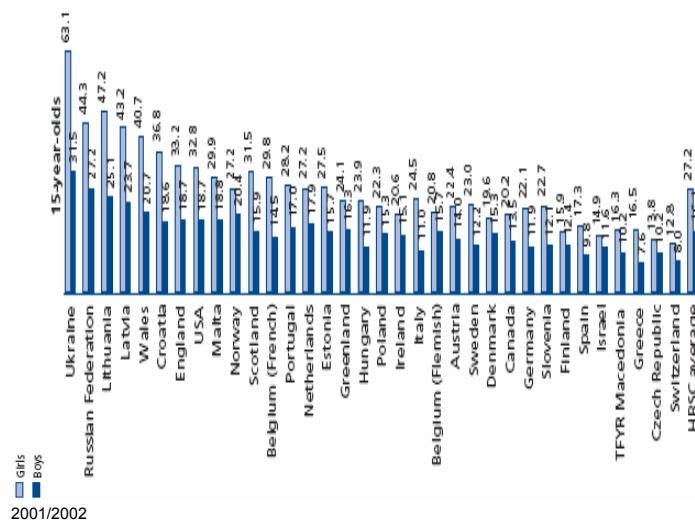
Self-rated health and well-being

Many survey measures are available for assessing overall subjective health and well-being. They can give a useful insight to overall health and well-being in populations, given that the perception of health is an indicator of psychological well-being that also affects physical health.

Subjective health measures are known to correlate with objective health outcomes and even mortality. Furthermore, the level of self-rated health is related to the level of subjective health symptoms (especially common somatic symptoms such as headache – see next sub-section) not necessarily related to a medical diagnosis.

We know from a WHO European survey that a relatively high proportion (20.7%) of adolescent boys in Wales rate their health as only fair or poor (see figure 5.1).

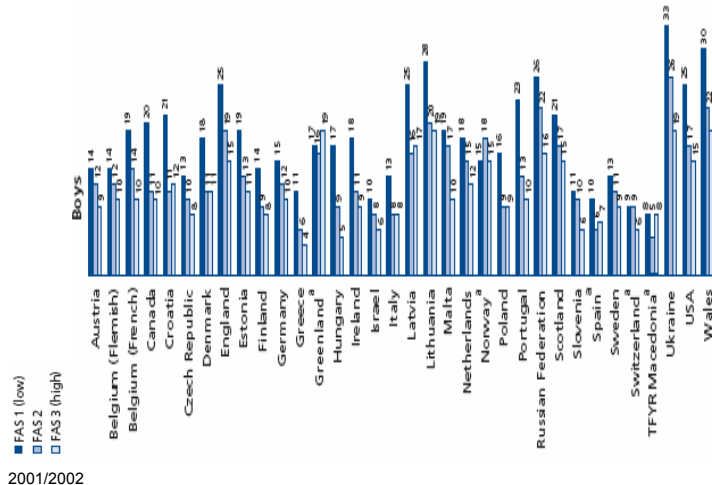
Figure 5.1 Young people aged 15 years rating their health as fair or poor, for selected countries 2001/2002 (%)



Source: Health behaviour in school-aged children study

For the most deprived in society the situation is far worse, especially in Wales. The proportion of adolescents stating that their health is only fair or poor according to affluence is shown in figure 5.2. For the most deprived third, 30% in Wales describe their health as only fair or poor – only in the Ukraine is the percentage higher.

Figure 5.2 Young people rating their health as fair or poor according to affluence, for selected countries 2001/2002 (%)



Source: Health behaviour in school-aged children study

2001/2002

These findings have particular implications for prisoners, given that in general the population is mainly relatively young adult males and from markedly deprived communities, with many having experienced multiple disadvantage throughout life. Consequently, the rates of perceived fair/poor health are likely to be particularly high, likely to be well over the 30% in the slightly younger deprived population in the community.

The World Health Organization considers health a resource for living. Levels of self-rated poor health likely to exist among prisoners will affect their ability—adolescents and young adults in particular - to function and develop socially, emotionally and physically at a critical time in life. Better health would allow them to cope and to deal better with the considerable demands and challenges that they face.

Psychological well-being and mental health

Psychological well-being and mental health problems are amongst the main health issues with the potential to become serious, chronic and impair long term social functioning. Poor socioeconomic factors during the life course contribute greatly to the burden of psychological and mental health problems and disorders. Poor psychological well-being and mental health can also affect future physical disease such as coronary heart disease.

The problems are a continuous spectrum, ranging from common problems affecting social and psychological well-being without specific diagnosable psychiatric disease (closely related to self-related health assessment) to recognisable less common specific mental health disorders that tend to be more severe. The whole spectrum may impair social functioning. Definitions vary and there is a fine line between 'normal' behaviour and a psychological, emotional or mental health problem in young people.

One population survey estimated that about 13% of young adolescent boys in the UK have some form of serious mental health problem. This rises to around about 20% if more minor (but still potentially socially detrimental) problems are included.

Another survey of young prisoners aged 16-24 years (which includes the 21-24 age group seen at HMP Cardiff) suggests how much more common mental health problems are in the young male prison population, compared to the general community. For example:

- 50% of remand young prisoners and 30% sentenced have a diagnosable mental disorder
- 23% had previously discussed emotional problems with a doctor
- 7% of men stated they had attempted suicide
- 10% of men had self-harmed

Even when diagnosable mental illness may be absent, some authors suggest that the following may be markers of underlying mental health problems in young people, especially if they are fixed, severe or persistent, and impair social functioning:

- Mood depression – low mood, tearfulness, lack of interest in usual activities
- Subjective somatic complaints – e.g. headache, stomach ache, back ache, sleep disturbance
- Self-harming behaviour
- Aggression
- Isolation and loneliness
- Criminal behaviour e.g. theft and robbery
- Substance misuse
- Weight loss or failing to gain weight with growth
- Change in academic or work performance

Criminal behaviour is an obvious marker in the prison population, but section IV also highlighted the extent of aggression (violent offences and bullying) and potential isolation and loneliness (extent of prison visits, number previously living alone or homeless) among prisoners. The overall risk factors affecting psychological well-being and mental health are set out below:

Table 5.1 Risk factors potentially influencing the development of mental health problems and mental disorders in individuals

Individual factors	Family/social factors	School context	Life events and situations	Community and cultural factors
<ul style="list-style-type: none"> ◊ prenatal brain damage ◊ prematurity ◊ birth injury ◊ low birth weight, birth complications ◊ physical and intellectual disability ◊ poor health in infancy ◊ insecure attachment in infant/child ◊ low intelligence ◊ difficult temperament ◊ chronic illness ◊ poor social skills ◊ low self esteem ◊ alienation ◊ impulsivity 	<ul style="list-style-type: none"> ◊ having a teenage mother ◊ having a single parent ◊ absence of father in childhood ◊ large family size ◊ antisocial role models (in childhood) ◊ family violence and disharmony ◊ marital discord in parents ◊ poor supervision and monitoring of child ◊ low parental involvement in child's activities ◊ neglect in childhood ◊ long-term parental unemployment ◊ criminality in parent ◊ parental substance misuse ◊ parental mental disorder ◊ harsh or inconsistent discipline style ◊ social isolation ◊ experiencing rejection ◊ lack of warmth and affection 	<ul style="list-style-type: none"> ◊ bullying ◊ peer rejection ◊ poor attachment to school ◊ inadequate behaviour management ◊ deviant peer group ◊ school failure 	<ul style="list-style-type: none"> ◊ physical, sexual and emotional abuse ◊ school transitions ◊ divorce and family breakup ◊ death of family member ◊ physical illness/impairment ◊ unemployment, homelessness ◊ incarceration ◊ poverty/economic insecurity ◊ job insecurity ◊ unsatisfactory workplace relationships ◊ workplace accident/injury ◊ caring for someone with an illness/disability ◊ living in nursing home or aged care hostel ◊ war or natural disasters 	<ul style="list-style-type: none"> ◊ socioeconomic disadvantage ◊ social or cultural discrimination ◊ isolation ◊ neighbourhood violence and crime ◊ population density and housing conditions ◊ lack of support services including transport, shopping, recreational facilities

Reproduced from Commonwealth Department of Health and Aged Care 2000, Promotion, Prevention and Early Intervention for Mental Health – A Monograph

Childhood abuse and early traumatic life events are common in the backgrounds of prisoners. They are associated with increased rates of neurotic disorders (see below), including post-traumatic stress disorder, substance misuse, self-harm, and antisocial personality disorder later in life, as well as high levels of psychological distress. Prisoners, often victims of such of abuse, have difficulty in trusting others (especially people in authority). Often victims of crime and offenders have low self esteem, and feel shame, and helplessness. Male prisoners have high rates of lifetime traumatic experiences, and not surprisingly these “offender-victims” experience high levels of psychological distress.

Measures of psychological well-being correlate with measures of self-rated health, just discussed. Similarly, poor levels of psychological well-being influences levels of health service use and use of pharmaceutical medication, in the absence of diagnosable medical disease or

illness. Nevertheless, men are the least likely to seek help from healthcare professionals even when experiencing significant psychological distress.

Despite higher levels of poor psychological well-being, compared to the general population, prisoners tend to consult health professionals less for a given level of mental health problem. The results of a recent qualitative study of the help-seeking behaviour of male offenders aged 18-52 years, thought to be at risk of self-harm in a local category B prison is summarised in Box 1 below:

BOX 1 Understanding help seeking behaviour among male offenders: qualitative interview study

BMJ 2007; 334:303 (10 February), doi: 10.1136/bmj.39059.594444.AE (published 12 January 2007)

RESULTS: "Most respondents reported that they would not seek help from a general practitioner or other healthcare professional if experiencing mental distress. When followed up after release, none had sought medical help despite the fact that many had considerable emotional problems. Many participants were hesitant to seek help because they feared being given a formal diagnosis of mental illness. Some of these men feared the stigma that such a diagnosis would bring, whereas others feared that a diagnosis would mean having to confront the problem. Lack of trust emerged as the most prominent theme in prisoners' discourse about not seeking help from health professionals. Distrust towards the "system" and authority figures in general was linked to adverse childhood experiences. Distrust directed specifically at healthcare professionals was often expressed as specific negative beliefs: many perceived that health professionals (most often doctors) "just don't care," "just want to medicate," and treat patients "superficially." Those men who would consider going to a general practitioner reported positive previous experiences of being respected and listened to."

If prisoners with poor levels of psychological well-being or psychological distress do consult healthcare professionals, they often do so with somatic symptoms, thus emphasising the relationship with poor self-rated health.

Fatigue, headache, stomach ache and backache are common symptoms. Young men frequently present with such somatic symptoms in prison, often requesting medication. They are more common in remand rather than sentenced prisoners.

Surveys suggest about 8% report headaches on a daily basis, 10% backache, and 16% sleepiness, with fatigue being even more common. In most there is no underlying diagnosable physical disease. Most presentations of these symptoms therefore represent a functional or somatoform disorder, as for gender, age and cultural reasons, psychological problems are not expressed through language but through physical symptoms.

Multiple symptoms, symptoms lasting more than 3 months, social withdrawal and isolation, along with a history of bullying, family, social or educational problems, or previous psychological problems can indicate a more serious problem. Once any common serious physical disorder is excluded further medical tests can be counterproductive. Being in prison can exacerbate or trigger problems.

Levels of subjective symptoms that impair daily functioning are known to be associated with lower academic performance, increased demand for primary care services, and increased use of medicines. Indicators of self-rated health are also correlated to measures of life satisfaction, which in turn is strongly influenced in young adults by the extent and quality of social relationships with peers and parents.

The presenting of somatic symptoms may be more related to functional impairment rather than defined medical diseases, although both will be linked. For example it has been estimated that up to 50% of long-term sickness certification cannot be attributed to definable 'disease', but is associated to an inability to cope linked in part to complex psycho-social issues relating to the individual, the work and the wider environment. A previous survey at

another south Wales prison found that around 16% of prisoners were on long-term sickness certification.

Specific mental health disorders

Prisoners with mental disorders are significantly over-represented in the prison population compared with the general population. Single diagnosis is rare, with multiple mental health disorders often co-existing. The ONS' study of psychiatric morbidity among prisoners in England and Wales suggested that 90% of prisoners met the criteria for having at least one mental disorder. This translates in an average male prison with a population of around 800 (which can occur in HMP Cardiff) to approximately 720 prisoners with symptoms meeting mental health disorder criteria, that includes around 48 with schizophrenia, 320 with a neurotic disorder, and 512 with a personality disorder.

The socio-economic, cultural and personal factors discussed in section III that affect more severe and specific mental health problems are similar to those affecting self-rated health, life satisfaction and the more common poor psychological health and well-being. In addition to these factors, being imprisoned brings its own factors that can seriously affect mental health through the loss of liberty, autonomy, and the right to self-determination; through other factors related to the prison regime; and through bullying, loneliness and separation from family and children (see sections III and IV). Furthermore, the very high prevalence of alcohol and other substance misuse among prisoners discussed in the previous section, has a profound effect on psychological health and the prevalence of mental health disorders, both more often than not co-existing.

Prisoners aged over 60 years are the fastest growing age group in prisons, mainly due to increased custodial sentencing. In 2001, 80% of older prisoners were serving sentences of 4 years or more. A study of the psychiatric morbidity of older prisoners found that 32% had a diagnosis of mental disorder, and 30% had a diagnosis of personality disorder. Depression was very common, with 30% meeting criteria for a depressive disorder, some with psychotic depression. This rate is higher than for younger adult prisoners and much higher compared to the general population of the same age and sex. The same study estimated that only 12% of the older prisoners with depression were being treated with antidepressants, even though prisoners tended to be in contact with the healthcare service for other reasons. The rate of dementia in the older prison population was comparable to that of the general population.

Neuroses

Table 5.2 and figure 5.3 show that in a predominantly young male prison population the prevalence of neurotic symptoms is very common, and much higher than in the general community. The prevalence is higher in remand than in sentenced prisoners. Sleep disturbance and depression are particularly common. The relatively high prevalence of somatic symptoms and worry about physical health is of note, and was discussed previously. Severity and frequency are important parameters of health need to consider, and 58% of male remand and 39% of male sentenced prisoners had overall CIS-R scores of greater than 12.

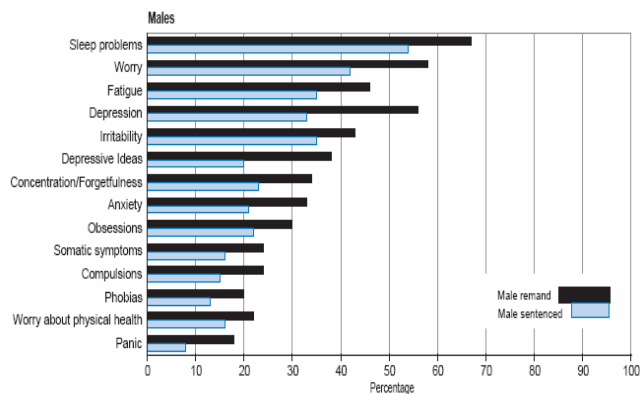
More specific neurotic disorders tend to be increasingly diagnosed as adolescents become older. They are very common in the prison population relative to the community. Their estimated prevalence based on ICD-10 criteria in the same survey is shown below in table 5.2. About 59% of remand and 40% of sentenced male prisoners are estimated to have at least one form of neurotic disorder.

Table 5.2 Prevalence of neurotic symptoms (CIS-R \geq 2) in a male prison population compared to the community

Symptom	Male		
	Remand	Sentenced	Prevalence in the community
Sleep disorders	67%	54%	21%
Worry	58%	42%	17%
Fatigue	46%	35%	21%
Depression	56%	33%	8%
Irritability	43%	35%	19%
Depressive ideas	38%	20%	7%
Concentration/forgetfulness	34%	23%	6%
Anxiety	33%	21%	8%
Obsessions	30%	22%	7%
Somatic symptoms	24%	16%	5%
Compulsions	24%	15%	5%
Phobias	20%	13%	3%
Worry about physical health	22%	16%	4%
Panic	18%	8%	2%

Source Psychiatric morbidity among prisoners in England and Wales. ONS, 1998

Figure 5.3 Prevalence of neurotic symptoms (CIS-R ≥ 2) in a male prison population



Wales. ONS, 1998

Source Psychiatric morbidity among prisoners in England and

Table 5.3 Prevalence of neurotic disorders among a predominantly young male prison population

Disorder	Male		
	Remand	Sentenced	Community prevalence
Mixed anxiety & depression	26%	19%	5%
Generalised Anxiety Disorder	11%	8%	3%
Depressive episode	17%	8%	2%
Phobias	10%	6%	1%
Obsessive-Compulsive Disorder	10%	7%	1%
Panic Disorder	6%	3%	1%
Any neurotic disorder	59%	40%	12%

Source Psychiatric morbidity among prisoners in England and Wales. ONS, 1998

The most common disorders are mixed anxiety and depression and depressive episodes. Again, they are more common in remand than in sentenced prisoners, and are considerably more common than in the community. Anxiety disorders are relatively common in younger adulthood and can persist into adulthood.

Depressive illness is less easily identified in younger adults than in adults. Initially it may present with masked symptoms, such as behavioural disturbance, substance misuse, social withdrawal, and a dominance of fatigue and other somatic symptoms. With increasing age it becomes more common overall and is more likely to present with depressed mood.

The importance of socioeconomic and wider determinants of health are again emphasised when recognised risk factors for depression are considered (see table 5.4). It should be noted that imprisonment is a risk factor for depression.

Post-traumatic stress disorder tends to be less common, although it is not rare with 5% of male remand and 3% of sentenced male prisoners estimated to exhibit it.

Table 5.4 Risk factors for depression

Predisposing factors		
Biological	Social	Psychological
Genetic predisposition to depression	Emotional deprivation in childhood Childhood in care of local authority Bereavement or separation Work or marital difficulties Lack of supportive personal relationships Unemployment	Poor parental role models (eg: violence, alcoholism or mental illness) Low self-esteem Learned helplessness
Precipitating factors		
Biological	Social	Psychological
Recent illness or injury Drug and alcohol misuse	Recent life events, especially involving loss: redundancy, unemployment, family illness, separation, divorce, loss of a supportive relationship. Conviction Imprisonment	Inappropriate responses to precipitating factors eg: passivity Helplessness
Maintaining factors		
Biological	Social	Psychological
Chronic pain or disability Chronic illness Sensory impairment	Chronic social stresses (housing, work, family) Lack of an intimate confiding relationship at home Lack of practical information and help with social problems	Low self-esteem

Self-harm

The risk of self-harming is higher in prisoners compared to the general population. Suicide and self-harm are related. However, there are several non-suicidal intentions that can underlie self-harming. Possible reasons are:

- To escape unbearable anguish
- To change the behaviour of others
- To escape a situation
- To show desperation to others
- To get back at others or make them feel guilty
- To gain relief of tension
- To seek help

Self-cutting is common, although in the community, of the cases that come to hospital attention, self-poisoning with common household drugs is the most common method. Acts of self-harm may be impulsive. Some risk factors are outlined below:

- Difficulties or disputes with parents
- School or work problems
- Difficulties with girlfriends
- Disputes with siblings
- Physical ill health
- Difficulties or disputes with peers
- Depression

- Bullying
- Low self-esteem
- Sexual problems
- Alcohol and other substance abuse
- Awareness of self harm by others

Repeated self-harm can be associated with

- Previous self-harm
- Personality disturbance
- Depression
- Alcohol and drug misuse
- Chronic psychosocial problems
- Disturbed family relationships
- Family history of alcohol dependence
- Social isolation
- Poor school record

Self esteem, coping, problem solving and relationship skills are damaged by poor social conditions (see section III), and may be one mechanism that links criminal behaviour, with substance misuse, and then to self-harm. Bullying is also a contributory factor.

Self-harming is a common cause of hospitalisation in young people in the community. The incidence of self-harm is relatively high in a prison population at about 1.6% per prisoner per year. The risk is higher in under-30 year olds (see last column of table 5.5).

Table 5.5 Age specific risk of self-harm in the prison population

Age	Self-harm incidents	Percentage of self-harm incidents	Percentage of population this age (1997)	Age-specific annual risk of self-harm
15-17	73	4%	4%	1.5%
18-20	277	14%	12%	1.9%
21-29	960	48%	41%	1.9%
30-39	506	25%	27%	1.5%
40-49	114	6%	10%	0.9%
50-59	23	1%	5%	0.4%
60-69	2	0%	1%	0.2%
Not known	30	2%		
Total	1985	100%	100%	1.6%

Source: Adapted from: Suicide is Everyone's Concern: a thematic review by HM Chief Inspector of Prisons for England and Wales. May 1999.

The risk of self-harm is similar in sentenced prisoners compared to remand prisoners (table 5.6).

Table 5.6 Risk of self-harm by type of prisoner

Year	Legal status	Average Daily Population (ADP)	New Receptions	Number of episodes of self-harm	Annual rate per ADP	Annual rate per New Reception
1996	Sentenced	43043	82861	468	1.1%	0.6%
	Unsentenced	11612	93875	439	3.8%	0.5%
	Total	54655	176736	907	1.7%	0.5%
1997	Sentenced	48412	87168	807	1.7%	0.9%
	Unsentenced	12131	98490	784	6.5%	0.8%
	Total	60543	185658	1591	2.6%	0.9%

Source: Adapted from: Suicide is Everyone's Concern: a thematic review by HM Chief Inspector of Prisons for England and Wales. May 1999.

A survey of another prison in south Wales showed that many prisoners had several reasons to explain their self-harming behaviour such as depression, relationship problems, physical pain to replace emotional pain, escaping painful thoughts, and as a way of expressing emotional pain (table 5.7).

Table 5.7 Self-reported reasons for self-harm among prisoners

Table ** Trigger factors for self-harm		
Factor	n	%
Severe depression	74	54.0
Family and/or relationship problems	67	48.9
To cause physical pain which reduces emotional pain	59	43.1
Helps escape from painful thoughts and feelings	59	43.1
Way of expressing emotional pain	55	40.1
Self punishment	45	32.8
Helps release painful thoughts and suicidal tendencies	31	22.6
Drug withdrawal	24	17.5
Hearing voices	20	14.6
Other inmates have said that it helps to cope with emotional pain	5	3.6
Other	18	13.1

Source: Survey of prisoners at Parc, Bridgend: Swansea University, 2002

Suicide

Along with deaths from motor vehicle collisions, suicide is the main community cause of death in young men. The risk of suicide is higher in prisoners compared to the general population. It will be the main but rare cause of death among the prison population. The overall community incidence of suicide and undetermined deaths in Wales and England increased markedly during the last decade for males aged 20-24, and 25-34, although the rate decreased slightly by the year 2000 in the older age groups, but not in the younger group. The previous increase was mainly accounted for by an increase in the risk of suicide in single young men. Suicide in men is most common between the ages of 25-44 and the very old.

The annual age standardised suicide rate for men of all ages in Wales was 20 per 100,000 for 1999-2001, and although direct comparisons with the prison population are difficult, one estimate for overall prison suicide is 42 per 100,000 new receptions. Between 1982 and 1998 the prison suicide rate had more than doubled.

Risk factors for suicide can be classified into 7 main areas:

1 Demographic, social and environmental factors

- Male (completed suicide)
- Age – more common in youth and the elderly
- Low socio-economic status, poverty and deprivation
 - two thirds of a sample of homeless young people was found to suffer from a psychiatric disorder and a third reported at least one suicide attempt
 - more deliberate self-harm (DSH) patients living in areas of socio-economic deprivation were unemployed, living alone and having problems with housing compared to those from wealthy areas
 - men aged 20-64 in social class V have suicide rate twice as high as social class IV, and almost 4x as high as social class I
 - geographic variations in incidence of parasuicide and suicide are associated with area-based measures of socio-economic deprivation and social fragmentation, particularly in parasuicide among young men and suicide among men

- higher in those with poor educational background
- economic stress in the family

2 Family characteristics and childhood experiences

- Parental psychopathology – affective disorders, substance use disorders, antisocial behaviours, and family history of suicidal behaviour
- Parental divorce or separation
- Dysfunctional or difficult family circumstances
- Social instability
- Abusive family environments – physical and sexual abuse
- Bullying
- Poor parental care – impaired parent-child relationships, poor family communication styles and extremes of high and low parental expectations and control

3 Personality/cognitive factors

- Personality traits – impulsivity, angry or aggressive behaviour, and social withdrawal,
- Cognitive style – inflexible or rigid thinking, poor problem-solving ability; to be present, rather than future oriented; negative or hopeless outlook; high level of hopelessness, perfectionism, impulsivity, hostility and aggression; inflexible coping style
- Sexual risk behaviour
- Same-sex orientation

4 Life events and acute crises

- Acute life crisis, interpersonal conflict or loss, legal or disciplinary problems, marital separation or divorce, major exam failure
- Being in custody
- Serious physical illness/handicap especially. epilepsy, Huntington's, cancer, tinnitus
- HIV AIDS

5 Existing psychiatric morbidity

- Affective (depressive) mood disorders – depressive illness, bipolar disorders
- Substance use disorders – alcohol, cannabis and other drug misuse or dependency
- Antisocial behaviours – adjustment disorders, conduct disorder and antisocial personality disorder
- Severe mental disorder – schizophrenia
- Comorbidity
 - current or recent (6-12 months) contact with psychiatric services
 - non-compliance with aftercare
 - patients in the four weeks following discharge from psychiatric hospitals

6 Suicidal behaviour

- Verbalised-ideation
- Suicidal intention
- History of parasuicide /deliberate self-harm
 - Self-harmers in the community have 100 times the risk of committing suicide compared to those who do not.
 - Parasuicide is the greatest predictor of eventual suicide
 - Over 40% of completed suicides are preceded by a previous attempt
- Imitation of other suicides
- Reluctance to seek adult help

7 Availability of lethal methods

- e.g. heights to jump, firearms, drugs, etc

Prison suicides are more common in remand than among sentenced prisoners. There is no clear age pattern amongst male prisoners, although the risk may be slightly higher in the 18-20 age group, although this is below the age range in HMP Cardiff. However, suicides are more common among prisoners charged with violent and sexual offences than those charged with other offences including burglary, robbery or theft or drug-related offences. Around half

prisoners who commit suicide have previously self-harmed in custody. The risk appears to be increased further if there is more than one episode of self-harm.

In prison, the risk of suicide is highest during the early period of custody. Eight percent take place on the first day, 26% in the first week, and 42% in the first 28 days. The average risk is elevated up to about a year when the risk appears to fall to about the male community level – even within the community, ex-offenders will still higher suicide risk compared to the average for men in their community owing to the higher level of risk factors under the 7 domains listed.

Suicidal thoughts and attempted suicide, however, are more common in male remand prisoners compared to male sentenced prisoners (table 5.8).

Table 5.8 Prevalence of suicidal thoughts and attempted suicide among male prisoners

	Male	
	Remand	Sentenced
Suicidal thoughts		
In the past week	12%	4%
In the past year	35%	20%
Suicide attempts		
In the past week	2%	0%
In the past year	15%	7%
Self-harm (not suicide attempt) during current prison term	5%	7%

Source Psychiatric morbidity among prisoners in England and Wales. ONS, 1998

Functional psychoses

This group of disorders can include schizophrenia, other delusional disorders, mania and severe depression with psychosis. In general the majority are cases of schizophrenia and other delusional disorders. They are much less common than various degrees of psychological impairment and poor mental health, and less common than neurotic disorders. They appear slightly more common in male remand prisoners (table 5.9) than in sentenced prisoners. In both they are considerably more common than in the general population where the prevalence is about 0.4%. Rates of psychoses also appear to be higher in white compared to black prisoners. Functional psychoses are rare in early adolescence and tend to start emerging in later adolescence and then in young adulthood.

Table 5.9 Prevalence of functional psychoses in the preceding year in male prisoners

	Male remand	Male sentenced
Schizophrenia	2%	1%
Other non-organic psychotic disorder	7%	4%
Any schizophrenic/delusional disorder	9%	5%
Manic episode	1%	1%
Bipolar affective disorder	0%	0%
Severe depression + psychosis	1%	0%
Any affective disorder	2%	1%
Any functional psychosis (Approx. 95% CI)	10% (±4)	7% (±4)

Source Psychiatric morbidity among prisoners in England and Wales. ONS, 1998

Learning disabilities

This category includes disorders where there is below average intellectual functioning, but also includes people with normal or above average intelligence who have problems receiving, storing, organising, retrieving, and using information. The spectrum includes dyslexia and other specific problems with reading, spelling, writing, reasoning, and numeracy.

Estimates of low or below average intellectual functioning among prisoners vary. Nevertheless, the level of below average intelligence is higher in the prison community compared to the general population. According a study using the Quick Test (a brief perceptual-verbal performance test), 1 in 10 male sentenced and 1 in 20 male remand

prisoners had very low levels of intellectual functioning (score below 25, the median is expected to be around 42, about the same level as an IQ of a 100).

Speech, language and communication problems

Detailed information is not available. However, a detailed 20-year study in a Young Offenders Institution in Scotland suggested that 1 in 9 offenders had a problem that merited speech and language therapy treatment. Because many left school early and probably did not receive treatment when younger the situation is likely to be similar for adults.

Epilepsy

Surveys have suggested that the prevalence of epilepsy in the prison population is about twice that in the community. The estimate is about 0.8% of male prisoners overall, being slightly higher in younger prisoners. Although fits do not necessarily mean a diagnosis of epilepsy, around 1% of prisoners under 25 reported fits in the preceding year, and up to 4% of those 25-34 years.

Infectious diseases

Because of numerous reasons associated with poor social backgrounds, the risk of some infectious diseases is increased amongst prisoners. Additionally, it is possible that the risk of some infections can be increased by many people living together in close proximity, in an institution such as a prison, which has a high turnover and occasional overcrowding.

Many prisoners of all ages are likely to have missed out on a full course of childhood immunisations, including diphtheria, tetanus, pertussis, polio, measles, mumps, rubella, BCG, and meningococcal group C. Influenza and pneumococcal immunisation is necessary for key at risk categories and certain age groups. However, the key vaccine preventable infectious diseases in prison include hepatitis A and B, TB and mumps.

All doctors have a statutory duty to notify the 'proper officer' of their local authority of any suspected notifiable infectious disease. In Wales the 'proper officer' is usually the Consultant in Communicable Disease Control (CCDC) at the regional National Public Health Service for Wales office. The main purpose of the system is to rapidly detect outbreaks and epidemics. Notification must be made on clinical suspicion of an infection without necessarily waiting for a confirmed diagnosis. A full list of notifiable diseases is available at:

www.hpa.org.uk/infections/topics_az/noids/noidlist.htm

Notifiable diseases that are reported from prisons include:

- Meningitis, including viral meningitis
- Meningococcal septicaemia (without meningitis)
- Tuberculosis (TB)
- Measles
- Mumps
- Viral Hepatitis including Hep A, Hep B & Hep C
- Food Poisoning

Infections related to injecting drug use

Bloodborne viruses: HIV, hepatitis A, hepatitis B, hepatitis C

Botulism, tetanus, severe systemic sepsis, Staphylococcus aureus and Group A Streptococcal infections

Hepatitis A virus infection can cause a range of illness from mild through non-specific nausea and vomiting through to hepatitis and rarely liver failure. Nowadays it is an unusual infection in the UK. It is usually spread by the faecal-oral route but can also sometimes be spread through blood. Large outbreaks have occurred amongst men having sex with men and amongst injecting drug users. Prevention is by hand washing, safe drinking water and food, safer sex and by minimising sharing of drug injecting paraphernalia. Passive or active vaccination can be used to prevent groups at high risk including contacts of infected people, travellers to countries where the infection is common, and groups such as injecting drug users. All can be encountered in the prison environment, but the latter group is of particular importance.

The prevalence (% of existing cases in the population at a given time) of antibodies indicating infection with HIV, hepatitis B and C amongst adult male prisoners in a study carried out by researchers from the now Health Protection Agency (HPA) in the late 1990s are shown in table 5.10 below, hepatitis C being the most common. During the same period, the incidence (identified new cases) of viral hepatitis B was estimated at 3.9 per 1000 prisoner years, hepatitis C 14.6, and HIV 2.8.

Table 5.10 Prevalence of anti-HIV, anti HBc and anti-HCV in prisoners 1997-8 in a sample of adult male prisoners in England and Wales

Prisoner group and sentence status	Total	Anti-HIV +ve		Anti-HBc +ve		Anti-HCV +ve	
		number	% (95% CI)	number	% (95% CI)	number	% (95% CI)
Adult male remand	358	3	0.8 (0.2-2.4)	54	15 (12-19)	70	20 (16-24)
Adult male convicted	2397	6	0.3 (0.1-0.5)	172	7.2 (6.2-8.3)	169	7.1 (6.1-8.1)

Source: Weild et al, 2000

The prevalence appears slightly higher in remand compared to convicted prisoners. For all three viruses injecting drug use (IDU) was a probable mode of infection. However, for HIV, men having sex with men appeared to account for more infections than IDU.

The same study revealed the extent of injecting drug use in prisons, and worryingly the extent of sharing of needles in prisons. Almost a quarter of adult male prisoners surveyed had ever injected drugs inside or outside prison. Of these prisoners who had ever injected drugs, around 6% had first injected drugs in prison. Almost a third who had ever injected had at some time done so whilst in prison. Of these 75% had shared needles or syringes whilst in prison.

In a more recent study by the National Public Health Service for Wales, one third of injecting drug users in Wales had experienced being in local authority care and over half had been expelled from school. A quarter had experienced both. Poly-drug use was common, and greater than 37% used crack cocaine. Almost half had shared injecting paraphernalia in the preceding month and 45% had shared needles and syringes at some time in the past. In this sample almost 75% of those who had been in prison reported continuing drugs whilst in prison. Less than a quarter were offered follow up or aftercare upon release, and only 20% stayed drug free for more than a month.

In another study of injecting drug users in the community in south Wales, 71% reported having been in prison and 39% reported being homeless in the previous year. Hepatitis B vaccination coverage was low in this sample - only 54% had received at least one vaccine. In a year's follow up 89% reported injecting heroin, 19% had injected crack cocaine, and 37% stated they had injected amphetamine. The mean age of first injection was 21.1 years. Cardiff and Barry had higher incidence rates of hepatitis C infection compared to the Rhondda Valleys and Merthyr Tydfil. There was also a higher rate of hepatitis C infection in those who had been homeless in the previous 12 months, in those not currently prescribed substitution treatment, and in those sharing injecting paraphernalia.

Recent data from 2005 from the HPA also shows that amongst IDUs:

HIV: The prevalence among IDUs in England and Wales has increased in recent years. About one in 50 IDUs are infected in England and Wales, relatively low but it is double this in London. However, the recent increase has been greatest outside London - where the prevalence has risen sharply from about 1 in 400 in 2003 to about 1 in 65 in 2005.

Hepatitis C: Nearly 50% of IDUs in the UK have been hepatitis C infection. There are marked regional variations. Surveillance data suggest that overall the prevalence of hepatitis C infection in IDUs has probably increased recently.

Uptake of testing for hepatitis C among IDUs in contact with drug services has been increasing. However, about 50% of IDUs with hepatitis C in contact with services still remain unaware of their infection, and this does not include a substantial numbers of current and former IDUs unaware of their hepatitis C status and not in contact with services. Most IDUs in contact with services have had a test for HIV at some point, but less than half of those with HIV are aware of their infection. Voluntary confidential testing services for both hepatitis C and HIV is therefore important.

Across the UK uptake of hepatitis B vaccination amongst IDUs has increased markedly in recent years, with the prison vaccination programme being a major factor in this increase. Nevertheless, hepatitis B transmission continues among IDUs.

Wound botulism cases continue, indicating that contamination of heroin with bacterial spores remains a problem. Injecting site infections with methicillin resistant *Staphylococcus aureus* and severe group A streptococcal infection also continue to occur.

Needle and syringe sharing increased in the late 1990s, and have since remained elevated. More than 25% of IDUs reporting needle sharing in the previous month, sharing of other injecting equipment being even more common. Injecting into the groin (femoral vein) may be becoming more common. Factors such as homelessness, the injecting environment, and the nature of the drugs injected can influence the degree of infection risk of injecting, but they are not yet fully understood. In particular the role of crack-cocaine use, which has become more widespread, is a cause for concern.

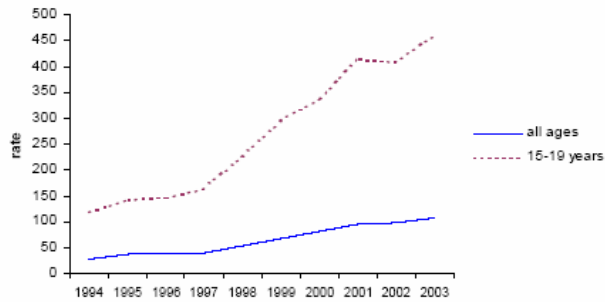
Sexually transmitted infections (STIs)

Overall rates of STIs have increased in the last decade, especially in the 15-24 year old age group. The commonest STIs in adolescents are chlamydia, genital warts, gonorrhoea, and genital herpes. Despite increases, syphilis and HIV remain less common. Between 2002 and 2003 in Wales, new infection rates for all ages increased for chlamydia, gonorrhoea, syphilis and HIV. From 2003 to 2004 the trend continued upwards for gonorrhoea and chlamydia. The number of new cases of syphilis decreased slightly. New cases of HIV diagnosed in Wales plateaued, but the prevalence has continued to rise due to transmission amongst men having sex with men, immigration of those with existing infection, and partly due to better survival.

Young people are disproportionately affected by genital chlamydia infections, gonorrhoea and genital warts. 57% of male attendees in GUM clinics in England and Wales were in the under 25 age group. The highest rates of genital warts were in the 20-24 year age group among men.

Chlamydia is the most common bacterial STI in the UK. The highest rates are seen in men and women under 24 years. A large proportion of cases are asymptomatic, although if women are infected they are at risk of developing pelvic inflammatory disease. Rates increased in 2004 it is thought due to improved awareness and better diagnosis.

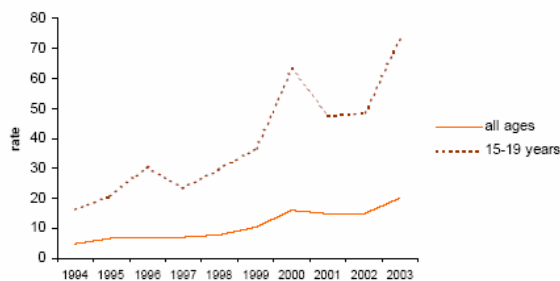
Figure 5.4 Reports of uncomplicated chlamydia from GUM clinics in Wales (cases per 100,000).



Source: National Public Health service for Wales

There was a 36% increase in new cases of **gonorrhoea** in Wales although the number of new cases in England decreased in the same period between 2002 and 2003. The rate of laboratory confirmed cases are highest among the 15-24 year old age group. Some of the largest increases in gonorrhoea were reported amongst young heterosexuals in the south Wales valleys, although a third of new cases in Cardiff were in men having sex with men.

Figure 5.5 Reports of uncomplicated gonorrhoea from GUM clinics in Wales (cases per 100,000).



Source: National Public Health service for Wales

HIV rates have been increasing rapidly in Wales since 1999. However the number of new cases diagnosed in Wales from 2002-3 and 2003-4 remained approximately the same.

The transmission of HIV amongst men who have sex with men in Wales continues, although recent increases in new HIV infections in men appear to be mostly in heterosexuals, probably acquiring their infection overseas in high prevalence areas. Transmission amongst injecting drug users was not a common route in Wales, and trends had remained stable. However the HPA reports that HIV prevalence increased amongst IDUs in 2005 especially outside London, from 0.2% in 2002 to 1.2% in 2005.

Although still rare, the recent large increase in syphilis in Wales has mainly been in men who have sex with men, mainly in south east Wales, and especially in the 20-24 and 25-34 year old age groups. However, diagnosed new infections in heterosexuals are also increasing. Infections decreased in 2003 to 2004.

Tuberculosis

Tuberculosis is a serious but treatable infection that can kill. Treatment with antibiotics needs to be prolonged and if interrupted can lead to drug resistance. Untreated cases can spread infection to others, especially in crowded institutions such as prisons. The prevalence is higher amongst homeless people and certain recently arrived immigrant populations, both of which can be represented at the prison.

Although tuberculosis incidence remains low in most prisons outside London, the rate is still higher than in the community.

Tuberculosis continues to increase in Wales, England and Northern Ireland. For the 3 countries overall, the incidence rate in 2005 was 14.7 per 100,000 population - an 11% increase in case numbers compared to 2004. However 43% of cases were in the London region. Most tuberculosis cases continue to occur in young adults (in 2005, 61% were aged

15- 44 years). The rate among the UK born population remained stable, but increased in the non-UK born population each year between 2000 and 2005, 78% of whom had arrived in the UK two years or more before diagnosis. The highest numbers were in the Indian, Pakistani and Bangladeshi ethnic groups, but the highest rate was in Black African ethnic group (399.0 per 100,000).

Among the UK born population, the white ethnic group accounted for the largest number of cases, but the highest rates occurred in the Black African (41.0 per 100,000) and Indian, Pakistani and Bangladeshi (38.6 per 100,000) ethnic groups.

Between 2004 and 2005, the number of pulmonary cases increased by 7% and the number of extrapulmonary cases by 17%.

Other infections

Measles is a highly infectious vaccine preventable notifiable disease. It can be severe and fatal. Cases increased in the community in 2006. Measles can occur in non-immune adults in contact with any individual who has contracted the illness. Two cases were recently reported at HMP Elmley. The local CCDC advised other prisoners should be vaccinated to prevent onward transmission, and 850 prisoners were vaccinated with MMR.

Since 1999 cases of mumps have been increasing in Wales & England. The increase in mumps cases was largely amongst those aged 18-25. Those most at risk were toddlers before 1988, when MMR vaccine was introduced. They either received none or only one dose. For complex socioeconomic reasons, coverage rates of MMR after 1988 or also likely to be lower. Any institution, including prisons, with large numbers of young adults could be at risk of a mumps outbreak.

An outbreak of mumps occurred amongst 18-25 year olds at HMP Doncaster. The vaccination status of the cases was unknown. All cases occurred in a single prison wing with no cases among staff. Mumps had been prevalent in the community surrounding Doncaster. All prisoners and staff in the affected wing were vaccinated. Meanwhile, all the prisons and young offender institutions in the vicinity implemented a MMR vaccine catch-up programme to cover new receptions and existing prisoners aged 18-25.

Due to overcrowding, cell sharing, deprivation, a high turnover of younger age groups, and probable low rates of meningococcal group C vaccination amongst prisoners, there is a risk of cases and clusters of meningococcal disease (meningitis and/or septicemia) amongst prisoners.

Physical health

A survey of the physical health of young prisoners (aged 16-24) found that 39% reported long-standing illness or disability, 21% reported respiratory problems (asthma in 15%) and 10% reported musculo-skeletal problems.

Another survey of sentenced adult male prisoners aged 18-49 showed that 48% had long-standing illness or disability. The prevalence of other conditions in that survey compared with the general population is shown in table 5.11 below. All show a higher prevalence than in the general population.

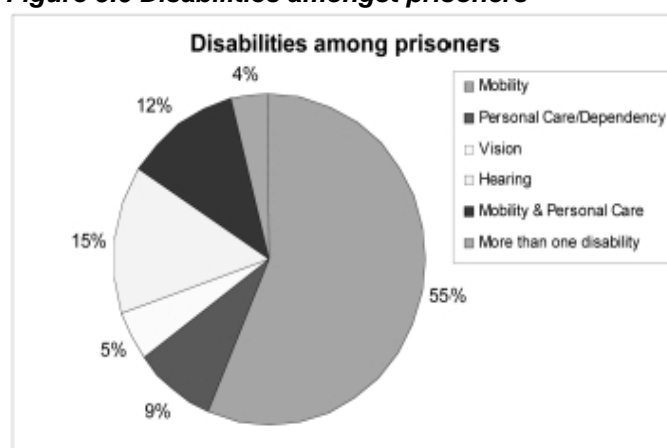
Table 5.11 Comparison of the physical health of prisoners with the general population

Condition group	Percentage reporting each condition	
	Prisoners (n = 925)	General population (n = 4407)
Musculoskeletal complaints	16%	12%
Respiratory conditions	15%	8%
Digestive system	5%	3%
Nervous system	5%	3%
Mental disorders	5%	1%
Skin complaints	3%	1%

Physical disability

A survey has been carried out on physical disabilities among prisoners of all ages in the UK. The results are shown below. It is estimated that about 0.6% of the prison population have a disability, most being mobility problems.

Figure 5.6 Disabilities amongst prisoners



Source: Ingram L, Home Office internal Report, 1997

Injury

Physical injury can be intentional or unintentional. Intentional injury can be self-inflicted (e.g. self-harming or suicide) or can be inflicted by others in various forms of violence. Self-harm, suicide and violence have been considered earlier in this report.

Injury rates from many causes are much higher amongst young men from lower socioeconomic groups. Alcohol is one factor in many mechanisms of unintentional and intentional injury.

Sports injuries are very common and will be the most common unintentional injuries occurring in the prison population.

Oral health

Systematic information on the oral health status of prisoners is not available. The prison population is drawn disproportionately from lower socioeconomic groups. Therefore it is likely that the dental health of social classes IV and V most closely resembles that of the prison population.

Overall the prevalence of decayed teeth is similar at all ages. Decayed or unsound teeth are unevenly distributed, half of the population having none and a small minority having more than five. The situation is worse for social classes IV and V whom are over-represented in

prison (table 5.14). The reasons are mainly to do with poverty, diet and nutrition, and partly to do with a lack of oral hygiene. Only 47% who are dentate have no decayed or unsound teeth. 6% have more than 5. Oral health is a particular problem for prisoners who were homeless rough sleepers.

Table 5.12. Estimate of proportion dentate - social class IV & V

Age	Males
16-24	100%
25-34	99%
35-44	98%
45-54	88%
55-64	59%
65-74	35%

Table 5.13 Decayed or unsound teeth, overall

Age	Numbers of decayed or unsound teeth among dentate adults			
	0	1-5	>5	Mean
16-24	62%	35%	3%	0.9
25-34	57%	40%	4%	1.1
35-44	55%	42%	3%	1.0
45-54	50%	48%	3%	1.1
55+	54%	42%	4%	1.1

Table 5.14 Social class IV and V

Social class	Numbers of decayed or unsound teeth among dentate adults			
	0	1-5	>5	Mean
IV & V	47%	47%	6%	1.5

Asthma and respiratory disease

Asthma tends to be more common in the young. As the prison population is predominantly young, the overall prevalence of asthma is higher than that of the general population. Based on these figures, 13% of male prisoners (around 19% aged 16-24 years) have doctor-diagnosed asthma. Just under half of these will be receiving treatment.

However, community surveys suggest that the prevalence of wheezing increases in more deprived social groups whereas diagnosed asthma does not. This suggests that in the generally deprived prison population undiagnosed asthma may be common.

Estimates of the prevalence of chronic bronchitis and emphysema in the community range from 3% to 10%. However, smoking prevalence in the male prison population is very much higher than in the community. Therefore among older adult male prisoners (who make up a small proportion of the prison population) the prevalence will be much higher than that in the community.

Diabetes

The prevalence of insulin dependent type I diabetes (IDDM) is far more common than non-insulin dependent type II diabetes (NIDDM) in younger age groups.

Table 5.15 Estimated prevalence of diabetes in a male prison population based on community surveys.

Age	Prevalence IDDM (%)	Prevalence NIDDM (%)
-----	---------------------	----------------------

16-24	0.3%	0.0%
25-34	0.5%	0.1%
35-44	0.6%	0.3%
45-54	0.6%	1.0%
55-64	0.9%	2.8%
>64	1.1%	4.2%
Total prevalence in the prison population	0.5%	0.3%

However, as can be seen from table 5.15, based on community surveys, the prevalence of NIDDM increases sharply with age. However, it has been suggested that predisposing factors in the male prison population (such as a background of relative poverty, more common low birth weight, poor diet, obesity, etc) are likely to make NIDDM about 2-8 more common in older prisoners than estimates based on community surveys alone. For the same reasons and a history of poor access to primary medical care, it is possible that amongst middle-aged and older prisoners NIDDM may be undetected, have been diagnosed later, and may be less well controlled with more complications. There is also a higher prevalence of NIDDM amongst men of Asian ethnicity.

Cardiovascular disease

The overall prevalence of pre-existing coronary heart disease in the prison is largely dependent on the age, sex, socioeconomic background, as well as on the extent of smoking, obesity, diabetes, hypertension, physical activity, poor diet, etc. At HMP Cardiff the prison population is predominantly young, male, and largely from deprived areas.

Coronary heart disease is about half as common again among social class V as in the general population. Therefore a likely pattern in the prison population is shown below in table 5.16, that shows age-specific prevalence in males adjusted for socioeconomic group. Age is clearly an important factor, and owing to the prevalence of predisposing factors just described amongst middle-aged and older prisoners, it is possible that the age-specific prevalences could be even higher than the average for social class V.

Table 5.16 Estimated age-specific prevalence of CHD in a male prison population.

Age group	CHD prevalence %
16-24	0.0
25-34	0.5
35-44	0.8
45-54	4.5
55-64	15.5
Total prevalence	0.7%

Hypertension and hypercholesterolemia is likely to undetected, to be seen in younger age groups and to be more common than similar-aged groups in the community. However, in the main, the basis of these factors is an interaction of life-long multiple deprivation.

Minor self-limiting illness

Minor illness is used here to describe commonly occurring self-limiting conditions. They include musculo-skeletal problems (e.g. minor injuries, back and neck pain); respiratory infections (e.g. coughs, colds and sore throats); gastro-intestinal complaints (e.g. indigestion, constipation and diarrhoea); neurological complaints (e.g. tension headaches and migraine); allergies (e.g. hay fever); and skin conditions (e.g. acne, dermatitis, eczema and psoriasis).

It is likely that somatic symptoms play an important part in the physical symptoms presenting to GPs and these have previously been discussed.

Respiratory conditions, injuries, infectious diseases and skin disorders are the most common reasons for GP consultations among males aged 16 to 44 in the community. The prevalence of minor conditions in male prisoners is shown in table 5.17 below.

Table 5.17 Conditions reported as occurring within the past 12 months (sentenced male prisoners).

Condition	Age band				Total
	16-24	25-34	35-44	45+	
Skin diseases	8%	14%	11%	12%	12%
Respiratory (excluding asthma)	9%	10%	8%	17%	10%
Asthma	15%	10%	4%	10%	10%
Allergies	7%	5%	9%	7%	7%

Source: Bridgwood A. Survey of the physical health of prisoners 1994: a survey of sentenced males. OPCS 1995.

Table 5.18 Commonest reasons for consultation by category (males, adjusted to age of prison population)

Reason for consultation (diagnosis)	Persons (per 10 000) who consult during the course of a year
Infectious and parasitic diseases	
Ill-defined intestinal infections (009)	238
Dermatophytosis (110)	188
Other diseases due to viruses and Chlamydiae (078)	158
Mental disorders	
Neurotic disorders (300)	228
Diseases of the nervous system and sense organs	
Disorders of external ear (380)	344
Disorders of conjunctiva (372)	181
Nonsuppurative otitis media and Eustachian tube disorders (381)	120
Diseases of the circulatory system	
Essential hypertension (401)	139
Diseases of the respiratory system	
Acute bronchitis and bronchiolitis (466)	397
Acute upper respiratory infections of multiple or unspecified site (465)	370
Acute pharyngitis (462)	339
Asthma (493)	305
Acute tonsillitis (463)	300
Allergic rhinitis (477)	288
Acute sinusitis (461)	195
Influenza (487)	191
Common cold (460)	115
Diseases of the digestive system	
Disorders of function of stomach (536)	126
Diseases of skin and subcutaneous tissue	
Diseases of sebaceous glands (706)	279
Atopic dermatitis and related conditions (691)	140
Contact dermatitis and other eczema (692)	136
Diseases of the musculoskeletal system and connective tissue	
Other and unspecified disorders of back (724)	345
Other and unspecified disorder of joint (719)	196
Other disorders of soft tissues (729)	118
Symptoms, signs and ill defined conditions	
Symptoms involving respiratory system and other chest symptoms (786)	201
Other symptoms involving abdomen and pelvis (789)	144
General symptoms (780)	140
Symptoms involving head and neck (784)	121
Injury and poisoning	
Sprains and strains of other and unspecified parts of the back (847)	234
Certain adverse effects not elsewhere classified (995)	204
Sprains and strains of knee and leg (844)	116
Sprains and strains of ankle and foot (845)	103
Supplementary classification: factors influencing health status & contact with health services	
Encounters for administrative purposes (V68)	641
Need for prophylactic vaccination and inoculation against bacterial diseases (V03)	387
Need for prophylactic vaccination and inoculation against certain viral diseases (V04)	272
General medical examination (V70)	262
Special screening for cardiovascular, respiratory and genitourinary diseases (V81)	181
Special screening for endocrine, nutritional, metabolic and immunity disorders (V77)	115

Source: Bridgwood A. Survey of the physical health of prisoners 1994: a survey of sentenced males. OPCS 1995.

Section 6

Improving health and reducing re-offending

From prison health care to the public health of the offender population

Key points

Introduction

Many offenders, within and outside prison, come from some of our most socially excluded communities. For their age, on average, prisoners tend to have much worse physical and mental health and well-being compared to most in society (see section V). Their present and future health contributes to the wide and widening social health inequalities we see in Wales.

We know that many social factors and the environment throughout life, from an early age, even before birth, can lead to poor adult health and risky health-related behaviours, including offending (see section III & IV). These negative health-determining factors are very common amongst the majority of prisoners and other offenders, making health prospects worse for them. Earlier (see section III & V) we also saw how detention and prison itself can be a very negative influence on health, compounding other factors.

Because health or ill-health has many underlying causative factors, most of which lie outside the health care service, health improvement becomes everyone's business - not just that of the health care service.

If the very poor health of prisoners is to have any chance of improving, a holistic, proactive and comprehensive approach is required at the whole community level, at the whole criminal justice system level, and at the whole prison level, based on an overall framework, with proven effective interventions. Underlying socioeconomic factors such as housing, education, skills, unemployment, low income and benefit should be addressed as far as possible. A safe healthy social and physical environment is needed. Such an environment is the pre-requisite for addressing the after effects of traumatic childhood experiences, that then allows a context for improvement in poor life skills and relationships. Improving such skills is necessary for effectively tackling risky health-related and offending behaviour. This then is a much more conducive environment in which to treat appropriately current health problems for those that need it.

The criminal justice system as a whole offers important opportunities for improving the health and health determinants of offenders, and tackling some inequalities. Most experience has been in the setting of the prison – however this needs to connect to the rest of the criminal justice system and elsewhere in local communities, especially as most prisoners are in custody for a short time and take their health and social problems back with them to the community unless dealt with. The prison setting could offer a unique opportunity to target a difficult-to-reach population, and bring an environment of stability.

Continuously increasing a variety of unconnected individual medical treatments or even preventative medical intervention availability to individual prisoners as they present with 'medical' complaints is unlikely to improve prison population health, will be inappropriate, and largely ineffective, expensive, and thus inefficient in the long term, given the complex social nature of the overall public health problem amongst prisoners.

The World Health Organization's Health in Prisons Project

The World Health Organization advocates a holistic approach in order to successfully improve population health. The approach was agreed as the Ottawa Charter for Health Promotion (1986), and this can be the starting point for a framework for health promoting action in 5 key areas in order to improve health by:

- Building healthy public policy
- Creating supportive environments
- Strengthening community action
- Developing personal skills
- Reorienting health services

These principles can apply within and outside the prison.

The World Health Organization's Europe Office has embraced the principles of the Ottawa Charter in its Health in Prisons Project (www.euro.who.int/prisons). The project aims to promote health in

its broadest sense within the prison community by using the social rather than the medical model of health, and by considering the whole prison organisation. It views that if custody has to be imposed, then it is important both for the prisoner and for the community's public health that that time is used positively for the prevention of disease and the promotion of health, and that the negative health effects of custody are minimised. Their target audience is not only prisoners, but also staff and prisoners' families. The project also views health promotion and disease prevention as not just the responsibility of the clinical professionals in the prison health care system, but, to be effective, needs to be built into every aspect of prison management, policy and activity, to create an organisational, social and physical climate supportive of health for all at the prison.

Activities directed at resettlement and reducing re-offending have links into the community and there is further scope to link to prisoner's families and community groups. The prison's management and staff are also an integral and essential component of creating a 'healthy' prison.

The project builds on the concepts of health promotion that have previously been developed successfully by the WHO in more established and advanced projects for health promoting schools, hospitals and cities [1]. In addition there is a considerable amount of research into healthy workplaces – fundamental for creating a health prison environment.

The WHO concepts of health improvement and prison health have been recently incorporated and endorsed by the Welsh Assembly Government, UK Home Office, and UK Department of Health in Health Promoting Prisons: A Shared Approach [2] and through Prison Service Order for Health Promotion PSO 3200. This approach recognises that prisons should be safe, secure, reforming and health promoting, and grounded in the concept of decency.

The following outlines potential steps in creating a healthy prison, based on WHO and other experience.

Building healthy policy and creating supportive environments in prisons

As part of creating a healthy prison it is important that certain principles permeate throughout the whole prison organisation. The WHO has published (www.euro.who.int/prisons) the following principles for healthy prisons:

- All prisoners, regardless of situation, should have the opportunities for healthy physical, social and mental development
- People in custody should expect to live in a positive care environment that is stimulating and promotes their health, well-being and development
- People should be consulted and listened to concerning their health and well-being, both as individuals and as groups
- People in custody should have the opportunity to develop and maintain relationships with one or more suitable adults in the community to which they will return
- Prisoners should have their cultural and religious beliefs, identity and ethnic backgrounds respected
- People in custodial settings should have the right to education, training and healthy lifestyle skills and works skills opportunities
- People in prison have a right to privacy
- People in custody have a right of access to good quality health services (health care, preventative services, and health promotion) broadly equivalent to those offered in the outside community

Consequently a healthy prison should strive to achieve the following objectives:

- To promote the physical, mental and social aspects of health of people in custody
- To help prevent the deterioration of people's health during or because of custody

- To help people in custody develop the knowledge, skills and confidence they need to enable them to adopt healthier behaviours they can take back to the community with them

Some **key factors** for success in developing a healthy prison appear to be

- developing a clear vision and objectives for health
- setting up an internal health promotion steering group with top level management support
- integrating health improvement into the overall policies and programmes of the prison, with multi-disciplinary guidance and the support of the prison governor
- involving prisoners in the development of those programmes
- committing resources to health promotion
- prioritising health problems to tackle according to need
- within this overall approach, using a range of **effective** interventions to tackle the main health problems (see below)
- stopping ineffective or inappropriate interventions
- setting long-term commitment and short term goals
- multi-disciplinary and multi-agency collaboration through existing local partnerships (e.g. Community Safety, Health & Wellbeing, Health Alliance, Young People's Framework, Substance Misuse Action Team, economic development, etc)
- recruiting suitably qualified and trained staff
- providing initial and continuing professional development for prison and prison healthcare staff to meet the needs of young people
- effective healthy workplace practices are developed

In particular the WHO emphasises the over-riding importance of:

- health and well-being development
- maintaining professional development and postgraduate education links with similar staff in other agencies in the community
- allowing prisoners the opportunity of being involved in decision making within the prison, in a prevailing atmosphere of participation and personal consultation. This allows the fostering of personal responsibility and empowerment, within the constraints of custody, and the need to maintain discipline
- developing regimes that enhance individual capacity in terms of health, social skills, and emotional development. The over-riding emphasis of a custodial sentence should be on personal development; self-improvement, and preparation for a productive and crime-free life in the community. Opportunities for all must therefore be available
 - to develop personal, social and life skills
 - to understand his emotions and behaviour and those of others
 - to explore and develop learning potential, discover personal strengths, and be proud of learning achievements (many prisoners will have been reminded of their 'failures' throughout life)
 - for sport, physical activity, culture and arts activities that foster individual creativity
- creating incentives so that young people who are apathetic and lacking motivation on admission take up and participate in opportunities for development
- there should be a personal officer allocated to the care and welfare of each young person, who is interested in them as people, cares about their health and well-being, and helps them maintain and build relationships in the community. There needs to be an emphasis on
 - giving and receiving nurture
 - the need for stability and an opportunity for making significant relationships
 - fostering social relationships to promote sense of self, attachment, belonging and identity
- taking opportunities to promote the positive understanding of cultural differences

- not withstanding the prisoner's wishes, his family should be encouraged to participate throughout custody and help to maintain wide social support networks. They should not just be limited to simple visits and not just be part of final preparations for resettlement
- the right to privacy in custody, including the confidentiality of personal information, and access to personal and private space in living conditions. Prisoners should be made aware of confidential meetings or conferences about them, and their views should be made available to those meetings
- personal plan – this should be developed early in custody with the participation of the prisoner, and considering all the areas above
- personal health plan – part of the overall personal plan, it should be developed early in custody following a health assessment, and with participation the prisoner who is empowered to ask questions and make choices about findings but understand their responsibilities, and with a listening and encouraging attitude of health staff

Creating a supportive environment through effective workplace health approaches

Benefits for staff and the organisation

The effects of the workplace on health and well-being of workers were discussed in section **.

The physical and mental health and well-being of all prison and health care staff will have a direct bearing on the health of prisoners. Workplace health is more than encouraging staff to eat healthy food and take more exercise. It is more than just having a medical occupational health service. However these may be sub-components of an overall approach. A positive supportive working environment has benefits for all, and makes business sense. Some business benefits may include:

- improved productivity
- reduced sickness absence
- reduced staff turnover and the retention of valued staff, which means reduced recruitment, training and induction costs
- improved staff attitudes towards the organisation and higher staff morale
- a more receptive climate for - and ability to cope with - workplace changes
- a decrease in accidents
- enhanced business reputation

Research shows that the key to improved health in the workplace is

- having top management commitment to health improvement
- integrating workplace health into the core business of the organisation
- good communication with staff
- partnership working with employees and their representatives
- commitment to core health promoting values by the organisation (through a public statement, example setting by senior managers, staff representative involvement, policies and procedures promoting fairness at work, including policies on equal opportunities, bullying and harassment, disciplinary and grievance procedures)

An organisational approach to workplace health needs to establish an integrated, sustainable programme using a cyclical approach:

- Setting up structures and processes that support workplace health
- Assessing health needs of staff and the capacity of the organisation
- Developing a workplace health strategy
- Implementing the strategy
- Evaluating activities
- Reviewing the programme

Further information is available at the old NHS Health Development Agency [3], the National Institute of Health and Clinical Excellence [4] and at the Health and Safety Executive (HSE) <http://www.hse.gov.uk/>

Some related common important specific issues related to workers' health and contributing significantly to sickness absence are likely to be

- Workplace stress, and related anxiety and depression
- Bullying – relationships at work can be one cause of work-related stress
- Musculoskeletal and back problems – although this can be related to physical exertion and lifting at work, there are psychosocial and work environment links
- Violence – exposure to violence in the workplace is a significant contributor to work-related stress
- Drugs, alcohol and smoking – increased use are recognised to be linked to stress

According to research the main factors likely to be contributing to these problems are:

- Demands – includes issues such as workload, work patterns and the working environment
- Control – how much say the person has in the way they do their work
- Support – includes the encouragement, sponsorship and resources provided by the organisation, line management and colleagues
- Relationships – includes promoting positive working to avoid conflict and dealing with unacceptable behaviour
- Role – whether people understand their role within the organisation and whether the organisation ensures the person does not have conflicting roles
- Change – how organisational change (large or small) is managed and communicated in the organisation

These are the basis of the HSE's new code for reducing stress in the workplace.

In addition healthy eating and physical activity (see later in this section) are likely to be important staff health issues, and partly related to the workplace.

Benefits for prisoners and their resettlement

In a progressive 'healthy' prison, the same principles for staff should apply as far as possible to all prisoners, especially given that custody affects many of the factors affecting stress and psychosocial health and well-being. Similar principles have also been successfully applied to developing Health Promoting Schools (<http://www.wiredforhealth.gov.uk/>). Therefore an autocratic, bullying and unsympathetic environment needs to be avoided, and the principles applied to workplace health could be broadly translated to prisoners by

- having top management commitment to prisoners' health (through a public statement and example setting by senior managers and all staff)
- involving prisoners, their representatives and advocates in prison structures and processes for healthy prisons
- developing a comprehensive and holistic prison health strategy or plan based on the social model of health and the Ottawa Charter for Health Promotion, and implementing, evaluating and reviewing it
- integrating prisoner health into all aspects of the business of the prison
- communicating effectively with prisoners
- developing policies and procedures promoting fairness for prisoners, including policies on anti-bullying (each other and by staff) and against harassment, and clear and consistent disciplinary and grievance procedures

It is obvious that paths to staff and prisoners' health in the prison environment are interlinked and similar in approach. Combining the two in overall prison health development plans is therefore logical.

Extending the supportive environment out of prison

The social determinants of health have been previously described in section III. Some of the resettlement activities occurring while prisoners are in custody can affect these. They include education, improving employment prospects, and help with housing, and personal, social and life skills.

Living in rundown neighbourhoods, in inadequate housing, overcrowded conditions and not having private living space, homelessness (on the streets, living in temporary accommodation, or in friends' or relatives' homes), or finding difficulty affording to rent or buy a reasonable home are fundamental threats to health. Many are major issues for many prisoners (see section III). Improving housing prospects for prisoners on release is a priority for their physical and mental health and well-being. There is a particular positive effect on adequate housing on mental health which is the major health issue for prisoners. In addition, without adequate shelter the benefits of improving life chances from any improved personal skills and education achieved within prison will be greatly diminished, and the likelihood of re-offending or being the victim of crime will be increased.

Educational achievement itself will be a positive influence on health, although didactic teaching for many hours is unlikely to be effective, especially for young people who are already disaffected and who left school at an early age. Parallels for a 'healthy' prison with the Health Promoting School approach have already been drawn, and further details are also to be found at (www.wiredforhealth.gov.uk)

This approach is clearly relevant to education and health within the prison environment. Strong commitment to National Healthy Schools Standards helps achieve

- Less drug use, and better use of health services including sexual health
- Higher levels of pupil self-confidence
- Positive pupil behaviour and attitudes to teachers and school
- Lower truancy rates
- Less fear of bullying
- Increased levels of pupil and staff participation and collaboration
- High status, good quality PSHE that prioritises health and well-being
- The NHSS has provided a whole-system school-improvement tool for organisational development.

Strengthening community action and participation

Participation can be defined as

'a process by which people are enabled to become actively involved in defining the issues of concern to them, in making decisions about factors that affect their lives, in formulating and implementing policies, in planning, developing and delivering services and in taking action to achieve change.'

It can be argued that participation is important as an end in itself, but it also has other benefits which lead to better health:

- Increasing democracy
- Combating exclusion
- Empowering people
- Mobilising resources (people may have a range of talents and skills that are not developed or realised)
- Developing more integrated and holistic approaches
- Achieving better decisions and more effective services
- Improving the ownership and sustainability of interventions

Therefore community participation is more than giving information or consulting. The theoretical ideal is a situation where the community has control, where the organisation (i.e.

'the prison') asks the community (e.g. inmates and staff) to identify the problem and make key decisions, supported by the formal organisation. There are certain levels then between this ideal and a situation where the community are told nothing and have no control.

Certain preconditions are necessary to achieve community participation, namely

- *Commitment* – by senior managers and professionals
- *Understanding and openness* to change
- *Competencies* – decision makers, middle managers, operational staff and prisoners need training in communicating, facilitating and managing change in order to make participation reality. Prisoners and staff may need training in their own personal and social skills (see below) in order to participate.
- *Resources* – a capacity building programme is a long term and needs human and financial resources

Most importantly meaningful 'community action' needs to occur within the prison, despite the security and custodial circumstances. It should include the 'community' of prisoners and staff within any prison structures and processes to improve health. A possible framework for incorporating such participation processes have just be outlined earlier in this section.

Participation is vital because prisoners tend to come from socially excluded backgrounds, and they may lack social and personal skills to participate in a community. They are therefore already disempowered which in turn can be worsened further by custody as liberty and power are further removed – a situation which linked to the lack of participation and decision making in society itself damages health and increases the likelihood of re-offending. The health effects of social exclusion were discussed in section III.

Adolescent, young adult, and older prisoners come from communities and most will return there, although a high proportion subsequently return to custody. Linking to community action or participation on health at a strategic and community level is therefore crucial, not only for when the young men and men are prisoners, but also when they return to the community. This would include involving appropriate statutory (e.g. social services, housing officers) and non-governmental organisations (e.g. advocacy organisations for offenders, housing associations, etc) being integrated into any prison structures and processes to improve health and to create a healthy prison. The involvement of such organisations can strengthen the prison's own efforts in improving health of prisoners while they are in custody, and also facilitate improving social factors that affect health once prisoners are released. The organisations that are involved need to have an influence on the underlying social factors that have been adversely affecting prisoners' health (e.g. housing, unemployment), in addition to personal and social care organisations that have a role in dealing with the consequences of those factors (e.g. drug treatment agencies).

Further information can be obtained from The Commission for Patient and Public Involvement in Health <http://www.cppi.org/>

Developing personal skills

The health damaging effects of a lack of all manner of personal skills was discussed extensively in section IV and there is a huge gap here among most of the prison population, e.g. in terms of anger management, coping, negotiation, positive relationships, resisting peer pressure, assertiveness, etc, and also practical skills such as finding advice and information, budgeting, shopping, cooking, taking part in civic society, and so on.

The importance of incorporating the extensive opportunity to develop personal skills within an overall approach to improve health has just been emphasised earlier in this section. Their importance in allowing the skills to deal with very widespread risky health-related behaviours and health problems within a young prison population is also highlighted for several health issues in the next part of this section.

Reorienting health services

This is a key area of Welsh Assembly Government policy in terms of the Wanless agenda. In general there is an urgent need for primary and other health care services to become more focussed on providing proactive, high quality modern services, tailored to their patients circumstances and individual health needs, strategically based on their collective wider health needs, and with an emphasis on providing effective interventions by multi-agency and multi-disciplinary action in appropriate and innovative ways and settings. Importantly a new emphasis on (effective) health promotion, disease prevention, and the early detection and treatment of disease is required. This allows for not only providing the effective treatment for illness and medical forms of prevention (e.g. screening and immunisation), but importantly calls for holistic effective action by linking to community groups and other agencies and disciplines' services.

Effective interventions for general and important prison health issues are highlighted below. Whilst within the domain of 'reorienting health services' specific matters of models of care may be raised and individual effective interventions highlighted, many interventions within the other domains of the Ottawa Charter are more often more important. Where such effective interventions for specific health problems exist they are highlighted. However, it should be emphasised that more often than not, the approach should be a holistic one as already described, and isolated individual disease-based or lifestyle based single intervention approaches should be avoided.

Psychological well-being and mental health

Mental health promotion

Mental health promotion is one of the most important benefits of the framework of a WHO Healthy Prisons approach described above – a vital approach therefore given the very large extent of poor psychological well-being and mental health problems amongst prisoners.

Some authors argue that educational and vocational interventions enhancing social inclusion rather than medical interventions are likely to be more effective in reducing feeling of shame and stigma among offenders, and could enhance offenders' psychological health.[5]

A useful summary of comprehensive approaches towards mental health promotion is available from the Sainsbury Centre for Mental Health.[6] This is compatible with Standards 1,2 and 3 of the revised adult mental health service National Service Framework and Action Plan for Wales.[7] A broad framework for mental health promotion within the WHO Healthy Prison approach and compatible with the NSF is shown in table 6.1 below. Essentially this approach needs to tackle the underlying risk factors for poor psychological well-being and mental health previously set out in table 5.1 in section V.

Table 6.1 Protective factors potentially influencing the development of mental health problems and mental disorders in individuals

Individual factors	Family factors	School context	Life events and situations	Community and cultural factors
<ul style="list-style-type: none"> ◊ easy temperament ◊ adequate nutrition ◊ attachment to family ◊ above-average intelligence ◊ school achievement ◊ problem-solving skills ◊ internal locus of control ◊ social competence ◊ social skills ◊ good coping style ◊ optimism ◊ moral beliefs ◊ values ◊ positive self-related cognitions 	<ul style="list-style-type: none"> ◊ supportive caring parent ◊ family harmony ◊ secure and stable family ◊ small family size ◊ more than two years between siblings ◊ responsibility within the family (for child or adult) ◊ supportive relationship with other adult (for a child or adult) ◊ strong family norms and morality 	<ul style="list-style-type: none"> ◊ sense of belonging ◊ positive school climate ◊ prosocial peer group ◊ required responsibility and helpfulness ◊ opportunities for some success and recognition of achievement ◊ school norms against violence 	<ul style="list-style-type: none"> ◊ involvement with significant other person (partner/mentor) ◊ availability of opportunities at critical turning points or major life transitions ◊ economic security ◊ good physical health 	<ul style="list-style-type: none"> ◊ sense of connectedness ◊ attachment to and networks within the community ◊ participation in church or other community group ◊ strong cultural identity and ethnic pride ◊ access to support services ◊ community/ cultural norms against violence

Reproduced from Commonwealth Department of Health and Aged Care 2000, Promotion, Prevention and Early Intervention for Mental Health – A Monograph

Key elements with research evidence of effectiveness that could be adapted for the prison setting include:

- Arts and creativity
- Access to green open spaces
- Real consultation
- Supporting social networks
- Rebuilding social capital
- Parenting skills
- Addressing anti-social behaviour
- Improving communication, language skills and impulse control
- Social support
- Opportunities for learning
- Emulating the WHO Health promoting schools approach - involving staff, prisoners, the community, addressing the social environment and organisational culture
- Anti-bullying: whole prison approach
- Tackling racism
- Recognising different religious, linguistic and cultural needs
- Real consultation
- Effective partnerships with cultural organisations
- Coping with transitions
- Self esteem programmes
- Peer-led programmes
- Self management
- Problem solving
- Cognitive behavioural approaches
- Social skills training
- Advocacy and peer support
- Education and life training skills
- Access to information
- Social participation

Specifically within employment/workplace (relevant to prisoners)

- Supported employment in real workplace
- Effort/reward balance
- Increased job control
- Reviewed job demands
- Enhanced social support
- Communication and participation
- Systemic and cultural issues
- Valuing staff

- Team working

Specifically for older people

- Volunteering
- Peer support/counselling

Specifically for people already with mental health problems

- Supported employment
- Volunteering
- Recognition of spirituality
- Exercise
- Creativity
- Social support
- Physical health care
- Proactive involvement of mental health service users
- Holistic services
- Appropriate outcomes developed
- Social contact
- Social support

What is clear from the research literature is that effective action to tackle mental health problems, improve mental health, and address these risk factors needs to be ongoing over several years to be effective for younger people. Therefore any prison programme would need to link strongly to outside agencies and their programmes that address these factors. There is growing research evidence that most community services are the most effective when there is effective communication and co-ordination between them.[8] Some such issues may be addressed by the Welsh Assembly Government's awaited Mental Health Promotion Action Plan for Wales following a consultation document in 2006.

Measures to support the social inclusion of prisoners within prison and upon release are likely to be very supportive of mental health. To this end, where possible, involving the prisoner's family in rehabilitation and resettlement activities from an early stage are likely to be effective in promoting mental health.

Universal interventions to reduce conflict and enhance cohesion between parents and children have persisting benefits in terms of the behaviour and mental health, and may reduce re-offending in parents and in the future in their children. Of relevance to older prisoners who have children who are also offending, there is high quality systematic review of controlled study evidence that family and parenting intervention with juvenile and young offenders and their families is effective in altering offending and delinquent behaviour, and may reduce time spent in institutions and re-arrest.

<http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD003015/frame.html>]

Adequate housing is a fundamental need for health, and inadequate housing in particular has a detrimental effect on mental health. It is crucial therefore that appropriate housing is organised for prisoners upon their release in terms of health, substance misuse and re-offending, but especially in terms of mental health, and particularly if the prisoner already has mental health problems. Detailed guidance on the specific housing needs of people with mental health problems is available from a briefing by the Sainsbury Centre for Mental Health.[9]

Another key element of mental health promotion and tackling mental health problems is by adequately addressing problem alcohol drinking and substance misuse amongst offenders (see later in this section) with a range of effective interventions, as well as effectively tackling bullying and violence.

There is evidence that when effective programmes to tackle issues at the personal level of a cognitive, emotional and behavioural nature, such as self-esteem, poor coping skills, social withdrawal and anger, aggression and violence, then it appears that many will need to be

actively encouraged to take up the programmes. Furthermore, in addressing such problems, there is high quality research evidence of effectiveness that group therapy of 15 sessions based on cognitive behavioural therapy can reduce episodes of depression (at least in the 15 months after treatment) in young people at increased risk, but who do not initially have diagnostic criteria for depression.

[<http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD003380/frame.html>]

Mental health services

Effective and appropriate health care and related services can help promote mental health when they are part of a wider health promoting organisational ethos - such as the WHO Healthy Prisons approach -and specific mental health promotion action as discussed above. Such services can detect and manage poor psychological wellbeing and mental health, and they can detect, manage, improve and rehabilitate people with mental disorders when they are holistic within an organisation and integrate between tiers and across organisational boundaries, and when they have parallel input and links to housing support, education, access to work, and input from specialist voluntary organisations.[5]

At present the Sainsbury Centre for Mental Health (www.scmh.org.uk) along with the Prison Health Research Network (www.phrn.nhs.uk) are conducting a research project – looking at treatment programmes for offenders and how to address their mental health issues. The project will include a literature review and a consultation to identify good practice and explore what currently works. The project is due to be completed by the end of May 2007.

The Sainsbury Centre for Mental Health (www.scmh.org.uk) and along with the Prison Health Research Network (www.phrn.nhs.uk) are also conducting a research project to learn more about service users' views and experiences in the area of offenders with mental health problems. The project will include a literature review and a consultation to identify good models for service user involvement in prison.

Whilst the National Service Framework[7] sets out the requirements for mental health services in the NHS in Wales under Standards 4–8, and notwithstanding the desire to reach the same standards of the NHS within prison health services, certain qualifications are required when considering providing mental health services for prisoners. To summarise what was discussed in detail in section V, the level of poor psychological well-being and mental health is much more common than in the community, and is much more common than severe mental disorder, although the latter is also more common amongst prisoners than in the community population. Secondly despite low levels of psychological well-being, prisoners are even more reluctant than men in the general population to seek help from health professionals. This is often based on previous negative consultation experiences, often with doctors. The study that assesses these factors showed that prisoners wanted their general practitioner to listen, treat them with respect and compassion, and provide appropriate information.[10] This view is strengthened by other evidence which shows that especially in mental health care, the therapeutic alliance between professional and patient contributes to the outcome, regardless of treatment type.[11]

Nevertheless there are some key points of relevance in the NSF action plan of importance to the provision of mental health services within prisons, notably its reference to the Assembly Government's health plan "Designed for Life", and its first key aim of focussing on health and wellbeing, not illness. Furthermore "Designed for Life" Strategic Framework 1 Redesigning Care 2005-8 requires more prevention, better access and better services. The priorities under mental health and relevant to prisons are listed below:

- Day activity services
- Tackling substance misuse
- Court diversion
- Psychological therapies
- Comprehensive rehabilitation facilities
- Risk management skills
- Primary care

- Workforce reconfiguration
- Low secure services

Certain NSF Action Plan performance targets are also relevant to the prison setting:

- By March 2007 LAs/LHBs to have a plan for the establishment of a range of psychological therapies in each area.
- By March 2009 LAs/LHBs to have structured counselling available in primary care.
- By March 2010 LAs/LHBs to have a full range of psycho-social interventions available in secondary care.
- By March 2006 LHBs/NHS Trusts to develop arrangements for the consideration, incremental implementation and audit of NICE guidelines and technical appraisals.
- By March 2007 LHBs/NHS Trusts to undertake a systematic review of NICE guidelines and technical appraisals and the development of a local incremental implementation plan.
- By March 2007 LAs/LHBs/NHS Trusts to develop local protocols for communication of risk and transfer of care, the sharing of care within and between agencies and to ensure that people achieve equality of access to the range of services. Protocols should cover the following areas:
 - Young people in transition to adult services.
 - People with a co-occurring learning disability.
 - Older people in transition from adult services.
 - People in contact with criminal justice services.
 - People with co-occurring mental health and substance misuse (the protocol should take account of the Substance Misuse Treatment Framework for co-occurring mental health and substance misuse).
- By March 2007 LAs/LHBs to ensure implementation of the Prison Mental Health Care Pathway.
- By March 2007 LAs/LHBs/Police to establish mentally disordered offenders (MDO) operational planning groups within each police force area
- with clear multi agency joint working protocols.
- By March 2008 LAs/LHBS to ensure effective court diversion arrangements are established across Wales.

The NSF continues:

“There are to be arrangements in place to support criminal justice services including prisons and youth offending teams. Other provision is to include diversion from custody and in-reach into prisons to ensure as seamless care as possible for offenders with mental health problems. There is to be clear protocols to manage individuals who have a history of offending.”

“The needs of vulnerable children and young people whose parents/guardians have mental health problems are to be considered very carefully. There is to be careful planning to ensure their needs are fully taken into account especially in situations where they are acting as carers. The issue of parents with a co-morbid mental health and substance misuse problems are of particular note and the needs of children of people who misuse substances are highlighted in the document Hidden Harm.”

There is an emphasis of primary care in the Wales NSF. It highlights the need to “recruit and maintain a workforce skilled in mental health across all sectors including primary care that is sufficient in numbers, well motivated, well trained, well led and well supported.....

Staff should have the time and skills to:

- listen and communicate effectively with users and carers giving their views time and respect.
- develop a holistic understanding of individual users’ needs.
- work in partnership with the service user and their carer and other disciplines and agencies.
- assess and document user needs including assessment of risk and prepare plans to be regularly reviewed with full user involvement.
- demonstrate a commitment to Equal Opportunities.
- have protected time for further training and development of their expertise.”

Despite the emphasis on reconfiguration of services towards prevention and primary care, in a recent review of prison psychiatry in England and Wales, the Royal College of Psychiatrist emphasised the continued dominance of secondary care consultant psychiatrist-led multi-disciplinary teams modelled on existing community mental health teams within prisons – assessment, management and referral to more specialised psychiatry services would be made through these in-reach teams. The review did not appear to give major consideration to other models of care other than the role of various sub-specialities of psychiatry.

However we have already emphasised the predominance of undetected and unmanaged poor psychological well-being amongst the prisoner population, the benefits of mental health promotion and the WHO Healthy Prison approach - including the general principle of re-orienting care services towards primary care and prevention – as well as the Wales NSF emphasis on mental health promotion, reconfiguring services and the role of primary care and psychological therapies and formal counselling in particular. Within this context the role of evidence-based models for integrating mental health services with effective interventions within primary care have been reviewed in the research literature.[12] Within overall models of care for mental health that might be suitable for implementation within prison, there is specific policy, and evidence of effectiveness for individual interventions for key problems and treatment modalities:

Suicide & self-harm

There is an evidence-based NICE Guideline on managing self-harm

[\[http://guidance.nice.org.uk/CG16 \]](http://guidance.nice.org.uk/CG16)

The Wales NSF states that

“Suicide prevention is a priority for services. It is to be addressed by delivering high quality and responsive effective evidenced based care using relevant NICE guidelines and the recommendations of National Confidential Inquiry into Homicide and Suicides “Safety First”. This applies to both primary and secondary care. Care plans for all discharged inpatients who have a severe mental illness or recent history of deliberate self harm are to include specific follow-up arrangements for the first week after discharge and more intensive provision for at least the first three months.

Mental health services are to work with local prison staff and the in reach service in preventing suicides among prisoners. There should be local systems for suicide audit, (and all other significant untoward incidents) to learn lessons and take any necessary action.”

Separately:

Research suggests that it may be possible to predict those at a particularly higher risk of suicide within the primary care setting (the risk factors were outlined in section V).

Those with more severe personality/cognitive traits that are risk factors for poor mental health, suicide and self-harm (see section V), risky health-related behaviour, and re-offending, may need more intense personal skills input. Cognitive behaviour therapy may be helpful in some cases. Young men may not volunteer their problems, and they may need to be engaged about their problems in innovative ways before they take up any available effective therapy.

Similarly prisoners with adverse family circumstances and childhood experiences are common (see section III). Emotional and behavioural problems (section IV) are also common as a result. Such backgrounds are also risk factors for poor mental health, suicide and self-harm (see section V), risky health-related behaviour (section IV), and re-offending. The identification of prisoners with these backgrounds is very important. Again, they may need to be engaged about their problems in innovative ways before they volunteer in a trusting environment. Offering appropriate forms of professional counselling may be helpful, although uptake may need to be encouraged, and the service adequately advertised.

There is research evidence that cognitive behavioural therapy can help prevent repeated suicide attempts. A high quality review found some evidence of effectiveness for problem-solving therapy in reducing self-harm, and from a single study of dialectical behaviour therapy, although there were only a few studies overall.

Identification and adequate treatment of previously undetected depression and other mental illness should form part of suicide prevention programme.

Psychological therapies

Various forms of psychological therapies (e.g. cognitive behavioural therapy) and forms of counselling, provided by a range of therapists can be effective as part of the management of many mental disorders and psychological problems, and should be considered as a routine part of the management, whether or not effective pharmacological treatment is used. Evidence-based clinical guidelines for psychological therapies and counselling have been developed in the treatment of adults with:

- depression, including suicidal behaviour
- anxiety, panic disorder, social anxiety & phobias,
- post traumatic disorders,
- eating disorders,
- obsessive compulsive disorders,
- personality disorders, including repetitive self harm
- chronic fatigue

Alcohol control – effective interventions

This section includes tackling all forms of problem alcohol drinking: heavy, risky, hazardous or harmful drinking (defined as those at risk from consumption exceeding daily, weekly or per-occasion thresholds - which includes binge drinkers - or those who experience physical, social or psychological harm from their above-threshold alcohol use without meeting criteria for dependence). We also include the less common but not rare condition of alcohol dependence. All are linked.

Key information about effective interventions to prevent alcohol misuse at various levels of the WHO Ottawa Charter and Health in Prisons approach are found at:

[http://www2.nphs.wales.nhs.uk:8080/widerdeterminantsdocs.nsf/61c1e930f9121fd080256f2a004937ed/fa0b31a1087bf07802570890031915d/\\$FILE/ALCOHOL-1.doc](http://www2.nphs.wales.nhs.uk:8080/widerdeterminantsdocs.nsf/61c1e930f9121fd080256f2a004937ed/fa0b31a1087bf07802570890031915d/$FILE/ALCOHOL-1.doc)

<http://www.nice.org.uk/download.aspx?o=503439>

Improving harm from problem alcohol consumption needs to be part of an overall 'healthy prison' approach. A single intervention approach at any level will not deal with the problem.

Action to address the housing needs of all prisoners' who are homeless or with housing problems, before release is likely to be supportive of other more specific measures to reduce alcohol consumption and protect against hazardous alcohol consumption.

Action to improve the employability and also secure good quality work of prisoners by the time of release is likely to be supportive of other more specific measures to reduce alcohol consumption and protect against hazardous alcohol consumption.

Action to address all prisoners' educational potential is likely to be supportive of other more specific measures to reduce alcohol consumption and protect against hazardous alcohol consumption.

Many of the interventions at the healthy public policy level would need to occur in the community by government and local authority. The local Community Safety Partnership, Substance Misuse Action Team and Health and Wellbeing Partnership may also have a role.

General measures at the level of community action to create a 'healthy prison' especially those encouraging the participation and empowerment of prisoners in decision-making and promoting social inclusion (and maintaining and building social networks with family and community), are likely to be supportive of improving self-esteem, personal skills and mental health. These in turn are likely to be supportive of other more specific measures to reduce alcohol consumption and protect against hazardous alcohol consumption.

Personal skills

General measures to improve personal, social, and life skills are likely to be protective against hazardous alcohol consumption, along with other measures.

Many community and educational setting based interventions were recently reviewed by the Cochrane Collaboration. Most studies were of poor design or interventions were clearly ineffective. However, the best, although not dramatic, results in reducing alcohol consumption and uptake in young people appear to be in combined community and educational setting interventions that are educational from the perspective of including information on alcohol and social skills training, that involved young people and their families, and were culturally sensitive.

Re-orienting health services

Interventions aimed at reducing alcohol consumption and reducing hazardous drinking

These interventions are relevant to most of the prison population. There is good research evidence that brief interventions can be effective in reducing heavy, risky, hazardous or harmful drinking. For example, heavy drinkers receiving brief interventions in the health care setting are twice as likely to moderate their drinking six to 12 months after an intervention when compared with drinkers receiving no intervention. The intervention can take the form of a specific intervention lasting 10-15 minutes in one session concerning alcohol consumption, health risks and strategies to decrease alcohol intake. Multiple contacts are beneficial, with possible reinforcing consultations through follow-up of three to five minutes each. There seems to be no advantage from more intensive input, although very brief intervention does not appear to be effective.

There is good research evidence that opportunistic brief intervention by healthcare professionals in the primary care setting reduces alcohol consumption in those who do not proactively present with alcohol related problems. This is also effective for hazardous drinkers who are not actively seeking treatment for alcohol problems.

It may be possible to increase the frequency that GPs screen for alcohol misuse and give advice for hazardous and harmful alcohol consumption. They include having a specific multi-component alcohol prevention programme within the practice and educational sessions in the surgery.

Control of substance misuse other than alcohol and tobacco – effective interventions.

Many of the approaches will be similar to those for controlling alcohol and tobacco. Improving substance misuse needs to be part of an overall 'healthy prison' approach. A single effective activity is unlikely to impact on overall substance misuse in the prison.

The absence of high quality research evidence of effective outcomes, such as prevention, delay or reduction of drug use, makes it hard to determine 'what works' in drug prevention initiatives with vulnerable young people and others. However, here the best available and empirical information is presented. A summary of the evidence of effective interventions is available at

[http://www2.nphs.wales.nhs.uk:8080/widerdeterminantsdocs.nsf/61c1e930f9121fd080256f2a004937ed/f975ad745f8ff2ef80257089003174a7/\\$FILE/DRUG%20-%201.doc](http://www2.nphs.wales.nhs.uk:8080/widerdeterminantsdocs.nsf/61c1e930f9121fd080256f2a004937ed/f975ad745f8ff2ef80257089003174a7/$FILE/DRUG%20-%201.doc)

and

<http://www.nice.org.uk/download.aspx?o=316441>

and

<http://guidance.nice.org.uk/PH14/guidance/pdf/English/download.dspix>

and

<http://www.nice.org.uk/download.aspx?o=529849>

Action to address the housing needs of all prisoners' who are homeless or with housing problems, before release is likely to be supportive of other more specific measures to reduce substance misuse.

Action to improve the employability and also secure good quality work of prisoners by the time of release is likely to be supportive of other more specific measures to reduce substance misuse.

Action to address all prisoners' educational potential is likely to be supportive of other more specific measures to reduce substance misuse.

General measures at this level to create a 'healthy prison' especially those encouraging the participation and empowerment of prisoners in decision-making and promoting social inclusion (and maintaining and building social networks with family and community), are likely to be supportive of improving self-esteem, personal skills and mental health. These in turn are likely to be supportive of other more specific measures to reduce substance misuse.

Peer approaches: When peers are adequately trained and supported, they may be used successfully in educational setting based initiatives to engage vulnerable and 'difficult to reach' groups, break down barriers and provide credibility. Peer approaches appear to be particularly beneficial for the peers themselves, providing positive experiences and a potential path to career or personal development.

Criminal justice intervention schemes: These schemes have a potentially significant role to play in encouraging access to treatment, reducing offending and drug use. Schemes should be proactive and properly resourced. Criminal justice intervention schemes are reported to be highly cost effective in terms of savings to health, welfare and criminal justice systems.

Programmes such as Positive Futures are said to have helped young people raise their aspirations, relate better to others, increase their skills and competencies and change their attitudes. Anti-social behaviour in the community was also said to have reduced. Such programmes may help maintain access to services.

Diversionary activities: Young people excluded from stable education or mainstream activities may be engaged through activities designed to interest them.

Research evidence shows that the police-led project DARE (Drug Abuse Resistance Education) has had little effect on substance use behaviour.

Engaging homeless people : Projects using peer educators from local alcohol and drug recovery programmes have had mixed results. Services could be delivered through:– outreach workers based at drop-in centres, peer educators among the homeless people themselves, mentors or advocates who may intervene on behalf of individuals, discreet and confidential centres accessible to young people

Since risky behaviours are often clustered, combined interventions may work better, both for those already engaged in risky behaviour and those not yet involved. The social exclusion model and combined intervention require improved coordination, practice and coverage of

prevention initiatives through effective multi-agency working. Multi-agency working should become the norm.

Intensive life-skills programmes may provide at-risk groups with the resources to avoid or delay substance use, and help develop protective attitudes (positive attitude towards education, for example)

Use of peers and motivational outreach are potentially useful strategies that may improve effectiveness.

Social influence theoretical model: These models engage young people through a range of activities designed to increase personal and social skills.

Teacher-led projects (such as Theatre in Health Education – THE) are helpful and may help change attitudes, raise awareness and prevent drug use. They may be useful in the prison setting and for other risky behaviours.

Involving parents in initiatives may help produce positive outcomes

Tobacco control - effective interventions

Improving tobacco control needs to be part of an overall ‘healthy prison’ approach. Many of the social and individual factors resulting in tobacco use also lead to other risky behaviour, thus emphasising a need for a holistic approach. A single effective activity, particularly smoking cessation services alone, is unlikely to impact on overall smoking prevalence in the prison.

Action to ensure effective housing and resettlement on release will help prevent those prisoners who do quit smoking whilst in prison from relapsing on release.

Smoking bans in public places are effective in reducing smoking rates and harm from smoking in non-smokers.

Banning advertising and point of sale promotion of tobacco is effective.

Price is one of the best methods of tobacco control. Tobacco should not be available for staff to buy at work, and it should be as expensive as is possible and tolerated for prisoners. Large weight and volume cigarette and tobacco packs and vending machines that make tobacco purchase easy or cheaper can increase the number of cigarettes smoked.

Sustained ‘mass media’ anti-tobacco education campaigns tailored using scientific and marketing knowledge and based on social learning theory, delivered within the prison aimed at staff and prisoners has an effective role, but only as part of an overall approach. Several different campaigns may be required in parallel as they have to be tailored to the audience (e.g young men) to be effective.

The smokers NHS Wales quit line 0800 1690169 is effective in helping reduce smoking. The number should be advertised widely, and its use encouraged.

Effective smoking cessation activity needs to be systematic and a comprehensive part of routine healthcare. It is important that smoking cessation services are widely advertised.

It is effective to train all health care staff should be trained on how to give simple and/or more intensive advice to quit.

It is effective to identify those who smoke in their health records - including how much smoked. Those already motivated to quit should be identified.

All (medical, nursing, pharmacy, dental, etc.) healthcare staff should give repeated opportunistic simple advice taking 1-2 minutes to give up smoking to all smokers of all ages who smoke, integrated into all consultations. This is very cost effective compared to other preventive medical interventions. Many smokers make several attempts before quitting. Therefore advice should be repeated even if relapsed.

A computerised health system that prompts healthcare staff to give simple advice to quit improves effectiveness.

There is good research evidence that group behaviour therapy programmes (more cost effective and can be up to 20 to 25 smokers) are better than self-help and other less intensive interventions in assisting smokers to quit when given by trained smoking cessation counsellors (who can be from any discipline). The therapy also can be offered to individuals.

More intensive advice (> 20 mins) and follow up by healthcare staff should be offered to smokers who are already motivated to quit but who do not wish to take up the more specialist smoking cessation services.

General self help materials to quit such as leaflets and videos are not very effective and should not be the mainstay of prevention programmes

Cognitive behavioural therapy for quitting smoking can be effective for smokers who have mental illness and should be routinely available to people with mental illness who also smoke.

Specific attention is needed for offering services to deprived smokers. Further information on smoking in deprived groups is available at <http://www.publichealth.nice.org.uk/page.aspx?o=502641>

Pharmacotherapy (e.g. with nicotine products) multiplies the effectiveness of the various forms of advice to quit in those motivated to quit. However the emphasis should still be on the intensity of the advice to quit.

There is no convincing scientific evidence that acupuncture, hypnotherapy or other complementary therapies are any more effective than placebo despite their popularity. They should not be used for smoking cessation.

Infectious diseases and sexual health

To minimise the transmission of hepatitis A, B and C, HIV and other infections in prisoners who continue to inject drugs whilst in prison, the Prison Service's Disinfecting Tablets Prison Service Instruction can The scheme has been piloted in Bristol and elsewhere, and although it is intended to disinfect toothbrushes, shaving equipment, and tattoo needles, the tablets can be used to disinfect drug injecting paraphernalia. www.hmprisonservice.gov.uk/resourcecentre/psispsos/

Vaccination against hepatitis B is protective against hepatitis B in prisoner populations who have high prevalence of injecting drug use, sharing of injecting paraphernalia and high prevalence of hepatitis C infection. The prison is an important location where most injecting drug users can be vaccinated. Durham and Bristol prisons consistently report over 70% hepatitis B vaccine coverage.

To increase hepatitis B vaccination uptake, we recommend that prison staff are trained with a tailored package in vaccination skills and of the importance of hepatitis B vaccination. A successful scheme was carried out by Humber Health Protection Unit with prison staff

A protocol for hepatitis C needs to include robust arrangements for referral to specialist care and expectations for treatment. An example of good practice of prison-based clinics is in the Yorkshire & Humber region (www.hpa.org.uk/publications/2006/hepc_2006/default.htm)

Evidence based guidance on the diagnosis, management, prevention and control of tuberculosis are available at <http://www.nice.org.uk/page.aspx?o=CG033quickrefguide>

HMP Pentonville has a TB nurse specialist who has developed a nurse-led TB service www.hpa.org.uk/infections/topics_az/tb/newsletter_2006.pdf

Guidance on tuberculosis for prison officers is available at www.hpa.org.uk/tbknowledge/hpa_tuberculosisknowledge_prison.htm

Updated advice on routine vaccinations amongst prisoners, including MMR, meningitis C, and so on, is available from www.dh.gov.uk/assetRoot/04/14/17/61/04141761.pdf

Information on how to reduce inequalities in vaccination uptake is available at http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalassets/dh_4108046.pdf

A summary of effective interventions for sexual health promotion are available at Features of effective programmes were highlighted in section 6 and are available at [http://www2.nphs.wales.nhs.uk:8080/widerdeterminantsdocs.nsf/61c1e930f9121fd080256f2a004937ed/6c644b6a763108788025708900316371/\\$FILE/STI%20-1.doc](http://www2.nphs.wales.nhs.uk:8080/widerdeterminantsdocs.nsf/61c1e930f9121fd080256f2a004937ed/6c644b6a763108788025708900316371/$FILE/STI%20-1.doc)

Quotes from projects for young men about sexual health are available at <http://www.publichealth.nice.org.uk/page.aspx?o=sexualhealth.hdt>

General measures to improve personal, social, and life skills are likely to be protective against risky sexual activity. This has in fact been the experience of research considering sexual health: and high quality research on sexual health suggests the following are features of effective interventions:

- interventions are age appropriate
- behavioural skills training and personal development are included (including self-efficacy, confidence, self-esteem and negotiation skills as components) and young people are allowed to practise the skills
- the emphasis is on promoting sexual risk reduction rather than promoting sexual abstinence
- interventions use peers and community opinion leaders
- they provide basic, accurate information via clear, unambiguous messages
- they are targeted and tailored specifically for the client group in terms of age, gender, culture, and so on, making use of formative research
- theoretical models are used in developing the tailored interventions
- that prevention programmes have multiple effective interventions
- participatory, inclusive teaching methods are used
- relationships and unacceptability of pressurising girls also need to be components
- information about contraceptive use and availability is included

Furthermore, there is sufficient high quality research evidence to suggest that small-group work interventions are effective.

Sufficient high quality research allows us to conclude that sex education in an educational setting can be effective in reducing sexual risk behaviour (but note barriers to participation below) and in terms of knowledge, attitudes, delaying sexual activity. Linking to contraceptive services may be beneficial.

Young men tend not to appropriately use traditional local health care and sexual health services in the community. A different approach to engage them in order to deliver effective interventions is therefore required. Excluded young men can be put off because of their culture of macho behaviour, a suspicion of formal settings, and a fear of showing vulnerability. Common complaints are:

- sex education is overly biological or medical, and can be too focussed on female biology

- sexual health advice is not available as part of other informal activities
- atmosphere needs to be informal and fun
- confidentiality
- feeling rushed, not having time to ask questions
- healthcare professionals assume too much pre-existing knowledge
- need more youth-oriented written material to supplement verbal advice, although not too much all at once
- having a rapport with and being able to trust the practitioner(s)

There is only some high quality evidence that individual risk counselling by healthcare professionals is effective.

When patients are diagnosed with a STI, there is reasonable evidence that more sexual partners are identified and subsequently present for assessment if the patient receives a subsequent simple reminder following the consultation by health care staff, or if the patient receives specific health information from a nurse combined with counselling from a lay counsellor.

A chlamydia screening programme within the prison may be effective in reducing infection rates and detection and treatment rates amongst prisoners. In England there is a national chlamydia screening programme that has been extended to prisons there.
www.hpa.org.uk/infections/topics_az/hiv_and_sti/sti-chlamydia/default.htm

Section 7

Health promoting conditions, health-related services, health care services available to prisoners at HMP Cardiff

Background

This section describes whether the regime of the prison is health promoting, the extent and nature of health-related and health care strategies, policies, programmes and services in place at the prison.

The Health Promoting Prison

The WHO Healthy Prisons approach (see previous section) has not yet been formally adopted at HMP Cardiff. However, a few aspects of the prison structure and regime are compatible with elements of that approach.

Prison Service Order 3200 (PSO 3200, HMP Service, 2003) is the result of the formal partnership between the Prison Service and the NHS, and states explicitly that prisoners should expect to have access to health services that are broadly equivalent to those the general public receives from the NHS. Furthermore, this means that prisons should provide health education, patient education, prevention and other health promotion interventions. Efforts should be made to build the physical, mental and social health of prisoners as part of a whole prison approach and to prevent the deterioration of prisoners' health during or because of custody. Prisoners are also to be encouraged to adopt healthy behaviours that can be taken back into the community upon release.

It states that this approach should be built upon evidence of what works best in prison based health promotion. It should feed into other already established elements of the prison regime, and already existing mandatory actions to ensure that specific health needs are assessed and wherever possible met through the prison/NHS partnership and local plans. The PSO also states that there should be clear line management arrangements in place that indicate an individual with explicit responsibility for leading health promotion work across the prison. Five major areas are covered by this order, namely:

- Mental health promotion and well being
- Smoking
- Healthy eating and nutrition
- Healthy lifestyles, including sex and relationships and active living
- Drug and other substance misuse

The aspects of the general approach of this PSO and some of its sub-elements, if fully implemented at HMP Cardiff, will go a small but important way to achieving a 'Healthy Prison'.

To this end HMP Cardiff has drafted a Health Promotion Strategy. Notably one of its aims is to have 'a whole prisons approach to build the physical, mental and social health of prisoners.' Its content broadly reflects that of the PSO. The strategy is led by the prison's Health Promotion Action Group, which is chaired by the Head of Learning, Skills & Resettlement.

Non-health care services with potential health benefit

The relevance of factors outside the health care sector to health has already been explained in section III and IV.

The recent *Joining Together in Wales – Reducing Re-offending Action Plan 2007/08* published jointly between NOMS Wales and the Wales Assembly Government sets out a clear set of priorities in terms of the main offender pathways for the next twelve months and beyond. It builds on previous work (Social Exclusion Unit, 2002) that recognised the seriousness of re-offending, and is the result of the consultation that has happened after *Joining Together in Wales* was originally published in 2006. Most of the identified pathways in the action plan are relevant to prisoner health improvement to some degree, but of special interest are the Health and Social Care Pathway, the Substance Misuse Pathway, the Accommodation Pathway and the Education, Training and Employment Pathway. Their extensive and adequate implementation throughout the criminal justice system would achieve considerable health improvement in offenders, including those who are imprisoned.

The Learning, Skills and Resettlement department has two main remits within HMP Cardiff, namely responsibility for the broad educational needs of prisoners and help with resettlement as prisoners leave. Many of the services provided have or could have a bearing on the health and well-being of prisoners in the short and long term.

The former covers both general learning and attainment of skills and qualifications, whilst the latter is closely identified with trying to manage offender behaviour and helping prisoners find accommodation and jobs on the outside. Both were deemed to be working well at the time of the HMI inspection in 2005 (HMIP 2005), though the responsibility for resettlement had previously been under a civilian manager until the end of 2005 (IMB 2005), when it was transferred to be under the Head of Learning and Skills.

Assessment

Prisoners at HMP Cardiff are initially assessed using two systems that have been in place for roughly three years. Prisoners who are held for less than twelve months are given a Passport needs assessment, whilst those over twelve months are given a comprehensive OASys assessment approximately six months into their sentence. Both systems assess the healthcare needs of prisoners, and any immediate medical issues are usually identified quickly. They also assess the general educational needs of each prisoner, but they do not pick up on any further health education needs, though there is a 'traffic light' system for any issues noted by staff this can then be attached to the Passport and has to be acted upon where possible. This could be anything from mental health needs to personal hygiene issues.

OASys, which will eventually cover all prisoners, is a more sophisticated assessment tool, which fits in with the seven NOMS pathways to reduce re-offending, namely

- Accommodation
- Education, training and employment
- Health
- Substance misuse - drugs and alcohol
- Finance, benefits and debt
- Children and families
- Attitudes, thinking and behaviour

and contains much more information about the prisoner's needs. It will eventually give a specific 'end-to-end' management of the individual prisoner, including an individual supervisor for each one – the needs are also regularly revised. This system is already in place for POPOS (Prolific and Other Priority Offenders) and MAPPAS (multi-agency public protection arrangements) offenders.

One of the problems identified specifically in the south Wales context is that though OASys can be transferred with the prisoners to another prison, the Passport system is not accepted at some (e.g. HMP Swansea) which implies that any prisoner moving between these institutions with a sentence of less than twelve months would have to be re-assessed.

The Learning, Skills and Resettlement department has to take into account PSO 3200 when offering courses, though this PSO results in more 'soft outcomes' compared with other targets which the department has to reach.

Learning and skills

This service involves vocational training and work opportunities. A re-inspection in 2005 by the Adult Learning Inspectorate, concluded that 'all aspects of the provision were found to be satisfactory or better'

Many, but by no means all prisoners come into prison with very low educational attainment. Also, they might suffer from specific conditions that might not have been diagnosed in the community, such as dyslexia, dyspraxia or Attention Deficit Hyperactivity Disorder (ADHD).

Prisoners are offered a range of training opportunities within the prison workshops, kitchen and gymnasium, though there is no obligation for prisoners to participate in any course. The 2005 inspection found that training was good in hospitality, sport, leisure and travel. Construction learners on painting, bricklaying and decorating courses have had very good results in external exams, and there were also high marks for those on ICT courses. Similarly, foundation courses teaching basic level numeracy and literacy had high pass rates. Food hygiene courses are especially popular because they are relatively easy qualifications to attain and are necessary for handling food in the kitchens.

A Rickter scale, which is a non-paper based assessment tool designed for motivational and self-evaluation, is the preferred tool to ascertain the educational needs of the prisoner, and is seen to be a more sensitive way of testing for prisoners' abilities and needs, both in HMP Cardiff and with large scale reducing re-offending programmes such as PS Plus. After assessment, each is given an individual learning plan. Basic Skills level 1 is the minimum that the department aims to achieve with prisoners. There is a duty of care by the department to prioritise courses which lead to qualifications, though in recent times there has been more recognition from the Inspectorate of the importance of courses and activities which have 'soft outcomes' i.e. many of the personal skills courses or certain cultural activities.

There are several opportunities for prisoners to follow distance-learning courses, including Open University and some University of Glamorgan courses also. Some prisoners are encouraged to teach their peers. Roughly 5% of prisoners follow higher-level courses.

Prisoners on the Vulnerable Prisoners wing are offered therapeutic courses in art and music, of which there is a good take-up rate. Many of the prisoners on the Vulnerable Prisoners wing have mental health or drug-related mental health problems, and there are also many graduate prisoners on this landing.

A variety of life skill classes are offered, which are useful in terms of resettlement also (see below). These include

- Family Man – tries to make prisoners more active members of their family while in prison, and uses drama techniques to engage large groups of learners of mixed ability.
- Stop and Think - a social problem solving intervention.
- CALM – Controlling Anger and Learning to Manage it, a group training course intended to reduce anger, violence, and emotional loss of control.
- Enhanced Thinking Skills – which seeks to develop a range of thinking skills that will allow individuals to solve problems more effectively and to achieve goals in a socially acceptable way.

Family Man links in to the highly successful family days organised by the prison, and many officers have also received training through Barnado's so that they are able to engage more constructively with prisoners and their families during such events. A Family Liaison Officer has also recently been appointed.

Worth mentioning also is the pioneering SORI (Supporting Offenders through Restoration Inside) programme at Cardiff, though not under this department, which is available through the chaplaincy. This scheme brings together offenders and victims of crime and almost a 100 offenders and 33 victims have taken part over the last two years.

Many other activities are also encouraged under the auspices of this department, including art, music and plays, a prison wide magazine called 'The Knox', DVD and music production.

Much of the funding for the basic skills work and some of the offender management courses comes from NOMS and the WAG, but many other activities are based on other funds, such as ESF.

Resettlement

The aim of the service is to integrate all prisoners back into the community and help prevent re-offending. PSO 2300 specifies the terms of this important part of the prison service. Many aspects of the resettlement service link to services and organisations in the community.

The service links to the following areas:

- Probation
- Parole
- Sentence management
- Substance misuse
- Community integration programmes
- Housing

Prisoners at HMP Cardiff are offered help with resettlement in the last four weeks of their sentence, including accommodation, contacts with Jobcentre Plus, help through the Citizens Advice Bureau and help to set up a bank account if needed. They are usually approached by officers and offered this service, regardless of whether they have requested it or not.

In theory, no prisoner should leave HMP Cardiff without the offer of accommodation, as the local authority guarantees housing. However, at least 10% do not take up any offers, and if there is a local shortage in housing, some are sent to Bristol.

Some of the courses run by the department are specifically aimed at changing offending behaviour, such as the previously detailed Family Man, Stop and Think, CALM and Enhanced Thinking Skills – these can be seen as ways of preparing some offenders for life outside the prison also, but it has to be remembered that all course attendance is voluntary. Some more specific drug-related courses, such as P-ASRO (Prison-Addressing Substance Related Offending) are attended after CARAT referral (see below).

102 Offending Behaviour completions, including P-ASRO, took place between April-September 2006.

A mentoring system is in the process of being introduced, and the hope is eventually that all prisoners can be offered a mentor to help with resettlement on the outside.

Health care services

In April 2003 the responsibility and funding for the health services in public sector prisons in Wales transferred from the Prison Service to the Welsh Assembly Government. In April 2006 this was devolved to Cardiff Local Health Board (LHB), in relation to HMP Cardiff, and the LHB now commissions and funds the prison population's health services.

The bulk of day-to-day services are provided on site by staff employed by the Prison Service at HMP Cardiff under the auspices of the Healthcare Department. Some elements of care within the Healthcare Department are sub-contracted to other providers. Additionally, some clinical services are provided by other departments within the prison.

Facilities and infrastructure

On the whole, clinical services are currently provided in an older bloc of the prison. However, a new on-site purpose built unit is currently nearing completion. The capital costs for this project have been funded by the Prison Service.

The new clinical unit comprises a 20 bed in-patient area on the ground floor, mostly as single cells, and including one negative pressure cell for the management of tuberculosis. There are auxiliary clinical rooms, offices and various other rooms for staff associated with the in-patient area. On the first floor there is a primary care and day care area which includes consultation rooms, waiting rooms, dental suites, a pharmacy, treatment areas, and a variety of administrative rooms.

Budget

The budget for healthcare at the prison is received monthly from the LHB. Any annual overspend has to be absorbed by the Prison Service, and underspend can be re-absorbed by the LHB.

The total budget for 2006/7 was approximately £1.5 million. This does not include capital costs. It is assumed that the budget will be similar for 2007/8. The bulk of the budget is for staff costs - £1,260,524 and staff-related costs – e.g. uniforms £5k, recruitment £5k, training £5k, and administrative running costs of around £14k.

Annual pharmacy and drugs costs amounted to £180k in 2006/7, ophthalmic optician costs were £6k and prisoner transport £12k.

Of the £1.5 million, £349k was top-sliced for GP daytime and out-of-hours services provided by Serco (see below), for dental services, psychiatry, genito-urinary medicine, and podiatry services.

Prisoner reception

All new prisoners are seen by a nurse or healthcare officer. A medical questionnaire is completed. Depending on the outcomes of the assessment, referrals can be made to chronic disease management clinics, immunisation clinics, follow-up clinics, regular prison GP appointments, mental health services and detoxification services (see below for details).

Health protection and immunisation

There is a Communicable Disease Committee involving representatives from HMP Cardiff and a Consultant in Communicable Disease Control from the National Public Health Service. The Committee agreed a Communicable Disease Policy in 1999 that was apparently updated in January 2006.

General procedures

The policy discusses notifiable infectious diseases and the need to liaise with the local consultant in communicable disease control and UHW infection control doctor.

It is not clear from the policy at present whether new health care or other prison staff are trained and whether existing staff are periodically given refresher courses in infection control policy and procedures.

It is unclear whether there is an infection control nurse or a nurse with infection control responsibilities at the prison.

The policy contains information of procedures in the event of a major outbreak.

Tuberculosis (TB)

The policy discusses diagnosis and treatment, and certain infection control measures and contact tracing should a case be identified. The policy discusses screening of new staff for their immune status, their Heaf testing, and BCG immunisation.

The appropriateness or otherwise of screening new prisoners or certain sub-groups of new prisoners for active TB and previous TB immunity is not discussed in the policy. The appropriateness of considering immunising some prisoners with BCG vaccine is not

discussed. There is very little discussion about other methods to prevent tuberculosis amongst prisoners.

There is no discussion regarding the prevalence of TB amongst prisoners or the specific risk factors for TB faced or recently experienced by prisoners, for example: homelessness, overcrowding in prison, being immigrants from endemic areas, poverty and general poor health from a number of other factors.

Hepatitis B

The policy discusses the most common transmission modes amongst prisoners - blood to blood contacts including injury with contaminated sharp instruments and the sharing of needles by intravenous drug users; and following unprotected sex, including during anal intercourse.

The policy discusses treatment and infection control measures to be taken should a case be found.

The policy discusses the immunisation of staff with prisoner contact with hepatitis B vaccine.

The policy discusses the immunisation of prisoners with four courses of hepatitis B vaccine over a 12 month period. However, it is not clear from the policy whether this is to be offered to all prisoners, how this will be offered and how follow up will be ensured if release or transfer occurs before 12 months.

Other prevention measures in the prison aimed at reducing the prevalence of hepatitis B amongst prisoners is not discussed in the policy.

Operational activity: At prisoner reception, prisoners are asked whether or not they have completed a course of hepatitis B immunisation. They can fill in an application form at that point. If they do not they are later sent an application form with information about hepatitis B, encouraging them to take up the vaccination. A hepatitis B immunisation clinic occurs weekly in the Healthcare Department, run by practice nurses. Apart from the policy, prisoners attending the Detoxification Wing (not under the auspices of the Healthcare Department) are also offered a full virology screen, including for hepatitis B. Documentation of testing and results is kept separate to Healthcare notes on the Detoxification Wing. Group educational work on sexually transmitted infections is incorporated in the detoxification program in which all prisoners undergoing a detoxification take part. It is led by a visiting nurse from the GU clinic.

In 2002/2003 41 establishments were funded to participate in the hepatitis B vaccination programme. It was also decided to target the vaccination programme towards young people who are less likely to have been exposed to the hepatitis B virus and were therefore more likely to be at risk of acquiring hepatitis B infection in the future.

Since January 2003, the Prison Infection Prevention Team at the Health Protection Agency have been monitoring the hepatitis B vaccination programme by collecting information on all doses of hepatitis B vaccine given in the 41 pilot prisons. From April 2003, all prisons receiving prisoners from court and all juvenile, young offender and female establishments were required to deliver a hepatitis B vaccination programme. In addition to the 41 establishments already participating in the programme, 25 new prisons were required to develop a vaccination programme.

During 2006 HMP Cardiff has compared poorly with other prisons in terms of the monthly reports that analysed prisoners already covered for hepatitis B at reception and, those subsequently receiving vaccination by 1 month of admission. HMP Cardiff's lowest coverage was 2% in January 2006, and highest in 2006 was 34% in June, with most months being below 25%. This compares with prisons at Bristol and Durham consistently reaching 70-80% coverage each month. Nevertheless, research has shown that the prison service is the main provider of hepatitis B vaccination for substance misusers in south Wales.

Hepatitis C

The policy discusses the most common transmission modes amongst prisoners - blood to blood contacts including injury with contaminated sharp instruments, the sharing of needles by intravenous drug users, and through tattooing and body piercing; and following unprotected sex.

Ways of preventing infection are stated, but detailed prevention programmes within the prison are not discussed. The policy discusses diagnosis and treatment, and infection control measures once a case is identified. Regarding testing for hepatitis C, the policy refers to its section on HIV testing.

Although not mentioned in the Communicable Disease Policy, it is understood that testing is based on the Wales Hepatitis C Strategy.

Operational activity: Apart from the policy, prisoners attending the Detoxification Wing (not under the auspices of the Healthcare Department) are also offered a full virology screen, including for hepatitis B. Documentation of testing and results is kept separate to Healthcare notes on the Detoxification Wing. Pre- and post-test counselling is offered. Group educational work on sexually transmitted infections is incorporated in the detoxification program which all prisoners undergoing a detoxification take part in. It is led by a visiting nurse from the GU clinic.

HIV

The policy discusses the most common transmission modes as being amongst:

- Men having sex with men, engaging in unprotected sexual intercourse
- Intravenous drug users who share needles
- Haemophiliacs and the sexual partners of the above

Guidelines for needlestick injury and post-exposure prophylaxis are given.

The policy states that any prisoner can be offered HIV testing (with pre- and post-test counselling) if they request it. It is not clear whether this is advertised to prisoners. The policy does not discuss whether any prisoner should be proactively offered HIV testing. The policy does not discuss any HIV prevention programmes at the prison.

Operational activity: Apart from the policy, prisoners attending the Detoxification Wing are also offered a full virology screen, including for HIV. Documentation of testing and results is kept separate to Healthcare notes on the Detoxification Wing. Group educational work on sexually transmitted infections is incorporated in the detoxification program which all prisoners undergoing a detoxification take part in. It is led by a visiting nurse from the GU clinic.

Meningitis and meningococcal disease

The policy discusses brief details of the features of 'bacterial meningitis' but not meningococcal disease. Steps to be taken on the occurrence of a possible, probable, or confirmed case of 'meningitis', but not meningococcal disease, are discussed.

There is no discussion of how prisoners or non-healthcare staff are educated about the symptoms and signs of meningococcal disease.

The policy does not discuss the pros and cons of risk factors for meningitis and meningococcal disease amongst prisoners, for example close contact and overcrowding. The policy does not discuss the systematic offering of meningococcal group C vaccination, nor other potential methods of meningococcal disease prevention.

Operational activity: Apart from the policy, meningococcal group C vaccination is available to the appropriate age group on request.

Other

Catch-up childhood immunisations are not discussed in the policy and they are not routinely offered to prisoners who may not have completed courses earlier in life.

Influenza vaccination is not discussed in the policy. Nevertheless it is offered opportunistically to those who meet the guideline criteria (20 were vaccinated in 2006). The policy does not discuss the possible cost-benefits of offering the vaccination to all staff and prisoners at the prison. There is no systematic register of those meeting the criteria that can then be used for vaccination invitation. Instead, posters are placed to inform those who might meet criteria so that they can come forward, and they are also identified opportunistically during consultations and triage for other reasons. A similar situation exists for pneumococcal vaccination (2 were vaccinated in 2006).

Primary care

This service is commissioned by the LHB, managed by the prison Healthcare Department and partly provided by that department and partly out-sourced to Serco for the GP services through a service level agreement with the LHB.

Treatment times

These occur twice a day on all wings of the prison. They are run by nurses and a pharmacist, and it is where prisoners receive medication if they have been prescribed it.

In addition, prisoners can present with health problems. The nurse assesses the patient, and can attempt to deal with some problems. The nurse can arrange the next available appointment with a GP if s/he feels that is necessary. This can be 'fitted in' earlier if s/he feels it is urgent.

If the prisoner is too ill to attend the treatment hatch, then arrangements can be made via the prison officers for the nurse to visit and assess the patient.

General GP's surgery

This is held every weekday morning and additionally in the afternoon on a Monday and Friday for various prisoner wings. On a Monday 29 patients are seen, Tuesday 17, Wednesday 12, Thursday 17 and Friday 29, however any other emergency or acute presentations are also added to those numbers if necessary.

Self-referrals occur through the 'treatment hatch' appointment system. Prisoners can also be referred to see a GP by other health care professionals and prison officers. There is a large turnover of different salaried GPs supplied by Serco.

On the morning of the appointment, before seeing the doctor, prisoners are further triaged by the practice nurse. The nurse may be able to provide necessary treatment prior to seeing the doctor, or alleviating the need to see a GP.

It is not possible to quantify the frequency of different presenting conditions seen or the prevalence of chronic conditions seen owing to the lack of a computerised clinical system.

Details of waiting times were not provided but 'anything from that day to an average of seven days' was stated when requested.

Chronic disease management clinics

One clinic occurs on a Wednesday morning for the following conditions:

- Hypertension
- Heart disease
- Diabetes
- Asthma
- Epilepsy

Prisoners are offered an appointment following initial reception screening, or following the diagnosis of one of the conditions, or, if not picked up at reception if a healthcare professional discovers an existing diagnosis.

At the clinic, patients are seen by a GP or a nurse. Relevant NICE guidelines and National Service Frameworks are followed.

Owing to the lack of IT records, it is difficult to assess how many patients with each condition are seen at what frequency. Similarly it is difficult to summarise outputs and outcomes from the clinic.

Out-of-hours emergency cover

This is provided by nurses who are always on site 24/7 in shifts. They can call a Serco GP if necessary, or 999 for an emergency ambulance if needed. It is not possible to quantify how many times this service was used or for what reasons.

Other Healthcare Department prevention and health promotion services

Smoking cessation: Smoking status is recorded at the point of reception and recorded in the IMR. The patients are also asked by the GP during consultations, although it is not recorded whether or not this has been asked. The GP can advise prisoners to give up smoking and if necessary prescribe nicotine replacement therapy (NRT) if they join the smoking cessation groups run by one of the Healthcare Officers when that member of staff is available. Groups consist of 7-8. There is a waiting list to join these groups – at the beginning of April 2007 this stood at 38. Patients can buy the patches if they wish to via the pharmacy.

Group educational work by the GUM specialist nurse on sexually transmitted infections and blood-borne viral infections is incorporated in the detoxification program which all prisoners undergoing a detoxification take part in.

A Well Man clinic is planned by the Healthcare Department.

Pharmacy service

There will be a new pharmacy within the new healthcare building under construction. Currently the service comprises of a 1 WTE pharmacist (also supplementary prescriber) and 2 WTE technicians (both accredited checking technicians registered with RPSGB by virtue of relevant qualifications).

Clinical access to pharmacy staff by prisoners is limited. The senior pharmacy technician works each weekday morning in A&B wing treatment rooms to assist with the administration and issue of prescribed medicines. Pharmaceutical queries can be answered at these sessions or referred to another healthcare professional by the technician.. She is also available one afternoon each week to see patients with pharmaceutical queries on both the vulnerable / therapeutic and the basic regime landings. A second technician visits the induction landing daily to see new patients, obtain drug histories and to resolve pharmaceutical queries. The pharmacist holds asthma review and medication review clinics on the remand wing.

Prescription medicines for minor ailments can be requested from the pharmacist or medical staff after assessment by pharmacy technicians or nursing staff. In addition, a variety of general sales list medicines and products are available for prisoners to purchase from the prison shop.

Dispensing activity is collected by the pharmacy and not “forms and items” figures as would be collated by Health Solutions Wales (HSW) from community pharmacy returns. The prison uses its own prescription charts which are used to record a combination of prescribed treatment for supervised administration e.g. diazepam, prescribed treatment for self-administration and non-prescribed medication e.g. simple analgesics and antacids supplied by nursing staff.

The pharmacy budget for 2006/7 was £120,000. It is not possible to break down spends on individual drugs or therapeutic groups without extensive manual analysis of drug costs and usage figures from the pharmacy computer. The detailed prescribing analyses available to GP practices are not possible as prescriptions are not submitted to HSW. The number of dispensed items increased from 32049 in 2003/4 to 42183 in 2005/6.

Dental service

Since the beginning of 2007 the dental care at the prison has been provided through a contract with the Community Dental Service of Cardiff and Vale NHS Trust.

The contract is worth £50,000 for 4 sessions per week, which includes 2000 units of dental activity. Around 5-10 patients are seen per session, depending on the complexity of cases.

The service is provided by a senior dental officer and dental nurse, assisted by healthcare assistants.

Current facilities are sub-standard but purpose built dental suites will be available in the new health care building.

Much of the work is self-referred emergency work at present, as the new contract providers catch up with a previous break in service. This involves largely extractions as antibiotics are prescribed by medical staff. Conservative and denture work is also undertaken to make patients 'dentally fit.'

There is a waiting list for routine care. At the beginning of April 2007 this stood at 146.

Optometrist service

This is only provided for prisoners who are serving a sentence of more than 3 months. It is accessed through self-referral and via other healthcare professionals. Sessions occur once or twice a month.

Podiatry service

Around 6 patients are seen each quarterly session. Patients with diabetes have priority.

Services for alcohol

The likely extent of people with problems with alcohol was described in section V. It is an extensive problem. A spectrum of problem drinking exists, classified as - heavy, risky, hazardous or harmful drinking and alcohol dependence.

Prisoners are asked about their alcohol use at reception during the prison health screen:

"Do you drink alcohol? NO ___ YES ___

If Yes how much do you usually drink?

In the week before coming into custody, how much did were you drinking?

If more than about 20 units daily or showing signs of withdrawal, refer to Doctor or relevant clinic."

Following reception assessment, prisoners with heavy, risky, hazardous or harmful drinking, but without alcohol dependence or other substance misuse, do not appear to have a clear pathway of adequate effective services. In practice the emphasis of services is for alcohol dependence and substance misuse other than alcohol (see under services for substance misuse, below). Alcoholics Anonymous comes in to the prison for a meeting once a fortnight, and there is some limited contact with a local voluntary service agency, STIR (Skills Timing Intensity Relationships).

Prisoners considered to be alcohol dependent at reception are offered a further assessment by a detoxification nurse from the Detoxification Unit. A full drinking history is taken and symptoms and signs are looked for, such as sweating, shaking, nausea and delirium tremors (DTs). According to the severity of the symptoms a detoxification programme is offered. This consists of reducing diazepam script. A stat dose of 20mgs diazepam is given in reception for

immediate symptom relief. An example of a common reduction would be 20mgs BD for 2 days, 10mgs BD for 2 days and finally 5mgs BD for 2 days. This reduction can be extended or shortened according to individual symptoms. A fourteen-day course of carbamazepine 200mgs BD and Thiamine 50 mgs TDS is also given. Further 'rescue meds' can be given.

Since September 2004, 52 places at the prison have been allocated specifically for those prisoners with drug or alcohol dependencies. The detoxification facility operates as a separate drug free wing and spaces are dedicated to those with substance misuse problems. Prisoners have access to detoxification nursing staff from 7am until 8.30pm Monday to Friday and 7.30am until 4.30pm Saturday and Sunday. Outside of these hours there is always a Healthcare nurse available. The unit is managed by the Head of Drug Strategy at the prison, and not by the Healthcare Department, although the budget for nursing and pharmaceutical costs comes from the healthcare budget.

175 prisoners underwent a detoxification programme for alcohol dependence during 2006.

The Detoxification Unit is liaising with the Cardiff & Vale NHS Trust's community addictions unit (CAU) to develop an Alcohol Care Pathway which will enable prisoners to establish treatment prior to discharge. The Unit also has links with some local community agencies.

Services for substance misuse

The likely extent of prisoners who misuse drugs other than alcohol was described in section IV. It is an extensive problem and is the subject of more policy emphasis and operational activity when compared to alcohol.

Prisoners are asked about their drug use at reception during the prison health screen. All prisoners stating they have used any drugs in reception are requested to undergo a voluntary urine drug screen for benzodiazepines, cannabis, cocaine, amphetamine, morphine, metamphetamine, buprenorphine and methadone. This does not take place on every prisoner entering the prison. Mandatory drug testing is a separate process. It is random and can take place on any prisoner at any time without warning.

Much of the substance misuse work is carried out by CARATs (Counselling Assessment Advice and Throughcare) workers. Prisoners are able to access CARAT services at any stage of their sentence or period of remand. They are deployed throughout the prison and referral to drug-related services is through them.

A Drug Intervention Record (DIR) is completed to find out more about the needs of the prisoner and to give them general advice. If more help is needed a Comprehensive Substance Misuse Assessment (CSMA) is developed – this then is a basis from which to plan for when the prisoner is released, for when they can access other help schemes within the prison, or when there is a need to liaise with other agencies either within or outside the prison. Around 290 such assessments were carried out between April-September 2006.

Once assessed, and if deemed suitable candidates, prisoners can be offered various schemes, as part of their support from CARAT, to help with their drug use. These are principally:

- P-ASRO (Prison Addressing Substance Related Offending), a 20-session group work programme run over six weeks, designed to be integrated into the overall sentence plan and aimed at young adult males with a medium to high risk of re-offending because of a past link to their substance misuse
- SPARC (Swansea Prison Addiction Rehabilitation Centre) - a Minnesota Model programme run at Swansea prison – prisoners can be transferred if CARAT assessment for this type of rehabilitation is positive and there is space available

Other cognitive behaviour-type offender programmes, such as ETS (Enhanced Thinking Skills), are also popular with those trying to address substance misuse issues.

CARAT also has a remit to liaise outside the prison as the prisoner prepares to leave. This is by now predominantly with the Drug Intervention Programme (DIP) that takes overall care of a prisoner with substance misuse issues once facing release.

A nurse-led detoxification service on the Detoxification Unit (see under alcohol, above) is also provided for addiction to certain substances detected at reception. The unit liaises with the Cardiff Community Addictions Unit and many community drug teams including Kaleidoscope, GSSMS, Cardiff DIP, DTTO, Gwent Alcohol Project, RISMS.

Group work, gym sessions and assistance from other agencies including CARATS also play a large part in the detoxification programme.

Opiates

Prisoners providing an opiate positive toxicology screen in reception are offered a detoxification programme using a ten day course of lofexidine (200-600 mcgs TDS), running alongside a 14 day course of carbamazepine 200mg BD

Individual symptoms of withdrawal are monitored and 'rescue medications' such as metacloperamide, loperamide, paracetamol, ibuprofen, mebeverine and zopiclone are offered alongside the above detoxification programme.

Opizone (naltrexone) is offered to those prisoners who have completed an opiate detox and are motivated to remain opiate free when released. Commencement on opizone is organised through CARATS, nursing staff and an allocated outside prescriber.

Around £3000 per month is spent on pharmaceutical costs for the treatment of opiate addiction.

Methadone

All methadone protocols are presently undergoing review, in discussion with outside agencies (CAU) and in line with current good practice.

Cardiff Prison has a policy of not commencing methadone scripts. However any prisoner entering the prison who has current open methadone scrip will be offered methadone. For those remanded or sentenced to less than 6 months their methadone script will be maintained on their current dose. This is dependant on the outside prescribing agency being willing to continue their script on release. For those whose agencies who will not reissue prescriptions or who have breached DTTO orders, a reduction may be offered or a community referral made to Cardiff DIP.

Prisoners who are sentenced to more than 6 months undergo a methadone reduction programme – reducing by 5mls every 3 days. Methadone reductions may also take place by request of the prisoner. Rescue medication is also issued for symptoms control of methadone withdrawal.

All current methadone scripts are monitored by the nurses on the detoxification unit who have developed an outreach service. This service involves the monitoring of prisoners who are currently maintaining or reducing their methadone and liaising with outside agencies to confirm that scripts are in place when a prisoner is released.

Amphetamine

Treatment for amphetamine withdrawal is based on assessment of symptoms – paranoia, depression, palpitations. Medications frequently used are: escitalopram 10mgs OD, propranolol 40mgs BD and carbamazepine 200mgs BD.

Benzodiazepine

Benzodiazepine scripts are confirmed with the prescriber either on admission to prison, or if due to a late admission, the following morning. All benzodiazepine scripts are equated into a diazepam reducing regime – reducing by 5mgs each week. Rescue medication is also used as needed for further symptom management.

Detoxification for 2006 by type of drug, HMP Cardiff

Year	2006
HEROIN	354
DIAZEPAM	29
SUBUTEX	17
METHADONE	198
OTHER (Amphetamine Cocaine)	9

Services for mental health

Mental health promotion

The factors influencing psychological wellbeing and mental health were discussed in previous sections.

There is no discrete evidence-based mental health promotion strategy at the prison. Aspects of the new overall prison Health Promotion Strategy (see above), if implemented fully, would have a positive impact on mental health. There is no formal WHO 'healthy prison' approach (see previous section) at the prison – such an approach would have significant positive effects on mental and psychological health.

Most of the approaches, services, activities and programmes described under *Non-health care services with potential health benefit* above would have some of the greatest positive impacts on mental health and psychological wellbeing, although the extent of some of the services is currently limited.

The work of the Listener Service, the violence reduction manager and the Safer Custody Team is very important for promoting mental health and psychological wellbeing.

Detecting and managing poor psychological health and well-being

The prevalence and severity of poor psychological health and well-being amongst the prison population was described in previous sections.

At reception healthcare screening several questions are asked about mental health, using the Department of Health approved prison health screening form. These include:

- past psychiatric diagnosis
- psychiatric drug treatment
- past and current self-harm

It is not possible to record the responses to these questions on an IT system using a clinical patient record.

A range of questions using validated measures are currently not used to accurately measure psychological health and sub-clinical mental illness at reception health screening.

The range of issues, prison regime and factors affecting psychological wellbeing and mental illness, along with measures to alleviate or prevent them - as described in section VI – are vitally important in preventing and alleviating poor psychological health.

There is a personal prison officer scheme – however, officers are not routinely or formally trained to understand, recognise or manage psychological poor health and mental illness. Officers do not receive formal counselling training.

The Listener Service is seen to be particularly important, especially when prisoners are suffering from mental distress. At the moment there are 10 Listeners in the whole prison, all having received the training provided by the Samaritans. However, these skills are not at present accredited.

Counselling: Prison Health budget funds these services. Prisoners are seen by need for a variety of problems from bereavement, coping skills, loss of self-esteem and anxiety management etc. There is a referral system that includes self-referral and referrals from multi agencies, for example the Chaplain, doctor or CARATS. The waiting list depends on actual clients at any one time and different specialities have different waiting times. There are 3 days of General Counselling, 1 day of Cruise, New Pathways has 1.5 days and 1 session of Yoga.

Psychological services: There is no clinical psychology service at the current time.

The Safer Custody Team (see sub-section below) is at the forefront of self-harm prevention, suicide prevention, race relations, and bullying, and has an important role for mental health promotion. There is also a free telephone service to the Samaritans.

Ten of the nurses employed in the Healthcare Department are Registered Mental Nurses (RMNs). The RMNs can carry out assessment for which there is usually a variable waiting list, as the RMNs also have other general duties.

Any staff member, including prison officers, can contact the Healthcare Department if they are concerned about a prisoner's mental health. A manager and two part-time RMNs provide a crisis intervention service to provide support and guidance if a prisoner is able to stay in their usual prison location or on the therapeutic wing B1.

Prisoners can also consult with GPs during normal surgery. However there is no guarantee that the high turnover of GPs provided by the service will be trained in psychological health, psychiatry or in prison medicine. Many prisoners with poor psychological health may consult with physical symptoms or not consult at all.

The Healthcare Department wishes to move more towards a primary care mental health service model than is currently the case.

Detecting and managing mental illness

The prevalence and severity of mental illness was described in section V.

The range of issues, prison regime and factors affecting psychological well-being and mental illness, along with measures to alleviate or prevent them - as described in section VI – are vitally important in preventing and alleviating mental illness, as are many of the services described in the preceding sub-section on poor psychological health.

A Mental Health In-reach Team, which is community psychiatric nurse-led, is provided by the Cardiff & Vale NHS Trust within the prison for severe mental illness among prisoners. The team is currently funded by ring-fenced funds managed within the Community Forensic Team, based at Whitchurch Hospital. The team comprises of 2x WTE RMN's, 0.5 x WTE occupational therapist and 1 x WTE team secretary. This team is supported by one session per week from a counselling psychologist, a social worker and a semi-retired consultant forensic psychiatrist. Funding for the sessional staff is provided from the individual departments on goodwill basis as no development monies have been provided since the In-reach Team came into conception in 2001.

The In-reach level of service is limited. It excludes treatment of the very common poor level of psychological health that is disabling but amenable to treatment, observed amongst many prisoners. - this is provided by the Primary Care mental health team. People with an IQ below 70, primary psychopathy, primary substance misuse problems (often causing, contributing or co-existing with mental illness), and people with primarily a neurological problem are also excluded. The service offers support to prisoners who have a diagnosable severe mental

illness, those with psychosis, and those posing a risk to themselves or others as a result of their mental illness. The team is heavily involved in the Public Protection process and attends both internal and external MAPPA meetings as many of its caseload fall within the high-risk group of offenders. The In-reach service is therefore a secondary care service -similar to a community mental health team - that provides care and treatment for prisoners with severe mental illness and complex needs.

According to information received, the team does not have a waiting list and the average wait from referral to assessment is four days. However, we also received a conflicting figure that the waiting list currently stands at 45-50, not including patients on the detoxification wing. Referral to the in-reach team is through a weekly referral meeting with the primary care mental health team, although the In-reach Team also accepts referrals from all sources both within the prison and the wider community.

The Healthcare Department has a day care unit that is aimed at people with identified mental health problems. Prisoners attending the unit can receive support and guidance in a safe and secure unit. Yoga, counselling, and drama therapy are available, and the unit is seeking to expand into small group work.

A forensic psychiatry service is provided by a consultant and junior doctors from Bro Morgannwg NHS Trust's Caswell Clinic. The service tends to deal with those with psychosis and the need for court reports and fitness to plea. The service level agreement is with Cardiff LHB and the contract is between the LHB and Bro Morgannwg NHS Trust. There are four sessions of Secondary Care and two of Tertiary care.

Prevention and management of self-harm and suicide

The prevalence and severity of self-harm and suicide and their risk factors was described in section V.

The range of issues, prison regime and factors affecting psychological well-being and mental illness, along with measures to alleviate or prevent them - as described in previous sections – are vitally important in preventing and alleviating self-harm and suicide, as are many of the services described in the preceding sub-sections on poor psychological health and mental illness.

There is a HMP Cardiff Safer Custody Team chaired by the deputy governor and with a broad multi-disciplinary membership, mostly from within the prison's various departments. Its role is to ensure compliance with the Prison Service Baseline Standards on self-harm and suicide, this includes evaluating and auditing self-harm and suicide prevention activity.

The team conduct ACCT - Assessment, Care in Custody and Teamwork, a document raised when a prisoner is identified as being at risk of self harm or suicide- assessments, take part in all ACCT reviews, chair all ACCT reviews, write care maps, conduct post-closure ACCT monitoring, advise staff on prisoners who are at risk, conduct ACCT training to staff, liaise with Samaritans, are involved in violence reduction, investigate unexplained accidents, investigate bullying, ensure their policy is complies with Home Office Standards. They also act as family liaison officer and liaise with the ombudsman and coroner. They support the wing staff and attend monthly meetings, with the manager attending area meetings. They are also there to identify any trends in regard to suicide and violence reduction. The results of the most recent audit was a 91% score.

The Safer Custody Officer therefore has a role to support prisoners – those who are at risk of self-harm/suicide are seen and assessed before being given the support needed. They complete all ACCT assessments, attend all ACCT reviews and configure the ACCT Care Map. They have input into cell sharing risk assessments. An ACCT assessment can be triggered by any concerned member of staff, from prisoner reception onwards.

Services for Sexual Health

The extent and severity of sexual health problems amongst the prison population was described in previous sections.

Sexual health promotion and prevention of sexually transmitted infections

Group educational work on sexually transmitted infections is incorporated in the detoxification program which all prisoners undergoing a detoxification take part in. It is led by a visiting nurse from the genitor-urinary clinic.

Screening, diagnosis and management of sexually transmitted infections

This secondary care service is provided by Cardiff & Vale NHS Trust genito-urinary clinic. There are 2 sessions per week: 1 consultant and 1 nurse advisor. There is also a nurse advisor session at the detoxification unit. Prisoners self-refer or are referred from prison primary care. The waiting list is roughly 4 to 6 weeks, about the same as in the community.

Section 8

Unmet need and recommendations

Key points

In order to define the unmet need and to produce recommendations to tackle it, we have considered the nature, extent and severity of the health problems (see section V) stemming from numerous the inter-linked socioeconomic factors (see section II, III, and IV). Subsequently, we have considered the overall approach of the whole prison as it affects population health, and how the criminal justice system, with other partners, tackles the underlying socioeconomic factors that contribute to prisoners' health problems. We then considered the current services (section VII) available to prisoners in relation to their appropriateness given the health problems and needs of prisoners, and in relation to ideal and appropriate models of service and interventions, known and proven to be effective to tackle the prisoners' main health problems (see section VI). In considering the appropriateness of services, we have interviewed numerous stakeholders within and outside the prison including prisoners themselves.

Un-met need occurs where there is a health problem identified amongst the prisoner population that could be addressed by a certain approach, effective models of service or by certain effective interventions, but where there are no services present, or services are present but cannot be accessed by the client group, or there are inadequate or ineffective services present, or that they are inappropriate for the needs of prisoners and therefore not accessed by them.

The overall WHO Health in Prisons Project approach

*Building healthy public (prison) policy
Creating a supportive environment*

The importance of the WHO Health in Prisons Project approach of health promotion within a prison setting was discussed in detail in section VI. The rationale is that most of the factors affecting health lie outside the health care services. The approach provides a framework for health improvement, and is particularly important in improving psychological well-being and mental health, and provides a foundation for more specific efforts to prevent self-harm and suicide. It also provides a more conducive social environment for addressing other specific aspects of offending and health-related behaviour amongst prisoners, helps address violence, aggression and bullying, and is complementary to more specific interventions within education and skills, as well as treatments for mental health problems, alcohol and substance misuse.

The most important elements of the WHO approach are:

- Building healthy public (prison) policy
- Creating a supportive environment

To date, HMP Cardiff has not formally signed up to the WHO Health in Prisons Project approach. We note that various key members of the prison management are interested in this approach, and that key stakeholders within the health sector and prison policy sector are also supportive of it. However, only a few aspects of the prison structure and regime are compatible with elements of that approach.

Whilst most key stakeholders appeared to appreciate and understand the influence of background socioeconomic factors in the community and in prisoners' past lives on prisoners' health, it appeared that there was less appreciation of the influence and role of the overall prison environment and regime outside the Healthcare Department on health.

An example of this is the HMP Cardiff's new Health Promotion Strategy. The strategy is led by the prison's Health Promotion Action Group, chaired by the Head of Learning, Skills & Resettlement. Notably one of its aims is to have 'a whole prisons approach to build the physical, mental and social health of prisoners.' Its content partly reflects that of Prison Service Order 3200. However we felt that the details of the PSO, and more so the prison's health promotion strategy, were lacking, and did not fully embrace the principles and detailed elements of the WHO's Health in Prisons Project discussed in section VI.

We suggest that the content of the Health Promotion Strategy needs more expert, detailed public health advice in order to develop it further in partnership. It would also be helpful to link it to broader health improvement strategies and partnerships in Cardiff such as the Health, Social Care and Wellbeing Strategy.

Whilst it is commendable that the prison Health Promotion Action Group is chaired by someone with broader responsibilities outside healthcare, we feel that the group should be broadened further, should include representative from relevant statutory and voluntary organisations outside the prison, and the chair should have decision-making responsibilities and an oversight of the whole prison regime. This is especially important given the wide range of factors affecting health.

Although the topics (see below) of the PSO 3200 are very important, we feel it does not adequately cover the over-arching principles of a WHO Health in Prisons Project. Recommendations relating to all its specific topics will be covered in details in sub-sections to follow. However, considering the importance of its first topic of mental health promotion and well-being, this would be best addressed using the WHO approach. This overall approach could be strengthened by some of the elements specifically to tackle mental health promotion set out by the Sainsbury Centre for Mental Health in section V.

Key elements of PSO 3200

Mental health promotion and well-being
Smoking
Healthy eating and nutrition
Healthy lifestyles, including sex and relationships and active living
Drug and other substance misuse

Recommendation

To tackle widespread un-addressed poor psychological health and well-being, we suggest that HMP Cardiff should consider formally embracing the principles of WHO's Health Promoting Prison Project(www.euro.int/prisons & <http://www.uclan.ac.uk/facs/health/hsdu/settings/introduction.htm>) and in so doing adopt a broad social model of health promotion.

Recommendation

Specifically, the overall WHO approach, if implemented, should incorporate within its core actions elements of the Sainsbury Centre for Mental Health's approach to mental health promotion
[http://www.scmh.org.uk/80256FBD004F3555/vWeb/fIKHAL6FAFC5/\\$file/briefing+24.pdf](http://www.scmh.org.uk/80256FBD004F3555/vWeb/fIKHAL6FAFC5/$file/briefing+24.pdf)

Recommendation

We recommend that the multi-agency prison health steering group oversee the setting up of a new broader Health Promotion Action Group for HMP Cardiff to take forward the WHO Health in Prisons Project approach.

Recommendation

Given the broad social factors affecting health and the considerable effect on health of prison regimes outside health care, we recommend that an appropriate official to chair any new Health Promotion Action Group would be the prison governor or his deputy. To this end previous experience elsewhere shows that it is imperative that senior decision makers sign up to the WHO Health in Prisons approach for it to succeed, for example the LHB chief executive and the prisons governor.

Recommendation

Given the LHB's statutory duty towards the promotion of health of its population, we recommend that the prison Health Promotion Action Group could report to the Prison Health Steering Group and possibly liaise with Cardiff Health Alliance.

Recommendation

We recommend that further specialist public health advice is sought in developing the WHO's approach, and in developing the prison's Health Promotion Strategy further to embrace this approach adequately.

Learning, Skills and Resettlement

Accommodation

Education, training & employment

The importance of the remit of the Learning, Skills and Resettlement Department to the health improvement of prisoners cannot be over-stated. This is obvious if the social factors affecting health discussed in section III are borne in mind.

Some of the key elements relevant to health are the pathways in the *Joining Together in Wales – Reducing Re-offending Action Plan 2007/08*, especially the Health and Social Care Pathway, the Substance Misuse Pathway, the Accommodation Pathway and the Education, Training and Employment Pathway. Most of the identified pathways in the action plan are relevant to prisoner health improvement to some degree.

Here we will deal in more detail with topics relating to the Accommodation and Education, Training & Employment pathways – all very important determinants of health.

Issues identified include:

- Prisoners at HMP Cardiff are offered help with resettlement only in the last four weeks of their sentence, including accommodation, contacts with Jobcentre Plus, help through the Citizens Advice Bureau and help to set up a bank account if needed. We are aware that in practice many prisoners suffer from many problems relating to these re-settlement issues on release, and not having adequate accommodation, health care service follow up and advice is common
- There appears to be significant problems in the adequate resettlement of many prisoners, that is potentially adversely affecting their health problems
- Release is a dangerous transitional period for relapse of offending behaviour, overdose and suicide, worsening of mental health, relapse of substance misuse and problem alcohol drinking
- Adequate housing, education, personal skills and employment, and adequate follow up with health care services are protective factors for the health issues just listed
- Lack of collaboration with relevant statutory and voluntary organisations to provide seamless resettlement services.

Recommendation

In order to address significant poor health amongst prisoners we recommend the extensive and adequate implementation throughout the criminal justice system of *Joining Together in Wales – Reducing Re-offending Action Plan 2007/08* pathways especially the Health and Social Care Pathway, the Substance Misuse Pathway, the Accommodation Pathway and the Education, Training and Employment Pathway.

Recommendation

The Scottish Prison service has successfully piloted a programme (Scottish Prisons Transitional Care Initiative) to address resettlement problems and the associated health risks during the transitional period following release from prison

<http://www.scotland.gov.uk/Publications/2006/02/08110928/7>

Recommendation

Housing and employment are important pre-requisites for health improvement. We recommend that every effort is made to house and employ prisoners on release in their communities of choice. Prisoners with particular health problems may have specific needs. Further advice is available from

[http://www.scmh.org.uk/80256FBD004F3555/vWeb/flKHAL6EHCD2/\\$file/briefing+27.pdf](http://www.scmh.org.uk/80256FBD004F3555/vWeb/flKHAL6EHCD2/$file/briefing+27.pdf)
and [http://www.scmh.org.uk/80256FBD004F3555/vWeb/flKHAL6FAFC9/\\$file/briefing+25.pdf](http://www.scmh.org.uk/80256FBD004F3555/vWeb/flKHAL6FAFC9/$file/briefing+25.pdf)
and [http://www.scmh.org.uk/80256FBD004F3555/vWeb/flKHAL6FAFAG/\\$file/briefing+15.pdf](http://www.scmh.org.uk/80256FBD004F3555/vWeb/flKHAL6FAFAG/$file/briefing+15.pdf)
and <http://www.sheltercymru.org.uk/shelter/home/>

Recommendation

It may be necessary for resettlement services and the prison health care department to work with the LHB's GP practice that provides enhanced services for people who are homeless

Recommendation

There is much scope for resettlement activities within prison to collaborate and integrate further with relevant statutory and voluntary organisations to provide seamless services within and outside prison, to ensure safe resettlement of prisoners on release

Strengthening Community Action
Developing personal skills

These are other important components of the holistic WHO Health in Prisons Project approach. The importance of a broad range of personal skills to health - psychological well-being and mental health in particular, and other specific risky health-related behaviours - and offending behaviour was highlighted in sections III, IV and V. Poor personal skills of a wide variety are very common amongst prisoners. There are several programmes within the Learning, Skills and Resettlement Department that attempt to address these personal skills.

Issues identified include:

- Lack of capacity for personal skills training programmes – anger management, problems solving
- Lack of integration of personal skills training to services for mental health and psychological wellbeing
- Linking to families and relatives of prisoners
- Linking to communities and voluntary groups in communities
- Inadequate and temporary project funding
- More community integration programmes – but involve community groups and programmes too

Recommendation

We recommend that as far as is possible, courses such as Family Man; Stop and Think; CALM; and Enhanced Thinking Skills are expanded to be available to most prisoners, and importantly, that prisoners are encouraged to take up the courses. They may have particular importance to the majority of prisoners with one or more of problems such as alcohol drinking, substance misuse, and poor psychological well-being or mental health problems

Recommendation

We recommend addressing the short-term nature of project funding for what appear to be core services for learning, skills and resettlement, and fundamental services to maintain and improve health

Recommendation

There is much scope for learning and skills activities within prison to collaborate and integrate further with relevant statutory and voluntary organisations to provide seamless services within and outside of prison

Reorienting health services

This is a key area of Welsh Assembly Government policy and a major tenet of the WHO approach. In general, there is an urgent need for primary and other health care services to become more focussed on providing proactive high quality modern services, tailored to their patients circumstances and individual health needs, strategically based on their collective wider health needs, and with an emphasis on providing effective interventions by multi-agency and multi-disciplinary action in appropriate and innovative ways and settings. Importantly, a new emphasis on (effective) health promotion, disease prevention, and the early detection and treatment of disease is required.

Issues identified include:

- Large new in-patient facility for physical health and mental health
- In-patient facility may take patients from other prisons – so commissioning issues for other LHBS?
- Emphasis on in-patient care in contrast to national policy and evidence of cost-effectiveness on models of care.
- Not proactively dealing with major health problems identified with multi-disciplinary and specialists in primary care, plus innovative methods responding to specific needs of prisoners, especially young men
- Predominantly a treatment/illness service
- Little managed effective coordinated proactive health protection and problems with up-to-date Communicable Disease Policy (see infectious diseases below)
- Lack of health promotion and disease prevention relevant to the health needs identified
- Lack of effective dental health promotion
- Lack of health promotion and public health expertise
- The three bullets above are also relevant to Learning, Skills and Resettlement Department and there is a lack of coordination and collaboration on matters relating to health promotion
- Over emphasis on medical model in prevention and treatment – e.g. clinical risk factors for cardiovascular disease even though predominantly young deprived male population with other major unmet health needs identified here
- High turnover of GPs provided by contractor
- GP-provided services despite high turnover e.g. chronic disease clinics
- No assurance that GPs provided have adequate training or experience in dealing with prison environment and multiple problems encountered by young deprived male population who do not usually consult in the community
- Lack of GPs with relevant special interests
- Lack of continuity of care
- Reactive service rather than proactive service - responding with GPs to daily consultations from prisoners
- Emphasis on physical disease and treatment with medication. Over-medicalisation and desire to prescribe highlighted by prisoners
- Lack of planning services through patient/prisoner involvement and participation
- Lack of electronic patient records and information technology infrastructure – hampering patient care, clinical governance and audit
- Lack of information technology for disease registers, vaccination records and recall, prescribing and dispensing, etc
- Under utilisation of nurse-led services
- Under utilisation of nurses with training dealing with minor illness
- Under utilisation of nurse prescribers and nurse consultants/specialists
- Under utilisation of wider role for pharmacists

- Lack of proactive services in primary care for problem alcohol drinking as well as alcohol dependence, and lack of coordination and integration with services elsewhere in the prison and in the community (see sub-section below)
- Lack of proactive services in primary care for substance misuse, and lack of coordination and integration with services elsewhere in the prison and in the community (see sub-section below)
- Lack of proactive services in primary care for sexual health, and lack of coordination and integration with services elsewhere in the prison and in the community (see sub-section below)
- Lack of proactive services in primary care for poor psychological well-being and mental health, and lack of coordination and integration with services elsewhere in the prison and in the community (see sub-section below)
- Lack of coordinated and extensive peer listener, trained counselling and clinical psychology service (there is no clinical psychology service at all) in primary care that would integrate with all departments of the prison and with services outside the prison
- Lack of services for smoking cessation (see sub-section below)
- Lack of integration and liaison with primary care, social care and voluntary organisations outside of prison
- Need for much further integration with resettlement issues of housing and personal skills, and so on
- Further need for health care discharge planning and follow up upon release

Recommendation

A more appropriate model of health care is urgently required at the prison that provides a more holistic and innovative service, that is proactive to the identified health needs of the prison population, based more on primary care, multi-disciplinary team work, integration with other service in the prison and community, with better information technology, and that embraces modern health promotion and disease prevention. Further work is needed to establish the ideal model of care, however some pointers are available at

<http://www.hsmc.bham.ac.uk/prisonhealth/>

<http://www.networks.nhs.uk/183.php>

http://www.bbbc.org.uk/html/about_us.htm

<http://www.eastendgp.co.uk/docs/practice%20leaflet%20BBB.pdf>

http://www.kingsfund.org.uk/health_topics/primary_care.html

Recommendation

A considerable amount of work is needed at national level to address the information technology needs of prison health care

(Recommendations for mental health, alcohol, substance misuse, infectious disease, sexual health, dental health, and smoking are found below.)

Psychological wellbeing and mental health

The huge unmet need of poor psychological well-being and mental health problems amongst the prison population was highlighted in section V. It is the major health problem amongst prisoners.

Issues identified include:

- Emphasis on secondary-care provided specialist in-reach service and forensic service
- Exclusion of poor psychological well-being, substance misusers, and less severe mental disorders from criteria of in-reach service
- Lack of coordination and integration with services elsewhere in the prison and in the community

- Lack of service user involvement in planning services
- Lack of integration with alcohol and substance misuse services elsewhere in the prison and in the community
- Waiting lists of specialist service
- Are all prisoners with mental disorders presenting to the specialist service?
- Large unmet need for prisoners with poor psychological well-being, often with poor life skills, and substance misuse combined
- Lack of appropriate proactive multi-disciplinary approach for poor psychological wellbeing and mental health in primary care
- Lack of coordinated and extensive peer listener, trained counselling and clinical psychology service (there is no clinical psychology service at all) in primary care that would integrate with all departments of the prison and with services outside the prison
- Lack of adequate clinical psychology service in secondary care services
- Prisoners with poor psychological wellbeing tend not to consult traditional medical and doctor-based services
- Lack of integration with services in Learning, Skills and Resettlement
- Lack of holistic mental health promotion strategy embedded within an overall prison WHO Health in Prisons Project approach
- Self-harm and suicide prevention have a risk minimisation approach rather than being embedded in a more whole organisational mental health promotion approach

Recommendation

We recommend the inclusion of a prison-wide holistic mental health promotion strategy within a WHO Health in Prisons Project approach. Self-harm and suicide prevention should be incorporated within such a strategy. Elements of such a strategy have been described in earlier sections and are available from

[www.scmh.org.uk/80256FBD004F3555/vWeb/flKHAL6FAFC5/\\$file/briefing+24.pdf](http://www.scmh.org.uk/80256FBD004F3555/vWeb/flKHAL6FAFC5/$file/briefing+24.pdf)

And guidance on self-harm management is available from NICE

<http://guidance.nice.org.uk/CG16>

Recommendation

We recommend an expansion of a broad range of coordinated proactive multi-disciplinary psychological well-being and mental health services within and out with the health care sector. The element within healthcare needs to be mainly primary care-based. Possible models of care are available at <http://www.bmj.com/cgi/content/extract/330/7495/839>

and <http://www.hsmc.bham.ac.uk/prisonhealth/>

and [http://www.scmh.org.uk/80256FBD004F3555/vWeb/flKHAL6FAFB7/\\$file/briefing+19.pdf](http://www.scmh.org.uk/80256FBD004F3555/vWeb/flKHAL6FAFB7/$file/briefing+19.pdf)

and

[http://www.scmh.org.uk/80256FBD004F3555/vWeb/flKHAL6FAFD8/\\$file/briefing+9.pdf](http://www.scmh.org.uk/80256FBD004F3555/vWeb/flKHAL6FAFD8/$file/briefing+9.pdf)

Recommendation

Prisoners with mental health problems should be involved more in planning and developing mental health services. The Sainsbury Centre for Mental Health (www.scmh.org.uk) and along with the Prison Health Research Network (www.phrn.nhs.uk) are also conducting a research project to learn more about service users' views and experiences in the area of offenders with mental health problems. The project will include a literature review and a consultation to identify good models for service user involvement in prison.

Recommendation

Services need to incorporate a network of trained listeners, trained counsellors, and clinical psychologists

Recommendation

Specialist services need to be carefully commissioned, need to be more responsive, and they should support the mainstay of primary care psychological and mental health services and other measures outside health care and outside the prison.

Recommendation

Services need to integrate with social care and voluntary organisations within and outside the prison

Recommendation

Services need to integrate with all prison and community services for problem alcohol drinking and substance misuse.

Recommendation

There is a need to develop mental health care pathways according to the National Service Framework

<http://www.wales.nhs.uk/sites3/Documents/438/Raising%20the%20Standard%20%28english%29%2Epdf>

Alcohol

Various forms of problem alcohol consumption are endemic amongst the prison population as shown in section IV. Alcohol is related to many crimes committed also. However, other than the provision of medical detoxification for physical alcohol dependency in the Detoxification Unit and not the Health Care Department, other effective services for people with problem alcohol drinking are weak or non-existent, as are adequate links with statutory and voluntary organisations dealing with problem alcohol drinking in the community.

There is therefore considerable unmet need in relation to tackling alcohol dependence and all forms of problem alcohol drinking.

Recommendation

The effective prevention of problem alcohol drinking should be at the core of the recommended WHO Health in Prison Project approach at the prison. Alcohol health promotion and problem alcohol prevention and treatment needs to be the business of the whole prison in association with statutory and voluntary community organisations. An effective organised and coordinated alcohol health promotion programme is needed at the prison, operating at various levels. Effective approaches and interventions are highlighted at [http://www2.nphs.wales.nhs.uk:8080/widerdeterminantsdocs.nsf/61c1e930f9121fd080256f2a004937ed/fa0b31a1087bfb07802570890031915d/\\$FILE/ALCOHOL-1.doc](http://www2.nphs.wales.nhs.uk:8080/widerdeterminantsdocs.nsf/61c1e930f9121fd080256f2a004937ed/fa0b31a1087bfb07802570890031915d/$FILE/ALCOHOL-1.doc)

Recommendation

We suggest that greater detail is required at reception screening to better describe various forms of problem alcohol drinking other than physical alcohol dependence. An electronic information system should then help identify prisoners to receive appropriate effective interventions (see below). Problem alcohol drinking needs to be identified, documented and acted upon at every opportunity within the healthcare system (see below)

Recommendation

Specific effective interventions for individual prisoners or groups of prisoners need to be delivered in a managed and systematic way both within and outside the healthcare system at the prison. Details of individual effective interventions are available at [http://www2.nphs.wales.nhs.uk:8080/widerdeterminantsdocs.nsf/61c1e930f9121fd080256f2a004937ed/fa0b31a1087bfb07802570890031915d/\\$FILE/ALCOHOL-1.doc](http://www2.nphs.wales.nhs.uk:8080/widerdeterminantsdocs.nsf/61c1e930f9121fd080256f2a004937ed/fa0b31a1087bfb07802570890031915d/$FILE/ALCOHOL-1.doc) and at <http://www.nice.org.uk/download.aspx?o=503439>

Recommendation

A model for delivering an enhanced service for problem alcohol drinking (which would need to be integrated with other interventions outside of healthcare) is available at <http://web.bma.org.uk/ap.nsf/Content/NESalcohol>

Recommendation

The reliance on Alcoholics Anonymous to provide once a week services given the extent of problem alcohol drinking needs to be reviewed (see evidence of effectiveness [http://www2.nphs.wales.nhs.uk:8080/widerdeterminantsdocs.nsf/61c1e930f9121fd080256f2a004937ed/fa0b31a1087bfb07802570890031915d/\\$FILE/ALCOHOL-1.doc](http://www2.nphs.wales.nhs.uk:8080/widerdeterminantsdocs.nsf/61c1e930f9121fd080256f2a004937ed/fa0b31a1087bfb07802570890031915d/$FILE/ALCOHOL-1.doc))

Recommendation

In setting up any prevention and treatment services for problem alcohol drinking there should be collaboration with outside local statutory and voluntary agencies and services from the outset.

Substance misuse

It is clear from section IV that substance misuse is a major public health problem within the prison population, and is linked to a large amount of offending and re-offending behaviour. We have highlighted certain issues and recommendations in relation to injecting drug use earlier in this section.

Issues we identified include:

- Current in-prison approaches appear to be failing – a recent study in south Wales by the National Public Health Service revealed that amongst injecting drug users, over 75% of those previously imprisoned had continued whilst in prison. Fewer than 25% were offered any follow up or aftercare after release. Only 20% remained drug free for more than a month after release from prison.
- CARAT workers at present cannot fulfil the throughcare requirement adequately because of the volume of work.
- CARAT performance targets focus on number of assessments not on providing throughcare services for substance misusers.
- The problems with resettlement identified earlier seriously undermine any efforts to prevent relapse amongst former substance misusers.
- There is a lack of easily available analysed data on the results of mandatory and voluntary testing, as well as on the number of prisoners treated and outcomes in the short, medium, and long term.
- Evidence suggests that mandatory drug testing at the prison changes drug use from cannabis to more harmful injecting of heroin and other drugs within prison in some poly-drug users – this testing practice has been stopped in Scottish prisons for that reason.
- There is limited collaboration with outside substance misuse agencies who could provide valuable support in terms of delivering services within prison for prisoners who substance misuse – especially as many of the prisoners are already known to many of those services.
- The lack of collaboration with outside agencies is also problematic as we uncovered evidence of large scale failure in planning for release, and lack of continuity of drug support services once the Home Office CARAT/DIP period finished, with many released offenders then turning to voluntary local agencies.
- Of the services that are provided we are concerned that they are not co-ordinated across the prison from the wings, under drug strategy, in the Detoxification Unit, within Health Care (primary care, mental health, and specialist mental health services for substance misuse), as well as with outside agencies
- We have concerns regarding the effectiveness of some interventions used
- There is a potential issue with drug-related death and overdose early after release from prison.
- The limited offering of substitute treatment according to prison sentence length could be causing harm in terms of continued drug use

Recommendation

We recommend that every effort is made to improve resettlement coordination, starting well before 4 weeks prior to release, especially where there is a substance misuse problem, as this has a direct effect on relapse rates.

Recommendation

We recommend that there is better coordination of holistic effective evidence-based treatment services for substance misuse tailored to need, across all departments and substance misuse programmes in the prison including: Drug Strategy and the Detoxification Unit, Resettlement, Healthcare services, and importantly with outside substance misuse agencies within the NHS, other statutory agencies, and with voluntary organisations in particular. Details are given in section VI. Some information on effective interventions is available at [http://www2.nphs.wales.nhs.uk:8080/widerdeterminantsdocs.nsf/61c1e930f9121fd080256f2a004937ed/f975ad745f8ff2ef80257089003174a7/\\$FILE/DRUG%20-%201.doc](http://www2.nphs.wales.nhs.uk:8080/widerdeterminantsdocs.nsf/61c1e930f9121fd080256f2a004937ed/f975ad745f8ff2ef80257089003174a7/$FILE/DRUG%20-%201.doc)

Recommendation

An example of a framework for providing services for substance misuse within primary care is found at

http://www.nta.nhs.uk/publications/documents/nta_modelsofcare1_2002_moc1.pdf

and

<http://web.bma.org.uk/ap.nsf/Content/NESdrugmisuse>

and

http://www.nta.nhs.uk/programme/docs/Essential_elements_young%20people.pdf

and

<http://www.nta.nhs.uk/publications/providers.htm>

and

<http://www.nta.nhs.uk/publications/te1.htm>

Recommendation

Compulsory treatment of substance misuse as an alternative to imprisonment is effective in reducing substance misuse. Given the extent of drug related crime, and the extent of substance misuse within the prisoner population, we recommend that it is used whenever possible.

Recommendation

We recommend that outside agencies involved in the care of substance misusers prior to imprisonment should have easier and more appropriate access to their clients whilst in prison, and that their care should be shared where appropriate. Similarly links should be made with clients' GPs early during treatment and before release, where that is appropriate.

Recommendation

We recommend that substance misuse services are closely linked to the Communicable Disease Committee of the prison in view of the risks of blood-borne virus infection among injecting drug users

Recommendation

Owing to the serious harm it can cause, we recommend that mandatory drug testing should be stopped and instead encouragement and resources should go into strengthening voluntary drug testing which prisoners find helpful.

Tobacco control

The very high rates of smoking and its major effects on health amongst prisoners was highlighted in section 4.

The view that prisoners in difficult circumstances who are in custody, and were or will be homeless or in other deprived circumstances, should not be offered smoking cessation services because of their stresses needs to be challenged. Quit rates are lower for such

people but smoking cessation services tailored to their needs are still effective. The health gain will be higher because of the other effects of poverty on health and the often higher original cigarette consumption.

Issues we identified include:

- Given the very high smoking rates quality smoking cessation services available to prisoners is limited. One healthcare officer provides this service to groups of 7-8 when there is time.
- Quit rates and relapse rates of this service were not provided.
- There is a long waiting list for the only smoking cessation group.
- Pharmacists and pharmacy assistants do not provide a systematic smoking cessation service and advice.
- Prisoners see a smoking cessation service as important.
- Prisoners have to pay for nicotine replacement therapy unless they join the smoking cessation group – even though there is a waiting list.
- Smoking in shared cells is a public health risk to sharing prisoners.
- There is no systematic recording of prisoner smoking status on an electronic patient record.
- It is not possible to record electronically whether a prisoner who smokes has been advised to give up by a health care professional during any consultation.
- It is not clear whether brief advice to quit smoking is systematically given by all healthcare workers when prisoners consult for other reasons.

Recommendation

Action to ensure effective housing and resettlement on release will help prevent those prisoners who do quit smoking whilst in prison from relapsing on release.

Recommendation

There should be an effective and comprehensive tobacco control programme within the prison as part of the implementation of the WHO Health in Prisons Project or similar.

Recommendation

Given recent legislation, further work is needed to find the best way of implementing as wide a ban on smoking as possible in the prison both for staff and prisoners. Prisoners who smoke in cells with others will increase the risk of harm to others in the cell.

Recommendation

There should be no advertising or point of sale promotion of tobacco to staff or prisoners.

Recommendation

Price is one of the best methods of tobacco control. Tobacco should not be available for staff to buy at work, and it should be as expensive as is possible and tolerated for prisoners. Large weight and volume cigarette and tobacco packs should not be available. Vending machines that make tobacco purchase easy should not be available.

Recommendation

Sustained 'mass media' anti-tobacco education campaigns tailored using scientific and marketing knowledge and based on social learning theory, delivered within the prison aimed at staff and prisoners has an effective role, but only as part of an overall approach. Several different campaigns may be required in parallel as they have to be tailored to the audience (e.g young men) to be effective.

Recommendation

There should be free and easy access to the effective smokers NHS Wales quit line 0800 1690169 for staff and prisoners, and the number should be advertised widely, and its use encouraged.

Recommendation

Effective smoking cessation activity needs to be systematic and a comprehensive part of routine healthcare. It is important that smoking cessation services are widely advertised.

Recommendation

All health care staff should be trained on how to give simple and/or more intensive advice to quit.

Recommendation

All prisoners who smoke need to be identified in their health records - including how much smoked. Those already motivated to quit should be identified.

Recommendation

All (medical, nursing, pharmacy, dental, etc.) healthcare staff should give repeated opportunistic simple advice taking 1-2 minutes to give up smoking to all prisoners of all ages who smoke integrated into all consultations. This is very cost effective compared to other preventive medical interventions. Many smokers make several attempts before quitting. Therefore advice should be repeated even if relapsed. There is a particular opportunity for pharmacy staff in relation to nicotine replacement therapy also.

Recommendation

A computerised health system that prompts healthcare staff to give simple advice to quit improves effectiveness and should be introduced in conjunction with primary care information technology measures and quality measures previously recommended.

Recommendation

There is good research evidence that group behaviour therapy programmes (more cost effective and can be up to 20 to 25 smokers) are better than self-help and other less intensive interventions in assisting smokers to quit when given by trained smoking cessation counsellors (who can be from any discipline). The therapy also can be offered to individuals. A large expansion of services such as these should be considered.

Recommendation

More intensive advice (> 20 mins) and follow up by healthcare staff should be offered for prisoners who are already motivated to quit but who do not wish to take up the more specialist smoking cessation services.

Recommendation

General self-help materials to quit such as leaflets and videos are not very effective and should not be the mainstay of prevention programmes

Recommendation

Cognitive behavioural therapy for quitting smoking can be effective for smokers who have mental illness and should be routinely available to the large numbers of prisoners with mental illness who also smoke.

Recommendation

Specific attention is needed for offering services to deprived smokers. Further information on smoking in deprived groups is available at <http://www.publichealth.nice.org.uk/page.aspx?o=502641>

Recommendation

Pharmacotherapy (e.g. with nicotine products) multiplies the effectiveness of the various forms of advice to quit in those motivated to quit. It is an opportunity for pharmacy services. Such products should be free to prisoners to encourage uptake. However the emphasis should still be on the intensity of the advice to quit.

Recommendation

There is no convincing scientific evidence that acupuncture, hypnotherapy or other complementary therapies are any more effective than placebo despite their popularity. They should not be used for smoking cessation.

Infectious diseases

Various infectious diseases are a major public health problem amongst the prison population. It is important also to have adequate prevention and outbreak control measures.

Local authorities, the Local Health Board (LHB) and the National Public Health Service (NPHS) have particular responsibilities in terms of infection control at the prison.

Issues identified include:

- Membership of Communicable Disease Committee
- Whether Communicable Disease Policy is comprehensive enough and up to date
- Prevention of blood-borne viruses amongst prisoners in general and injecting drug users especially – who continue in prison
- Uptake of hepatitis B vaccination
- Adequacy of IT systems for vaccine recall and follow up
- Hepatitis A and B vaccination in those infected with hepatitis C
- Specialist referral and management for prisoners infected with hepatitis C

Recommendation

We recommend that consideration is given to expanding the membership of the prison's communicable disease committee to include an environmental health officer representative from the local authority, and to possibly include a representative of the Local Public Health Director (LPHD) from the LHB, as well as the current Consultant in Communicable Disease Control (CCDC) from the NPHS. We suggest that as infection control is important across the whole prison, a member of the prison's senior management outside health care is also on the committee. We suggest that this committee should be chaired by the LPHD or CCDC, and that it should report to the Prison Health Steering Committee.

Recommendation

Given the importance of infectious diseases at the prison, we suggest that consideration is given to a senior nurse with public health experience having responsibility for communicable disease control at the prison on a day-to-day basis.

The Committee agreed a Communicable Disease Policy in 1999 that was apparently updated in January 2006. However it is not clear whether this update was formally endorsed by the Committee, and whether it was implemented and staff made aware of it. We are concerned that it does not appear to cover some of the major aspects we highlight about communicable disease in further recommendations below. Some of the references, post-holders and organisations referred to in the document are out-of-date or no longer exist.

Recommendation

We recommend that the prison's Communicable Disease Policy is updated to include some of the recommendations made below. We recommend that the policy is regularly reviewed.

Many injecting drug users in south Wales (section V) started to inject in prison or continue to do so in prison, despite official efforts to provide support or to stop the practice. Harm reduction is therefore an important approach. Hepatitis A, B and C continue to circulate among injecting drug users, and HIV is rising among injecting drug users outside London.

Recommendation

To minimise the transmission of hepatitis A, B and C, HIV and other infections, we recommend that the prison fully implements the Prison Service's Disinfecting Tablets Prison Service Instruction. The scheme has been piloted in Bristol and elsewhere, and although it is intended to disinfect toothbrushes, shaving equipment, and tattoo needles, the tablets can be used to disinfect drug-injecting paraphernalia.

www.hmprisonservice.gov.uk/resourcecentre/psispsos/

Given the risk of hepatitis B amongst the prisoner population, and the importance of prison as a place to be vaccinated, the apparent low coverage of hepatitis B vaccination is of concern.

Recommendation

We recommend that robust proactive operational and information systems are put in place at the prison in order to increase the offering, follow up and uptake of hepatitis B vaccination courses to all prisoners. Systems will need to be unified across the Detoxification Unit and Healthcare. Durham and Bristol prisons consistently report over 70% coverage. More information about Bristol's procedures can be obtained from

Christine.miles@hmps.gsi.gov.uk

Recommendation

We recommend that procedures for vaccinating against hepatitis B are audited using the data already supplied to the Health Protection Agency.

Recommendation

To increase hepatitis B vaccination uptake, we recommend that prison staff are trained with a tailored package in vaccination skills and of the importance of hepatitis B vaccination. A successful scheme was carried out by Humber Health Protection Unit with prison staff (contact autilia.newton@herhis.nhs.uk & adrienne.testa@hpa.org.uk)

Recommendation

Consideration and further advice should be sought regarding providing a robust system for vaccination against hepatitis A for all or some prisoners, as suggested by the Health Protection Agency.

Hepatitis C continues to be a major problem amongst the prison population. Many cases may remain undetected among injecting drug users. The recommendations above are important for its prevention. It is important that those with hepatitis C infection receive high quality surveillance and health care from specialist centres. A recent survey of injecting drug users in south Wales showed less than a third of those infected with hepatitis C had been referred to a specialist and none had received treatment.

Recommendation

Further advice should be sought regarding ensuring the detection of all those with hepatitis C infection. The provision of voluntary confidential testing for hepatitis C (and HIV) should be strengthened with a clear protocol of who to test. This should be streamlined and integrated between the Detoxification Unit and Health Care Department and the sexual health service at the prison, and with the integration of other non-medical services for substance misuse within and outside the prison. We suggest a prison-wide protocol for testing for hepatitis C should be developed.

Recommendation

Further measures are needed to ensure that all those with hepatitis C infection are offered hepatitis A and B vaccination. This could be included in a protocol or pathway for hepatitis C infection.

Recommendation

A protocol for hepatitis C needs to include robust arrangements for referral to specialist care and expectations for treatment. An example of good practice of prison-based clinics is in the Yorkshire & Humber region (www.hpa.org.uk/publications/2006/hepc_2006/default.htm)

There have been reported outbreaks of mumps and measles in other prisons and the probable low coverage of childhood immunisations amongst prisoners is likely to be low.

Recommendation

The prison communicable disease committee may wish to consider the merits of introducing systems to ensure coverage with routine vaccinations amongst prisoners, including MMR, meningitis C, and so on. Updated advice is available from www.dh.gov.uk/assetRoot/04/14/17/61/04141761.pdf

It was not possible to determine the proportion of the eligible older population and those at risk (e.g. with heart disease, asthma, etc) who had been vaccinated with influenza and pneumococcal vaccination. It does not appear that there is a concerted coordinated system and campaign of encouragement. An electronic register of those at risk, those offered and those receiving vaccination is not kept. The number of vaccinations administered does however appear small.

Recommendation

We recommend better electronic patient information systems and disease registers at the prison (ideally compatible with primary care and systems across the prison service) to help increase relevant vaccination coverage for all prisoners, such a system would be beneficial in ensuring better coverage of influenza and pneumococcal vaccination, and all other relevant vaccines. Such systems would also greatly assist auditing, performance management, adherence to protocols and guidelines, disease screening of at risk groups, needs assessment, other preventative health care, as well as individual patient care.

Sexual health and sexually transmitted infections

Poor sexual health and risky sexual behaviour is an increasing and major unmet health need amongst prisoners (see section IV, V and VII). This has detrimental public health implications for healthy relationships, unintended pregnancy in partners of prisoners, early unintended fatherhood, sexually transmitted infections in addition to being routes of transmission for hepatitis A, B and C, and HIV.

Sexual health promotion and relationship promotion is limited given the extent of the problem. There is only sparse research evidence that individual risk counselling by healthcare professionals is effective in changing sexual behaviour. There is no proactive organised screening programme at the prison.

Recommendation

We recommend other measures in this section to improve personal skills, self-esteem, assertiveness and mental health, as necessary foundations for reducing risky-health behaviour in relation to unsafe sexual practices

Recommendation

We recommend expansion of a coordinated multi-intervention evidence-based sexual health promotion programme across the whole prison, tailored to the needs of young deprived men, to replace the small amount that occurs within the Detoxification Unit or those presenting to specialist services. Features of effective programmes were highlighted in section 6 and are available at

[http://www2.nphs.wales.nhs.uk:8080/widerdeterminantsdocs.nsf/61c1e930f9121fd080256f2a004937ed/6c644b6a763108788025708900316371/\\$FILE/STI%20-1.doc](http://www2.nphs.wales.nhs.uk:8080/widerdeterminantsdocs.nsf/61c1e930f9121fd080256f2a004937ed/6c644b6a763108788025708900316371/$FILE/STI%20-1.doc)

Recommendation

Further evidence-based measures outlined in section 6 may be required to systematically and effectively inform the (often multiple) partners of prisoners with STIs that they may be at risk.

Chlamydia is a major public health problem and can go undetected in men due to the lack of symptoms. Many prison in England have taken part in England National Chlamydia Screening Programme. There is certainly a health need for a similar programme at HMP Cardiff.

Recommendation

Careful consideration should be given to developing a Chlamydia screening programme at the prison, in close collaboration with Cardiff LHB and the NPHS, and other prisons in England that have joined their programme.

(contact ncspteam@hpa.org.uk & see www.hpa.org.uk/infections/topics_az/hiv_and_sti/sti-chlamydia/default.htm)

Sexual health services at the prison are currently predominantly specialist secondary care-led and medical consultant-based. The waiting list is 4-6 weeks similar to the community, although the need is much greater in the prison. Contact tracing/partner informing is via a slip of paper to the prisoners.

Recommendation

Primary care-based prescriber nurse-led and managed sexual health services have been shown to be a more cost-effective way of delivering sexual health services in prisons. Consideration for commissioning such a service could be appropriate (for more information <http://www.ukpha.org.uk/media/15thaphf/parallelB/16.0%20b12.2%20powell%20kilsyth%20wed.pdf>)

We recommend using the guidance of the RCN for nursing staff working in sexual health services in primary care

<http://www.rcn.org.uk/members/downloads/contraceptionsexualhealth.pdf>

The BMA has suggested a model for a primary care-based enhanced service for sexual health which could be a useful model for adaptation in prison

<http://web.bma.org.uk/ap.nsf/Content/NESmorespecialised>