



Public Health
England



World Health
Organization

REGIONAL OFFICE FOR

Europe

Protecting and improving the nation's health

Public Health England Health & Justice annual review 2015/16



“No health without justice, no justice without health”

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health, and are a distinct delivery organisation with operational autonomy to advise and support government, local authorities and the NHS in a professionally independent manner.

Public Health England
Wellington House
133-155 Waterloo Road
London SE1 8UG
Tel: 020 7654 8000
www.gov.uk/phe
Twitter: @PHE_uk
Facebook: www.facebook.com/PublicHealthEngland

For queries relating to this document, please contact: health&justice@phe.gov.uk

© Crown copyright 2016

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v3.0. To view this licence, visit [OGL](http://www.nationalarchives.gov.uk/ogl) or email psi@nationalarchives.gsi.gov.uk. Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

Published October 2016

PHE publications gateway number: 2016391

Acknowledgements

Editor

Dr. Éamonn O'Moore

Authors and lead contributors

Maciej Czachorowski
Jane Leaman
Éamonn O'Moore
Jo Peden
Sunita Sturup-Toft

Other contributors

Rachel Campbell
Emma Dapaah
Pauline Fisher
Susanne Howes
Dave Jones
Kieran Lynch
Nino Maddalena
Magdalene Mbanefo
David Sheehan
Seamus Watson

Cover image: The now decommissioned HMP Reading, 2016. Photo by Maciej Czachorowski.

Cover quote: This phrase, attributed to Dr. Éamonn O'Moore, National Lead for Health & Justice, PHE, was adopted by the World Health Organization's Health in Prisons Programme and the Council of Europe at a meeting of prison health experts held in Strasbourg in 2014 which endorsed the position that health and justice organisations cannot achieve their respective aims in isolation (1).

Contents

Acknowledgements	3
Glossary	5
Foreword	6
Executive summary	8
1 Introduction	13
1.1 The changing policy landscape	13
1.2 Impact on health outcomes of the commissioning and provision of health services in prisons	14
2 The health of people in detention and in contact with the criminal justice system	20
2.1 Why address the health needs of people in the criminal justice system?	20
2.2 People in detention and in contact with the CJS are 'under-served' populations	21
2.3 Population Demographics	23
3 Protecting the health of people in the CJS and in the community	29
3.1 Seasonal influenza outbreaks in the English custodial estate - 2015/2016	30
3.2 Blood-borne virus opt-out testing programme for prisons	34
3.3 Tackling tuberculosis (TB) in under-served populations	35
4 Improving the Health of People in the CJS	39
4.1 Addressing the Mental Health needs of people in PPDs	39
4.2 Reducing smoking in prisons	43
4.3 Preventing and reducing substance misuse in the CJS	45
4.4 Reducing physical health inequalities between people in PPDs and the community	47
5 Protecting and improving health around the world	50
5.1 WHO Health in Prisons Programme	50
5.2 Key areas of work in 2015/16	51
6 Conclusions and looking forward	55
Data Sources	57
Appendix: Health & Justice Surveillance Data (2015/16)	58
References	62

Glossary

AAASP	Abdominal Aortic Aneurysm Screening Programme
BBV	Blood-borne virus
BI	Brief interventions
BCSP	Bowel Cancer Screening Programme
CYPSE	Children and young people's secure estate
CCGs	Clinical commissioning groups
CHIMAT	Child and Maternal Health Intelligence Network
CJS	Criminal justice system
CRCs	Community rehabilitation companies
DESP	Diabetic Eye Screening Programme
DH	Department of Health
DsPH	Directors of public health
EPRR	Emergency preparedness, resilience and response
GI	Gastrointestinal
GUM	Genitourinary medicine
GUMCAD	Genitourinary medicine clinic activity dataset
HJIPs	Health and justice indicators of performance
HJIS	Health and justice information service
HMIP	Her Majesty's Inspectorate of Prisons
HNAs	Health needs assessments
HPT	Health protection team
HPV	Human papilloma virus
IRC	Immigration removal centre
JSNAs	Joint strategic needs assessments
MSM	Men who have sex with men
MoJ	Ministry of Justice
NICE	National Institute for Health and Care Excellence
NOMS	National Offender Management Service
NPA	National Partnership Agreement
NPS	Novel psychoactive substances
OMCCS	Offender management community cohort study
PCR	Polymerase chain reaction (shows active infection of hepatitis C)
PHIPS	Public Health Intelligence for Prisons and Secure Settings Service
PHPQIs	Prison health performance and quality Indicators
PPDs	Prescribed places of detention
PPO	Prison and Probation Ombudsman
PVL	Panton-Valentine leukocidin
RCGP	Royal College of General Practitioners
RCN	Royal College of Nursing
SPCR	Surveying prisoner crime reduction
STI	Sexually transmitted infection
TB	Tuberculosis
UKCC WHO HIPP	UK Collaborating Centre to the WHO Health in Prisons Programme
USPs	Under-served populations
WHO	World Health Organization
YJB	Youth Justice Board

Foreword

Prison reform and public health

The year 2016 marked an important anniversary: ten years of commissioning of prison health services by the NHS in England and Wales. Only a small number of Western European states currently commission prison healthcare via health ministries, most notably among them the UK, which has the longest and most extensive experience (England and Wales since April 2006, Scotland since November 2011 and Northern Ireland since April 2012) but also France, Italy, Norway and Sweden. From January 2016, Finland also transitioned to direct commissioning by the health service. Among most other Western European states, ministries of justice/interior commission prison healthcare. Because of our long experience, the UK's prison healthcare system is cited in the international literature as a model of good practice. A paper on prison health reforms in England and Wales, published in the *American Journal of Public Health* in 2006 (2), reflected on the benefits on prison health of transfer of responsibility to the Department of Health and the NHS measured against the state of prison healthcare outlined in a highly critical report by Her Majesty's Inspectorate of Prisons in 1996 (3). The paper cites benefits of health commissioning to include greater transparency, evidence-based assessment of health needs, tackling professional isolation, improving the quality of care and integration of prison populations into wider public health programmes. Through the 2015/16 remit letter (4), the Department of Health in England (DH) commissioned PHE to undertake a rapid review of evidence of improvements in health outcomes for people in secure and detained settings of NHS commissioned health services with a view to informing future prioritisation. We present some of the findings of that evidence review in this report and the full report will be published elsewhere, but there can be no doubt that the overall impact of NHS commissioning has been positive and has led to the consolidation of clear principles in delivering healthcare to people in prisons including the principle of equity.



The year 2016 also saw the most radical policy announcement about prison reform in 100 years. On 8 February 2016, the former Prime Minister, Rt Hon David Cameron MP, announced his government's intention to reform prisons, stating that "...prison reform should be a great progressive cause in British politics..." (5). While acknowledging the importance of prisons as part of an effective criminal justice system and the need to ensure that "victims of crime who should always be our principal priority", he also recognised the role that prisons play in the rehabilitation of offenders, saying that "we must offer chances to change, that for those trying hard to turn themselves around, we should offer hope, that in a compassionate country, we should help those who've made mistakes to find their way back onto the right path." Mr Cameron also described the failures of the current prison system, which he described as "scandalous":

- 46% of all prisoners and 60% of short-sentenced prisoners will re-offend within a year of release

- in a typical week, almost 600 incidents of self-harm, at least one suicide, and 350 assaults (including 90 on staff) will occur
- the cycle of reoffending costs up to £13 billion a year
- 70% of prisoners have at least 7 previous offences, and the average prisoner has 16 previous convictions

The new prison reform programme was formally announced in the Queen's Speech to Parliament in May 2016 (6) which was described as "the biggest structural reform of prisons for more than a century". Six new Reform Prisons were announced (HMPs Coldingley, Highdown, Holme House, Kirklevington Grange, Ranby and Wandsworth) with new powers for their executive governors including freedoms over prison budgets, whether to opt-out of national contracts; and over education, the prison regime, family visits, and partnerships to provide prison work and rehabilitation services. There is also a commitment to publish new prison league tables to hold governors to account, with comparable statistics to be published for each prison on reoffending, employment rates on release, and violence and self-harm. The government will use legislation – enabling prisons to be established as independent legal entities with the power to enter into contracts; generate and retain income; and establish their own boards with external expertise.

PHE is working alongside the Ministry of Justice, the Department of Health and NHS England to ensure that health is at the heart of prison reform and that the benefits include improved health outcomes as well as reduced reoffending. With our partners in NHS England, we are committed to improving the quality of care in custody but also to 'diverting' people away from prison if their needs and that of wider society are better served by addressing underlying health needs like drug dependence or mental health problems. We are also working together to improve care after custody, which we believe will contribute significantly to reducing reoffending.

The challenges are significant – rising levels of violence, self-harm and suicide in prisons are a real cause for concern and the impact of new psychoactive substances has been described as a 'game changer' by HM Chief Inspector of Prisons. Our report gives some insight into our work during 2015-16 but also lays the foundation for work in this year to improve health and reduce reoffending as part of wider prison reform and reconfiguration. We continue to be a world leader in public health as our work with the WHO demonstrates so our learning informs not only England but also many countries around the world. It will be interesting to reflect how we may judge the changes in the prison system ten years on from now but our hope is that we will continue to build on the positive changes delivered by health working in partnership with justice over the past ten years.



**Dr Éamonn O'Moore FFPH,
National Lead for Health & Justice, PHE, and Director of the UK Collaborating Centre
for WHO Health in Prisons Programme (European Region)**

Executive summary

This report provides details of key changes in the health and justice system and discusses the public health needs of people in prisons and other prescribed places of detention (PPDs). Highlighted are demographic shifts in this population and some of the key public health initiatives developed in partnership with NHS England, the National Offender Management Service (NOMS), the Home Office and the Youth Justice Board in the 2015/16 financial year. Work being undertaken with international partners, especially the World Health Organization (WHO), on the health of people in prisons is also given focus in the last section of the report.

In light of recent calls for 'prison reform' made by the government in early 2016, new healthcare commissioning models for prisons in England and Wales are on the horizon. This report comes ten years after prison healthcare commissioning was transferred from the Ministry of Justice to NHS England. As a means of facilitating the prioritisation of future healthcare provision strategies in PPDs, an overview of some of the key areas of improvement in the quality of care since the implementation of NHS commissioning are presented in the introduction. Key challenges and areas for further improvement are also highlighted.

Communicable diseases are of particular concern in the confined environment found in many detention settings and the national Health & Justice Team has a significant health protection role. The past year saw the team involved in risk-mitigation activities for an unprecedented number of seasonal influenza outbreaks in secure facilities as well as two prison outbreaks of tuberculosis. Initiatives are also underway to improve the diagnosis and treatment of blood-borne viruses (BBV) in prisons and an evaluation of the second phase of BBV opt-out testing, with a focus on patient 'linkage into care', has recently been completed. In an effort to stem the disproportionately high rate of tuberculosis in PPDs, initiatives are also being developed to better tackle the disease in under-served populations (USPs), including people in contact with the criminal justice system (CJS).

People in contact with the CJS often come from marginalised and under-served communities in the wider population. By tackling health inequalities in this population we can address wider health inequalities, benefitting not only those in prisons but wider society. There is a co-dependency between partners to tackle inequalities and reduce re-offending and we have already seen the benefits of working in partnership to respond to these health inequalities.

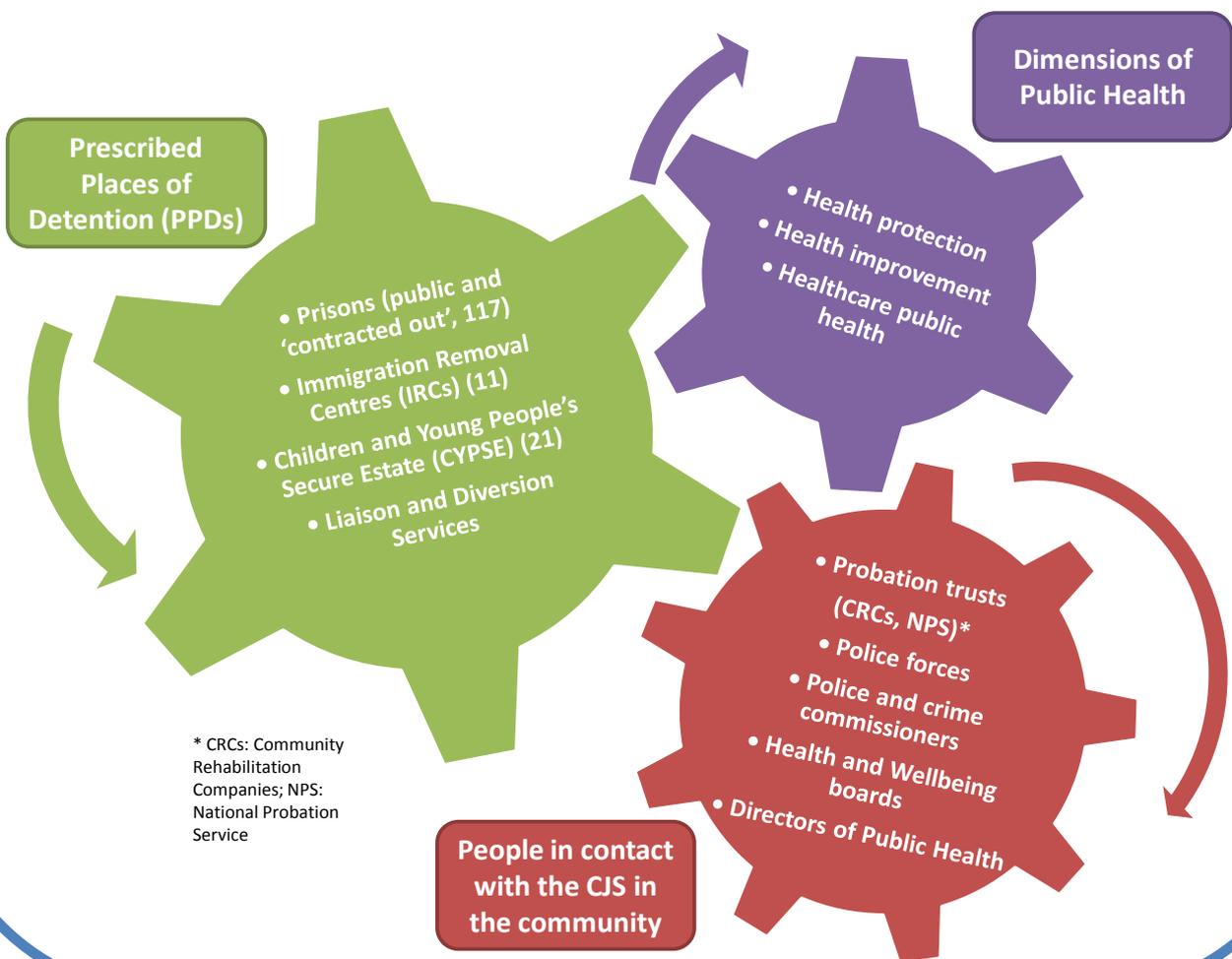
Specific initiatives are being developed to target the marked increase in the misuse of new psychoactive substances (NPS) and medications in prisons, which have coincided with a significant spike in prison deaths and violent behaviour over the past two years. Moreover, workstreams are being implemented to directly tackle health inequalities and improve the health of people in PPDs. These include the roll-out of a smoke-free prison programme across England and Wales aiming to reduce the harmful effects of smoking and second hand smoke on prisoners and prison staff, as well as the implementation of routine physical health checks in PPDs.

Progress in our international work has seen a number of developments since PHE took on the role as UK Collaborating Centre to the **World Health Organization Health in Prisons Programme** (UK CC WHO HIP) from 1 April 2014. In order to improve the comprehensiveness and robustness of public health data on prison populations and their health needs across the WHO European Region, the team is leading on the development of a WHO European Minimum Public Health Dataset for Prisons and also spearheading the launch of the **WHO European Prison Health Research Engagement Network (WEPHREN)**.

Scope of work for PHE in Health and Justice

The scope of the work of Health and Justice stretches across all three domains of Public Health and attempts to address inequalities, improve health and reduce offending and re-offending behaviour. Our remit includes prescribed places of detention (PPD) but also people in contact with the criminal justice system (CJS) in the wider community, i.e. people with a ‘police record’, those under supervision of probation services in the community and those in custodial settings (including prison, immigration detention or within the children & young people’s secure estate), and therefore addresses much broader issues than just custodial settings (Figure 1).

Figure 1: Scope of the work of PHE Health and Justice



This report discusses the key health issues faced by people in contact with the CJS in custody or in the community and provides examples of how such issues can be addressed. It examines the current health and justice landscape and also looks at the imminent changes. We are faced with many new challenges but this report will help guide directors of public health (DsPH) and other professionals working within the public health system locally and nationally with information about how to best meet the needs of this local population.

The national Health & Justice Team and Network

As of January 2016 the national **Health & Justice Team** is part of PHE’s Health Equity and Mental Health division which forms part of the **Health and Wellbeing directorate**. The national Health & Justice Team works to deliver **PHE’s mission statement** on health and justice which aims to reduce health inequalities, reduce offending and re-offending behaviour, support people in living healthier lives, and ensure the continuity of care from custody to the community.

Figure 2: PHE regions and centres

PHE is structured into a national centre, 4 regions (North, Midlands and East of England, South and London) and 8 centres plus London, which is an integrated region-centre. The national Health & Justice Team works with health and justice public health specialists based in PHE centres who support implementation of the national business programme as well as meeting local needs in relation to health and justice including integration of this work with wider work programmes of their centres (Figure 2).



The national Health and Justice Network is composed of representatives from the devolved administrations, the national team and the public health specialists in the PHE centres and works to gather intelligence, share good practice and provide opportunities for collaboration across England and with Scotland and Wales. The national team also leads international engagement on prison health through its work as the UK Collaborating Centre (UKCC) to the **WHO HIPP (Europe)** and supports collaborative working for health across the devolved administrations and the Republic of Ireland through the **Five Nations’ Health & Justice Collaboration** (Figure 3).

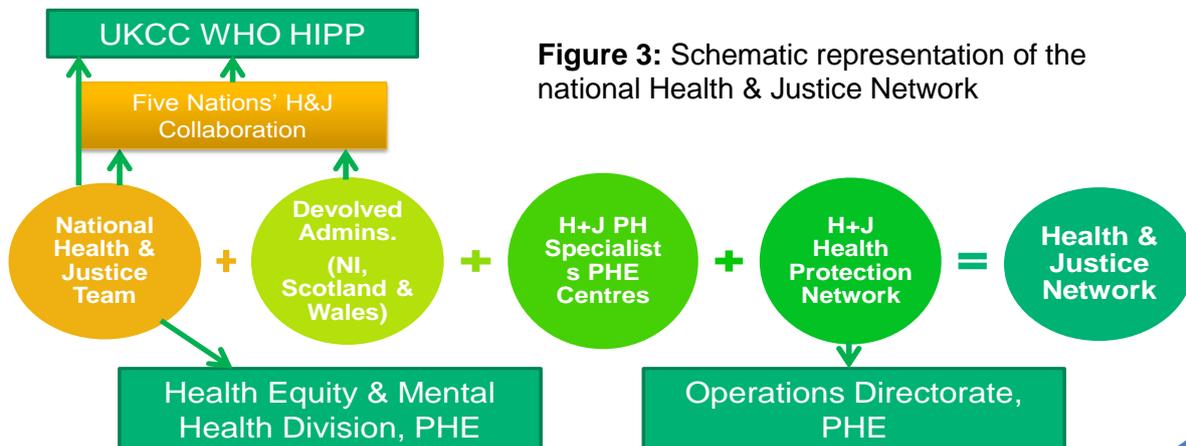
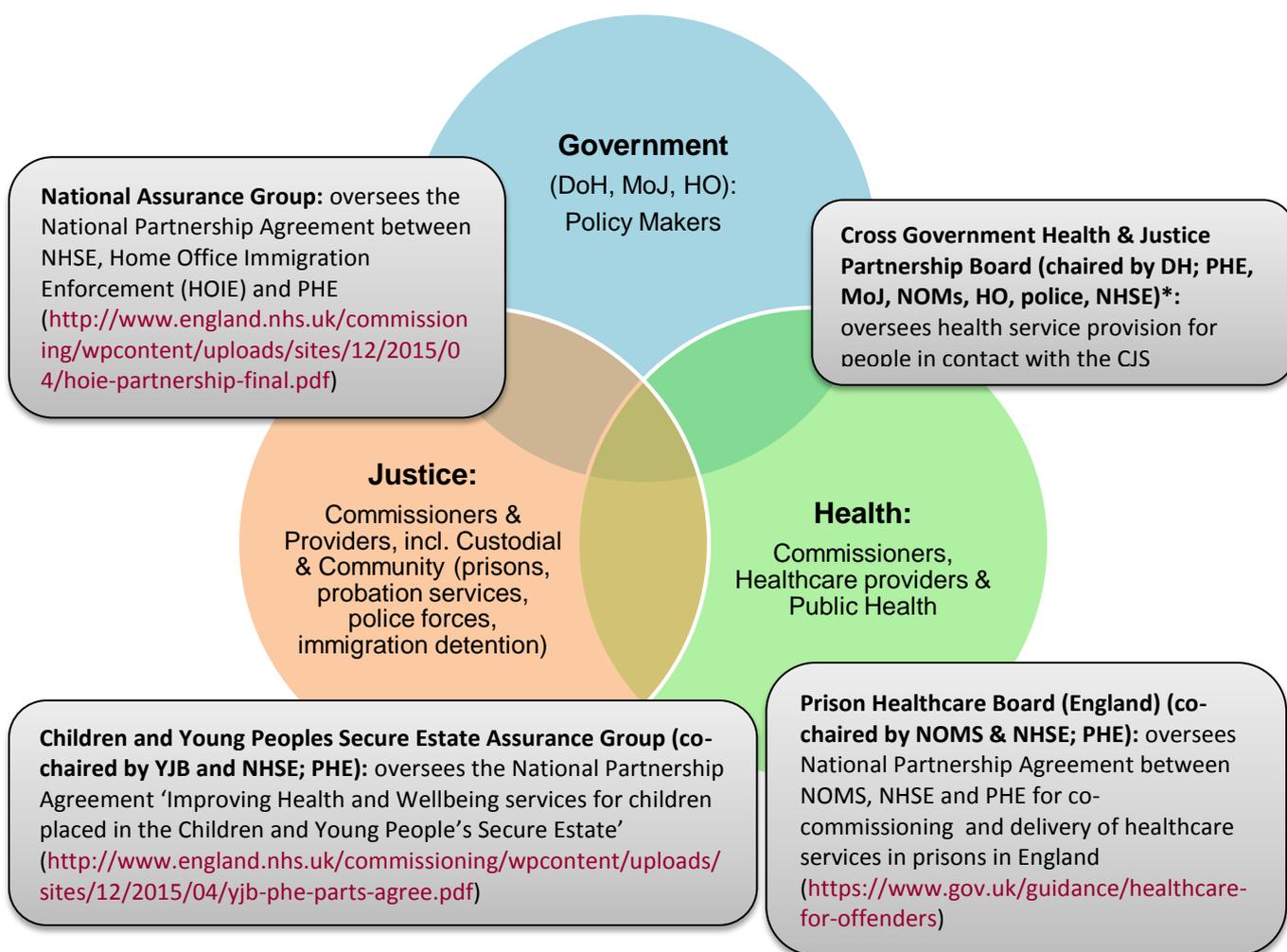


Figure 3: Schematic representation of the national Health & Justice Network

Working in Partnership

The national Health & Justice Team works in partnership with health and social care commissioners, service providers, academic & third sector organisations, international partners and prisoners/detainees to identify and meet the health and social care needs of people in prisons and other PPDs, as well as those in contact with the CJS in the community.

Figure 4: Partnership agreements relevant to the work of PHE’s national Health and Justice Team. *DH: Department of Health; HO: Home Office; MoJ: Ministry of Justice; NOMS: National Offender Management Service; NHSE: National Health Service England



Effective working at both national and local level is essential to address the health needs of people in contact with the CJS. At a national level there are a number of strategic groups established to oversee health provision for people in contact with the CJS with various degrees of overlapping roles in Government, Health and Justice. At a local level slightly more than a third of top-tier local authorities in England have prisons within their boundaries. However all local authorities have a responsibility for people living in the community who are in contact with the CJS (Figure 4).

1 Introduction

1.1 The changing policy landscape

Detention settings are a requirement of a functioning CJS. The health and wellbeing of people in PPDs is a particular responsibility of the state. There is great variety in both the nature of detained populations and the detention settings, which adds a level of complexity. Some detention settings are the responsibility of MoJ, others of the Home Office; some detention settings are publicly owned whereas others are privately managed under contract. In 2006, NHS England assumed responsibility for commissioning healthcare in PPDs from the Home Office but CCGs, local authorities and social care commissioners need to ensure health and care for vulnerable populations in contact with the CJS in the community as part of the services for the general population. Table 1 provides an overview of recent legislation and policy drivers influencing the work undertaken by Health & Justice.

Table 1: Overview of recent legislation and policy drivers influencing Health & Justice work

Acts of Parliament	
Section 15 of the Health and Social Care Act 2012	gives the Secretary of State the power to require NHS England to commission certain services outside of CCGs who are responsible for the commissioning of healthcare services in the community. These include 'services or facilities for persons who are detained in a prison or other accommodation of a prescribed description'.
Offender Rehabilitation Act 2014	made changes to the sentencing and release framework to extend supervision after release to offenders serving short sentences. It also created greater flexibility in the delivery of sentences served in the community. The Act provides a range of provisions that affect the local delivery landscape.
Care Act (DoH 2014) from April 2015	local authorities are now required to assess and meet the eligible social care and support needs of prisoners as well as residents in approved premises and those in bail accommodation, and there are opportunities to work with local authorities to broaden the scope of a joint health needs assessment to include the social care needs of prisoners and offenders in these settings.
Policy Drivers	
NHS Outcomes Framework 2014 to 2015	sets out the outcomes and corresponding indicators that are used to hold NHS England to account for improvements in health outcomes, as part of the government's mandate to NHS England. It acts as a catalyst for driving up quality throughout the NHS by encouraging a change in culture and behavior
Public Health Outcomes Framework 2013 to 2016	includes a number of relevant indicators related to people in contact with the CJS. New PHOF indicators have been introduced specifically relevant to re-/offending behaviour for which information will start to be collected in August 2016. (see Appendix: Data & Intelligence for more information)
NHS England Mental Health Taskforce recommendations 2016	recommendations for improving mental health outcomes across the health and care system. In partnership with the MoJ, Home Office, DH and NHS England, PHE should work 'to develop a complete health and justice pathway to deliver integrated health and justice interventions' while improving mental health services in prison and upon release.

Reform agenda

Citing high re-offending rates and increasing violence in prisons, the Prime Minister gave a speech in February 2016 that set out the government's plans to embark on an ambitious programme of prison reform (5). The details of the prison reform programme were subsequently announced in the Queen's Speech in May 2016 (6) in which six 'reform prisons' in London, the East Midlands and North East were designated, as shown in Table 2 below:

Table 2: Early adopter prisons identified as part of the Prison Reform programme

Region	Prison
East Midlands	HMP Ranby
London	HMP Coldingly
	HMP High Down
	HMP Wandsworth
North East	HMP/YOI Holme House
	HMP Kirklevington Grange

These prisons will grant 'unprecedented freedoms' to prison governors over decisions relating to the prison budget and decision to opt-out of national contracts. Decisions related to operational facets of prison life such as education, the prison regime, family visits, and partnerships to provide prison work and rehabilitation services will also fall within the remit of prison governors. Prison league tables will be developed to hold governors to account, with comparable statistics to be published for each prison on re-offending, employment rates on release, and violence and self-harm. The government will use legislation enabling prisons to be established as independent legal entities with the power to enter into contracts; generate and retain income; and establish their own boards with external expertise (6).

In this light, PHE is working with DH and MoJ colleagues, alongside our partners in NOMS and NHS England, to develop the following programme of work:

- develop a model of delivering healthcare services in prisons that is based on new commissioning models between NHS England and prison governors
- the provision of transparent data and performance monitoring information at an establishment level to drive improved outcomes
- a review of the evidence base and models of best practice in relation to the provision of prison-based substance misuse services

1.2 Impact on health outcomes of the commissioning and provision of health services in prisons

As part of the **2015 to 2016 remit letter**, the DH commissioned PHE to undertake a rapid review of evidence of improvements in health outcomes for people in secure and detained settings with a view to informing future prioritisation. This evidence review coincided with ten years of commissioning of prison health services by the NHS in England and Wales.

Currently, only a small number of Western European states commission prison healthcare via their health ministries, most notably among them the UK which has the longest and most extensive experience (England and Wales since April 2006, Scotland since November 2011 and Northern Ireland since April 2012) (see Section 4 of [PHE Health & Justice Report 2014](#)). Provision and accountability for health services in prisons by health ministries is in line with WHO recommendations on prison health (7).

Results of a rapid review of the literature

A systematic review of the literature identified common themes of high-quality prison healthcare in over 80 published papers (Table 3).

Table 3: Common themes of high-quality prison healthcare identified through a systematic review of the literature

Increased accessibility to effective health and social care for people in prison
Improved continuity of care for people as they transition between prison and the community
Greater emphasis on meeting mental health needs
Improved quality of data and greater information sharing
Greater resources (financial and workforce)
Leadership and collaborative working between organisations
More robust evidence base on what works and what is cost effective
Greater inclusion of the views of people in prison and their families and the prison workforce in determining how healthcare is delivered

These emergent themes coincide closely with components of high-quality healthcare outlined by the WHO in the policy document published in October 2013 '[Good governance for prison health in the 21st century](#)' (7).

Results from qualitative research: key informant interviews

The literature review was supplemented by a qualitative research strategy in which one-to-one interviews with key informants (including prison and healthcare service providers, NHS and prison service commissioners, public health experts, and third-sector organisations, including those nationally recognised as providing a prisoner voice) were undertaken based on the themes identified in the literature, cross-referenced to the matrix for analysis developed by the Health Inequalities National Support Team, which was designed to improve population health outcomes for people who experience health inequalities. The consensus view among the majority of informants was that the ten-year period of NHS commissioning of prison healthcare since 2006 had led to significant improvements in the quality of care. The key areas of improvement that were identified are described below and summarised in Figure 5, along with some of the specific factors/products contributing or driving those improvements.

Figure 5: Key areas of improvement in the quality of care since the implementation of NHS commissioning of prison healthcare in 2006 (blue lettering). The specific factors/products cited as contributing or driving these improvements are indicated alongside improvement area (black lettering). See text for further details. *HJIPs: Health and Justice Indicators of Performance; HJIS: Health and Justice Information Service; HNAs: Health Needs Assessments; PALS: Patient Advice and Liaison Service; PHPQI: Prison Health Performance and Quality Indicators; T&D: Training and Development.*



Partnership Work: The **National Partnership Agreement (NPA)** is generally thought to have improved engagement across the three key agencies: PHE, NHS England and the National Offender Management Service (NOMS). The NPA clearly sets out the functions and accountability of each agency and details the different levels of governance required across the agreed partnership agenda.

Professional development of healthcare staff working in prison health services: The employment of professional healthcare staff with nationally recognised qualifications and membership of professional bodies is enabling a rise in clinical standards and accountability. Further, specific training for prison healthcare professionals has been developed by the Royal College of Nurses (RCN) and the Royal College of General Practitioners (RCGP) particularly but also by other Royal Colleges with better training and continuous professional development opportunities linked to professional development programmes.

There was a recognised need for development of new models of care with appropriate skill mixes to meet identified needs as well as the use of new and different practitioners, for example nurse prescribers, pharmacy assistants and social care support workers. Many interviewees considered that Health Education England should be an active partner in the agenda to inform the training, education and recruitment and retention of staff.

Transparency: Robust contract monitoring and performance reporting by commissioners of healthcare providers was seen as a significant step forward in improving transparency. The Health and Justice Indicators of Performance (HJIPS) were acknowledged as contributing significantly to future development in this area but it was recognised that the system was still in development.

Inspectorate reviews: Her Majesty's Inspectorate of Prisons (HMIP) and the Care Quality Commission (CQC) were cited as positive examples of testing how standards were being met. The outcome of serious incidents, eg deaths in custody and Prison and Probation Ombudsman (PPO) reports, were seen as a positive 'shared learning' approach to not repeating mistakes. Complaints/PALs (Patient Advice and Liaison Services) systems were regarded as a very useful method of monitoring services and achieving improvements. Service user feedback/evaluation systems, eg service exit feedback, was highly valued as a means of improving services.

Improving quality of healthcare: The contractual requirement to implement national evidence-based practice and standards (eg NICE recommendations) was seen as a positive improvement in the delivery of high quality services. Challenges around continuity of care were recognised as was the need to improve cost effectiveness and cost savings of programmes.

Systematic understanding of needs at population level- Health Needs Assessment (HNA): The requirement to have a formal health and wellbeing needs assessment to inform commissioning and service provision was widely recognised as a driver of quality improvement among interviewees.

The prisoners' voice/ peer-led health improvement: The increasing engagement of service users as part of formal HNAs as well as working with providers to give feedback on services was generally seen as a driver for quality improvement. The work on the 'lived experience' led by NHSE was highlighted as a very positive move forward. Peer mentoring is seen as a positive method of enabling access to services.

Liaison & Diversion: The Bradley Report recommendations were identified as a positive driver for the Liaison & Diversion programme resulting in a "care not custody, care in custody, and care after custody" approach used by NHS England for commissioning care in the criminal justice pathway.

Whole prison approach: This holistic approach to health was recognised as important in addressing health and wellbeing not only of prisoners but also staff.

Improving the quality of health outcomes for people in the CJS: looking ahead

The qualitative evaluation also identified several areas that will require focus in coming years so that the health of people in the CJS continues to improve. (Figure 6).

Figure 6: Areas of health in the prison system that would benefit from further improvements



Relationship between prison regime and healthcare – developing a whole prison approach was recognised as important in addressing the health and wellbeing of prisoners as well as staff. But, concerns were expressed about how prison staffing levels and security/operational issues (eg lock down/time in cell) impacted on prisoner access to healthcare as well as wider education, training and work programmes or access to health care, including secondary care services in the community.

Links with the wider community within the health and justice areas of work are needed, including a link between custody and community, supported by local partnerships with agreed population health outcomes.

Data and intelligence: While value of datasets like HJIPs, the health informatics system (SystemOne) and the National Drugs Treatment Monitoring System (NDTMS) were recognised, concerns were expressed about data quality (validity, reliability) and consistent/complete use of READ codes which impacted on use of these metrics for health needs assessments and performance management. Links with wider community needs assessments were also recommended.

Self-management and peer-led services: Supporting prisoners through self-management programmes needs to be developed further. This would build on **Asset Based Models**, which would harness the skills and experience of offenders and use them effectively. Informal networks within prison (including peers and family members) could also be used to improve health and wellbeing.

Proactive/early intervention services: Including access to interventions, active case-finding, screening and immunisation programmes as well as diagnosis/treatment of mental health needs to avoid more advanced disease (which is costly as well as harmful), or self-harm/suicide. This programme of work would also support the development of more cost effective services.

Equitable Resourcing: Challenges were identified around the inadequacy of commissioning budgets to meet the high needs of the population and/or cope with in-year or new demands not associated with specific resources.

Increasing the responsiveness of services: The heterogeneity and complexity in the prison population means people in prison with different characteristics (eg age, gender) require different healthcare solutions, not one-size-fits-all.

Emerging themes

Several emerging themes which commissioning models will need to address were also identified through the literature review (Table 4).

Table 4: Emerging themes which healthcare commissioning models for prison must address

Heterogeneity and complexity in the prison population require different healthcare solutions, not one-size-fits-all
Neglecting the health and wellbeing of people in prisons has negative implications on the wider society
Prison regimes and staffing levels can act as a barrier to healthcare/‘equity of care’
Improved health and wellbeing as a positive mediator of change in criminal behaviour
Impact of prison workforce (continuity, skills, attitudes, education, own health) on health of people in prison and need for workforce development
Use of informal networks within prison (including peers and family members) to improve health and wellbeing
Impact of the prison environment (eg time out of cell in purposeful activities; access to employment, education and training opportunities; and access to exercise and nutritious diets) on health and wellbeing

The complete document, as described partially in this section and entitled “Rapid review of evidence of the impact on health outcomes of NHS commissioned health services for people in secure & detained settings to inform future health interventions and prioritisation in England”, is being released jointly online with this report and can be found at:

<https://www.gov.uk/government/publications/health-outcomes-in-prisons-in-england-a-rapid-review>.

The work performed during the 2015/16 FY, as described in this annual review, will lay strong foundations for work during 2016/17 and beyond, which will be timely in preparing for new commissioning models as part of the reform agenda.

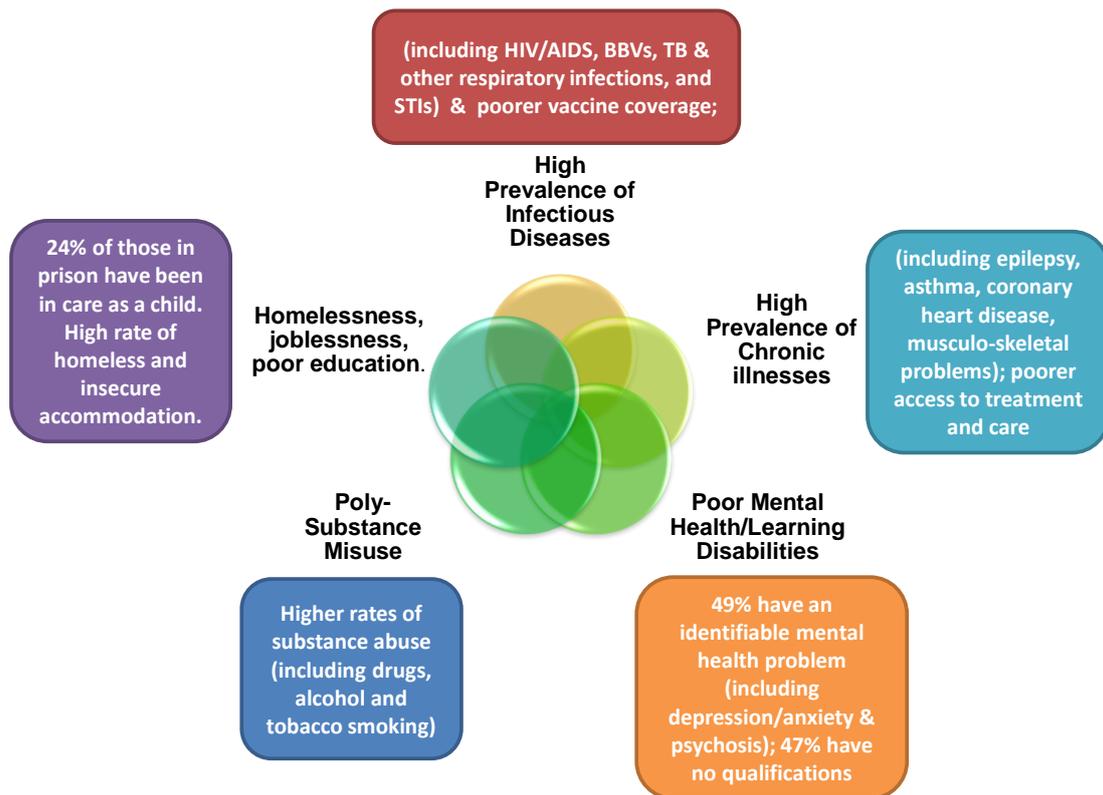
2 The health of people in detention and in contact with the criminal justice system

2.1 Why address the health needs of people in the criminal justice system?

Poor health is often interlinked with offending and re-offending behaviour. Offenders suffer from multiple and complex health issues, which are often exacerbated by the difficulties they experience in accessing the full range of health and social care services available in the local community. It is recognised that this leads to high usage of costly emergency services by this group.

Compared with peers in the community, people in prisons also often experience ‘multiple complex needs’ (Figure 7).

Figure 7: People in PPDs often have multiple complex needs compared with peers in the community (adapted from references (8) and (9))



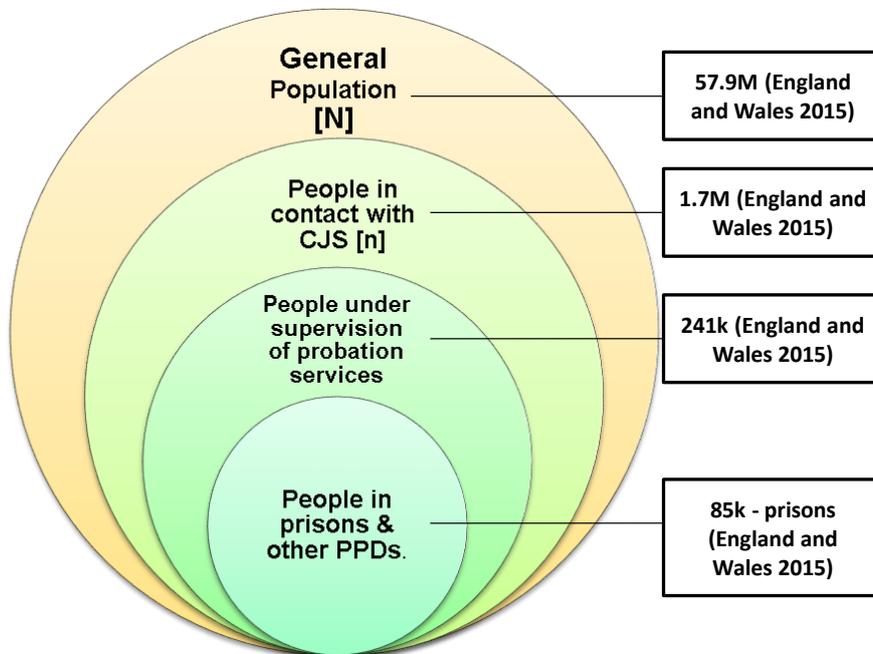
People in prison and other detainees often come from marginalised and under-served communities in the wider community, which contribute disproportionately to wider health inequalities. Addressing health inequalities among detained populations may therefore address wider health inequalities and benefit not only those in prisons but wider society. We describe this as the **community dividend**. Therefore, issues relating to health and justice directly affect all local authorities, all CCGs, all NHS and social care commissioners and all communities.

2.2 People in detention and in contact with the CJS are under-served populations

People in prescribed detention are often depicted as belonging to hard-to-reach populations, which is misleading. They are more accurately described as ‘under-served’ both in detention and in the community as health services often fail to map well to their needs (10). The community dividend model suggests that by addressing the needs of those in contact with the CJS we can have an impact on the wider population. However, different segments of this population differ in size, ease of identification and access.

Out of a total population of 57.9 million people (11), the current prison population in England and Wales is around 85,000 with about 100,000 unique admissions per year (12); a further 241,000 people are currently under the supervision of probation services in the community (12) (this is an increase of over 20,000 compared to 2014, potentially resulting from the implementation of the Offender Rehabilitation Act 2014 whereby offenders leaving prisons were supervised by CRCs or the NPS), and about 1.7 million people per year are on the police national computer system following contact with the police (13) (Figure 8). This provides a large network of people defined in some way as being in contact with the CJS. These same people are often members of the same communities and social networks that are disproportionately affected by health inequalities. Therefore, working with these people is a way to engage effectively with wider parts of the community often described as hard-to-reach or marginalised populations.

Figure 8: Segments of the population in contact with the CJS differ in size, ease of identification and access

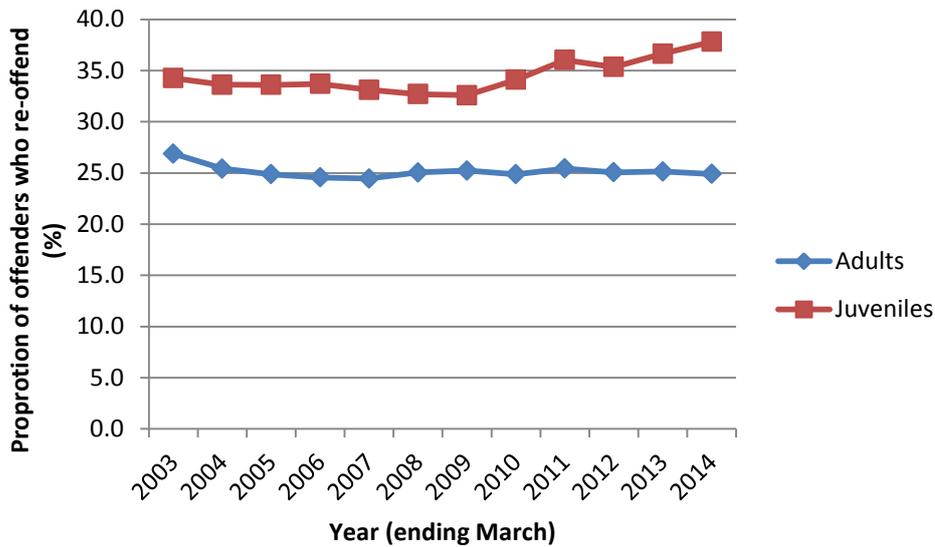


Tackling re-offending

Re-offending rates for adults and juvenile offenders remained high but steady in the decade ending 2014. The most recent figures from the Ministry of Justice (up to 2014)

suggest proven re-offending rates of 25% and 38% for adult and juvenile offenders, respectively (Figure 9) (14). Offenders whose first reported offence (index offence) was ‘theft’ or ‘robbery’ also showed the highest proven re-offending rates of 43.7% and 36.4%, respectively.

Figure 9: Proportion of adult and juvenile offenders in England and Wales who commit a proven re-offence, 2003-2014 (Source: MoJ 2016. Proven reoffending statistics quarterly: July 2013–June 2014) (14)



Re-offenders with a higher frequency of previous offences are also more likely to re-offend; a trend seen in both adult and juvenile offenders but affecting the younger demographic particularly hard. About 8% of adult offenders with no previous offences re-offended in 2014, compared with nearly 25% of juveniles. These figures increase substantially for the most extreme serial re-offenders with 11 or more previous offences, rising to 46% and 74% for adult and juvenile re-offenders, respectively (Figure 10). More worryingly, this group of serial re-offenders also contributes to two-thirds of all adult proven reoffences and just over one-sixth of all juvenile proven reoffences – proportions in excess of the offender populations they represent (14).

Figure 10: Proportion of adult and juvenile offenders in England and Wales who commit a proven re-offence, by number of previous offences, year ending March 2014 (Source: MoJ 2016. Proven reoffending statistics quarterly: July 2013–June 2014) (14)

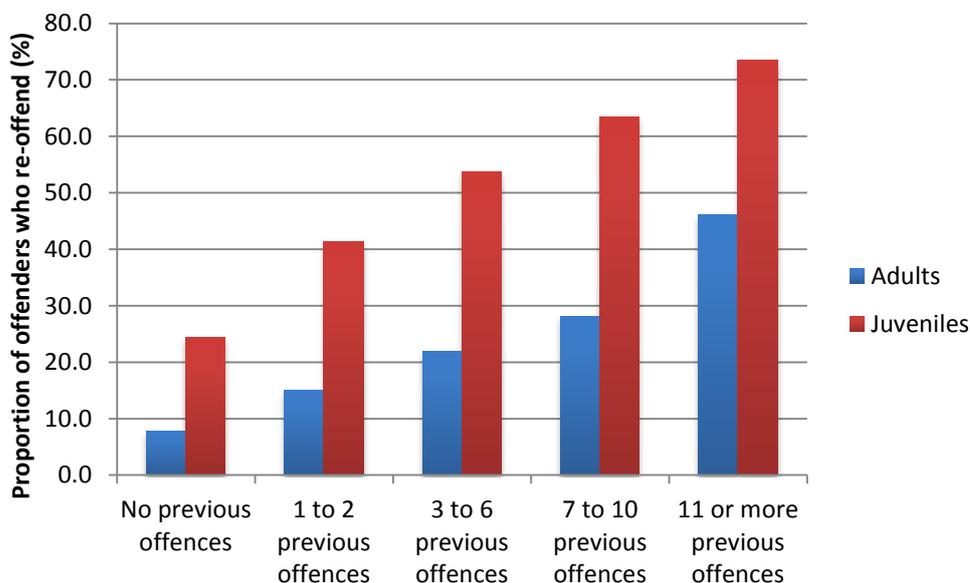


Figure 11 suggests a public health model for health and justice that looks downstream to the healthcare challenges and upstream to better prevention efforts to begin to address some of the health drivers of criminogenic behaviour. Research indicates that 59% of prisoners reported regularly playing truant, 63% had been temporarily excluded from school, and 42% permanently excluded (15). This has implications for managing behaviour at an earlier age and the role that school has in addressing conduct that we know can influence the life chances of children. This is especially salient given the high re-offending rates identified in this demographic (see Figure 9).

Figure 11: Public health model for Health and Justice



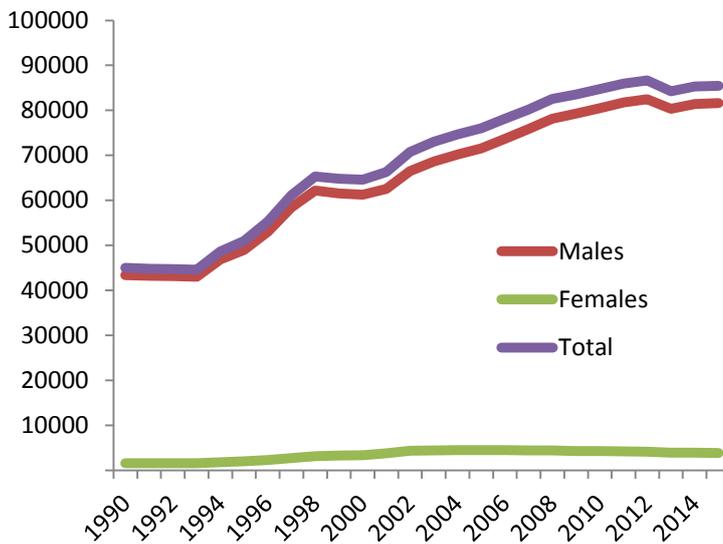
2.3 Population demographics

Adult prisons

The English and Welsh prison estate is one of the largest in Europe; ranking behind only Russia and Turkey in terms of absolute numbers incarcerated (16). As of 31 March 2016, 85,441 people were detained across 117 prisons in England and Wales; a negligible decrease of 221 people from the same time in the preceeding year (12). Ten prisons are solely dedicated to housing female detainees and the relative size of the female prison population has remained stable over the previous year at just under 5% of the total population (Figure 12) (also see Box 1).

Despite stability in the size of the prison population over the previous two years, the number of people in prison has grown steadily since the early 1990s (17) and the Ministry of Justice predicts that growth will continue from the current position to 86,700 by June 2016. This figure is expected to increase by a further 3.5% by the end of the projection period in March 2021 (18) placing additional stress on a prison estate in which overcrowding, particularly in local and category C training prisons, remains a significant problem (19).

Figure 12: Prison population in England and Wales 1990-2015 (Source: MoJ 2016. Offender Management Statistics Quarterly, January to March 2015) (17)



Keeping with the trend reported in the [2014 Health & Justice Report](#), older people (those aged between 50 and 59, and those over 60 years of age) in prison continue to be the fastest growing age demographic in prisons and the only group to more than double in size over the last decade (Table 5) (17). For the first time, the Ministry of Justice has published population projections specifically for older prisoners which suggest that numbers for this age group will continue to increase, in both absolute and relative terms, reaching 20,600 people by June 2020 (18). The increase in older prisoners is thought to result from an increase in more serious cases coming before the courts that impact largely on the older prison population (eg sexual offences).

Table 5: Change in prison population by age group, England and Wales (2005-2015)

Age (years)	Population		Change (2005-2015)	
	June 2005	June 2015	N	%
15-17	2,327	680	-1,647	-71
18-20	7,811	5,050	-2,761	-35
21-24	12,964	11,939	-1,025	-8
25-29	14,309	16,088	1,779	12
30-39	22,007	25,075	3,068	14
40-49	11,068	15,381	4,313	39
50-59	3,929	7,871	3,942	100
60+	1,775	4,109	2,334	131
All ages	76,190	86,193	10,003	13

Source: MoJ 2015. Table A1.6, Offender Management Statistics Quarterly, January to March 2015, Prison Population 2015. (17)

An understanding of a patient’s background or ethnicity can be beneficial in gauging probability of past exposure, or predisposition, to some diseases. Foreign nationals represent just under 12% of the total prison population in England and Wales with about half coming from other parts of Europe (12) (Figure 13). Nearly three-quarters of the prison population is reported as being white, while 12% and 8% of detainees are reported to be black or Asian, respectively (Figure 14).

Figure 13: Proportion of prison population in England and Wales by region of origin (Source: MoJ 2016. Offender Management Statistics Quarterly, October to December 2015) (12)

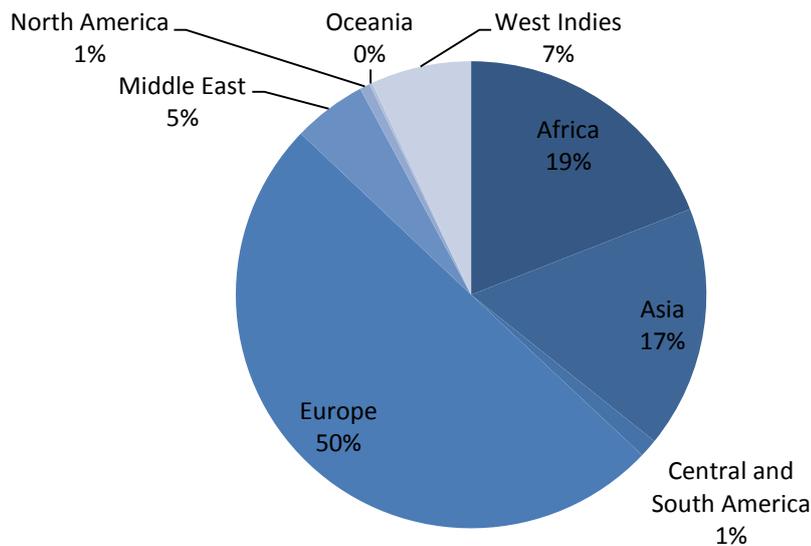
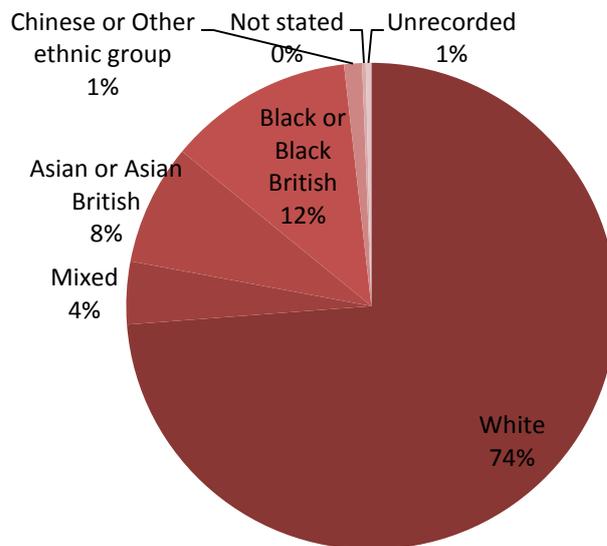


Figure 14: Proportion of prison population in England and Wales by ethnicity (Source: MoJ 2016. Offender Management Statistics Quarterly, October to December 2015) (12)



Incarceration and length of sentence

Most people brought to court are not incarcerated but receive a non-custodial sentence. Compared to figures for 2014, there has been a decrease in the overall custody rate in 2015 by 0.3% to 7.3% (20). These figures reiterate the need to address the health of all people in contact with the CJS and not just those in prison who make up only a fraction of offenders.

Of those offenders who are incarcerated, the majority receive short sentences. In 2015, more than 68% of people in prison were serving a sentence of less than or equal to 12 months; a marginal decrease of 0.5% from the preceding year. The average custodial sentence length rose slightly in 2015 from the previous year by 0.6 months to 16.2 months (20).

Short sentence lengths mean that the healthcare needs of prisoners must be met in a short space of time and effective continuity of care set up before their release. Also, of increasing concern is the fact that 58% of those serving sentences of less than 12 months have a tendency to be reconvicted (19). As the majority of prisoners serve sentences of less than a year, this produces a large cohort of reoffenders who return to prison and place additional strain on the community and the CJS. A recent assessment **report** by the Institute for Public Policy Research suggests that in order to reduce re-offending, and the overall size of the prison population, more focus should be placed on the rehabilitation of low-level offenders serving short-term sentences who cycle in and out of prison (21). The report goes on to suggest that prison sentences are not effective at rehabilitating this demographic and that more effective rehabilitation could be achieved if responsibility for the task was devolved to empowered local services or agencies.

Box 1

Policy direction: Women in prison

In general, women's patterns of offending differ significantly from their male counterparts and they often have more complex needs. Because women form a small proportion of those in contact with the criminal justice system and of the prison population, they can be overlooked in criminal justice policy, planning and in-service delivery.

A series of inquiries and reports in recent decades have all concluded that prison is rarely a necessary, appropriate or proportionate response to women who get caught up in the CJS. The Justice Select Committee, which reported in 2013 following its inquiry into women offenders, concluded that "prison is an expensive and ineffective way of dealing with many women offenders who do not pose a significant risk of harm to public safety" and called for more women to be dealt with in the community. A follow-up report, published in March 2015, noted that progress had been made in implementing a cross-government approach to dealing with women offenders by setting up the Advisory Board on Female Offenders (22).

More recent initiatives have included the encouragement from the Ministry of Justice for local areas to adopt a 'whole system approach' to dealing with female offenders, building on work undertaken in Wales and Manchester (23).

There is a current government focus upon prison reform, and while none of the early adopter prisons are in the female estate, in a speech in February 2016 the Prime Minister indicated

there would be alternative ways of dealing with women offenders with babies, including the use of tagging, problem solving courts and alternative resettlement units.

The children and young people's secure estate (CYPSE)

The under-18 youth custody population has more than halved in the past five years, from 2,418 in 2009/10 to 1,048 in 2014/15, and, as of February 2016, under 1,000 (24). From April 2014 to March 2015, most (69%) young people (under 18) held in custody were in young offenders institutions (YOI); 21% were in secure training centres (STC) and the remaining 10% in secure children's homes (SCH) (25). Currently, 67% of children who are released from custody reoffend within a year.

An interim report of emerging findings in the **Youth Justice System (February 2016)** has recommended that young offenders should serve their sentences in secure schools rather than youth prisons. Findings suggest the youth justice system would be more effective and better able to rehabilitate young people if education was at its heart. Smaller, local, secure schools would draw on educational and behavioural expertise to rehabilitate children and give them the skills they need to thrive on release. The report found that:

- since 2006/07 the number of children in custody has declined by 64% to its lowest recorded level
- of those children who remain in custody, too many – almost two-thirds – reoffend within a year of release
- around 40% of young people in under-18 Young Offender Institutions (YOIs) have not been to school since they were aged 14, and nearly nine out of 10 have been excluded from school at some point
- children in YOIs are only receiving 17 hours of education every week against an expectation of 30 hours

In response to these findings, interim proposals include:

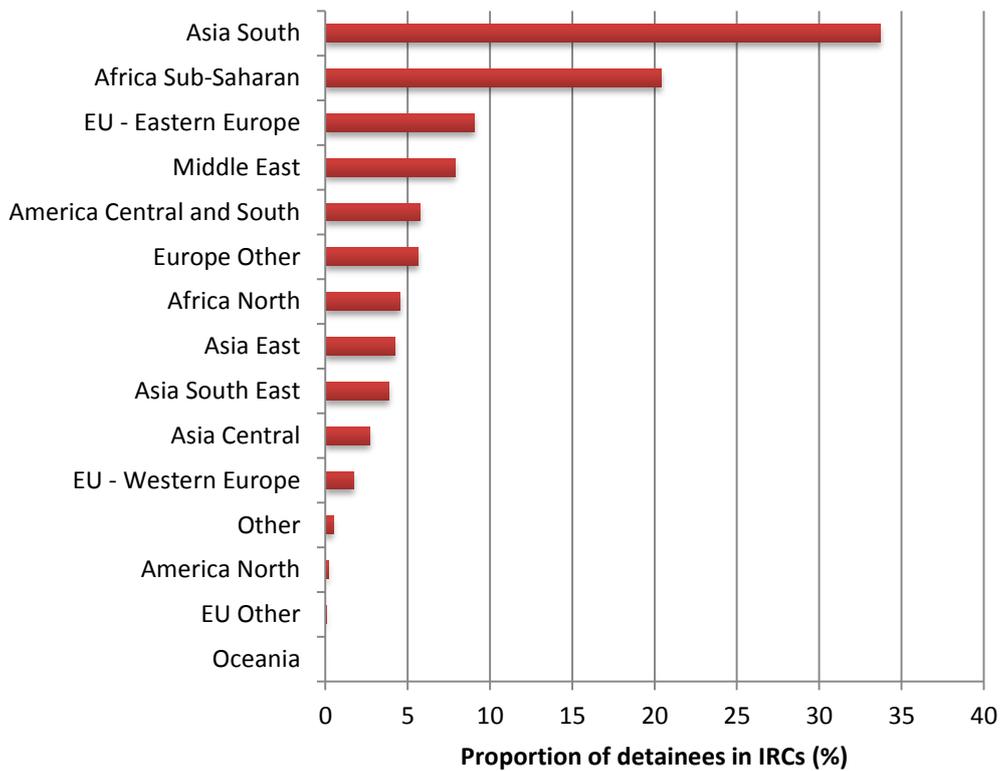
- re-designing the youth estate so that it can cater for a smaller, but more challenging, group of children in custody
- placing education at the centre of youth custody, by drawing on the culture of aspiration and discipline which is evident in the best alternative provision schools
- replacing youth prisons with smaller secure schools which help children master the basics in English and maths as well as providing high quality vocational education in a more therapeutic environment
- giving local areas greater say in the way children are managed by devolving responsibility, control and money from Whitehall

The current work between PHE, NHS England and YJB through our partnership agreement will be expanded to consider the impact of the findings of this report especially the issues of care pathways, information needs, health and wider determinants and their impact on behaviour, and the role of CCGs, local government, and other partners.”

Immigration removal centres (IRCs)

In the year ending March 2016 there were 2,925 individuals in detention in 11 IRCs across England; a 16% decrease compared with 12 months previously. Of the 32,610 people who left detention in the year ending 2016, the majority (63%) had been in detention for less than 29 days while 7% had been detained for more than one year (26). This high churn rate, in addition to a very diverse and inherently multinational cohort of people, can make the population detained in IRCs particularly susceptible to certain outbreaks of infectious disease due to lack of immunisation in their home countries. Understanding the makeup of the detainee population can help differentiate the health requirements of IRCs from prisons due to the specific health issues faced by both groups. The majority of immigrants detained in IRCs in England in March 2016 were from South Asia, making up 34% of the population, followed by individuals from sub-Saharan Africa (20%) (Figure 15) (26).

Figure 15: Proportion of detainees in IRCs in England by region of birth as of March 2016 (Source: Home Office 2016. Table dt_13. Detention data tables, Immigration statistics, January to March 2016)



3 Protecting the health of people in the CJS and in the community

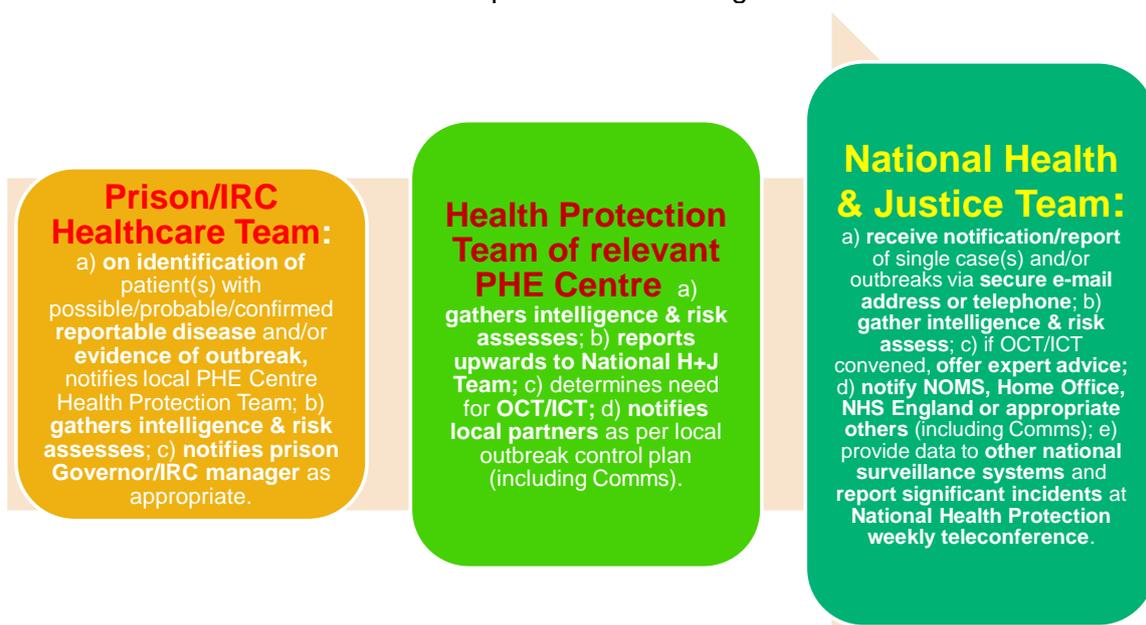
The Health & Justice Team has a significant health protection role and to this end works collaboratively with other teams in PHE. PHE’s Alcohol, Drugs and Tobacco Team, for example, has specific roles in relation to blood-borne virus (BBV) surveillance and prevention (data on status, including vaccination, is also captured on the National Drug Treatment Monitoring Service). The Health & Justice team has an emergent role on TB control as part of the Tackling TB in Under-served Populations programme and contributes significantly in an expert capacity during incident/outbreak control team meetings in custodial settings by working with regional health protection teams (HPTs) and other stakeholders. Table 6 provides a summary of the many roles and responsibilities of the team relating directly to health protection.

Table 6: Health Protection roles and responsibilities of the PHE Health & Justice Team

Disease surveillance

The team collects and collates data reported by HPTs in PHE Centres and from Public Health Wales from prisons, IRCs and other PPDs. This intelligence is cascaded on a weekly basis to key partners to advise and inform about new incidents and outbreaks, and is also reported at the national level through a weekly national health protection teleconference. This activity is ‘near to real time’ surveillance and includes alerts for action, co-ordinated across NOMS (National Offender Management Service), NHS England and PHE Centres. This data is also used to inform commissioners, healthcare providers and policy makers on the health protection needs of the prison and detained populations, including data on vaccine coverage (see Figure 16 below of data collection/dissemination process). Health & Justice also develops and disseminates public health alerts, for example, recent communication about seasonal flu outbreaks and mycoplasma pneumoniae but also Louse-borne relapsing fever in undocumented migrants last summer. An initiative is underway to develop a new syndromic surveillance capability in prisons towards the end of the 2016/17 financial year, working with PHE Syndromic Surveillance.

Figure 16: Schematic representation of the data collection and dissemination process undertaken by the Health & Justice Team in its public health intelligence and surveillance role



Provision of direct expert support on disease incidents/outbreaks

The National Health & Justice Team is frequently called upon by colleagues in HPTs to provide expertise in responding to prison or IRC incidents/outbreaks and participate in outbreak control team (OCT) meetings with PHE Centres as well as with Health Protection Scotland and Public Health Wales when requested. This expertise is highly valued and Health & Justice was particularly busy in 2015/16 with seasonal flu and mycoplasma pneumoniae outbreaks nationally but also got involved in large TB incidents including contact tracing.

Provision of guidance and expertise nationally

Working with the Health & Justice Health Protection Network, the team produce a broad range of detailed guidance on health protection issues including infection control manuals; advice on TB diagnosis, management and control; seasonal flu and pandemic flu; Ebola virus infection (during the Level 4 incident in 2015 we supported the NICC in developing and disseminating this advice) as well as a broad range of other advice resources which can be found at <https://www.gov.uk/government/collections/public-health-in-prisons>. Health & Justice also develops and delivers training for public health, prison healthcare and custodial staff. An example was Exercise Cerberus for Ebola in PPDs in November 2014.

Oversight of major work programmes

This includes the BBV opt-out programme for prisons (which is one of the major contributions from PHE to address under ascertainment of HCV infection in under-served populations); TB active case finding programmes in prisons; improving disease surveillance in prisons and other PPDs, and improving uptake of vaccination in prisons, including seasonal flu vaccine and hepatitis B vaccine.

Contributing to wider PHE Health Protection programmes

The National Health & Justice Team contributes to wider health protection programmes including the TB Programme Board and TB Delivery Board (here work is being led on TB in under-served populations and includes working with PHE's TB section on Enhanced Tuberculosis Surveillance (ETS) to identify the custodial population within a wider dataset); the Travel and Migrant Health Leads Group; the Viral Hepatitis Leads Group; partnership and programme boards relating to hepatitis C (including the HCV Framework and associated programme on specialised commissioning) and the HPV programme for MSM; the emergency preparedness, resilience and response (EPRR) oversight group and the UK Health Protection oversight group; the Health Protection Senior Leaders' Forum and other ad hoc forums depending on need. Members of the team have also been a direct resource to emergency response including providing leadership as National Incident Director for the Ebola response.

International Health Protection

The National Lead for Health & Justice chairs an expert panel, convened by the [European Centre for Disease Prevention and Control](#) (ECDC), on health protection in prisons and has also met with the EU Commission on the same subject. The team also functions as the UK Collaborating Centre for the WHO Health in Prisons Programme (see Chapter 5), being actively involved in work programmes related to TB and HIV control.

3.1 Seasonal influenza outbreaks in the English custodial estate - 2015/2016

Outbreaks of influenza-like illness (ILI) must be reported by healthcare providers to local HPTs. During the 2015/16 flu season, the Health & Justice team received an unprecedented number of influenza outbreak reports from HPTs across the nation. In total, 11 outbreaks were reported across custodial settings that included IRCs, prisons and a secure hospital (Table 7). Overall, nearly 300 cases were reported, including both detainees and staff members. Influenza A (H1N1) was confirmed as the most prevalent flu type in these outbreaks, however flu B or a mix of flu A and B were also identified in some of the reported outbreaks. Three patients, from discrete establishments, were hospitalised as a result of complications arising from their symptoms but no deaths were reported.

Table 7: Summary of influenza outbreaks reported to Health & Justice surveillance by PHE Regional Health Protection Teams (2015/16 flu season)

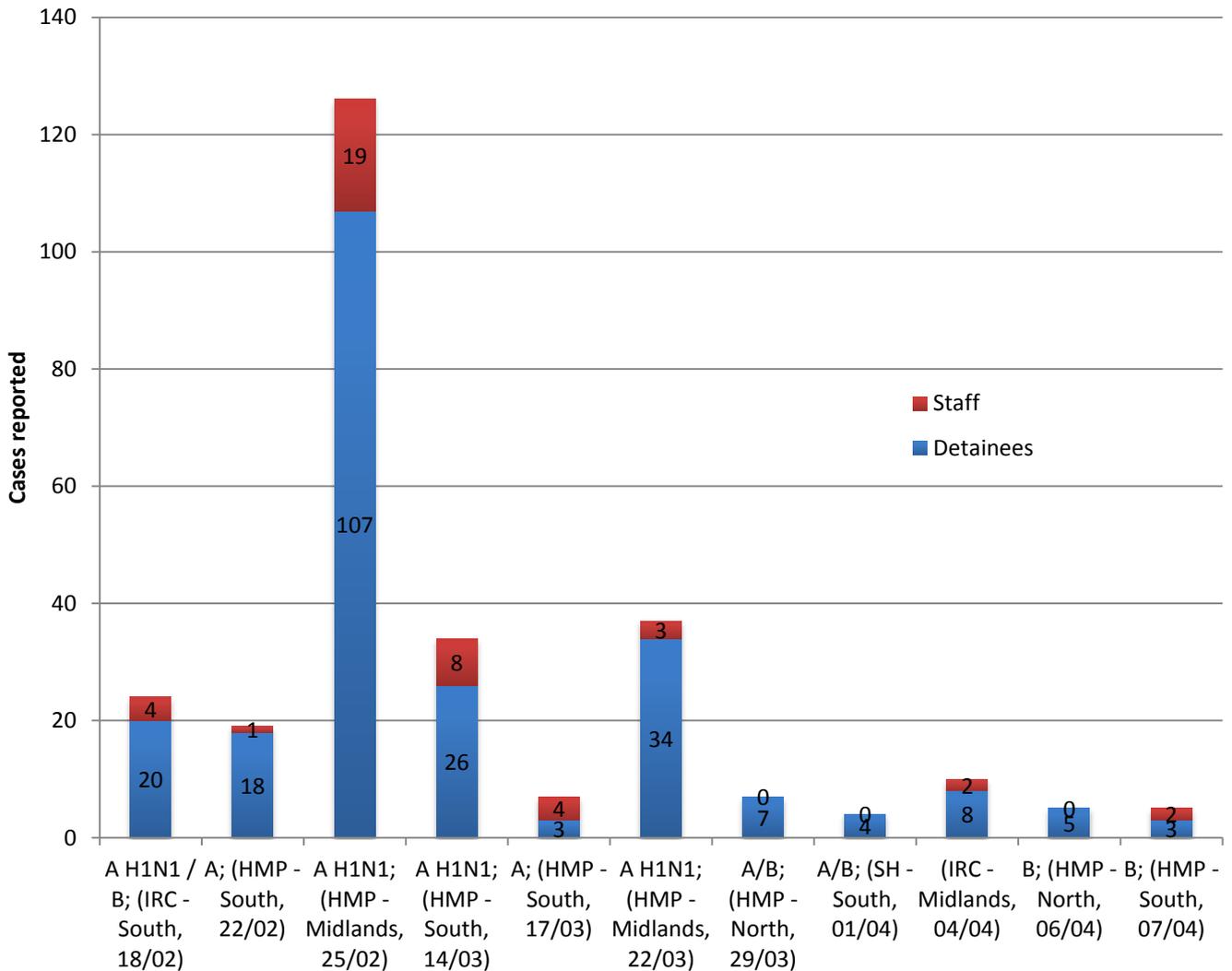
Influenza type(s)	Outbreaks reported	Detainees	Staff	Hospitalisations	Setting	PHE Region
A (H1N1)	5 (3)	188	35	2	HMP x 5	Midlands x 2 South x 3
B	2	8	2	0	HMP x 2	North x 1 South x 1
A (H1N1)/B	3 (1)	31	4	1	IRC x 1 HMP x 1 SH x 1	North x 1 South x 2
Unconfirmed	1	8	2	0	IRC x 1	Midlands x 1
Total (H1N1)	11 (4)	235	43	3	HMP x 8 IRC x 2 SH x 1	Midlands x 3 North x 2 South x 6

IRC: Immigration Removal Centre; HMP: Her Majesty's Prison; SH: Secure Hospital; Midlands: Midlands and East of England

The flu vaccine coverage for detainees in the three PHE regions that reported outbreaks was comparable (range: 46-49%) and well above vaccine uptake for custodial settings (approx. 21%) in which no flu outbreaks were reported during the same period of time (see Table 1B in Appendix).

The temporal distribution of the reported outbreaks, as based on the date that they were reported to the Health & Justice Team, was steady from late February 2016 (first reported outbreak) to early April (last reported outbreak) (Figure 17) and in line with the 'late' flu season observed in the community in 2015/16.

Figure 17: 2015/16 seasonal influenza outbreaks and number of cases affected by reporting date to the Health & Justice Team. IRC: Immigration Removal Centre; HMP: Her Majesty's Prison; SH: Secure Hospital; Midlands: Midlands and East of England



The Health & Justice Team played an expert advisory role in several of the OCT meetings that were scheduled to assess and mitigate risk during the outbreaks. Following the third reported flu outbreak in February, a public health alert was also drafted by the team as a means of briefing stakeholders of increased flu activity in the custodial setting and to offer advice on how to mitigate risk of transmission. It was recommended that individuals in high-risk groups be immunised and that those who had not yet been vaccinated be offered seasonal flu vaccine as soon as possible, as per the 'Green Book' on immunisation against infectious disease:

<https://www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book#the-green-book>. Additionally, and depending on the setting and operational feasibility, other control measures were recommended including:

- isolation and cohorting of affected detainees and their exclusion from communal areas
- exclusion from work of symptomatic staff
- use of antivirals for treatment and prophylaxis purposes in high risk groups that become symptomatic as per NICE guidance

- implementation of enhanced cleaning and respiratory hygiene precautions during outbreak
- restrictions on new admissions and transfers out of the facility

Healthcare professionals were also directed to guidance previously prepared by the Health & Justice Team on responding to cases or outbreaks of seasonal flu in prisons, IRCs and other prescribed places of detention:

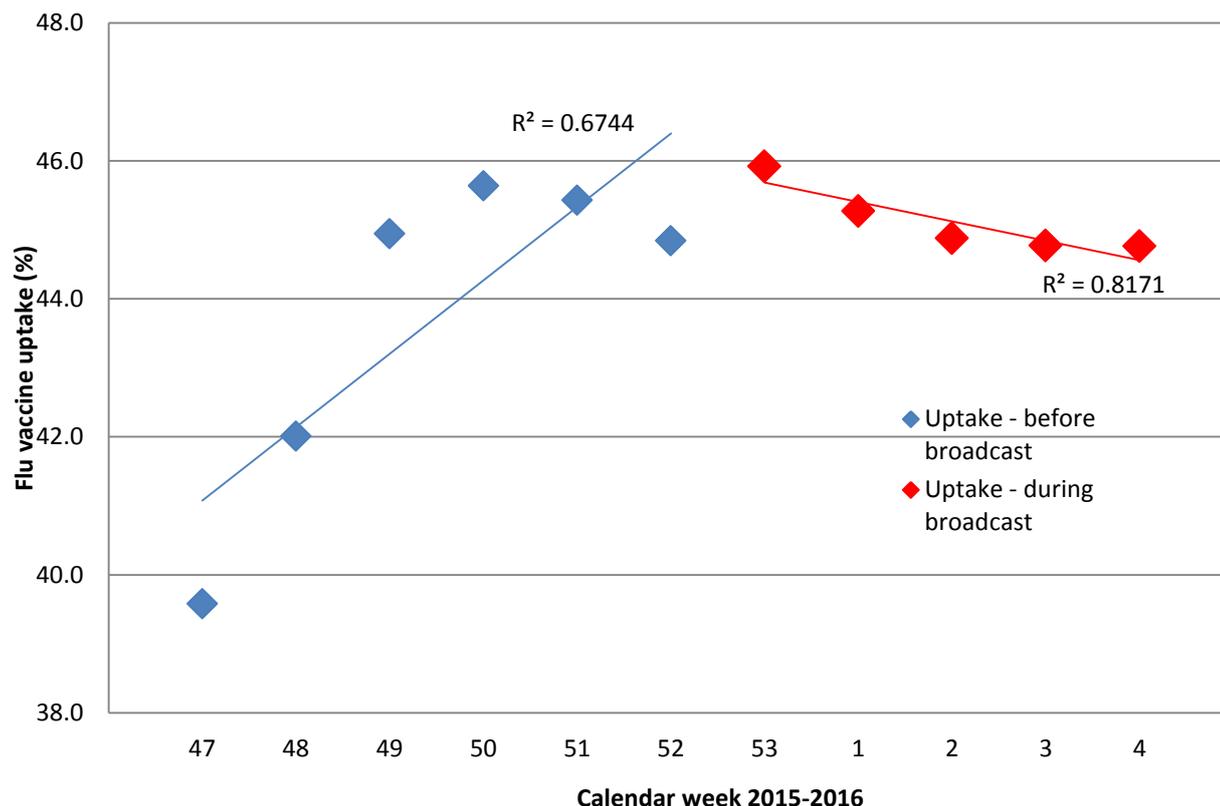
<https://www.gov.uk/government/publications/seasonal-flu-in-prisons-and-detention-centres-in-england-guidance-for-prison-staff-and-healthcare-professionals>.

Impact analysis of Prison Radio campaign on uptake of seasonal flu vaccine among people in clinical risk groups in prisons in England

The Health & Justice Team commissioned the Prison Radio Association to create and broadcast a campaign on **National Prison Radio** to encourage clinically at-risk groups to request and receive the flu vaccine as a means of improving vaccine coverage across the estate. Broadcasting started on 23 December 2015 and ran until the end of the 2015/16 flu season. Flu vaccine uptake information was available for 105 prisons that participated in the radio campaign. At week 4, the flu vaccine uptake in these prisons for at-risk groups was just over 44%, with 15.9% of these individuals having refused/declined vaccine treatment. These figures were comparable to those reported for the at-risk population across the entire custodial estate (see Table 3A in Appendix).

Available flu uptake data for the weeks leading up to the broadcast airing (weeks 47-52) was compared to data during the broadcast period (weeks 53, 1-4) in an attempt to gauge the impact (if any) of the campaign. Mean flu vaccine uptake in the periods before (43.7%) and during (45.1%) the broadcast did not vary significantly (t-test, $p=0.2$). Furthermore, a trend analysis did not suggest an increase in flu vaccine uptake for the period during which the broadcast was aired (Figure 18).

Figure 18 (see next page): Percentage of flu vaccine uptake per calendar week in the clinically at risk prison population. Vaccine uptake information was available for 105 prisons in which the National Prison Radio campaign was broadcast. Trend lines are colour coded to represent the periods before and during broadcasting of the radio campaign. (Source: ImmForm 2016)



These results appear to suggest that the radio campaign had a negligible impact on flu vaccine uptake within the facilities in which it was aired. However, it is important to note that the campaign was aired mid-way through the 2015-2016 flu season and just before the Christmas holiday period. A campaign aired earlier in the flu season, well before the holiday period, could garner a greater audience and potentially make a greater impact on vaccine uptake in at-risk groups.

3.2 Blood-borne virus opt-out testing programme for prisons

People in prison have a high prevalence of infection with blood-borne viruses (BBV), but have traditionally been under-tested (9) (27). Prior to 2010, levels of BBV testing in English prisons did not exceed 4% of the prison population (based on Prison Health Performance and Quality Indicators). To improve testing and treatment of BBVs in prisons, namely hepatitis C (HCV), hepatitis B (HBV) and HIV, a formal partnership agreement between PHE, NHS England and NOMS introduced a national opt-out testing policy in adult prisons in 2014. Three phases of implementation were planned to take place between April 2014 and March 2017 in over 30 pathfinder prisons, from which key findings would be used to inform BBV testing in prisons across the country

Evaluation of the first phase of implementation, which focused on the uptake of testing in 11 prisons, was described in the [Health & Justice Annual Report](#) for 2014, with the complete results of the evaluation published on the PHE Health & Justice website:

<https://www.gov.uk/government/publications/early-lessons-learnt-from-opt-out-blood-borne-virus-testing-policy-in-prisons-summary-report>.

The evaluation of BBV opt-out testing implementation in ten Phase 2 Pathfinder Prisons was recently completed following the return of questionnaires focusing on patient 'linkage into care'

by prison healthcare teams. Unlike in the first phase of implementation where prison testing levels were collected directly via questionnaire, Phase 2 relied on the Health and Justice Indicators of Performance (HJIPs) dataset to collect this information. In England in 2015-16, 16,425 tests were done for HBV infection, 18,967 for HCV infection and 40,705 for HIV infection. Data quality improvement is currently being taken forward by NHS England and PHE to ensure more accurate and timely reporting of testing and prevalence of disease. The complete results of the evaluation of Phase 2 Prisons will be published on the Health and Justice website in Q3 of 2016/17.

The evaluation of Phase 3 Pathfinder Prisons is scheduled to commence in Q3 of 2016/17 with the final results to be published in Q1 of 2017/18. Within this group, and for the first time among pathfinder prisons, a large London prison, HMP Pentonville, is included. The focus of the evaluation will be on treatment outcomes.

PHE, NHS England and NOMS are collectively determined to continue to improve the coverage of testing for BBVs among people in prison, which is a major step to addressing this public health concern not only in prison populations but in the wider community. As of February 2016, more than half of the prison estate in England is implementing BBV opt-out testing, with the remaining prisons expected to introduce testing by Q4 of 2016/17.

3.3 Tackling tuberculosis (TB) in under-served populations

The latest data for England shows that in 2014 people in prison were four times more likely to contract TB than people in the general population. This was based on incidence rates of 48/100,000 (using standing prison population of about 85k) in prison (41 notifications) and 12/100,000 in the general population (6,520 notifications) (28). PHE Health & Justice data for the 2015/16 financial year indicates that 41 cases of TB (29 pulmonary and 12 extra-pulmonary) were reported in the UK. This included 34 cases in prisons, six in IRCs and one 'other'; two prison TB outbreaks were also reported during this period (Figure 19 and Table 8).

Figure 19: Confirmed TB cases (single cases and those linked to reported outbreaks) reported in the 12 months ending March 2016 to the Health & Justice Surveillance Service (Source: PHE Health & Justice Surveillance and PHE TB Surveillance Unit)

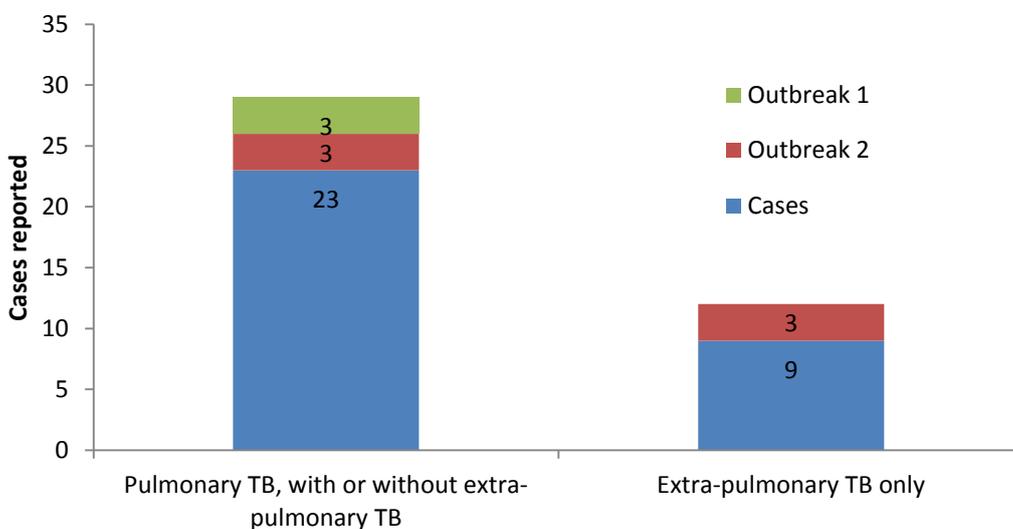


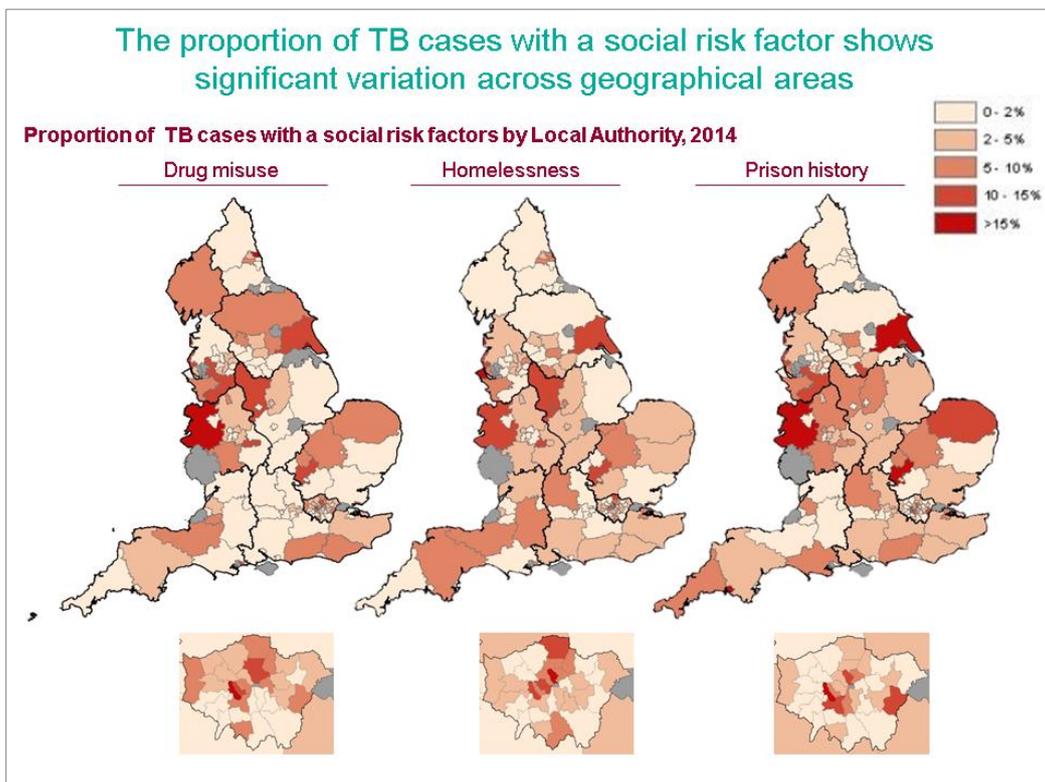
Table 8: Tuberculosis cases by PHE Centre and type of establishment as reported to Health & Justice Surveillance (2015/16) by PHE Centres and devolved administrations. IRC: Immigration Removal Centre (Source: PHE Health & Justice Surveillance service and PHE TB Surveillance Unit)

PHE Centre / Nation	Prison	IRC	Other	Grand Total
East Midlands	<5			<5
East of England	<5			<5
London	7	<5	<5	11
North East	<5			<5
North West	<5	<5		<5
Northern Ireland	<5			<5
South East	<5	<5		6
Wales	<5			<5
West Midlands	11			11
Yorkshire and the Humber	<5			<5
Grand Total	34	6	<5	41

NB: Values of less than 5 suppressed and replaced with '<5' to prevent deductive disclosure

A history of current or past imprisonment and other social factors such as homelessness and drug and alcohol misuse are recognised risk factors for TB. In many cases, these risk factors intersect and people with TB who come into contact with the criminal justice system tend to have more than one of these social risk factors. In addition to the high burden of TB in these populations, they also have a high burden of drug resistant TB. In 2014, 18% of all TB cases in England who had an initial resistance to isoniazid (a first-line drug used in the treatment of TB) and 16% of cases with multiple drug resistant TB had at least one social risk factor (Figure 20).

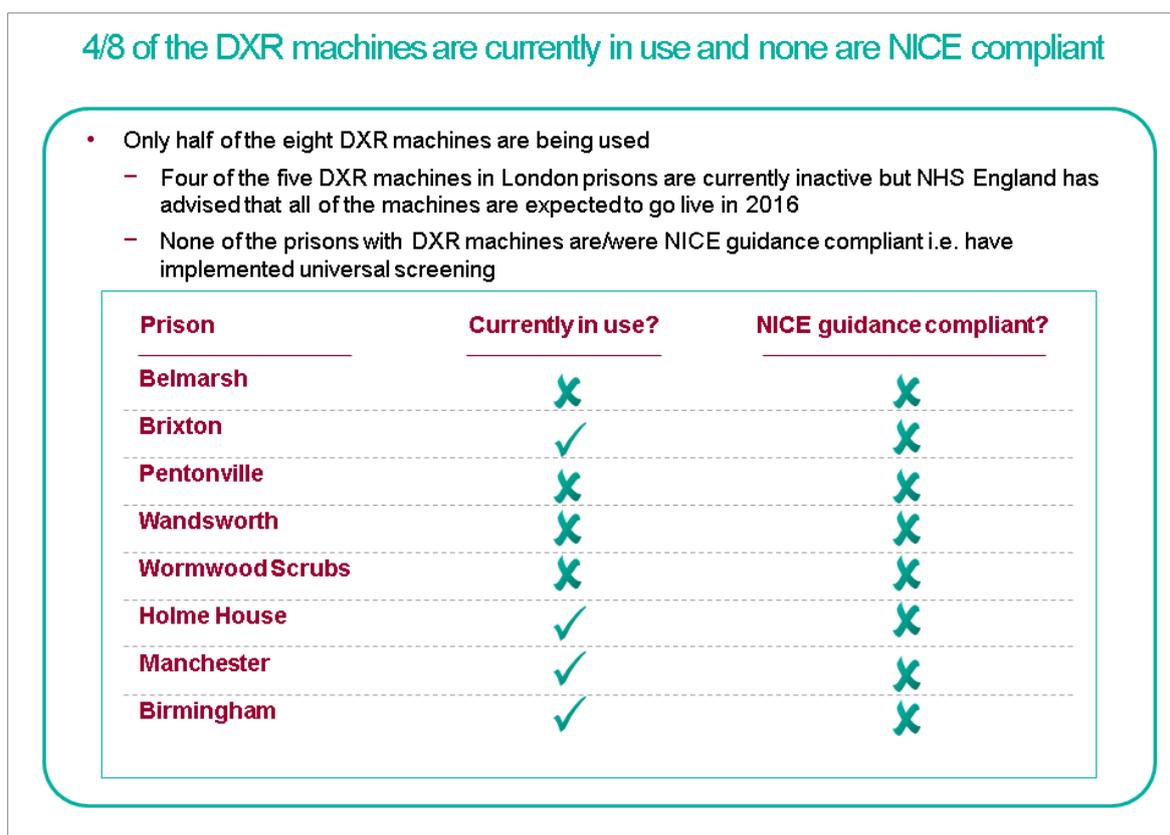
Figure 20: Proportion of cases with social risk factors by Local authority in England, 2014. Inset represents London. (Source: Data and map sourced from PHE. Addressing TB in Health and Justice Settings; Event presentations. March 2016 [pages 22-24] https://www.phe-events.org.uk/HPA/media/uploaded/EVHPA/event_569/FINAL_TB_slides.pdf)



PHE and NHS England’s *Collaborative Tuberculosis Strategy for England 2015 to 2020* (29) recognises the need to tackle TB in under-served populations such as those in contact with the CJS. It specifically highlights that the evidence supports identification and management of active and latent TB in prisons and IRCs. This is in line with the latest NICE guidance on addressing TB in these settings (10). Learning gained from prison-based case studies (30) strongly suggest that when people in prison present with TB, it can often be complex and lead to the disruption of the prison regime. It very often results in large contact tracing activity which puts a strain on limited resources. Such instances provide some evidence to support the need for early and effective identification of cases. Effective identification of TB cases in prisons not only helps to prevent the spread of TB among people in prison but it also protects the health of prison staff and facilitates efficient use of limited resources.

Eight prisons in England have been fitted with a Department of Health funded digital x-ray (DXR) machine to improve the detection of active TB in people in prison.¹ These prisons are HMP Holme House (North East England), HMP Manchester (Greater Manchester), HMP Birmingham (West Midlands) and London prisons, HMP Wandsworth, HMP Belmarsh, HMP Wormwood Scrubs, HMP Pentonville and HMP Brixton. At the time of the last annual report, only two of the eight DXR machines were in use. Currently, four of the eight machines are in use with the rest scheduled to resume service within the year. However, none of the DXR machines are being used in accordance with current NICE guidelines (ie have not implemented universal screening) (Figure 21).

Figure 21: Current status of prison-based digital X-ray machines



¹HMP Thameside in London also has a digital x-ray machine which is not funded by the Department of Health

The guidelines require that all new prisoners and detainees are given a chest X-ray when they are received into a prison or IRC that has DXR facilities. In four of the prisons with a functional DXR, chest x-ray screening is largely restricted to people who claim to be symptomatic. To support the use of the DXR machines in active case finding, PHE is leading in the development of a standard TB screening protocol from reception to support use of DXR active case finding. There are also plans to update the TB outbreak guidance for use in prisons.

PHE is providing support to the national TB Delivery Board by chairing the new task and finish group focused on Tackling TB in Under-served Populations. This aims to improve understanding of the health needs of under-served populations in relation to TB and to support the design and delivery of programmes and services to meet those needs.

To contribute to the intelligence around TB identification and management in prisons, PHE has conducted an audit across all London prisons – London currently contributes to about 40% of all TB cases in England (31). There are plans to replicate this audit across all English prisons to enable a coherent picture of TB identification and management across the English prison estate.

With support from key local partners, PHE has supported the delivery of two TB events with a focus on under-served populations. These events in London and Yorkshire & Humber and the North East were designed to bring key stakeholders together and were important opportunities to share good practice and lessons learnt from TB work.

4 Improving the health of people in the CJS

4.1 Addressing the mental health needs of people in PPDs

As a group, offenders in custody suffer from multiple and complex health issues at rates in excess of those observed in the general population. These may include mental health problems, learning difficulties, substance misuse, risk of suicide and self-inflicted harm. Moreover, many people in prison, particularly women, have pre-existing mental health or emotional wellbeing issues and some may have received psychiatric help prior to incarceration (Table 9). These underlying health issues are also often exacerbated by difficulties in accessing the full range of health and social care services in the local community prior to custody, including access to accommodation, employment and steady income.

Table 9: Mental health problems of the prison population vs. the general population

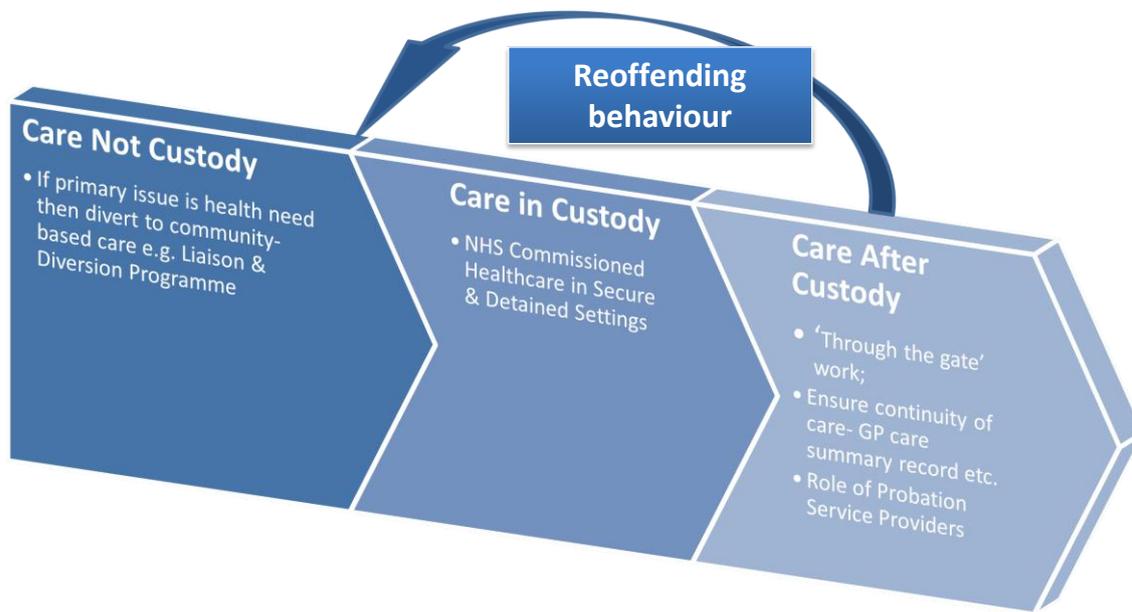
Disorder	(%)		
	Men	Women	General population
Psychosis	15	25	4
Personality disorders	62	57	-
Anxiety and depression	23	49	16
Attempted suicide (at some point in their lives)	21	46	6
Drug dependency	45		5.2
Alcohol dependency	30		11.5
Before entering prison:			
Emotional well-being or mental health issues	35	58	NA
Previous psychiatric admission	10	30	NA

Adapted from: Bromley Briefings Prison Factfile (2015) (19) and Centre for Mental Health Briefing 39: Mental health care and the criminal justice system (rev. 2011) (32).

A recent report, **Mental health and criminal justice: Views from consultations across England and Wales** (March 2016), published by the Centre for Mental Health and jointly commissioned by the DH and MoJ, evaluated how the mental health of people in prison could be improved in a series of stakeholder consultations. Among other findings, the report highlighted that provision of psychological therapy in many prisons was low and that improvement of primary mental health would substantially strengthen mental health support in these settings (33). Wider availability of support and care across all CJS settings was recommended together with mandatory workforce training and development in mental health awareness.

As part of recommendations set forth by NHS England’s Mental Health Taskforce in its recently published **Five Year Forward View for Mental Health** (February 2016), PHE’s Health & Justice Team will work with partners to develop a complete health and justice care pathway that most adequately delivers “integrated health and justice interventions” to those in the CJS (Figure 22).

Figure 22: The Health and Justice Care Pathway



This will entail: continued expansion of liaison and diversion schemes nationwide to divert people with mental health problems away from custody and offer community-based support and treatment as alternatives (“care not custody”); improvement of mental health services in prisons (“care in custody”), and; continuity of care to help offenders transition back into the community upon release (“care after custody”). As such, the Health & Justice Team’s mental health work programme in the coming year will focus on the following five areas:

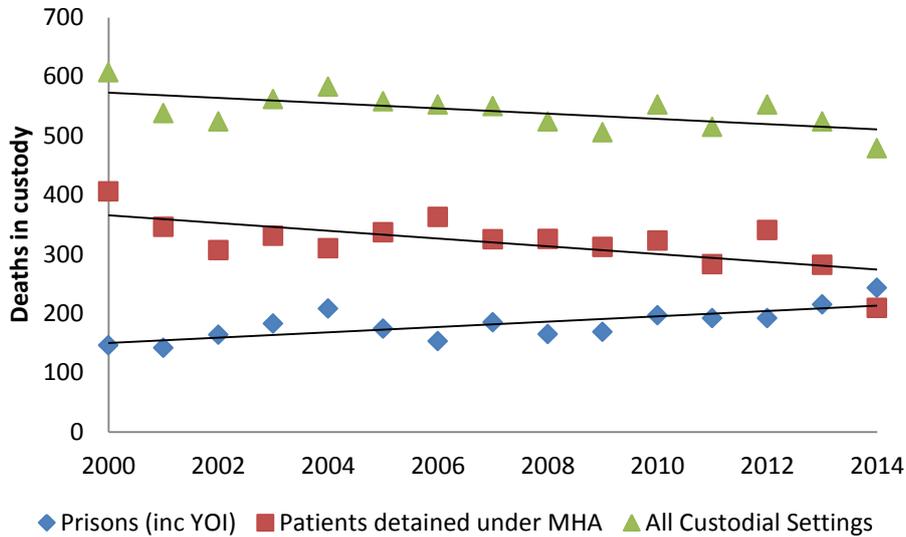
- suicide and self-harm prevention in prisons
- development of new commissioning models based on more integrated health and justice pathways
- prevention of deaths in custody (excluding self-inflicted)
- improving effectiveness of Liaison and Diversion services
- violence prevention in prisons and in the community

Deaths in custody and self-harm

The Independent Advisory Panel (IAP) on Deaths in Custody recently issued a report following the examination of all custodial² deaths in England and Wales for the 15 years from 2000 to 2014, inclusive (34). Of the 8,129 deaths reported, the majority (59%) were in patients detained under the Mental Health Act followed by those who died within prison settings (34%). Overall, deaths in custody appeared to be on the decrease with the exception of prisons where deaths increased from 2006 onwards (Figure 23).

² Custodial settings evaluated included: prisons and YOIs, police custody suites, IRCs, approved premises, secure children’s homes, secure training centres and deaths of patients detained under the Mental Health Act in hospital.

Figure 23: All reported deaths in state custody in England and Wales by year (2000-2014). All custodial settings includes prisons and patients detained under the Mental Health Act as well as other settings described in text. (Source: Independent Advisory Panel on Deaths in Custody, 2015)



It is important to recognise that not all people who come into contact with the CJS and require support with their mental health have committed a criminal offence. Police officers can be called to a scene where there are concerns for a person’s safety. Sections 135 and 136 of the **Mental Health Act (1983)** empower the police to detain an individual in need of immediate care and control, and take them to a place of safety for an assessment under the Act. Nationally, the Crisis Concordat work programme brings together key partners, including PHE Health & Justice, to address the needs of people experiencing a mental health crisis.

Of particular concern is the substantial increase of deaths in prisons, year-on-year, since 2006 despite an overall decrease in other custodial settings over the past 15 years. Moreover, the most recent statistics from the MoJ indicate that in the 12 months to March 2016 there was an increase in the number of deaths in prisons by nearly one-fifth compared to the same period in the previous year (Table 10) (35). The majority of these deaths were the result of natural causes (58%), followed by self-inflicted deaths (35%) and highlight the challenge of detection and management of disease in a pre-morbid state. A small proportion of the most recent figures from the last two years is expected to be reclassified as natural causes. Self-harm incidents have also increased by about 25% over the last 12 months for which data is available (Table 10).

Table 10: Annual deaths and self-harm incidents in prison custody, England and Wales (Source: Tables 1 and 2: Annual Safety in Custody Summary Statistics to March 2016, England and Wales. Ministry of Justice)

	12 months ending		Change (%)
	March '15	March '16	
Deaths in prison custody^{1,2}	239	290	21
Self-inflicted	79	100	27
Natural Causes	149	167	12
Homicide	4	6	50
Other ³	7	17	143
	December '14	December '15	(%)
Self-harm incidents²	25,843	32,313	25

1. All classifications of deaths remain provisional until confirmed at inquest.

2. Data includes incidents at NOMS run Immigration Removal Centres.

3. A proportion of the most recent two years' figures for 'other' deaths are expected to be re-classified as natural causes or self-inflicted deaths.

In attempting to reduce self-inflicted deaths, the mental health of those in prison needs to be considered in context. People are often entering prison with certain vulnerabilities, into a stressful environment and without their usual social and family supports. Therefore, best practice for treatment of mental ill-health needs to be applied as well as consideration of broader environmental factors such as increased awareness among staff of mental health and creating facilitative and enabling environments to increase wellbeing. Due to the close association between physical and mental health, ensuring that people in prison have their physical health needs assessed and addressed is also an important element of mental health promotion.

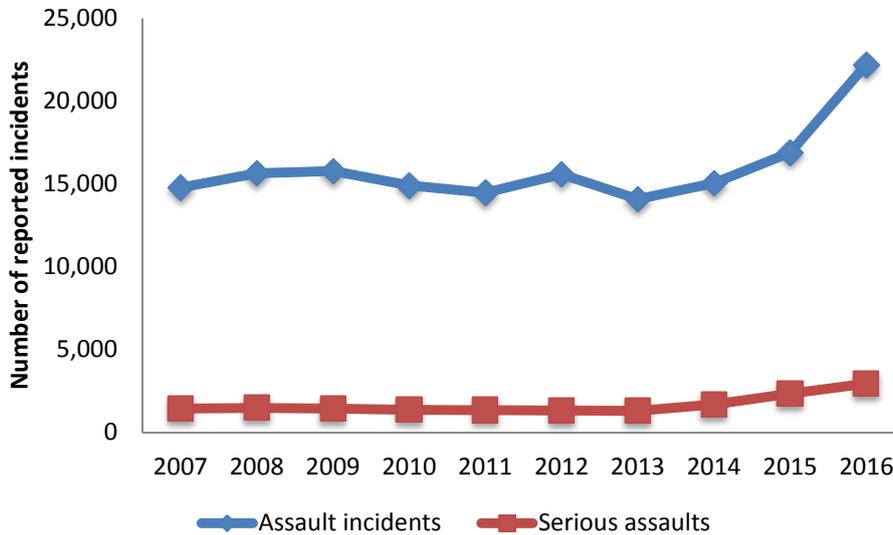
To this end, the Health & Justice Team at PHE in partnership with the MoJ has been involved in reviewing evidence to inform policy and practice across all custodial settings including police custody. Current sources of evidence and intelligence are being considered as well as processes to investigate deaths and the ability to capture and disseminate lessons learned from Prisons & Probation Ombudsman (PPO) reports, coroners' reports and independent investigations. There has also been successful efforts to embed health and justice priorities within the scope of mainstream national work programmes, for example, the inclusion of places of detention within the scope of NICE's work on suicide prevention and the prioritisation of people in contact with justice services within the local authority guidance for suicide prevention. Emerging threats like new psychoactive substances (NPS) (see NPS in Section 4.2), which are contributing to increases in violence and are increasingly cited as associated with cause of death in the community, are also being investigated. In 2016/17, PHE will also support the Suicide and Self-Harm Project being led by the MoJ, which aims to reduce levels of suicide and self-harm within prisons, by 'translating' existing community-facing resources to the custodial environment.

Violence in custody

While levels of violence in prisons have remained stable for much of the past decade, recent figures indicate a 31% increase in violent incidents to 22,195 in the 12 months ending March

2016 across the English and Welsh prison estate (Figure 24) (36). Serious³ assaults, have also increased by a quarter in the same period of time to 2,953 across the prison estate (Figure 24).

Figure 24: Violent incidents reported in prisons (2007-2016), England and Wales (Source: Ministry of Justice, Safety in Custody Statistics - summary tables, update to March 2016)



The observed spike in violence in the prison estate coincides with increased NPS use in prisons and a higher proportion of the estate reporting significant NPS-related issues (two-thirds of prisons in 2014/15 versus one-third in 2013/14) (37); indicative of NPS driving up violence in prisons (38).

Aside from initiatives related to managing incidents involving NPS in prisons (see NPS in Section 4.3), PHE has also been involved in discussions convened by NOMS regarding the piloting of body-worn cameras (BWCs) in prisons to help curb violence. The cameras were introduced as part of a programme to address crime committed in prisons (39) and were used mainly by prison officers but also healthcare and other civilian staff. The Health & Justice Team was commissioned by the National Prison Health Care Board to lead a consultation exercise with clinicians and others to collect concerns and views of using BWCs in prisons. The consultation recommended that BWCs could be useful in reviews of deaths in custody or even clinical care in some situations, but there is a need to engage with clinical staff (and patients) to ensure it is not a disincentive to deliver care appropriately due to concerns about being filmed.

4.2 Reducing smoking in prisons

Assessing the need

Approximately four times as many people smoke in prisons compared to the general population, with similarly high levels of smoking found among those in police custody and

³ An assault is classified as serious if: it is a sexual assault; it results in detention in outside hospital as an in-patient; it requires medical treatment for concussion or internal injuries; or, the injury is a fracture, scald or burn, stabbing, crushing, extensive or multiple bruising, black eye, broken nose, lost or broken tooth, cuts requiring suturing, bites or temporary or permanent blindness (51).

probation. These extraordinarily high rates of smoking damage health, both through direct and indirect (second-hand) exposure to tobacco smoke, and contribute to marked health inequalities for offenders relative to the general population, including poorer health and a reduced lifespan (40).

Official figures from the Integrated Household Survey (IHS) released in October 2015 indicate that in the 30-year period ending 2014, there were 37% fewer smokers in the general population in England than before. However, smoking rates have fallen much more in higher socio-economic groups, while rates in the lowest quintile, which includes under-served groups like prisoners, have remained stable (41).

Rates also remain very high in people with mental health conditions, as detailed in a report published by Action on Smoking and Health (ASH) in April 2016 entitled **The Stolen Years: Mental health and smoking action report** (42). People with mental health conditions have a life expectancy of 10-20 years less than the general population and smoking is the single largest cause for this gap in lifespan. Moreover, people in prison have much higher levels of mental health conditions such as personality disorders, anxiety and depression than the general population (see Section 4.4). The report concluded that people with mental health conditions smoke at higher rates and are therefore likely to experience greater smoking related harm yet are more dependant and face higher barriers to quitting that require additional support (42).

Following the successful roll-out within the early adopter prisons, a further 12 prisons have been identified as smokefree champions and these are expected to become smokefree between January and March 2017.

Meeting the need

Stop smoking service provision is embedded within the contract for health provision within the prison estate, but varies across the whole of the prison estate and is not joined-up between the CJS settings or between CJS and the community. A comprehensive national smoke-free policy was implemented in England in 2007, and adult prisons were the only setting exempted, allowing prisoners to smoke in their own cells but nowhere else in the prison.

Findings published in Autumn 2015 from an academic study (43) commissioned by NOMS, **Report on Second-Hand Smoke in Prisons: Final Report**, identified that high levels of second hand smoke in some communal prison areas were still prevalent. This reinforced the commitment to roll out a programme to move to smokefree prisons across England and Wales in a safe and managed way so as to protect the health of both prisoners and staff.

In September 2015, the Ministry of Justice announced the intention to implement a smokefree policy in all prisons in Wales from January 2016 and in four early adopter sites in England. Since this decision, the PHE Tobacco and Health and Justice teams have been supporting NOMS and NHS England in collaboratively moving towards smokefree environments in the early adopter sites and reducing the number of people who currently smoke whilst detained in non-early adopter sites, so that the transition to smokefree prisons will affect as few people as possible. **Guidance** for the management of tobacco use and nicotine withdrawal in the prison setting is also available from PHE (40).

4.3 Preventing and reducing substance misuse in the CJS

Assessing the need

The scale of substance misuse in prisons is staggering, with more than one-third of male prisoners indicating that drugs were easily accessible in prisons, and nearly one-fifth of offenders who had ever used heroin reporting first using it in prison (19). Alcohol also plays a prominent role in a large number of violent offences in the community and nearly one-third of people in prison suffer from alcohol dependency (8). Substance misuse impacts negatively not only on the health and wellbeing of people in prison but also places an undue burden on the entire prison community by inciting violence.

A recent **review** of substance misuse in prisons by HM Inspectorate of Prisons (HMIP) has highlighted a shift away from the use of 'traditional' illegal drugs like opiates and Class A drugs towards the misuse of medications and new psychoactive substances (NPS) in prisons (44). These new drug misuse patterns coincide with a spike in prison violence and increased deaths in custody over the past two years (see Section 4.4, Deaths in Custody). In their proposal to mitigate the scale of the drug problem in prisons, the Centre for Social Justice recently proposed placing more focus on three interdependent factors: keeping drugs out of prisons, reducing demand for drugs in prisons and providing drug addicted prisoners with effective support into recovery (45).

Meeting the need:

Novel psychoactive substances (NPS)

Two-thirds of prisons in England and Wales reported significant issues related to NPS use in 2014/15 versus one-third in 2013/14 (37), and the increasing use of NPS within secure environments is presenting prison based staff with a significant set of new challenges. In response to this, PHE has designed and published a new prisons specific **NPS toolkit** to supplement the generic community version (46).

The prison toolkit has been produced to support custody and healthcare staff. It provides information about the extent of NPS use as we currently understand it and about the properties of the various categories of NPS and advice on how to manage the problem from a clinical, psychosocial and regime perspective. Alongside the NPS toolkit, the PHE criminal justice team and colleagues from the National Offender Management Service (NOMS) have delivered 35 training events in English regions, with over 500 attendees from all areas of prison health as well as prison officers. This training has resulted in increasing levels of confidence from staff in responding to acute presentations.

Pain management and prescription drugs

Pain is a complex phenomenon determined and affected not just by neurophysiological and anatomical processes, but also by a wide range of subjective, societal and cultural considerations. Chronic (more than 12 weeks' duration) non-cancer pain (CNCP) and neuropathic pain present a particular challenge within prison settings in the UK. PHE

guidance on [Managing persistent pain in secure settings \(2013\)](#) highlighted the difficulties in prescribing opioid-based analgesics, including the risk of medication being diverted to prisoners for whom it is not being prescribed. There are issues of safety and bullying to consider when prescribing and dispensing medication in a prison which do not apply in the community, and prison staff, prescribers especially, may be subjected to a variety of threats and intimidation in order to prescribe medication against their better judgment.

A wide-ranging consultation exercise, involving commissioners, health and social care practitioners, prison governors and other prison staff took place in a number of prisons across England. In response to the consultation, a training programme on [Pain Management in Secure Environments](#) for staff working in prisons is being developed.

As a prelude to the roll-out of the training programme, and in order to inform its development and design, pain clinics were established in three prisons in South Gloucester. The aim of the pilot was to test the feasibility of operating a bespoke pain clinic in a secure setting and to examine whether the model of service delivery (using a pain management specialist) in a custodial setting has efficacy in reducing the need for opioid-based analgesics among the prisoner population. The additional aims of the pilot were to enhance the patient experience in dealing with pain, reducing unnecessary prescribing and reducing the number of visits out of prison to secondary care by developing focused, streamlined care pathways. The findings from these clinics have recently been published: [Development of a chronic non-cancer pain clinic in South Gloucester prisons: an exploratory study](#).

Additionally, a [formulary for the management of pain in secure environments](#) has been developed in partnership with NHS England to support and empower clinicians working in a prison setting .

[Alcohol brief interventions in prisons.](#)

The criminal justice team at PHE has been leading work on a pilot project looking at the implementation of alcohol brief interventions (BI) across ten prisons in the North West of England that form part of the [Gateways initiative](#). The aim of this project was to develop a suite of interventions for non-dependent alcohol drinkers who may be relatively treatment-resistant but who commit a disproportionate share of crime. The assumption for this project was that reductions in alcohol consumption by offenders (even by small amounts) will have a greater effect on reconviction rates.

Emerging findings suggest that screening using validated tools is possible in a prison setting and that it is best to screen prisoners after a period of time rather than as part of a reception or induction process. Although preparatory work based on a BI approach can be initiated in custody, effective interventions post release will be critical to achieving improved outcomes. Innovative methods such as a telephone adaptive care model may be effective in engaging ex-offenders in the community and PHE will publish materials to support this approach in September 2016.

The following outputs are part of this project:

- a literature review of the efficacy for brief interventions in custodial settings (in collaboration with the University of Birmingham and Kings College, London) that was published in August 2016

- publication of fact sheets focusing on studies of brief interventions in prison; probation and police custody. An additional fact sheet examines issues specifically around BI use by any young people in the criminal justice system (in collaboration with Newcastle University – Appendix II): <http://therapeutic-solutions.org.uk/publications.html>.
- a brief intervention manual modelled on the Routes to Recovery work published by PHE (available September 2016)
- publication of an academic paper discussing issues pertaining to brief interventions in prisons: Newbury-Birch et al, (2016) "A rapid systematic review of what we know about alcohol use disorders and brief interventions in the criminal justice system", *International Journal of Prisoner Health*, Vol. 12 Iss: 1, pp.57 – 70. (47)

PHE has secured funding to embark on an evaluation of “through the gate” alcohol interventions that will look at re-offending rates among comparison groups to assess the effectiveness of this approach.

Integrated substance misuse and mental health care pathways for offenders

People who have both mental health and substance misuse needs require a service that responds to these needs in an integrated, straightforward way. PHE is project managing an initiative that seeks to build on the Liaison and Diversion programme to develop a whole system approach that will allow improved access to the right interventions for offenders. It will address both mental health and substance misuse need and:

- divert individuals from the criminal justice system where appropriate
- reduce the prison population by providing courts with more effective community-based options
- drive greater efficiencies by reducing duplication of resources
- achieve improved crime reduction and health improvement outcomes

A process of stakeholder engagement is currently underway to identify local commissioning partnerships to act as early adopters for this approach.

4.4 Reducing physical health inequalities between people in PPDs and the community

Assessing the need

Health outcomes experienced by people in contact with the CJS are well below the average experienced by the general population and, in 2015, mortality rates were 45% higher in English and Welsh prisons than in the community (48). Many detainees are already at a health disadvantage before they enter prison as a result of their previous social and economic circumstances. Numerous studies attest to the fact that as a group, those who have or are at risk of offending frequently suffer from multiple and complex health issues, including mental and physical health problems, learning difficulties, substance misuse and increased risk of premature mortality (9). These underlying health issues are often exacerbated by difficulties in

accessing the full range of health and social care services available in the local community, making the detection and management of pre-morbid conditions particularly important in a prison setting.

The burden of cardiovascular disease (CVD) is highest in people from lower socio-economic groups, thus making it a particularly important issue for detainees. In one review of published empirical research studies on cardiovascular risk factors among prisoners, hypertension, among other CVD risk factors such as smoking, physical inactivity and obesity, was found to be one of the most common CVD risk factors in prisoners (49). Women and young offenders also have a higher prevalence of hypercholesterolemia. Identifying prevalent risks factors among prisoners can influence the development of CVD prevention strategies that are specifically directed to at risk prisoners (49).

Meeting the need

The **NHS Health Check Programme** is a national risk assessment and management programme for those aged 40 to 74 living in England, who do not have an existing vascular disease, and who are not currently being treated for certain risk factors. It is aimed at preventing heart disease, stroke, diabetes and kidney disease and raising awareness of dementia for those aged 65-74. The programme systematically targets the top seven causes of premature mortality (high blood pressure, smoking, cholesterol, obesity, poor diet, physical inactivity and alcohol consumption). By identifying risks early, individuals can then take action to reduce and manage those risks, increasing their chances of maintaining or improving their health.

NHS Health Checks are included in the public health specification for people in prisons as part of the **Section 7a agreement**, which sets out outcomes to be achieved and funding provided for NHS England to commission public health services. However, access to NHS Health Checks for those in secure detention (prisons and IRCs) has been inconsistent. An audit of prisons conducted in July 2014 identified slow implementation, and problems with low quality of content, availability of lifestyle health promoting services and variation in arrangements for continuity of care and continuity of health improvement services. The inconsistency in coverage prompted NHS England to reconsider efforts to implementing NHS Health Checks.

In 2015, NHS Health Checks were extended to detainees in secure detention facilities and admission criteria were revised to reflect the higher morbidity associated with those in secure detention facilities. To distinguish the programme from the NHS Health Checks in the community they were described as the “Physical Health Checks in Prisons Programme”. Representatives from PHE, NHS England and NOMS, reviewed the specification of the NHS Health Check Programme and indicated the following changes for people in secure detention to improve uptake and better target risk assessment of these under-served populations:

- eligibility criteria were revised to include those aged 35 years or older serving two years or more in detention
- there will be a concerted effort to ensure that those serving less than two years are registered with a GP on leaving the prison service so they can access health checks in the community

The plan is to implement this specification in 2016/17 working closely with NHS England and NOMS commissioners.

Promising practice

Screening programmes in PPDs

All eligible people in prison and other PPDs are entitled to access all cancer and non-cancer screening programmes for which they are eligible (Specification 29 Section 7A). However, concerns were raised recently by the National Screening Programme Board about the provision of screening services for prisoners. This was understood to be a particular issue for the Bowel Cancer Screening Programme (BCSP), Diabetic Eye Screening Programme (DESP) and Abdominal Aortic Aneurysm Screening Programme (NAAASP).

Screening pathways appropriate to a prison setting have now been developed by the PHE's Health and Justice Team in collaboration with the National Screening Programmes, which aim to increase access to screening within a prison setting. This interim solution was agreed, building on local solutions already tested, until the new Health & Justice Information Service (HJIS) becomes fully operational, which will allow for information to be transferred between community and prison health care. This solution also included active encouragement of prisoners to register with prison medical providers. (Healthcare summary care records are however transferred manually to a community GP (if registered) on release).

Bowel Cancer, Diabetic Eye Screening and Abdominal Aortic Aneurysm Screening Programmes Pathways are currently being implemented through NHS England commissioning leads. The key issues such as GP registration and access to NHS numbers have been temporarily resolved, until the new Health & Justice Informatics System is fully operational.

5 Protecting and improving health around the world

5.1 WHO Health in Prisons Programme

In 1995, the World Health Organization (European Region) and the UK established a network on prison health. From this network emerged the WHO Health in Prisons Programme (WHO HIPP), which includes member states in the European region. The purpose of the WHO HIPP is to offer technical advice to member states on the development of prison health systems and their links with public health systems as well as communicable and non-communicable diseases.

Figure 25: WHO Regional Office for Europe in Copenhagen, Denmark



The aim of the programme is promoting health in prisons as part of the overall public health agenda. The European Network for Prisons and Health currently includes most of the 53 member states of the WHO European Region and has headquarters in Copenhagen, Denmark, at the WHO's Regional Office for Europe (Figure 25). The [WHO web platform](#) contains further information.

In April 2014, PHE took over the function of the WHO HIPP UK Collaborating Centre from the University of Central Lancashire, which had previously been contracted by the DH to deliver this function. This change heralded the integration of the WHO HIPP UK CC into the wider work of PHE and aligned the structure of the WHO HIPP UK CC with other WHO Collaborating Centres hosted by PHE.

The UK Collaborating Centre

The work of the WHO HIPP UK CC is unique in that it is not mirrored in other WHO regions. Its focus on prison populations makes a significant contribution to taking forward the WHO European health policy framework, [Health 2020](#), which aims to improve public health and reduce health inequalities. The framework views social values such as human rights and equity as key to good governance for health. As such, when a state detains people it must guarantee their right to health and provide them with the best possible care. While great strides are being made to improve the health of prisoners in the European region, many member states still do not fully meet their responsibility to protect the health of people in

prisons. An expert group advising the WHO Office (Europe) on the organisation of prison health concluded that:

- the management and co-ordination of all relevant agencies and resources contributing to the health and well-being of prisoners is a whole-of-government responsibility
- health ministries should provide and be accountable for health care services in prisons and advocate healthy prison conditions (50)

The focus of the collaborating centre is to support the development of a European network to exchange experience, expert advice and promote innovation in addressing health and healthcare challenges facing prisoners and prisons. This can be achieved by promoting health in prisons as part of the overall public health agenda and, crucially, advocating that health ministries should be responsible for commissioning prison healthcare as opposed to justice departments/ministries as outlined in the WHO's [Good governance for prisons in the 21st century](#) (2013).

5.2 Key areas of work in 2015/16

The following section outlines the work and achievements of the WHO HIPP UKCC, which in the 2015/16 financial year focused on:

- developing and delivering an international conference and regional consultation event in Kyrgyzstan
- launching the WHO Prison Health Research & Engagement Network
- WHO European Minimum Public Health Dataset for Prisons
- providing leadership for the Five Nations Health & Justice Collaboration
- chairing the European Centre of Disease Prevention and Control expert panel on the prevention of infectious disease in prisons and other custodial settings for an international systematic review

International conference and regional consultation meeting

The WHO HIPP UKCC co-produced an international conference with the WHO Europe Regional Office (Copenhagen) and the State Penitentiary Service of Kyrgyz Republic (GSIN) which was held in the Kyrgyz capital city, Bishkek, during the last week in October 2015.

The conference attracted 123 participants from 25 countries with the aim of sharing good practice internationally to improve the quality of prison healthcare. The focus was on reducing harm from illicit drug use among people in prison, including infectious diseases transmitted by sharing injecting equipment. The three-day programme included a day of prison visits, an international conference and a regional consultation.

Bringing an international audience and focus on Kyrgyzstan has raised the profile of the work that is being achieved in this country, including opiate substitution therapy and needle exchange programmes in prisons, as well as the plans to transfer the responsibility of prison healthcare to the Ministry of Health by 2020 in line with the WHO guidance on Good governance for prison health in the 21st century.

The conference and regional consultation meeting also enabled the launch of several public health products the WHO HIPP and UK CC have been working on: the WHO Europe Prison Health web platform; WHO Europe Prison Health Research Network (WEPHREN); and the WHO Minimum Prison Health Dataset (see below).

A more detailed report of the proceedings of the conference and regional consultation meeting is published on the [GOV.UK](http://gov.uk) website.

Launch of the WHO European Prison Health Research Engagement Network (WEPHREN)

Developing the evidence base to support effective, efficient, cost-effective and high-quality healthcare in prisons and other justice settings requires an active research programme. The evidence base for prison health is underdeveloped and therefore remains in the 'grey literature' making it less accessible to other researchers and those developing the evidence base for prison health. Developing a research strategy would highlight current health and healthcare issues and best practice that could be used as a template for action by others.

The WHO HIPP UKCC launched the WHO European Prison Health Research and Engagement Network (WEPHREN) in Kyrgyzstan in 2015, inviting European member states to contact the WHO HIPP UKCC to join this network of academic institutions, policy makers, practitioners and public health organisations, enabling academic collaborations between institutions supporting research programmes (Figure 26).

Figure 26: WEPHREN comprises a network of participants from across the 53 member European states



WEPHREN will provide:

- a means of disseminating important research findings across the region
- a platform for developing the skills of health professionals and researchers with an interest in prisoners across all countries in the region thus promoting interest in prison health as a professional discipline
- a vehicle to drive development of effective collaborative networks within member states
- global leadership in prison research

WHO Minimum Public Health Dataset for Prisons

There is a lack of comprehensive, consistent and reliable public health data on prison populations and their health needs across the WHO European Region. Where data is available currently, it shows a higher prevalence of infectious disease, chronic illness and hazardous behaviour, including injecting drug use, among people in prison compared to peers in the wider community. The lack of a common minimum public health dataset limits ability to evaluate the quality of care provided in prisons and understand how this varies between member states. WHO HIPP and the UKCC launched a Minimum Public Health Dataset for Prisons in Europe at the 2015 international conference in Kyrgyzstan, which will enable formal collection of data on agreed indicators and metrics at national level consistently across the WHO European Region for the first time.

The database will be compiled from data reported at national level only. It will be collected via an online survey tool completed by a nominated key informant within the government ministry responsible for the health of prisoners. If necessary, parts of the survey will be completed by other national experts nominated by the key informant.

The WHO HIPP UKCC will support member states when considering the challenges and opportunities associated with providing this information. The UK CC is in a prime position to help pilot this dataset collection with its links to the Five Nations Health & Justice Collaboration and other European countries.

Five Nations Collaboration

The WHO HIPP UKCC founded, with other member states, the Five Nations Health & Justice Collaboration with England, Northern Ireland, the Republic of Ireland, Scotland and Wales in 2014. The collaboration held two meetings during 2015, in Edinburgh and Cardiff, with a third held in March 2016 in Belfast.

The meetings had representation from health commissioners, public health and policy makers as well as justice organisations in all the home nations of the UK and the Republic of Ireland as well as the WHO. They provide a forum for sharing best practice and mutual learning for health and justice partners, and help to improve collective capability in understanding and meeting the healthcare needs of people in secure and detained settings while informing the work of PHE as the UK CC for the WHO Health in Prisons Programme (WHO HIPP).

Discussion on the new North Wales prison, HMP Berwyn, which will be the biggest in the UK with over 2,100 prisoners, the majority of whom will be normally resident in England, has also taken place at the Five Nations Health & Justice Collaboration meetings. As a result, PHE has been directly asked by Wales for advice on commissioning healthcare in this prison and the UKCC has had input into the health needs assessment and healthcare specification.

Expert panel on effectiveness of health protection programmes in prisons in Europe (ECDC)

Health & Justice was invited to chair an expert panel for a two-year systematic review on communicable disease control in prisons in EU/EEA member states for the European Centre

for Disease Control and Prevention. The panel includes international experts in communicable disease control as well as representatives of the Council of Europe, the European Monitoring Centre for Drugs and Drug Addiction and Health without Barriers.

The panel met in 2015 to discuss methodology, macro-areas of interest and to define the role of the expert panel and the ECDC. The three macro-areas agreed to be taken forward were 1) prevention, detection, control and treatment of BBVs and STIs, 2) active case finding/screening and vaccine preventable diseases, and 3) outbreak prevention, detection and control (including disease surveillance systems). It was also decided that TB among vulnerable groups, including people in prison, will be brought into the scope of this review.

The key tasks of the expert panel will be to identify and define priority areas for action, contribute to evidence interpretation, and participate in guidance development, including the formulation of evidence-based recommendations by the end of the project in 2018

6 Conclusions and looking forward

The end of the 2015/16 financial year marks ten years since NHS England assumed responsibility for prison healthcare commissioning in England and Wales. Following similar moves several years later by the national health services of Scotland and Northern Ireland, the UK took its place among a handful of Western European nations whose prison healthcare services are commissioned by their respective health ministries. This paradigm shift in prison healthcare commissioning heralded a move towards greater equity of care for people in prison - a key step towards reducing health inequalities in this population and a guiding PHE principle.

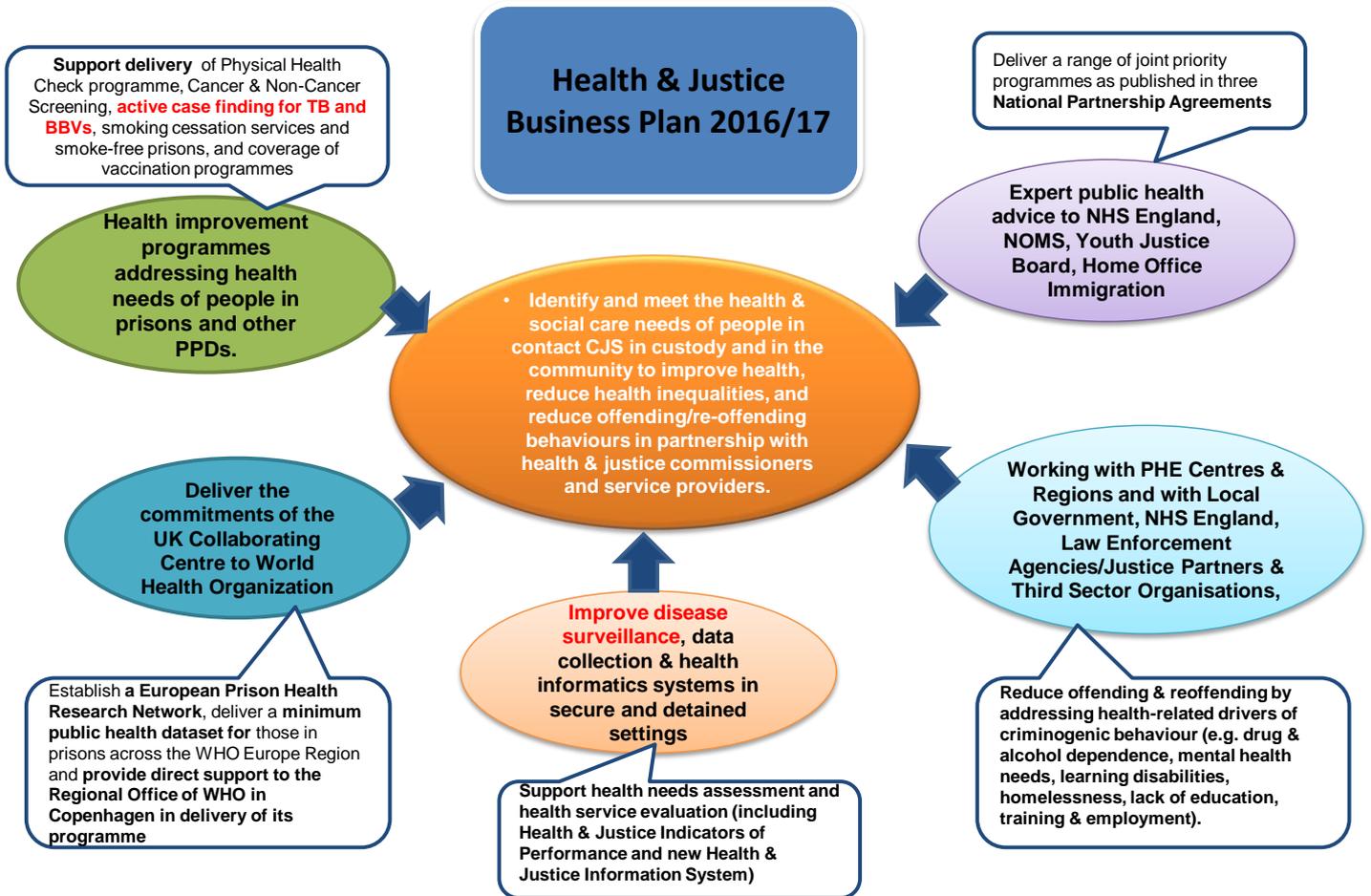
The Health & Justice Team identified evidence of improvements in health outcomes for people in secure and detained settings of NHS commissioned health services resulting from factors such as increased transparency and a better understanding of the health needs of this population. These improvements, together with areas identified as benefitting from further development (see Section 1.2), provide a good source of evidence to inform healthcare commissioning in PPDs as we move into the 'reform agenda' era in financial year 2016/17.

While the overwhelming majority of people in contact with the CJS will live most of their lives in the community, there is a very high turnover of people in the CJS who cycle between detention facilities and the community. This reality necessitates a robust surveillance system capable of collecting and disseminating health protection data in a timely manner to prevent the spread of disease between the wider community and areas of detention. The Health & Justice Surveillance service provided a means for HPTs and justice colleagues to efficiently share data that contributed to the timely resolution of several large outbreaks over the past year in PPDs. Moreover, the continued development of such data assets as HJIPs have informed ongoing health protection initiatives like the BBV opt-out programme in prisons.

The focus in 2015/16 was ensuring that key public health issues affecting people in the CJS were being identified and backed by robust plans, which used the knowledge and experience of stakeholders working across health and justice. New challenges, such as the emergence of new patterns of substance misuse and a spike in prison deaths and violence, were met head on through the implementation of NPS awareness initiatives and the planning of an integrated mental health and substance misuse pathway. The smoke-free prisons programme also rolled-out in earnest throughout select prisons in England and Wales.

The work performed during the 2015/16 financial year will lay strong foundations for work during 2016/17 and beyond, which will be timely in preparing for potential changes as part of the 'reform agenda'. An overview of the focus of work for the next financial year is represented schematically in Figure 27.

Figure 27: Overview of the Health & Justice Team’s work programme in 2016/17



Data sources

Ministry of Justice	Safety in custody statistics Offender Management Statistics Quarterly Publications:
Home Office	Immigration statistics quarterly
Youth Justice Board	Youth custody data
PHE	Health & Justice Surveillance Service GUMCAD
ImmForm	Flu vaccine coverage in prisons
NHS England	Health and Justice Indicators of Performance (HJIPs) – BBV testing rates 2015/16

Appendix A: Health & Justice Surveillance Data (2015/16)

This appendix provides national and local data on the incidence of single cases as well as outbreaks reported over the 2015/16 financial year to the Health & Justice Surveillance service. A more detailed description of this service can be found in Table 6, Section 3.

A. Health & Justice Surveillance service reports, 2015/16

A1. Single reports

Table 1A: Single reports by facility (April 2015 - March 2016)

Infection	Prison	IRC	Other	Reports
Campylobacter	6	0	0	6
Entamoeba histolytica	<5	0	0	<5
Giardia	<5	0	0	<5
Influenza A	<5	0	0	<5
Legionnaires	<5	0	0	<5
Malaria	<5	0	0	<5
Meningitis	<5	0	0	<5
Mumps	<5	0	0	<5
Mycoplasma pneumoniae	0	<5	0	<5
Pertussis (whooping cough)	<5	0	0	<5
Salmonellosis (Salmonella enterica)	<5	0	0	<5
Scabies	7	<5	0	10
Shingles	<5	0	0	<5
Staphylococcus aureus / PVL	<5	0	<5	<5
TB (pulmonary)	25	<5	<5	29
TB (non-pulmonary)	9	<5	0	12
Varicella (chickenpox)	5	<5	<5	8
Grand Total	75	11	4	90

NB: Values of less than 5 suppressed and replaced with '<5' to prevent deductive disclosure. IRC: immigration removal centre

The most prevalent single reports received by Health & Justice in financial year 2015/16 were pulmonary TB cases, the majority of which occurred in prisons (27) (see Section 3.3). Epidermal conditions like scabies and chickenpox were the second and third most prevalent cases of infection reported in the custodial setting and also primarily localised to prisons. Health & Justice is no longer collecting reports of chronic hepatitis B or C as this information is now being collected by HJIPs with publication of preliminary results expected in the next financial year (2016/17).

A2. Outbreaks

Table 2A: Outbreaks April 2015 - March 2016 by facility

Infection	Prison	IRC	Other	Total
Chickenpox	1	1	0	2
D & V	8	6	2	16
Influenza	8	2	1	11
Mycoplasma pneumoniae	0	1	0	1
Scabies	1	0	1	2
TB	2	0	0	2
Grand Total	20	10	4	34

D & V: diarrhoea & vomiting; IRC: immigration removal centre; TB: tuberculosis

In accordance with the previous edition of this report ([Health and Justice Report 2014](#)), diarrhoea and vomiting (D & V) outbreaks were the most prevalent (16 in total) reported in custodial settings to Health & Justice in financial year 2015/16. The prevalence of D & V outbreaks was split between prisons and other custodial settings (predominantly IRCs). The 2015/16 seasonal flu season saw an unprecedented number of influenza outbreaks (11 in total), the majority of which were reported in prisons (see Section 3.1). The Health & Justice Team has numerous resources and guidance available to assist healthcare and correctional staff deal with outbreaks occurring in custodial settings. These resources can be found on the Public Health in Prisons and Secure Settings website at:

<https://www.gov.uk/government/collections/public-health-in-prisons>. The Health & Justice Team is also finalising an updated version of the [Multi-agency contingency plan for disease outbreaks in prisons](#) which will be published on the same website by Q3 of 2016/17.

B. Other surveillance systems, 2015/16

B1. Flu vaccine coverage in prisons

Data on flu vaccine uptake in prisons was collected by ImmForm (a system used to record data in reaction to uptake against immunisation programmes). Table 3A indicates that 83% of detention sites have reported data on vaccine uptake to ImmForm as of week 4 of the 2015/16 flu season (the last week for which data was available). Based on data available at week 4, vaccine uptake across the detention estate was running at just below 44% for all those registered as at risk, with 15.4% of at-risk individuals having refused/declined vaccine treatment. Week 4 was the last week of the flu season for which ImmForm data was collected by ImmForm for Health & Justice.

Table 3A: Flu vaccine coverage in prisons, week 4, week ending 22 January 2016

PHE Region	PHE Centre	(B) Number of at-risk patients within A that have received the Flu vaccine since 1st September 2015				
		(A) Number of at-risk patients registered on day of extraction	Vaccine Uptake (%) calculated by the system (B/A*100)	Number of at-risk patients refused/declined vaccine	Number of all patients vaccinated	
North	North East	1027	608	59.2	158	915
	North West	2191	878	40.1	227	1484
	Yorkshire and Humberside	1946	937	48.2	456	1447
Midlands and East of England	East Midlands	1988	948	47.7	290	1365
	East of England	2118	985	46.5	377	1564
	West Midlands	1657	729	44.0	334	1250
South	South West	1077	480	44.6	121	713
	South East	2728	1271	46.6	380	1928
London	London	1654	342	20.7	183	482
England Total		16386	7178	43.8	2526	11148

(Source: ImmForm)

B2. Genito-Urinary Medicine Clinic Activity Dataset (GUMCAD) v2

GUMCAD v2 (a pseudo-anonymised patient-level electronic dataset collecting information on diagnoses made and services provided by GUM clinics) has been collecting routine data on prisoners. However, it was noted that not all testing, diagnoses and treatments for STIs take place in GUM clinics in prisons and, therefore, not all data for STIs in prisons is reported to GUMCAD. Nevertheless, the dataset does provide a useful picture of new STI diagnoses among prisoners in England. Table 4A includes GUMCAD v2 diagnoses for calendar years 2014 and 2015; GUMCAD data is reported only by calendar year.

Table 4A: Number of new STI diagnoses among prisoners in England, calendar years 2014 and 2015

STI Diagnoses	2014	2015
Chlamydia	127	100
Gonorrhoea	24	14
Herpes	14	14
Syphilis	<5	<5
Warts	283	232

(Source: PHE GUMCAD v2)

	2014	2015
All New STIs	586	502

*Includes chancroid / LGV / donovanosis, chlamydia, gonorrhoea, herpes: anogenital herpes (1st episode), HIV: new diagnosis, molluscum contagiosum, non-specific genital infection, pelvic inflammatory disease & epididymitis: non-specific, scabies / pediculosis pubis, syphilis: primary, secondary & early latent, trichomoniasis, warts: anogenital warts (1st episode)

(Source: GUMCAD v2)

References

1. National Partnership Agreement: Commissioning delivery of Healthcare in Prisons 2015 - 2016. *National Offender Management Service: Healthcare for Offenders*. [Online] [Cited: 20 September 2016.] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/460445/national_partnership_agreement_commissioning-delivery-healthcare-prisons_2015.pdf.
2. *Prisons and Health Reforms in England and Wales*. Hayton, P and Boyington, J. 10, October 2006, *Am J Public Health*, Vol. 96, pp. 1730–1733.
3. Patient or prisoner? *HM Inspectorate of Prisons*. [Online] 31 December 1996. [Cited: 8 August 2016.] <https://www.justiceinspectorates.gov.uk/hmiprisons/inspections/patient-or-prisoner/>.
4. PHE remit letter: 2015 to 2016. *Public Health England*. [Online] 26 March 2015. [Cited: 12 August 2016.] <https://www.gov.uk/government/publications/phe-remit-letter-2015-to-2016>.
5. Prison reform: Prime Minister's speech. *Justice system transparency and Criminal justice reform*. [Online] 8 February 2016. [Cited: 27 June 2016.] <https://www.gov.uk/government/speeches/prison-reform-prime-ministers-speech>.
6. Biggest shake-up of prison system announced as part of Queen's Speech. *Queen's Speech 2016 and Criminal justice reform*. [Online] 18 May 2016. [Cited: 27 June 2016.] <https://www.gov.uk/government/news/biggest-shake-up-of-prison-system-announced-as-part-of-queens-speech>.
7. Good governance for prison health in the 21st century. A policy brief on the organization of prison health (2013). *World Health Organisation: Europe*. [Online] 2013. [Cited: 26 July 2016.] <http://www.euro.who.int/en/publications/abstracts/good-governance-for-prison-health-in-the-21st-century.-a-policy-brief-on-the-organization-of-prison-health-2013>.
8. Singleton, N, Meltzer, H and Gatward, R. Psychiatric Morbidity among Prisoners in England and Wales. *Office for National Statistics*. [Online] 1998. [Cited: 4 August 2016.] <http://www.ons.gov.uk/ons/rel/psychiatric-morbidity/psychiatric-morbidity-among-prisoners/psychiatric-morbidity-among-prisoners--summary-report/psychiatric-morbidity---among-prisoners--summary-report.pdf>.
9. Balancing Act: Addressing health inequalities among people in contact with the criminal justice system. *Revolving Doors Agency*. [Online] 2013. [Cited: 15 July 2016.] <http://www.revolving-doors.org.uk/documents/balancing-act/>.
10. NICE Guidance NG33: Tuberculosis. *National Institute for Health and Care Excellence (NICE)*. [Online] January 2016. [Cited: 15 July 2016.] <https://www.nice.org.uk/guidance/ng33>.

11. Statistical bulletin: Population Estimates for UK, England and Wales, Scotland and Northern Ireland. Mid-2015. *Office for National Statistics*. [Online] 23 June 2016. [Cited: 15 July 2016.]

<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualmidyearpopulationestimates/mid2015#main-points>.

12. Offender management statistics quarterly: October to December 2015. *Ministry of Justice*. [Online] 28 April 2016. [Cited: 15 07 2016.]

<https://www.gov.uk/government/statistics/offender-management-statistics-quarterly-october-to-december-2015>.

13. Criminal justice system statistics quarterly: December 2015. *Ministry of Justice*. [Online] 19 May 2016. [Cited: 15 July 2016.]

<https://www.gov.uk/government/statistics/criminal-justice-system-statistics-quarterly-december-2015>.

14. Proven reoffending statistics quarterly: July 2013 to June 2014. *Ministry of Justice*. [Online] 28 April 2016. [Cited: 15 July 2016.]

<https://www.gov.uk/government/statistics/proven-reoffending-statistics-quarterly-july-2013-to-june-2014>.

15. Prisoners' childhood and family backgrounds: Results from the Surveying Prisoner Crime Reduction (SPCR) longitudinal cohort study of prisoners. *Ministry of Justice*. [Online] March 2012. [Cited: 4 August 2016.]

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/278837/prisoners-childhood-family-backgrounds.pdf.

16. Walmsley, R. World Prison Population List - Eleventh Edition. *International Centre for Prison Studies*. [Online] October 2015. [Cited: 15 July 2016.]

http://www.prisonstudies.org/sites/default/files/resources/downloads/world_prison_population_list_11th_edition.pdf.

17. Offender management statistics quarterly: January to March 2015. *Ministry of Justice*. [Online] [Cited: 15 July 2016.]

<https://www.gov.uk/government/statistics/offender-management-statistics-quarterly-january-to-march-2015>.

18. Prison Population Projections 2015 – 2021 England and Wales. *Ministry of Justice*. [Online] [Cited: 15 July 2016.]

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/480031/prison-population-projections-2015-2021.pdf.

19. Bromley Briefings Prison Factfile Autumn 2015. *Prison Reform Trust*. [Online] [Cited: 15 July 2016.]

<http://www.prisonreformtrust.org.uk/Portals/0/Documents/Bromley%20Briefings/Factfile%20Autumn%202015.pdf>.

20. Criminal justice system statistics quarterly: December 2015. *Ministry of Justice*.

[Online] [Cited: 15 July 2016.] <https://www.gov.uk/government/statistics/criminal-justice-system-statistics-quarterly-december-2015>.

21. Clifton, J. Prisons and prevention: Giving local areas the power to reduce offending. *Institute for Public Policy Research*. [Online] 18 January 2016. [Cited: 15 July 2016.] <http://www.ippr.org/publications/prisons-and-prevention-giving-local-areas-the-power-to-reduce-offending>.
22. Justice - Thirteenth Report. Women offenders: follow-up . *UK Parliamentary publications and reports*. [Online] 17 March 2015. [Cited: 15 July 2016.] <http://www.parliament.uk/business/committees/committees-a-z/commons-select/justice-committee/news/women-offenders-report-published1/>.
23. Kinsella, R. Evaluation of the Whole System Approach for Women Offenders: Interim Report Manchester City Council. *Sheffield Hallam University*. [Online] 21 December 2015. [Cited: 15 July 2016.] <https://www.shu.ac.uk/research/specialisms/hallam-centre-for-community-justice/reports/evaluation-of-the-whole-system-approach-for-women-offenders-interim-report>.
24. Review of the Youth Justice System. *Ministry of Justice*. [Online] February 2016. [Cited: 15 July 2016.] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/498736/youth-justice-review.pdf.
25. Youth justice annual statistics: 2014 to 2015. *Ministry of Justice*. [Online] [Cited: 15 July 2016.] <https://www.gov.uk/government/statistics/youth-justice-annual-statistics-2014-to-2015>.
26. Immigration statistics, Detention, January to March 2016. *Home Office*. [Online] [Cited: 15 July 2016.] <https://www.gov.uk/government/statistics/immigration-statistics-january-to-march-2016>.
27. Blood-borne virus opt-out testing in prisons: preliminary evaluation of pathfinder programme, phase 1 April to September 2014. *PHE, Public Health in Prisons and Secure Settings*. [Online] 4 April 2015. [Cited: 15 July 2016.] <https://www.gov.uk/government/publications/blood-borne-virus-opt-out-testing-in-prisons-evaluation-of-pathfinder-programme>.
28. Tuberculosis in England 2015 report (presenting data to end of 2014) version 1.1. *PHE, Tuberculosis (TB) and other mycobacterial diseases: diagnosis, screening, management and data*. [Online] October 2015. [Cited: 15 July 2016.] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/492431/TB_Annual_Report_v2.6_07012016.pdf.
29. Collaborative tuberculosis strategy for England: 2015 to 2020. *Tuberculosis (TB) and other mycobacterial diseases: diagnosis, screening, management and data*. [Online] 19 January 2015. [Cited: 15 July 2016.] <https://www.gov.uk/government/publications/collaborative-tuberculosis-strategy-for-england>.
30. Addressing TB in Health and Justice Settings. *PHE Event presentations [pages 114-141]*. [Online] March 2016. [Cited: 15 July 2016.] https://www.phe-events.org.uk/HPA/media/uploaded/EVHPA/event_569/FINAL_TB_slides.pdf.

31. *An audit of tuberculosis health services in prisons and immigration removal centres.* Mehay, A, et al., et al. 2, June 2016, JPH, Vol. 38, pp. 1-8.
32. Briefing 29: Mental health care and the criminal justice system. *Centre for Mental Health.* [Online] 2011. [Cited: 04 August 2016.] <http://www.openeyecommunications.com/wp-content/uploads/2011/10/mentalheathcareandtheCJS.pdf>.
33. Mental health and criminal justice: Views from consultations across England & Wales. *Centre for Mental Health.* [Online] March 2016. [Cited: 15 July 2016.] <https://www.centreformentalhealth.org.uk/mental-health-and-criminal-justice>.
34. Deaths in State Custody: An examination of the cases 2000 to 2014. *Independent Advisory Panel on Deaths in Custody.* [Online] December 2015. [Cited: 15 July 2016.] <http://iapdeathsincustody.independent.gov.uk/wp-content/uploads/2015/12/IAP-Statistical-Analysis-of-recorded-deaths-in-state-custody-between-2000-and-2014.pdf>.
35. Safety in custody summary tables to March 2016. Table 1: Annual Safety in Custody Summary Statistics, England and Wales. *Ministry of Justice.* [Online] 28 April 2016. [Cited: 15 July 2016.] <https://www.gov.uk/government/statistics/safety-in-custody-quarterly-update-to-december-2015>.
36. Table 4: Annual Assaults Summary Statistics, England and Wales. *Ministry of Justice, Safety in Custody Statistics - Summary tables, Update to March 2016.* [Online] 28 April 2016. [Cited: 15 July 2016.] <https://www.gov.uk/government/statistics/safety-in-custody-quarterly-update-to-december-2015>.
37. Changing patterns of substance misuse in adult prisons and service responses. *HM Inspectorate of Prisons.* [Online] 18 December 2015. [Cited: 15 July 2015.] <https://www.justiceinspectores.gov.uk/hmiprisons/inspections/changing-patterns-of-substance-misuse-in-adult-prisons-and-service-responses/>.
38. Rise of new psychoactive substances: new toolkit helps prisons address a growing problem. *Public Health Matters.* [Online] 5 January 2016. [Cited: 15 July 2016.] <https://publichealthmatters.blog.gov.uk/2016/01/05/rise-of-new-psychoactive-substances-new-toolkit-helps-prisons-address-a-growing-problem/>.
39. New rules to crackdown on violent prisoners come into force. *Press Release.* [Online] 27 February 2015. [Cited: 15 July 2016.] <https://www.gov.uk/government/news/new-rules-to-crackdown-on-violent-prisoners-come-into-force>.
40. Smoking in prisons: management of tobacco use and nicotine withdrawal. *Public Health England.* [Online] 12 March 2015. [Cited: 15 July 2016.] <https://www.gov.uk/government/publications/smoking-in-prisons-management-of-tobacco-use-and-nicotine-withdrawal>.
41. Integrated Household Survey (Experimental statistics): January to December 2014. *Office for National Statistics.* [Online] 1 October 2015. [Cited: 15 July 2016.]

<http://www.ons.gov.uk/peoplepopulationandcommunity/culturalidentity/sexuality/bulletins/integratedhouseholdsurvey/2015-10-01>.

42. The Stolen Years: The Mental Health and Smoking Action Report. *Action for Smoking and Health*. [Online] 13 April 2016. [Cited: 15 July 2016.] http://www.ash.org.uk/files/documents/ASH_1018.pdf.

43. Report on Second-Hand Smoke in Prisons: Final Report. *National Offender Management Service*. [Online] October 2015. [Cited: 15 July 2015.] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/469654/SHS_in_Prisons_Final_Report_minus_Appendix.pdf.

44. Changing patterns of substance misuse in adult prisons and service responses. *HM Inspectorate of Prisons*. [Online] December 2015. [Cited: 15 July 2016.] <https://www.justiceinspectors.gov.uk/hmiprison/wp-content/uploads/sites/4/2015/12/Substance-misuse-web-2015.pdf>.

45. Drugs in Prison. *The Centre for Social Justice*. [Online] March 2015. [Cited: 15 July 2016.] http://www.centreforsocialjustice.org.uk/UserStorage/pdf/Pdf%20reports/CSJJ3090_Drugs_in_Prison.pdf.

46. New psychoactive substances (NPS) in prisons: A toolkit for prison staff. *Public Health England*. [Online] December 2015. [Cited: 15 July 2016.] [http://www.nta.nhs.uk/uploads/new-psychoactive-substances-in-prisons\[0\].pdf](http://www.nta.nhs.uk/uploads/new-psychoactive-substances-in-prisons[0].pdf).

47. *A rapid systematic review of what we know about alcohol use disorders and brief interventions in the criminal justice system*. Newbury-Birch, D. 1, 2016, *International Journal of Prisoner Health*, Vol. 12, pp. 57-70.

48. Safety in custody quarterly bulletin: December 2015. *Ministry of Justice, Safety in Custody Statistics*. [Online] 28 January 2016. [Cited: 15 July 2016.] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/495665/safety-in-custody-statistics-september-2015.pdf.

49. *Cardiovascular risk factors among prisoners: an integrative review*. Aries, E J. 1, Jan-Mar 2013, *J Forensic Nurs.*, Vol. 9, pp. 52-64.

50. Prisons and health. *World Health Organisation*. [Online] 2014. [Cited: 15 July 2015.] <http://www.euro.who.int/en/health-topics/health-determinants/prisons-and-health/publications/2014/prisons-and-health>.

51. Guide to Safety in Custody Statistics. *Ministry of Justice, Safety in custody quarterly update to December 2015*. [Online] 28 April 2016. [Cited: 15 July 2016.] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/519711/safety-in-custody-statistics-guide.pdf.

52. PHE. Addressing TB in Health and Justice Settings; Event presentations [pages 114-141] . *PHE Event Presentations*. . [Online] March 2016. [Cited: 15 July 2016.]