The Development of a Pilot Electronic Multi-Agency Information Sharing System for Offenders with Mental Illness

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## Glossary of terms/abbreviations

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<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td><strong>ACCT</strong></td>
<td>Assessment, Care in Custody and Teamwork, HM Prison Service’s suicide and self harm management procedures</td>
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<td><strong>ACPO</strong></td>
<td>Association of Chief Police Officers</td>
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<tr>
<td><strong>CfH</strong></td>
<td>Connecting for Health, the NHS’s Information Technology work programme</td>
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<tr>
<td><strong>CJLT</strong></td>
<td>Criminal Justice Liaison Team, an NHS mental health service providing services to people with mental health problems in contact with the criminal justice system,</td>
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<tr>
<td><strong>CJS</strong></td>
<td>Criminal Justice System</td>
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<tr>
<td><strong>C-NOMIS</strong></td>
<td>National Offender Management Information System, the electronic records service for Prison and Probation Services</td>
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<tr>
<td><strong>CPA</strong></td>
<td>Care Programme Approach, a nationally recognised NHS care planning system for people with mental health problems</td>
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<tr>
<td><strong>CPS</strong></td>
<td>Crown Prosecution Service</td>
</tr>
<tr>
<td><strong>CSC</strong></td>
<td>Cascading Style Sheets, a tool to determine the look and style of web pages and content</td>
</tr>
<tr>
<td><strong>DBS</strong></td>
<td>Demographic Batch Service, an NHS patient/contact tracing service</td>
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<tr>
<td><strong>DELIUS</strong></td>
<td>Delivering Information to Users System, an electronic records system in use by Probation Services</td>
</tr>
<tr>
<td><strong>DH</strong></td>
<td>Department of Health</td>
</tr>
<tr>
<td><strong>DPA</strong></td>
<td>Data Protection Act</td>
</tr>
<tr>
<td><strong>EDM</strong></td>
<td>Electronic Document Management</td>
</tr>
<tr>
<td><strong>Eh-As</strong></td>
<td>E-health Audit Service, a system to record all activity within a computer system</td>
</tr>
<tr>
<td><strong>Eh-AuthNs</strong></td>
<td>E-health Authentication Services, a method to allow only authorised users to access a computer system</td>
</tr>
<tr>
<td><strong>Eh AuthZs</strong></td>
<td>E-health Role Based Authorisation Service, a method to control access to data based on a user’s individual rights</td>
</tr>
<tr>
<td><strong>Eh-Das</strong></td>
<td>E-health Data Access Service, the system to facilitate data access within a computer system</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>Eh-DB</td>
<td>E-health Database, the data held within a computer system</td>
</tr>
<tr>
<td>Eh-P</td>
<td>E-health Permission, a method to determine a user’s rights within a computer system i.e. read only,</td>
</tr>
<tr>
<td>Eh-R</td>
<td>E-health Role, a Job function or title which defines an authority level for an E-health subject</td>
</tr>
<tr>
<td>Eh-S</td>
<td>E-health Subject, a person who is granted access to a computer system</td>
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<tr>
<td>EPR</td>
<td>Electronic Patient Record</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>FME</td>
<td>Forensic Medical Examiner, doctors practising in police custody settings</td>
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<tr>
<td>GP</td>
<td>General Practitioner</td>
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<tr>
<td>HES</td>
<td>Hospital Episode Statistics, a dataset recording admissions to all NHS hospitals in England</td>
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<tr>
<td>Html</td>
<td>Hypertext Mark-up Language, a language/style to create web pages/content</td>
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<tr>
<td>IIS</td>
<td>Inmate Information System, a HM Prison Service electronic database</td>
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<tr>
<td>IP</td>
<td>Internet Protocol, a method by which information is sent from one computer to another on the internet</td>
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<tr>
<td>IPCC</td>
<td>Independent Police Complaints Commission</td>
</tr>
<tr>
<td>IPP</td>
<td>Indeterminate Sentence for Public Protection, the detention in prison of people who pose a significant risk to members of the public of causing serious harm by further serious offences until they no longer pose such a risk</td>
</tr>
<tr>
<td>IRAS</td>
<td>Integrated Research Application System, the electronic portal for NHS research ethics and governance applications</td>
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<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>HMP</td>
<td>Her Majesty’s Prison</td>
</tr>
<tr>
<td>LIDS</td>
<td>Local Inmate Database System, a HM Prison Service electronic database</td>
</tr>
<tr>
<td>MAIS</td>
<td>Multi Agency Information Sharing</td>
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</table>
| MAPPA   | Multi Agency Public Protection Arrangements, the name given to arrangements in England and Wales for the "responsible
authorities” (e.g. Probation, Police and Prison Services) tasked with the management of registered sex offenders, violent and other types of sexual offenders, and offenders who pose a serious risk of harm to the public.

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>MAPPP</td>
<td>Multi-Agency Public Protection Panels, responsible for joint management of those offenders managed under MAPPA</td>
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<tr>
<td>MHA</td>
<td>Mental Health Act, UK legislation relating to mental health law</td>
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<tr>
<td>MoJ</td>
<td>Ministry of Justice</td>
</tr>
<tr>
<td>NAO</td>
<td>National Audit Office</td>
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<tr>
<td>NCISH</td>
<td>The National Confidential Inquiry into Suicide and Homicide by People with Mental Illness</td>
</tr>
<tr>
<td>NHS</td>
<td>National Health Service</td>
</tr>
<tr>
<td>NIHR</td>
<td>National Institute for Health Research</td>
</tr>
<tr>
<td>NOMS</td>
<td>National Offender Management Service</td>
</tr>
<tr>
<td>NPIA</td>
<td>National Policing Improvement Agency</td>
</tr>
<tr>
<td>NRC</td>
<td>National Research Committee</td>
</tr>
<tr>
<td>NRes</td>
<td>NHS Research Ethics Committee</td>
</tr>
<tr>
<td>NSPIS</td>
<td>National Strategy for Police Information Systems, a police technology work programme</td>
</tr>
<tr>
<td>NSTS</td>
<td>NHS Strategic Tracing Service, a now defunct NHS electronic patient tracing database</td>
</tr>
<tr>
<td>OASys</td>
<td>Offender Assessment System, a risk and needs measurement system used by Prison and Probation Services</td>
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<tr>
<td>PCA</td>
<td>Police Complaints Authority</td>
</tr>
<tr>
<td>PER</td>
<td>Prisoner Escort Form, a risk information document which accompanies people in custody when travelling between sites of detention</td>
</tr>
<tr>
<td>PHIT</td>
<td>Prison Health Information Technology</td>
</tr>
<tr>
<td>PIN</td>
<td>Personal Identification Number</td>
</tr>
<tr>
<td>PITO</td>
<td>Police Information Technology Organisation, part of the NPIA concerned primarily with management of the Police National Computer and other police databases</td>
</tr>
</tbody>
</table>
PKI Public Key Infrastructure, a method to allow the secure transfer of data amongst identified users only, using the Internet
PNC Police National Computer
PND Police National Database
P-NOMIS Prison National Offender Management Information System
RBAC Role Based Access Control, an authorisation method by which permissions are assigned to roles, and users (or user identities) are assigned to appropriate roles
SCR Summary Care Record, an NHS electronic record designed to share a limited health dataset amongst a wide group of clinicians
SMI Severe and Enduring Mental Illness
SPSS Statistical Package for the Social Sciences
SQL Structured Query Language, an international standard language for manipulating relational databases
SSL Secure Sockets Layer, a cryptographic protocol that provides communication security over the Internet
SUS Secondary Uses Service, an NHS database allowing the recording and audit of care delivery
URI Uniform Resource Identifier, a string of characters used to identify a name or a resource on the Internet
VISOR Violent and Sex Offenders Register
Acknowledgements

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We would like to thank the service users who agreed to participate in this study.

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Dr Jane Senior (Principal Investigator) was responsible for the overall management of the project and production of the final report.

Dr Charlotte Lennox (Project Manager) was responsible for the project management of the study and contributed and edited the final report.

Dr Sharon McDonnell (Research Associate) was responsible to the data collection and contributed to the final report.

Professor Jenny Shaw contributed to study design and supervision.

Li Yao (Researcher) was reasonable for the technical development of the MAIS network and contributed to the final report.

Dr Ning Zhang was responsible for the supervision and management of the technical development of the MAIS network and contributed to the final report.

This report is written in a style which aims to synthesise the SDO report template and STARE-HI principles for reporting evaluation studies in Health Informatics¹.
Executive Summary

Background

In recent years media attention has focused disproportionately upon a small number of violent crimes perpetrated by mentally ill people living in the community. Inquiries into such events commonly cite a lack of adequate information sharing, both within and between agencies, as contributing to inadequate risk management.

Offenders often have complex and inter-related needs which challenge the interface between the criminal justice, health and social care sectors. Multi-agency partnerships are required to meet these complex needs. However, multi-agency working brings with it ethical conflicts around information sharing that are not based solely on individual clinician/service user relationships; rather they are more complex, with different disciplines having differing treatment philosophies. A change in attitudes and values, as well as behaviour, is required to address the anti-sharing culture.

Aims

To establish a Multi-Agency Information Sharing (MAIS) network which would provide a single, accessible mechanism through which risk information about recently released prisoners could be shared promptly, securely and reliably between community mental health and criminal justice agencies.

Methods

Part 1: Develop and pilot MAIS Network

To establish the MAIS network the research team first had to establish what mental health and risk information criminal justice agencies needed about recently released prisoners, and which agencies could have access to which information. An initial mental health and risk dataset was presented to the study’s operational steering committee for ratification. Following a number of rounds of consultation the resulting version was ratified by both the operational steering committee and the NHS Research Ethics Service (NRES).

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The MAIS network was specifically developed as a secure, web-based, e-Workbench service, designed to provide browser-based, fine-grain controlled accesses to the mental health and risk minimum datasets of mentally ill prisoners upon release from HMP Liverpool.

The MAIS network was designed for participants released from HMP Liverpool. The inclusion criteria were those of working age (21-65), with an identified severe and enduring mental illness (SMI).

**Evaluating the MAIS Network**

The scalability, robustness, accessibility, usability and security of the network were tested.

**Qualitative evaluation of the MAIS network**

This aspect of the study aimed to examine the views of the frontline health and criminal justice agency professionals on the value and importance of such an initiative. Fifty-four individuals were interviewed. Participants’ perceptions of the MAIS network were analysed using transcripts and notes taken during the interviews and field notes taken after each interview.

**Part 2: Examination of how the lessons learnt from the pilot MAIS network can be incorporated into national health and criminal justice policy concerning the care and management of mentally disordered offenders**

The aim of this part of the study was to examine the feasibility of expanding the MAIS network to include service providers nationally. A purposeful sample of key individuals identified as influential nationally in the field of information sharing within criminal justice and health care agencies was interviewed. Thematic analysis using the constant comparative method was used to analyse the data[^57^-^59]. Data collection ceased when saturation of themes occurred.

**Part 3: Conduct a process evaluation of the development of the MAIS network, and the issues raised around information sharing and partnership working.**

The aim of this part of the study was to conduct a process evaluation of the MAIS network which investigated the process of delivering the MAIS network, including alternative delivery procedures. Processes used to establish the MAIS network and issues raised around information sharing and partnership working will be explored.
Results

Part 1: Develop and pilot MAIS Network: Development of Minimum Dataset

Developed and ratified by a multi-agency group of health and criminal justice professionals, a health and risk minimum dataset was developed.

The health and risk details of 31 service user participants were entered onto the MAIS network. All were male, aged between 21-56 years. Twenty-four (77%) were released from prison during the study period. Twenty-five (81%) had a history of multiple suicide attempts. Twenty-seven (87%) participants had a history of violence to others. Fifteen (48%) were subject to Multi Agency Public Protection Arrangements (MAPPA). Of those released from prison during the study period, one (4%) subsequently committed suicide; six (25%) were further detained in police custody; and four (17%) were admitted to mental health in-patient care.

One hundred and eighty eight individuals working in police and criminal justice health services in Merseyside met the inclusion criteria to register as professional users of the MAIS network. Those registered included ninety-six police officers; seven police custody nurses; three forensic medical examiners; eight members of the Criminal Justice Liaison Team; seven members of the prison mental health in-reach team and one member of the prison-based dual diagnosis team.

Users were given ‘read only’ access to the MAIS network and it ran as a live system for eight and a half months. Over this time, nine separate searches by registered users were conducted. The lack of activity on the system was attributed to the fact that only 31 participants were in the network and limited awareness of the network by frontline police officers.

The network was designed to be capable of holding a maximum 30,000 individuals in the database and provide timely response for up to 150 concurrent requests. The MAIS network ran reliably throughout its lifetime. The resistance level of the MAIS network was analysed against several types of security attack.

A qualitative evaluation of the MAIS network was undertaken, focussing on users’ (staff and client) views of the network in terms of acceptability, utility and lessons learnt for a wider roll-out. Discussions surrounding service users’ reasons for participating in the study made it clear that, overall, service users were content to share such information with police officers if it contributed to their safe detention in custody. Professionals should regard service users as active participants in the multi-agency partnerships formed to care for people throughout the offender pathway.
The information held on the MAIS network was regarded as being more informative than that currently available to the police via limited and often inaccurate mental health and suicide risk warning ‘flags’ on the Police National Computer. Issues surrounding the current mental health model and the possibilities of progress being made in relation to multi-agency information-sharing and partnership working were explored.

**Part 2: Examination of how the lessons learnt from the pilot MAIS network can be incorporated into national health and criminal justice policy concerning the care and management of mentally disordered offenders**

Twelve national leading authorities on information sharing across health and criminal justice agencies were approached to take part in a semi-structured interview and eleven agreed; the twelfth nominated a deputy. Participants’ perceptions of the pilot MAIS network and the feasibility of a national roll-out of the system were explored.

Every participant voiced concerns about barriers that impede multi-agency information sharing along the offender pathway and stressed the importance of these issues being addressed if we are to significantly improve collaborative working and the way in which risk information is viewed and shared. Participants stressed that the study was important as it challenged and tested boundaries between criminal justice and health agencies along the offender pathway. Despite the limitations of the research, the majority of participants were supportive of the pilot study.

However, national leads stressed that the MAIS network in its current form could not be implemented nationally; due to current financial constraints, it would not be possible to develop a stand-alone system and thus, its concepts would have to be integrated into another health or criminal justice agency IT system currently in use.

**Part 3: Conduct a process evaluation of the development of the MAIS network, and the issues raised around information sharing and partnership working.**

It has been long recognised that multi-agency information-sharing within the criminal justice system is problematic; however little practical guidance is available on how to motivate and encourage healthcare and criminal justice agencies to work together effectively. This is in spite of multi-agency partnerships being universally viewed as essential for the delivery of ‘joined up’ care across the offender pathway. To complete this work, we considered all agencies that would have access to the MAIS network effectively as part of a single ‘risk network’, regardless of whether they were employed by healthcare or criminal justice agencies. We remained mindful of the apparently competing tensions and conflict between health and criminal
investigative processes and concentrated on developing a system fit for purpose for all agencies. To that end, a wide range of informants (service users, police and probation services, primary care workers and general practitioners, community, police and prison-based mental health workers) guided the research team on every aspect of the study, ranging from recruitment; what data should be shared on the MAIS network; and best ways of implementing the system.

Changes to the original research protocol were made during the life of this study. Broadly, these related to lower recruitment than predicted and subsequent low use of the network by criminal justice personnel. These factors hampered our ability to conduct an evaluation of costs and full utility and prevented any examination of impact upon clinical decision making or service user outcomes.

However, we do feel that this report positively adds to the field of knowledge in this area. We demonstrated clearly that a viable IT infrastructure to deliver an Internet based multi-agency information sharing system can be built, thus providing proof of concept. We achieved, by cross-organisation consensus, a health and risk minimum dataset sensitive to operational, legal and cultural needs of both health and criminal justice agencies. We demonstrated that organisational boundaries of information exchange can be delineated, managed and audited. Through the execution of this project we have learnt key lessons to guide us in determining a fruitful forward direction for this work, based on both our own experiences in conducting the work and our interactions with service users and criminal justice system and health professionals.

Recommendations

**Implications for Management**

- Direct access to certain health and risk information by criminal justice staff should be formally accepted as NHS national offender health policy.

- Service managers and national leads should embed local/regional multi-agency partnership developments within an ethos of them forming the bedrock of a single ‘team’ which exists to meet the needs of those in contact with the criminal justice system using a holistic, joined-up approach.
• Connecting for Health (CfH) should refer to the findings of this study in relation to their examination of future developments in IT systems supporting offender health delivery with the aim of assisting frontline staff to best ensure safer detention and inform health and criminal decision making processes.

• The CfH minimum dataset, informed by the MAIS template and incorporating the additional CJS risk and offence data, should be embedded into the widest available clinical IT system operational across all criminal justice settings, including police, prison and probation services.

• Criminal justice staff should be allowed to be registered users of any clinical IT system which contains the health and risk MAIS dataset, granted ‘read-only’ access to role-specific items; items to be agreed by the consensus methods used in this study.

• Criminal justice staff should be granted ‘write privileges’ to populate the criminal justice risk and offence data items.

**Implications for Practice**

• The minimum offender health dataset should include data items regarding risk and past offences which will be populated from criminal justice agency information systems.

**Implications for Service Development**

• Criminal justice and health agencies at national, regional and local levels, should develop a sense of shared responsibility and ownership of their role in addressing the health and social care needs of those in contact with the criminal justice system.

• Service users and carers should be regarded as integral members of multi-agency partnerships, increasing patient choice, autonomy and responsibility.

**Implications for Research**

• Future research should examine best practice around rolling out the MAIS network in terms of embedding the initiative into frontline daily practice, including a review of cross-organisational training methods and working practices.

• Future research should focus on refining inclusion/exclusion criteria for the clients with mental health problem whose information could be most fruitfully included on the MAIS network.
• Future research should identify information available from non-health services which should be included within the MAIS dataset, addressing the issue of “write” privileges for criminal justice personnel.

• NHS research ethics, and particularly governance, procedures should be streamlined, with all NHS organisations ‘signing up’ to standardised procedures and reasonable timescales for the processing of applications.

• The utility and reliability of routine NHS mental health data as part of the research process should be investigated.
The Report

1 Introduction

Over the last quarter of a century, mental health services in the United Kingdom have changed from being largely delivered in institutional settings to providing care and support for people in their own homes. This has led to increased patient choice and improved quality of life for people who would have previously been subject to long-term, restrictive detention in frequently austere in-patient settings. However, the policy of community care has also been criticised as having been pursued at high personal and social cost for some patients who were ill-prepared and inadequately supported to successfully make the transition between hospital and society².

In particular, media attention has focused disproportionally upon a small number of violent crimes perpetrated by mentally ill people living in the community. The actual extent of homicides by people in contact with mental health services is recorded by the National Confidential Inquiry into Suicide and Homicide by People with Mental Illness (NCISH). In its most recent report, NCISH identified 925 homicides between 1997 and 2006 committed by people known to be mentally ill at the time of the offence. Of those, 589 had been in contact with mental health services in the 12 months prior to the offence. In comparison, over the same period there were 5,806 homicides in the general population³.

One of the early, highly publicised, cases of homicide by a person with mental illness was the 1992 murder of a stranger by Christopher Clunis, a man diagnosed with paranoid schizophrenia. The subsequent inquiry⁴ criticised the lack of communication between the different agencies involved in his care. Difficulties surrounding confidentiality were also highlighted, whereby risk information had not been adequately shared between professionals. The inquiry recommended a national supervision register be developed, the purpose of which would be to provide an accessible record of information about service users with a history of violence, homelessness or poor response to treatment. In response to the Clunis inquiry, the Department of Health⁵ produced guidelines for inter-agency working which acknowledged that, without appropriate arrangements for multi-agency information sharing, joint working was difficult or impossible.

In 1994, it became mandatory to hold an inquiry following a homicide by a patient under the current or recent care of mental health services, to gain an insight into treatment received prior, and leading up, to the homicide.
The aim was to identify individual and system failures and to make recommendations to help prevent such tragedies reoccurring. An examination of a selection of such inquiries highlights a number of fundamental and repeated themes.

Stephen Allum, then aged 37 years old, admitted the manslaughter of his wife in October 1997 and was made the subject of a hospital order with restrictions upon any future discharge. The subsequent inquiry highlighted the importance of the police sharing information with health professionals to ensure public protection. The inquiry found that important information about an assault prior to the homicide was not sought by, or communicated to, those responsible for assessing, treating and caring for Mr. Allum, both in hospital and in the community. The report’s authors argued that it was not good practice to make decisions about the need for compulsory detention under mental health legislation without such information, especially when it was readily available. The inquiry recommended that health professionals conducting risk assessments upon hospital admission and prior to discharge should have detailed information about any suspected past violence. The inquiry also recommended the development of protocols to address issues of confidentiality and sharing of information between agencies.

As well as highlighting failings of inter and intra-agency information sharing, some inquiries have also made recommendations on how such issues could be addressed. For example, in March 1994, Alan Boland, a man with a history of depression and alcoholism, strangled and repeatedly hit his 71 year old mother with a hammer. On 25th July, 1994, he hanged himself in his prison cell whilst awaiting trial. The inquiry highlighted the need for the amalgamation of separate sets of case notes into one core record. Similarly, the inquiry into the case of Barry Halewood who killed his mother in October 1998, recommended that health information technology (IT) systems should be capable of identifying which community mental health team (CMHT) was caring for a service user. The inquiry team also recommended that discharge information should be made available immediately to general practitioners (GPs).

It is of continued concern that, after 16 years of mandatory homicide inquiries, they continue to identify common problems around a lack of training for professionals surrounding confidentiality and disclosure issues; a lack of effective information sharing within and between agencies involved in a person’s care; ineffective IT systems; and inadequate information management. These inquiries demonstrate that issues around information sharing are pertinent to all health and criminal justice agencies. However, these concerns have not yet been fully resolved. Criticisms around a lack of effective information sharing are not limited to homicide inquiries.
For example, the Police Complaints Authority (PCA) identified that, of 153 deaths in police custody between 1998 and 2003, over half had prior indications of mental health problems but that information was not always available at the point of detention\(^\text{13}\).

Transition between services can be a time of very high risk, especially if there is a lack of continuity of care and poor information sharing. Studies have shown that the immediate post-discharge period from mental health in-patient care is associated with a significant increase in the risk of suicide, up to 50 times that expected in the general population\(^{14-16}\). Similarly, release from prison has also been shown to be associated with a range of negative outcomes, including increased suicide risk. Pratt et al\(^{17}\) linked the NCISH database of suicides to a Home Office database recording all releases from prison to identify all suicides within 1 year of release from prison in England and Wales over a three year period. A total of 382 suicides occurred within 1 year of release from prison within a cohort of 244,988 individuals. Seventy-nine (21%) suicides occurred within the first 28 days after release. In all age groups, suicide rates were higher in recently released prisoners than in the general population. The overall age standardised mortality ratio for recently released prisoners was 8.3 (95% CI: 7.5–9.3) for men and 35.8 (95% CI: 25.4–50.2) for women, demonstrating that recently released prisoners are at a much greater risk of suicide than the general population, especially in the first few weeks after release.

A recent study followed up recently released prisoners to establish the proportion that went on to make contact with CMHTs upon discharge\(^{18}\). A total of 137 participants with severe and enduring mental illness (SMI)\(^1\) were recruited from prison mental health in-reach team caseloads. At six-month follow-up, 53 (39%) had been released. Of these, there was evidence of communication between prison-based healthcare services and a CMHT in 20 (37%) cases. Only four (20%) prisoners made contact with the CMHT within one month of release. This study, coupled with the findings of Pratt and colleagues, highlights a fundamental, potentially fatal flaw in current prison discharge arrangements.

1.1 The Legislative Framework

There is a complex legal framework within which the appropriate and safe sharing of personal information operates, addressing issues surrounding

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\(^1\) There is debate over the definition of SMI. For the purpose of this study SMI is defined as those with diagnoses of major depressive disorder, hypomania, bipolar disorder and/or any form of psychosis including schizophrenia, schizoaffective disorder and any other non-affective, non-organic psychosis.

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public interest and protection versus the privacy rights of an individual. The Data Protection Act\textsuperscript{19} and the Human Rights Act\textsuperscript{20} stipulate conditions that must be met for any sharing of confidential information to be lawful.

1.1.1 The Data Protection Act

Before the Data Protection Act (DPA)\textsuperscript{19} was brought into law, the protection of personal information was governed by English common law. Under English common law, individuals can expect information to be protected that has the necessary quality of confidence about it\textsuperscript{21}. This would apply to information given under a confidentiality contract or to a doctor, social worker or lawyer, for example (\textit{ibid}).

The DPA is the main piece of UK legislation governing data sharing\textsuperscript{12}. The DPA primarily transposes a European Union Directive (EU Data Protection Directive 95/46EC) and requires that any processing of personal data must be undertaken fairly and lawfully and must meet at least one of a number of specified conditions, including:

- The data subject has given their consent to processing;
- The processing is necessary (a) for the performance of a contract to which the data subject is a party, or (b) for the taking of steps at the request of the data subject with a view to entering into a contract;
- The processing is necessary for compliance with any legal obligation to which the data controller is subject, other than an obligation imposed by contract;
- The processing is necessary in order to protect the vital interests of the data subject;
- The processing is necessary (a) for the administration of justice, (b) for the exercise of any functions conferred on any person by or under any enactment, (c) for the exercise of any functions of the Crown, a Minister of the Crown or a government department, or (d) for the exercise of any other functions of a public nature exercised in the public interest by any person;
- The processing is necessary for the purposes of legitimate interests pursued by the data controller or by the third party or parties to whom the data are disclosed, except where the processing is unwarranted in any particular case by reason of prejudice to the rights and freedoms or legitimate interests of the data subject; and/or
• The Secretary of State may, by order, specify particular circumstances in which this condition is, or is not, to be taken to be satisfied.

The DPA regulates the collection, use, distribution, retention and destruction of personal data. Personal data are defined as any data relating to a living person who could be identified by it, for example, name, address and date of birth. The Act provides more stringent and specific guidelines regarding the processing of ‘sensitive personal data.’

The DPA was developed around the earlier EU Directive’s principles of good practice for the handling of personal information. The three relevant principles in the context of information sharing are that the processing of personal information is necessary; that the information processed is relevant and not excessive; and that the information is securely kept. The second data protection principle adds an additional safeguard, prohibiting the re-use of information if not compatible with the original purpose. The principles are intended to provide a neutral framework that neither inhibits nor promotes data sharing. With the advancement of technology and increasing expectations of government agencies to share personal information, it has been questioned whether the current approach to the regulation of data protection is now showing signs of age (ibid). In an attempt to examine this issue, the UK Information Commissioner commissioned RAND Europe to conduct a review of EU data protection law. The review identified a number of strengths and weaknesses with the EU Directive. The main strengths were that the Directive serves as a reference for good practice; harmonises data protection; consists of principles which permit flexibility; is technology neutral; and has improved awareness of data protection concerns. The main weaknesses identified were that the link between the concept of personal data and real privacy risks are unclear; measures aimed at providing transparency of data processing through better information and notification are inconsistent and ineffective; it does not provide adequate guidance on data transfer to third countries; and definitions of entities involved in processing and managing personal data are simplistic and static.

1.1.2 The Human Rights Act

The Human Rights Act embodied into UK law rights contained in the European Convention of Human Rights, making it unlawful for a public body to act in a way incompatible with these rights. Article 8 within The Human Rights Act has implications for the sharing of confidential information and the balance between protecting the public and maintaining confidentiality, as it provides every individual with the right to respect for their private and family life, their home and correspondence. Disclosure of confidential...
information to other agencies must satisfy the DPA conditions to comply with the terms of Article 8.

1.2 Reviews of Data Sharing

Evidence suggests that one of the major barriers for multi-agency information sharing is the lack of clarity and understanding of relevant legislation. With particular relevance to the current work, a number of key reports have been published, highlighting difficulties and concerns faced specifically by agencies responsible for mentally disordered offenders.

The Data Sharing Review\(^2\) focused primarily on issues which create anxiety and uncertainty surrounding the sharing of personal information between agencies. The review also considered changes to data protection laws and practice which might address current difficulties, identifying five core issues associated with data sharing:

- **Proportionality**, covering when is it fair to use or share data;
- **Consent**, including the degree to which people should be able to exercise choice and control over information about themselves;
- **Legal ambiguity**, addressing uncertainty surrounding the legal framework to sharing personal information;
- **Guidance**, stating the need for clear, non-conflicting information to guide decisions around information sharing; and
- **Training**, acknowledging that most data breaches and improper uses of personal information result from human error.

The Review of Criminality Information\(^1\) focused on the recording and sharing of criminality information for the purpose of public protection. The review was informed by a number of other key publications, notably The Independent Inquiry arising from the Soham Murders\(^3\); The Review of Policing\(^4\) and The Data Sharing Review\(^2\).

The Magee review stressed the importance of understanding why specific data needed to be recorded and the clear communication of that understanding to all levels within an organisation. Magee noted that organisations had responsibilities and accountabilities specific to their remit, but stressed that public protection may require them to collaborate with others, engaging in work not necessarily part of their direct accountability. Magee proposed a governance framework should be implemented to cover all criminality information to ensure proper safeguards were in place, with clear accountability. He suggested that information sharing would take place more effectively if all organisations involved in public protection were considered to be part of an overall public protection network, rather than as
discrete organisations. The review also stressed that there was a need for a change in focus regarding the way agencies perceived their criminality data, suggesting that it might be more constructive if all were to perceive the information they collated as public protection data. Magee\textsuperscript{11} (p14) stressed that, to be effective, such a network

‘depends substantially upon having the right standards for communication, the overall network architecture, the security and access standards applied at every point in the network and the level of investment in data accuracy and storage.’

The review also supported the view that a simpler legal framework governing data sharing was necessary, as noted in \textit{The Data Sharing Review}\textsuperscript{11}. Whilst Magee\textsuperscript{11} emphasised the importance of data sharing, he cautioned that it was a fundamental responsibility of all public services to ensure measures were in place to keep personal information secure. According to Magee\textsuperscript{11} (p23) effective governance required

‘an appropriate balance of ownership, process and control. However, the key requirement is for a governance mechanism that is aligned to the purpose it serves.’

Magee referred to governance as the ‘glue’ holding his recommendations together, stressing that the introduction of both effective governance and effective leadership would significantly improve risk management, information sharing and the level of support received by frontline staff.

The White Paper, \textit{Reforming the Mental Health Act}\textsuperscript{25} acknowledged that there was reluctance of health services to share information with criminal justice agencies. However, it also recognised that poor information sharing among health professionals often stems from fear of breaching professional codes of practice and the possibility of litigation for such violations. The White Paper stated that improved public protection relied on the effective co-operation of the various statutory agencies. The Criminal Justice and Court Services Act\textsuperscript{26} imposed a statutory duty on police and probation services to establish arrangements for assessing and managing the risks posed by sexual and violent dangerous offenders. In respect of those who are mentally disordered, the Mental Health Act\textsuperscript{27} built on this by introducing a duty covering the disclosure of information about patients suffering from mental disorder between health and social services agencies and other concerned bodies, for example housing or criminal justice agencies. The Act also introduced new arrangements for the provision of information to victims of mentally disordered offenders who have committed serious violent or sexual offences and who have been given a care and treatment order, rather than a prison sentence.
Offenders often have complex and inter-related needs which challenge the interface between the criminal justice, health and social care sectors. The recent publication of Lord Bradley’s Review of People with Mental Health Problems or Learning Disabilities in the Criminal Justice System and the national offender health strategy, Improving Health, Supporting Justice highlighted the importance of information sharing between health and criminal justice agencies. To better ensure that the right treatment is given at the right time, services must identify a person’s health and social care needs as early as possible. Prevention and early intervention, coupled with system reform to deliver better information sharing and close working between criminal justice agencies and the NHS, form the over-arching theme of both publications. One of the main objectives of national strategy for offender health is to support and enhance the integration of services by improving partnership working between criminal justice, health and social care organisations at all levels, enabling effective and appropriate health, social care and criminal justice outcomes at every stage in the criminal justice process.
1.3 Ethics of Partnerships

Multi-agency working brings with it ethical conflicts around information sharing that are not based solely on individual clinician/service user relationships; rather they are more complex, with different disciplines having differing treatment philosophies\(^{30}\). Spratley and Pietroni\(^{31}\) echoed this idea, noting successful multi-agency information sharing requires a relaxation of professional hierarchies.

Barriers to information sharing are often cultural and institutional and frequently result in professional practices which are risk averse\(^{12}\). A change in attitudes and values as well as behaviour is required to address the anti-sharing culture\(^{11-12,32}\). To facilitate and legitimise such change requires robust leadership, changing the cultural attitudes of each institution to develop collaborative working and modify ways in which personal data are viewed and shared within, and between, organisations\(^{11}\). It is suggested that this requires a dramatic mind-shift and culture change for all agencies, and the resultant conflict and uncertainty provoked should not be underestimated.

Police work has increased and diversified over the past 25 years, for example, helping to manage offenders in the community would once not have been considered to be ‘police work’\(^{24}\). Public expectations have grown and policy priorities multiplied. Many of the extended roles require new skills and different ways of working. For example, in relation to the mentally ill, evidence suggests that, since the move to community care practices, police work is now considered to have a ‘social work’ function, resulting in the police being more likely to come into contact with those suffering from mental illness, homelessness, drug and alcohol dependency\(^{33-34}\). Arguably, adopting this approach could help early identification and diversion of mentally disordered offenders from the CJS in cases where no public interest would be served by their prosecution. This is a view supported by Lord Bradley in his independent review of the diversion of people with mental health problems or learning difficulties in the CJS\(^{28}\).

Whilst it is acknowledged that police services have an important role in an integrated approach to offender management\(^{35}\), the Association of Chief Police Officers\(^{38}\) has voiced concern regarding the lack of clarity about the specific roles of police officers. The Independent Police Complaints Commission (IPCC) recently identified that twice as many people were held in police custody as a place of safety under Section 136 of The Mental Health Act\(^{37}\), than were detained in hospital\(^{38}\). This highlights the blurring of boundaries between police services and healthcare providers, a blurring apparently embraced by the recent government’s offender health strategy whereby the police service are considered to be an early gateway to health and social care for people in contact with the CJS\(^{29}\).
In work carried out previously by the research team\textsuperscript{39-40} health and criminal justice personnel were asked to complete a questionnaire about sharing service user information between health and criminal justice agencies. There were high levels of agreement within criminal justice agencies as to what information would be useful to them, but a clear mismatch between what service user information they felt they needed and what was actually received from health professionals. On the whole, prison-based staff appeared to routinely receive more information than police, but still only in a minority of instances when it was regarded as potentially useful to managing an individual. In comparison, health service professionals received most of the information they needed from criminal justice agencies. Respondents stated that service user information received from other agencies was generally not detailed enough for them to do their job; there were difficulties in sharing service user information because of incompatible computer systems; and their understanding of data protection/confidentiality requirements prevented them from sharing information with other agencies.
1.4 IT Systems

Barriers to information sharing are often cultural and institutional but there can also be difficulties due to infrastructure, for example, incompatible IT systems\(^ {39-41}\). Previous data sharing reviews have also made recommendations to review IT systems to address duplications, interoperability issues and overlaps of information\(^ {11-12}\).

1.4.1 Health IT Systems and Electronic Patient Records (EPRs)

Innovations in computer technology, including increases in processing power, disk storage and networks have opened up opportunities for sharing data electronically in almost every sector of our lives, including health. The management of health information has shifted from traditional paper-based management practices to more efficient electronic management with Electronic Patient Records (EPRs). The report, *The Electronic Patient Record*\(^ {42} (p3)\) stated

‘Electronic patient record (EPR) systems have the potential to bring huge benefits to patients and are being implemented in health systems across the developed world. Storing and sharing health information electronically can speed up clinical communication, reduce the number of errors, and assist doctors in diagnosis and treatment. Patients can have more control of their own healthcare. Electronic data also have vast potential to improve the quality of healthcare audit and research.’

Efforts on piloting the use of EPRs nationally can be traced back to 2002 when an EPR system was implemented for Leicestershire’s therapists working in the community\(^ {43}\). Healthcare staff in England were allowed to access EPRs in 2005\(^ {44}\) and a series of pilot projects were analysed by Boaden and Joyce\(^ {45}\). The focus of their analysis centred on the inherent potential for error and any resultant impact on patient safety, considering the context of the record, the content of the record and the process of change from paper-based or piecemeal electronic health records to integrated electronic health records.

In March 2007, NHS Connecting for Health (CfH) launched the early adopter phase of the Summary Care Record (SCR), an electronic record holding essential clinical information about patients\(^ {46}\). The SCR was designed to support the delivery of care in emergency and urgent situations. In May 2007, the first live pilot of the EPR funded by the UK government was launched. Since then, many case studies and pilot studies involving both health professionals as well as service users have been conducted and published\(^ {47}\). For example, Carlisle\(^ {48}\) conducted a trial of an EPR system that allowed GPs in Kent live access to EPRs. A survey of GPs taking part in the trial found that an overwhelming majority would be interested in mobile
access to patient records. The system was said to be a success, except for the concerns over confidentiality and security.

A further example relates to the piloting and study of an Electronic Document Management (EDM) system used by the ophthalmology and disablement services departments in the Portsmouth Hospitals NHS Trust\(^9\). It revealed that a number of challenging issues remain to be resolved including how to tidy up, sort and index historical records to make them as usable as paper records for clinicians in high-volume services and how to balance affordable levels of file preparation to achieve acceptable clinical utility. In the study by Moore & Stonham\(^50\), how the EPR system could support and benefit frontline nurses was examined from a practical perspective. The issues that need to be considered when introducing and using electronic systems were examined and discussed, including issues such as access, information governance and information confidentiality.

In parallel with these developments, there are mounting concerns about threats to patients’ privacy and security of health records\(^50\)–\(^51\). For example, as noted by Middlehurst\(^51\) (p251)

‘a good EPR system should contain robust security features to protect information and to make staff more accountable.’

The security issues in this context include the security of systems in which patients’ data are stored and managed. Secondly, when serving an access request via a communication network, identification, remote electronic authentication and authorisation of access requesters (i.e. users) should be performed properly, and the data access should be logged, audited and analysed to ensure accountability. Furthermore, when data are in transit, then confidentiality of the data should be protected.

Until recently, most prison health information was recorded in paper filing systems rather than electronically\(^41\). The DH is currently attempting to address the limitations of prison health IT systems, and has recently set up a Prison Health IT (PHIT) programme within the wider NHS CfH IT development programme. Initial developments in prison health IT were generally on an ad hoc basis, with individual prisons adopting different systems, commonly those used by the local primary care trust with provider-responsibility for prison-based services. It has now been agreed centrally by the Department of Health that a single platform, SystmOne, will be adopted by all prisons. SystmOne is the most commonly used platform in community primary care settings and data held within prison systems will, in time, be accessible by community based GPs, thus aiding continuity of care. However establishing SystmOne will not solve all problems as other health providers within the prisons, such as mental health trusts providing
in-reach services² routinely record information on their trust-specific IT systems, thus a prisoner-patient’s health information will still not be stored in a single, transferable record.

1.4.2 Criminal Justice IT Systems

Frontline CJS agencies are managed by two distinct government organisations. The Home Office has responsibility for all Police Services and the Ministry of Justice holds responsibility for the National Offender Management Service (NOMS), the umbrella organisation consisting HM Prison and Probation Services.

National Offender Management Service (NOMS) IT Systems

In June 2004, a national NOMS IT project (C-NOMIS) was initiated, with the goal of providing a single offender management IT system across prison and probation services by January 2008. The original aim of C-NOMIS was to consolidate more than 200 disparate prison and probation service databases to provide a single, accurate profile of an offender. For the first time, C-NOMIS would result in each offender having a unique identification number. This number would stay with them for life, with the aim of capturing individual data once only, reducing duplication of records. It was envisaged that, once fully implemented nationally, more than 80,000 workers within the criminal justice community, including courts, prison and probation services, police services and other partner organisations, would be able to share up-to-date information about offenders. It has been suggested that access to such information would enable agencies to monitor and manage offenders more effectively, increase efficiency and reduce risk.

The C-NOMIS initiative proved problematic and, in March 2009, the National Audit Office published a report outlining a number of significant criticisms of the project⁵². In relation to problems over delays and increases in overall costs, the NAO noted failings by senior management who had provided insufficient levels of oversight; a failure by NOMS to provide the necessary structures and resources needed for the completion of the project; and poor anticipation of the overall technical complexity of the project. The NAO noted a single offender database was realisable technically, but that NOMS did not adequately explore other potential solutions and underestimated the cost of customising the software it had already selected for HM Prison Service. This package appeared to provide a reasonable fit with prison requirements but met, in full, only 29 per cent of Probation Service requirements. Subsequently, the Government has scaled back the project

² Prison mental health in-reach is a service to primarily benefit prisoners with SMI through improvements in care, both in prison and upon discharge. The service was designed to provide an equivalent service to Community Mental Health Teams (CMHTs)

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and a decision has been made to only implement C-NOMIS into prison establishments (now called Prison-NOMIS or P-NOMIS), with the Probation Service continuing to use their existing system, pending the replacement of obsolete software and hardware.

P-NOMIS is in the process of replacing two Prison service IT systems; the Local Inmate Database (LIDS) and the Inmate Information System (IIS). LIDS, as its name implies, collates information locally about each prison's population, such as details about sentences and movements in and out of the establishment. When an prisoner transfers to another prison, within England and Wales, the LIDS record is automatically transferred to the receiving prison. IIS is a national database and collates information about the whole prison population. This is achieved by the automatic transfer and merging of information documented in every establishment’s LIDS database. Only authorised prison staff has access to this information. P-NOMIS was to be rolled-out into prisons from spring 2009 with a completion (excluding private prisons) by summer 2010. As the time of this report (January 2011) P-NOMIS has not been established in all prisons.

**Police IT Systems**

Within police custody, health information is collated to identify and manage risk whilst a detainee is in, or being transferred from, custody. Only immediate health concerns are dealt with usually. Primarily, clinical attention is given to issues relating to welfare, forensic examination and mental or physical health issues. Some police services (e.g. Merseyside Constabulary) have also developed local suicide and self-harm warning forms to record information about detainees believed to be at risk; however, the use of such forms is not universal across police services nationally.

There is a huge variation in manual and electronic systems across different police services. There are no standardised computerised systems to record and collect data. Some custody and case preparation systems are not completely electronic and paper copies of custody records are retained in a paper filing system. Mental health information about offenders which relates to offending behaviour is often documented on local, rather than national, intelligence systems, usually only accessible within a single police service, and not across police organisational boundaries. Such a huge variation in the information collated and stored means that there is

\[ \textit{'no simple mechanism for retrieving mental health data from custody records across the country'} \]

It is possible that national standardised documentation might partially address this problem. Arguably, collating health and risk statistics from...
custody suites nationally might influence future policy development and service provision within policy custody suites.

The Police National Computer (PNC) is an operational policing database, accessible by all police services and collates a variety of information, including:

- Offence dates;
- Crime location;
- Co-offender details;
- Cautions;
- Impending prosecutions; and
- A detainee’s potential risk of self-harm.

Information released by the National Policing Improvement Agency (NPIA) suggests that the Police National Database (PND) will start to replace the PNC by 2010. Implementation of the PND would result in the amalgamation of several police databases which will be made available centrally to all services. This should enable officers to access national intelligence, custody and crime-recording systems on locally maintained computer systems.

The National Strategy for Police Information Systems (NSPIS) was introduced to ensure custody staff recorded prisoners’ personal and arrest details more efficiently. It produces an electronic custody record and detention log. NSPIS provides information to various agencies within the CJS, helps to reduce the duplication of data and informs other databases of relevant information; for example, there is an electronic link between NSPIS and the PNC which updates court appearance dates and bail details on the PNC. Once a detainee has been charged, data documented in NSPIS Custody are transferred to the NSPIS Case Preparation application, to allow the preparation of a case file. This file is then sent to the Crown Prosecution Service (CPS). NSPIS has also been designed to work effectively with magistrates’ courts’ IT systems.

The Violent and Sex Offender Register (VISOR) is a national database for registering, risk assessing and managing sexual and violent offenders and those who, although having not necessarily committed an offence, are thought to pose a risk of doing so. It is managed by the Police Information Technology Organisation (PITO) and connects to the PNC. Police, Probation and Prison services can access this information. It is also designed to inform Multi-Agency Public Protection Arrangements (MAPPA).23

The Criminal Justice and Court Services Act (2000) introduced a duty of joint working for all police and probation areas in England and Wales. The
‘joint-working’ duty relates to protecting the public from violent and sexual offenders who pose a risk of serious harm. To enable these duties to be accomplished, the Act stated that MAPPA should be introduced. The Criminal Justice Act (2003) included prisons as a ‘responsible authority’ under MAPPA, and so reinforced the interaction between the three criminal justice agencies dealing with dangerous offenders. The legislation requires a three stage process for managing dangerous offenders. First, the three CJS responsible agencies, in conjunction with partner organisations such as health and social services, are required to identify three categories of offender living in their area:

- Category 1: Registered Sex Offenders;
- Category 2: All offenders who have received a custodial sentence of 12 months or more for a violent offence, whilst they remain under probation supervision in the community; and
- Category 3: Anyone else who poses a "risk of serious harm to the public" who has received a conviction and whose risk would be better managed in a multi-agency setting.

The legislation requires that the agencies conduct a formal risk assessment of each offender and allocate them to a particular tier of multi-agency management:

- Level 1: Offenders can be managed by one agency and do not require a full multi-agency meeting to take place. Their management tends to involve police and probation services. Those listed on the sex offender register usually fall in this category and the police are required to monitor their movements.
- Level 2: Offenders considered to be a higher risk where there is concern that they are about to commit further harm. An inter-agency MAPPA meeting is conducted to discuss the management of each of these offenders. This involves all agencies in MAPPA, such as mental health and housing services.
- Level 3: Offenders posing the highest risk are referred to Multi-Agency Public Protection Panels (MAPPP). MAPPPs are expected to handle only very high-risk cases; primarily, cases are identified from those who are discharged from either prison or mental health hospital. In such cases, multi-agency meetings of senior staff share information, identify risk, develop individualised plans to mitigate risk for the indefinite future, monitor the person and anticipate how life changes may dynamically affect risk. These cases may require considerable resources, for example, a high level of policing or electronic monitoring. Acquiring suitable accommodation for these
cases is considered to be an important aspect of the MAPPPs management strategy.

1.5 Summary

The policy of community mental health care heralded greater freedoms for many people who had, or otherwise would have, spent long periods detained in old-fashioned, often Spartan mental health hospitals. However, the initiative has been criticised as not providing enough support for some people ill-prepared to live safely and independently and, as a result, there has been much media attention and public concern over a small number of violent crimes perpetrated by some mentally ill people living in the community.

It is mandatory to hold an inquiry following a homicide by a patient under the current or recent care of mental health services. Common themes from the inquiries include a lack of training for professionals surrounding confidentiality and disclosure issues; a lack of effective information-sharing within and between different agencies involved in a person’s care; ineffective IT systems; and inadequate information management. The consequence of this is that vital risk information is frequently not shared between organisations.

Sharing information is covered by a complex legal framework, influenced by different professional cultures and disparate interpretations of information sharing requirements. The recent publication of Lord Bradley’s Review of People with Mental Health Problems or Learning Disabilities in the Criminal Justice System\textsuperscript{28} and Improving Health, Supporting Justice\textsuperscript{29} highlighted that government is focused on partnership working and the importance of ensuring information sharing across organisations to enable effective and appropriate health, social care and criminal justice outcomes.

A current major barrier to multi-agency working is outdated and incompatible IT systems. The failed introduction of C-NOMIS, due to both escalating costs and a failure to address the needs of the different criminal justice agencies affected highlighted that rolling out a brand new IT system for all agencies, with a ‘one size fits all’ approach may not be feasible. What is necessary is the set up of a non-denominational system, owned by everyone, that can be accessed easily via the Internet, where consultation has taken place as to what information is required by different agencies.
2 Aims and Objectives

2.1 Aim

This study aims to establish a web-based eWorkbench service. This will provide browser-based fine-grain controlled access to the health records of mentally ill prisoners upon their release from the Multi-Agency Information Sharing (MAIS) network prison. The study will evaluate the MAIS network and examine the feasibility of expansion to national roll-out.

2.2 Objectives

1. To implement a web-based eWorkbench service providing browser-based fine-grain controlled access to data stored within a prison IT system;

2. To implement proper Public Key Infrastructure (PKI) credential storage facilities at the eWorkbench and service provider sites. These site cryptographic credentials will be used to achieve data confidentiality and mutual entity authentication among a set of interoperable distributed components, namely the eWorkbench and the remote service providers;

3. To evaluate the implementation with regard to user acceptability, usability, costs, efficiency, efficacy, impact on clinical decision making and levels of engagement;

4. To identify gaps in existing service delivery procedures and processes in the use of this new e-health service by the community; and

5. To examine the feasibility of expanding the network to include service users and service providers nationally.
3 Method

There are three parts to this study; firstly, the development and pilot of the MAIS network (objectives 1, 2 and 3); secondly, an examination of how the MAIS network could be incorporated into national health and criminal justice policy (objective 5); and thirdly, a process evaluation of the development of the MAIS network (objectives 3 and 4).

The fieldwork for this study was conducted in HMP Liverpool and the surrounding community health and criminal justice agencies. Ethical approval for the research was obtained from the Staffordshire NHS Ethics Committee (09/H1203/36). To access HMP Liverpool, approval was obtained from the NOMS National Research Committee, supplemented by local approval from the prison’s governing governor. Research governance approval was obtained from relevant NHS Primary Care and Mental Health Trusts.

3.1 Part 1: Develop and pilot MAIS Network

3.1.1 Establishing an Operational Steering Committee

An operational steering committee was established to support the research throughout the life of the study, providing expert input to study procedures and outputs, day-to-day liaison with professional agencies and the facilitation of practical aspects of fieldwork. The committee consisted of a range of health and criminal justice professionals co-opted from health, police, prison and probation services in the geographical area in which the MAIS network would operate. Staff from different levels of each organisation’s hierarchy were committee members. In addition, non-operational staff, for example the mental health trust’s information governance officer, were included. A full list of the roles of steering committee members can be found in Appendix 1.

The committee had a number of aims;

- To evaluate the likely practical and managerial implications of the research for each organisation, and determine the appropriate level and type of information required to effectively undertake their role;
- To develop and agree a mental health and risk minimum dataset, providing the basis for appropriate and proportional sharing information within multi-agency partnership working;
- To give insight into each agency’s specific facilitators and barriers around information sharing; and
3.1.2 Development of the MAIS Network Minimum Dataset

To establish the MAIS network, the research team first had to establish what risk information about recently released prisoners community mental health and criminal justice agencies needed, and which agencies could have access to which information. This was based on previous work carried out by the research team\textsuperscript{39-40} where health and criminal justice personnel were asked to complete a questionnaire about sharing service user information. A copy of the questionnaire is included (Appendix 2). Police respondents were asked how often they needed certain types of service user information from NHS professionals and how often this was received. There were high levels of agreement as to what information would be useful; for example the vast majority of the police respondents stated that they always or often needed the name of a service user’s mental health care co-ordinator (87%; n=48) and details of current Mental Health Act legal status (82%; n=45). The results illustrated a clear mismatch between what service user information police officers needed and what they actually received. Ninety-four percent (n=46) of respondents stated that information on current medication was rarely or never provided but was considered necessary by 72% (n=39). The results indicated a general poverty in the information received by the police.

Similar to the police, prison personnel displayed high levels of agreement as to what information would be useful from external agencies. The majority of respondents stated that they always or often needed a range of service user information from NHS professionals; for example a service user’s mental health history was considered essential for most respondents (68%; n=57). As with the police, prison respondents stated that information from health professionals was rarely or never received, in particular the name of a service user’s mental health care co-ordinator (85%, n=58) and physical health history (85%; n=58). However, it did appear that prison personnel generally received more information than the police.

Respondents from the NHS were asked how often they needed information about a service user from criminal justice professionals and how often this was received. NHS respondents stated that they almost always needed service user information from the police, for example, 94% (n=87) stated that they required risk information; 90% (n=81) stated that they required details on victims; and 88% (n=73) stated that they needed details of current charges. NHS respondents stated that risk information was received 85% (n=74) of the time, details of victims 78% (n=69) of the time and details of current charges 84% (n=72) of the time. With regards to information needed and received from the Prison Service, the most often
needed were details of service users previous sentences (89%; n=78), this was also the most often received (75%; n=64). The least often received service user information was the name of the personal officer (55%; n=57) and details of any parole reports on current/most recent sentence (56%; n=43); however these were also the items considered least often need (72%; n=63; 73%; n=64 respectively).

This information was augmented by findings and recommendations of previous publications which focussed specifically on the issue of information sharing between health and criminal justice agencies, including: The Data Sharing Review\textsuperscript{12}; The Review of Criminality Information\textsuperscript{11}; Lord Bradley’s Review of People with Mental Health Problems or Learning Disabilities in the Criminal Justice System\textsuperscript{28}; Improving Health, Supporting Justice\textsuperscript{29}; Offender Health and Risk Information: Identifying the Obstacles and Barriers that Impede Data Flow in the Criminal Justice System: Report to the Independent Advisory Panel on Deaths in Custody\textsuperscript{9}; and Data Flows in the Criminal Justice System: Report to the Independent Advisory Panel on Deaths in Custody\textsuperscript{55}.

In addition, study was made of current methods of collating and sharing risk information including reviews of local examples of relevant forms, for example Merseyside Police’s ‘Written Custody Record’, the Prisoner Escort Record (PER) Form and PNC fields and prompts. Together with the research team’s own clinical experience of working in health and criminal justice agencies, a preliminary list of the types of risk information that could be accessed by criminal justice agencies (police) and health agencies (clinicians) and placed onto the MAIS network was developed.

These were then presented to operational steering committee for consensus on:

- which professionals from which organisations should be able to access the MAIS network;
- what type of information should be recorded on the network;
- the level of detail available to different professional groups (clinicians or criminal justice staff);
- the format for each data item (e.g. tick box or more detailed free text option); and
- acceptable and meaningful definitions for potentially contentious categories (e.g. determining the difference between self-harm and suicide attempts in terms of safe management in custody).

Following a number of rounds of consultation and iterations of the MAIS template within the operational steering committee, the draft MAIS
template was distributed to a wider consultation group of 50 frontline practitioners, including prison mental health in-reach teams, doctors working in prison, Forensic Medical Examiners (FMEs), police officers, police custody nurses, mental health diversion workers and forensic psychiatrists, for further review. Professionals who took part in this round of consultation were recruited by virtue of being co-workers of a steering committee member, or through having responded to an email request for involvement sent to the multi-disciplinary membership of the Offender Health Research Network (www.ohrn.nhs.uk). The purpose of the study was outlined and they were asked to consider the appropriateness of:

- the type information we proposed to record onto the MAIS network;
- the level of detail we proposed to make available to authorised criminal justice staff; and
- whether they felt any additional information needed to be added to the dataset.

Following two reminders for responses, 28 replies were received (56%). Comments were received from:

- Prison mental health in-reach teams (n=8);
- Mental health diversion schemes (n=2);
- Forensic Medical Examiners (n=2);
- Police officers (n=6);
- Police custody nurses (n=3);
- Probation officers (n=4);
- Forensic Psychiatrists (n=2); and
- Prison doctor (n=1).

The research team incorporated the comments of the wider consultation group into the template. Where contradictions of opinion existed, the most popular option was adopted. Where suggestions were felt to go beyond the scope of the aim and objectives of the current study, they were excluded. The revised document was presented to the operational steering committee, and a final version of the mental health risk information minimum dataset to be included on the MAIS network agreed. The committee’s final ratified version was submitted to the relevant NHS ethics committee for final ethical approval which was granted without the need for further modification.
3.1.3 Technical Development of the MAIS Network

This section describes the design, implementation and evaluation of the technical architecture and components of the MAIS network. It covers the design of the MAIS architecture, the MAIS components, and the configuration, installation and evaluation of the MAIS network.

The MAIS network is a secure web-based e-Workbench service. It provides browser-based fine-grain controlled accesses to specific data of people with SMI upon their release from HMP Liverpool.

Figure 1 shows the architecture of the MAIS network. From the figure, it can be seen that the e-Workbench has the following architectural components: an E-health database (Eh-DB) that contains a selection of the prisoner’s personal, criminal and health information; a number of E-health authentication services (Eh-AuthNS); an E-health role-based authorisation service (Eh-AuthZS) to ensure that users from different agencies are only able to access the data they are entitled to; an E-health data access service (Eh-DAS) that facilitates the database access and delivers the required information to the requester; and an E-health audit service (Eh-AS) that records all activities related to data access in the MAIS network.

![Figure 1. MAIS Architecture](image-url)
The MAIS access control procedure consists of three key phases: (1) user registration and identity proofing and credential issuance; (2) user (i.e. claimant) authentication and authorisation decision making; and (3) credential renewal, revocation and destruction. The following discusses these phases in detail.

**Phase 1:** The user vetting process is performed by individual agencies. In other words, agencies are responsible for verifying the identities of their users, and once verified, the agencies forward the names, email addresses and professional role of the users, along with the Internet Protocol (IP) addresses of the accessing machines, to the MAIS administrator. The administrator then manually inputs the information into the system. The system then sends automated registration emails to each of the users instructing the users to register themselves and create their MAIS network passwords.

**Phase 2:** Once users are successfully registered and the credentials are successfully issued, the next phase is MAIS access control. The access control process begins with a user authentication process. The Eh-AuthNS employs three authentication services: (1) a password-based authentication service; (2) a Public Key Infrastructure (PKI) certificate-based software/hardware token based authentication service; and (3) an IP address based authentication service. A user can choose between the password-based authentication service and the PKI certificate-based authentication service, but the IP address based authentication is a compulsory service. This means that users can only access data stored in the MAIS network from recognised IP subnets, such as a police custody suite or a clinician’s office. This is a multi-factor authentication approach. In other words, to be successful in an authentication event, the user has to (a) demonstrate knowledge of a correct credential (a password, or a private key) and (b) have access to a trusted machine. Obviously, this additional level of security protection reduces the geographical accessibility of the MAIS network.

Once a user has successfully authenticated, the Eh-AuthZS will grant data access based upon the user’s role. In the pilot system, two roles are specified in the access control policy, as determined by the access control requirement, one is ‘police’ and the other is ‘clinician’. Each role is assigned with a set of access privileges. For example, as shown in the use-case diagram in Figure 2, the ‘clinician’ role can access a prisoner’s ‘prescription detail’ data, but the ‘police’ role cannot. These access policies are used by the authorisation service to make access control decisions at run-time. The decision is executed by Eh-DAS to deliver the requested data to the user making the request. During an access process, Eh-AS logs the access event recording the user’s identification, access time, IP address and activities.
The logged activities include which data of which prisoner are viewed/modified by whom, at what time. Eh-AS ensures accountability in data access and usage.

**Phase 3**: When a user credential reaches its expiration time it should be renewed if the user still requires access to the MAIS network, or otherwise destroyed. A credential should be revoked if it is, or is suspected to be, compromised. These services are performed manually at this stage.

![MAIS System Use Case Diagram](image)

**Figure 2. MAIS Network use case diagram**

**E-health Authentication Service (Eh-AuthNS)**

A form-based username/password authentication method was developed for the MAIS network. The communication channel is Secure Sockets Layer (SSL) protected to ensure the confidentiality of data (including passwords) sent between the user’s browser and the e-Workbench. Users’ credentials are stored in a relational database that resides locally in the School of Computer Science, the University of Manchester.

Three measures are taken to ensure the security of the password-based authentication service. The first is that the stored passwords are hashed. This means that there is neither clear password on the channel, nor clear password stored on the server. This is in addition to the use of SSL protected channels. The second measure is that the MAIS network guides users to choose strong passwords when they register with the system. The
third measure is that we impose a limit on the number of consecutive failed authentication attempts before the username is locked out of the authentication process. This measure reduces the risks of on-line password guessing attacks.

PKI certificate-based authentication is a multi-factor authentication method, meaning it combines two or more factors to achieve authentication. A PKI token could be a cryptographic key stored in an encrypted file on a host computer, called a software token, or a cryptographic key stored in a hardware device (e.g. a smart card), called a hardware token. This software or hardware token is factor 1 – something you have. In the case of the software token, the key is encrypted using a secret derived from a passphrase known only to the user (factor 2: something you know), so the knowledge of the passphrase is required to activate the software token. In the case of the hardware token, typically the device is activated with a Personal Identification Number (PIN) (factor 2: something you know) or some biometric means (factor 2: something you are). Remote authentication is accomplished by proving the possession and control of the key.

The MAIS network is designed to support the use of all these authentication methods; password, PKI software and hardware token based. Owing to usability issues, most users choose to use the password-based authentication method.

IP authentication is a type of location-based authentication method. Location-based authentication is an e-authentication technology that authenticates an individual’s identity by verifying his/her presence at a distinct location. It can be used to determine whether a person is attempting to log in from an approved location, e.g. a user’s office building. If any unauthorised activity is detected, it will facilitate locating the individual responsible for that activity.

With IP address based authentication, a verifier identifies a claimant by checking if the IP address of the claimant’s access machine is on the allowed list defined as part of the verifier’s security policy. IP address authentication requires the confirmation of fixed IP addresses. The method provides a rather low level of authentication assurance. It suffers from IP spoofing, and it relies on the user environment to provide user vetting and identification. It is usually used in circumstances that involve many users but where the sensitivity level of the resource does not require individual user identification. An exemplar use of the authentication method is a university online library service, which grants accesses based upon users’ IP addresses within the campus. In an authentication environment that requires individual user identification and verification, IP authentication can only be used as an auxiliary authentication method in combination with
conventional authentication methods to achieve higher authentication strength. Therefore it is used in conjunction with form-based username/password authentication or PKI-based authentication in the MAIS network.

**E-health Authorisation Service (Eh-Authorisation Service)**

A role based Eh-Authorisation Service was developed for the MAIS network. Role Based Access Control (RBAC) is an authorisation method by which permissions are assigned to roles, and users (or user identities) are assigned to appropriate roles. Roles are created for the various job functions in an organisation and users are assigned to roles based on the responsibilities and/or tasks they are assigned to execute. A user may be granted one, or multiple, roles. Roles can be granted with new permissions as new applications and systems are incorporated, and permissions can be revoked from roles as needed. Figure 3 shows a typical RBAC model.

![Figure 3. The RBAC model](image)

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The Eh-AuthZS uses the RBAC model and has the following definitions and policies:

- **E-health Subject (Eh-S):** A person or automated agent who intends to use MAIS network;

- **E-health Role (Eh-R):** Job function or title which defines an authority level for an E-health subject;

- **E-health Permission (Eh-P):** An approval of a mode of access to a resource;

- **Eh-S to Eh-R Assignment:** Assignment of E-health subjects to E-health roles. The relationship is many-to-many, i.e. one subject can have multiple roles and one role can have multiple subjects; and

- **Eh-P to Eh-R Assignment:** Assignment of E-health permission to E-health roles. The relationship is also many-to-many.

The MAIS network is currently designed to support two types of roles and three permission policies:

- **Eh-R:**
  - Police officer; and
  - Clinician/Nurse.

- **Eh-P:**
  - Resource Access Permission: Read-only;
  - Resource Access Level: Restricted; and

**Eh-S to Eh-R Assignment:**

This is done manually when a new user registers with the system, and is based on the user’s job responsibility and authority level.

**Eh-P to Eh-R Assignment:**

Eh-R_A assigns to Eh-P_A and Eh-P_B.

Eh-R_B assigns to Eh-P_A and Eh-P_C.

By following the policies specified above, the Eh-AuthZS can manage access privileges based on, roles other than individual users. In this way, the access control process is made more scalable, easier to manage and more transparent. New roles can be added to the service depending on the requirements and obsolete roles can be deleted without affecting other
components of the system. When new users join, or old users leaving, the research activities, modifications to the access control policies are minimal.

**E-health Data Access Service (Eh-DAS)**

The Eh-DAS service defines how the MAIS network may access the Eh-DB. It defines protocols and Structured Query Language (SQL) query statements to retrieve data from the Eh-DB. Eh-DAS is independent from other components of the system and performs as a proxy to execute requests on behalf of users. For example, if a user with the ‘police officer’ role sends a request to access a person’s personal and health data, following Eh-AuthZS approval of the request, it sends the request to Eh-DAS. Eh-DAS then executes the request on user’s behalf, and once the request is executed, forwards the requested data to the user. The Eh-DAS service is an internal service and can only be invoked by Eh-AuthZS, eliminating the risk of being misused by malicious attackers.

**E-Health Auditing Service (Eh-AS)**

The E-health auditing service (Eh-AS) is responsible for recording which user from which agency with what role has accessed what data items and when. The auditing service helps to ensure accountability in data access. All attempts (successful or unsuccessful) to access the MAIS network will be logged. For each such attempt, the following data will be recorded: access time, Uniform Resource Identifier (URI) requested and requester’s IP address. For a successful access (i.e. if the requester is an authenticated user), the user’s identification, authentication method used and log in/out times are recorded. All the user’s activities accessing the database (i.e. SQL query to read/modify data in the database) will be logged along with the operation result (successful/fail).

**MAIS Network Configuration and Installation**

The following configuration and installation instructions are given with reference to the Linux/Unix environment. The MAIS network has been developed and tested under Ubuntu Linux 10.04.1. The server specification is Intel® Core™ 2 Duo 2.53GHz, 4GB memory. The system is running within the Glassfish Web Server v2.1. The MAIS network contains two MySQL databases, three Java web applications and an auditing service class file. Table 1 shows MAIS’s software components.
Table 1. MAIS network software components

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>ehealth.sql</td>
<td>Database file</td>
</tr>
<tr>
<td>ehealthUser.sql</td>
<td>Database file</td>
</tr>
<tr>
<td>MAIS.war</td>
<td>Main MAIS Application</td>
</tr>
<tr>
<td>MAIS_Update.war</td>
<td>Standalone MAIS prisoner information creation/update</td>
</tr>
<tr>
<td></td>
<td>application</td>
</tr>
<tr>
<td>userManager.war</td>
<td>Application managing MAIS users password recovery function</td>
</tr>
<tr>
<td>ehealthAuditModule.class</td>
<td>Auditing service class file</td>
</tr>
</tbody>
</table>

Before the installation of the MAIS system, the following pre-requisite components are required:

- **Java IDE 6.0** [Javase]: Essential Java developing and compiling tool;
- **Java Enterprise Edition (Java EE) 5** [Javaee]: Essential Java web application developing and compiling tool;
- **Eclipse Link** [Eclipse]: Open source implementation of Java Persistence API that provides simple and transparent relational database management within the software;
- **Glassfish v2.1** [Glassf]: Java EE application server; and
- **MySQL** [Mysql]: Database version 4.1 or above, or a similar database system.
Assuming the pre-installation of the MySQL database, the next step is to proceed to execute the `ehealth.sql` and `ehealthUser.sql` scripts to create the necessary databases called `ehealth` and `ehealthUser` for the MAIS network. Script can be modified to allow different username/password for the database user or different names for the database, table or column names (other than those used in the script). To execute the script, go to the directory where scripts are located and type the following commands.

```
$ mysql -u root -p < ehealth.sql
Enter password:
$ mysql -u root -p < ehealthUser.sql
Enter password:
```

To verify that databases have been created properly, connect to mysql database:

```
$ mysql -u root -p
Enter password:
```

Type in the administrator’s password and to receive the mysql prompt:

```
mysql>
```

Type in the following command to see the list of databases:

```
mysql> show databases;
```
This then displays:

```
mysql> show databases;
+---------------+
| Database      |
+---------------+
| ehealth       |
| ehealthUser   |
| mysql         |
| test          |
+---------------+
4 rows in set (0.00 sec)
```

Once the Glassfish is successfully installed, two configuration steps are required before installing the MAIS applications. The first one is to configure the e-health auditing service and the second one is to configure the database connections. Both configurations are done via Glassfish’s administration console via http://localhost:4848/, using default username/password pair ‘admin’ and ‘adminadmin’, respectively.

**Configure Eh-AS:** After successful login, use of ‘Configuration’-‘Security’-‘Audit Modules’ adds the ‘ehealthAuditModule.class’ class file. Following Figure 4 will add properties. The file should be placed into the glassfish main library folder, otherwise the Glassfish server will not be able to find and load the file successfully. After adding the service, go to ‘security’ section, and follow Figure 5 to change the properties values and setup Eh-AS module.
Edit Audit Module

Develops an audit trail of all authentication and authorization decisions.

Name: ehealthAudit
Class Name: ehealth.security.auditModule.ehealthAuditModule

Additional Properties (3)

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>auditOn</td>
<td>true</td>
</tr>
<tr>
<td>LogFileName</td>
<td>ehealth.log</td>
</tr>
<tr>
<td>LogFilePath</td>
<td>/home/yao/Log</td>
</tr>
</tbody>
</table>

Figure 4. Add E-health audit service

Security

Set security properties for the entire server.

Figure 5. Configure E-health audit service

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Configure Database Connections: Go to ‘Resources’-’JDBC’-’Connection Pools’ to create ‘ehealth’ and ‘ehealthuser’ connection pools (Figure 6). Once the connection pools are successfully created, go to Resources-’JDBC’-’JDBC Resources’ to create two JDBC resources based on the connection pools (Figure 7).

**Figure 6. Create E-health connection pools**
JDBC Resources

JDBC resources provide applications with a means to connect to a database.

Figure 7. Create E-health JDBC resources

When Glassfish configurations are successfully finished, go to ‘Applications’ – ‘Web applications’ and deploy MAIS.war, MAIS_update.war and userManager.war files. After all the applications are successfully deployed, the MAIS network is installed and ready to use (Figure 8).

Figure 8. Create MAIS web applications
3.1.4 Piloting the MAIS Network

Recruitment

HMP Liverpool is a large local prison housing adult men over the age of 21. It receives both unconvicted (remand) and convicted prisoners directly from the whole of the Merseyside Court Service catchment area. At the time of the research fieldwork, the prison had an operational capacity of 1,184. Healthcare services operate 24 hours a day and mental healthcare is routinely the responsibility of either the criminal justice liaison team (CJLT) or the prison mental health in-reach team. The CJLT also operate diversion and liaison services at Liverpool Magistrates’ Courts and police custody suites. In addition, there is a prison-based dual diagnosis team which provides care for clients with co-existing mental health and substance abuse problems and an in-patient area for clients who cannot be safely managed on a normal prison wing.

The MAIS network was designed for participants released from HMP Liverpool. The inclusion criteria were those of working age (21-65), with an identified SMI. SMI was defined as people with complex needs which require the continuing care of specialist mental health, who are suffering from major depressive disorder, hypomania, bipolar disorder and/or any form of psychosis including schizophrenia, schizoaffective disorder and any other non-affective, non-organic psychosis. Participants were clients of the prison mental health in-reach team, CJLT or the dual diagnosis team. All participants had to be due for release from prison before 31st November 2010 and would reside within the catchment area of Merseyside Police Service upon their release, although the latter criterion was relaxed part-way through the study to increase recruitment.

Recruitment took place either in a private setting in the healthcare centre or on the person’s residential wing. Potential participants were identified by their mental health key-worker who briefly described the study and asked the client if they would like to meet the study researcher. If they were agreeable, the health professional then introduced the researcher. To ensure informed consent, the researcher provided clear information about the study and what participation would involve, which data would be transferred onto the MAIS network and answered any questions the participant may have. The researcher explained to participants that taking part in the study was completely voluntary and that a decision not to take part would not affect their care or treatment in any way. Participants were provided with information on how to contact the research team to have their information removed from the MAIS network, should they change their mind after consenting. If informed consent was obtained, the researcher obtained demographic information from the participant. This demographic information was then passed to the research clinician. The role of the...
research clinician was to extract the specific data about the participants from the prison clinical (SystmOne) and NHS mental health trust (ePEX) IT systems. The relevant data items were then recorded onto the MAIS network. Participants’ information was immediately placed upon the MAIS network, regardless of their due release date. The information recorded on the MAIS network was checked and, if necessary, updated on a weekly basis to ensure that it was accurate on the day of release.

The research clinician then contacted an assigned person within Merseyside Probation Trust and identified whether the participant was subject to MAPPA or listed on VISOR. This information was then recorded onto the MAIS network. Once all the information had been documented onto the network, the research clinician contacted the assigned police officer within Merseyside Police Service to inform them of the participant’s name, address and P-NOMIS identification number. The police officer then arranged for a mental health warning flag to be placed alongside the person’s name on the PNC. The purpose of placing a flag alongside each participants name on the PNC was to highlight that additional ‘risk’ information about that particular individual was available to police custody staff in Liverpool via the secure MAIS network.

**Establishing Access to the MAIS Network**

As well as police officers and custody nurses, it was agreed that the MAIS network would also be available to the prison mental health in-reach and dual diagnosis teams, and the CJLT, based at Liverpool Magistrates’ Court, acknowledging the ‘revolving door’ nature of many of clients in contact with those services.

Provisions were made for all custody suites within the purview of Merseyside Police Service to have access to the MAIS network. Custody sergeants, FMEs and custody nurses were permitted access to the network. Health professionals had access to all the information listed on the MAIS network. The staff received information about the study from the police service’s training officer. An information sheet was sent to them via email informing them of the purpose of the network, the people who would be listed on it, what information would be stored upon it and how to access the network (see appendix 2).

All staff identified as working within the police custody suites, including police officers, FMEs and custody nurses were invited by email to register as users of the MAIS network. If a MAIS participant was subsequently detained by the police, the PNC mental health ‘flag’ would be displayed alongside their record. This indicated that additional information about that person was available via the MAIS network. Staff then access the Internet to view the MAIS website at [www.mais.org.uk](http://www.mais.org.uk). They are then required to login into
the system by inputting their name and password. Once these have been validated, they are able to access the information on the secure network, using a search function which allowed searches by name, alias and/or date of birth. This then takes them to the information they are permitted to view on the network.

As all participants listed on the MAIS network have SMI, the police were then expected to inform the CJLT that such an individual has been detained in police custody.

The procedures used to register and access the MAIS network were the same as those employed by the police. The CJLT had access to all the information documented on the MAIS network. As the CJLT were unable to access the MAIS network in police custody suites, provisions were made to ensure that they could access the system within their offices. This helped to ensure that the CJLT had access to the MAIS network prior to assessing the detainee in police custody suites.

The procedures used to register and access the MAIS network for the prison mental health in-reach and dual diagnosis teams were the same as those employed by the police and the CJLT. Provisions were made for the prison mental health in-reach and the dual diagnosis teams to access the MAIS network in their offices. If a participant were subsequently re-arrested and detained in HMP Liverpool, the prison mental health in-reach and dual diagnosis teams were able to access their information via the MAIS network, importantly including contact details of those involved in the care of their client whilst they lived in the community.

3.1.5 Evaluating the MAIS Network

**Requirement 1 – Scalability:** As this was a pilot, we did not anticipate that we would recruit a large number of users of the network or prisoner details to be added to the network (thus a large volume of dataset). However, scalability was still a major design requirement when designing the system. This is because, should the system be rolled out at a national level, it would have the ability to manage data and process access requests in the scale of that level.

**Requirement 2 – Robustness:** The system should be able to operate correctly and reliably under various conditions, including (1) when invalid/unexpected requests are received; and (2) when a large number of requests are received simultaneously. In addition, an adequate backup strategy is in place to ensure continued operations in an event of any hardware break-down.

**Requirement 3 – Accessibility and Usability:** The users of the system may have varying levels of computer proficiency, and they may use
different web browsers to access the system. Therefore, the MAIS network should be designed such that users find it easy to use and it is compatible with all the major web browsing tools.

**Requirement 4 – Security:** Information held in the MAIS network is highly sensitive and private. Multiple levels of security protections should be provided to ensure that the confidentiality and integrity of the information are preserved.

**Qualitative evaluation of the MAIS network**

This aspect of the study aimed to examine the views of the frontline health and criminal justice agency professionals who assisted in developing, piloting and running the MAIS network, and the views of the participants on the value and importance of the value of such the initiative.

The qualitative evaluation drew from interviews with 54 individuals. Participation was granted by all those who were approached for inclusion, consisting:

- Thirty-one service users who consented to having their data included on the network;
- Six service users who did not consent to data sharing, but did consent to interview;
- Five mental health practitioners from the prison-based mental health team;
- Four members of the CJLT;
- Three police officers;
- Four police custody nurses; and
- A technical analyst employed by Merseyside Police.

Individual interviews were scheduled to last no longer that one hour. All interviews with staff were audio-taped and transcribed by an independent agency. Interviews with participants were conducted at HMP Liverpool and therefore were not recorded; notes were taken during the interview and written up immediately after. Interviews were conducted on a 1:1 basis with the exception of the four custody nurses who were interviewed in a focus group.

The semi-structured interview schedule explored issues related to the study’s aims and objectives. To ensure that all questions were relevant to each participant, the interview schedule was modified slightly for each agency, and for service users. The participants’ perceptions of the MAIS network were analysed using the transcripts and notes taken during the
interviews and field notes taken after each interview. To ensure participants’ anonymity, quotes are attributed according to agency.

### 3.2 Part 2: Examination of how the lessons learnt from the pilot MAIS network can be incorporated into national health and criminal justice policy concerning the care and management of mentally disordered offenders

The aim of this part of the study was to examine the feasibility of expanding the MAIS network to serve multi-agency health and criminal justice partnerships nationally.

#### 3.2.1 Inclusion criteria

A purposeful sample of key individuals identified as influential nationally in the field of information-sharing within criminal justice and healthcare agencies were recruited. Individuals included those who had written key reviews relevant to this subject; national IT leads representing criminal justice and health agencies; those responsible for the implementation of clinical IT systems within the CJS; and those in senior positions representing health and criminal justice agencies at national level.

#### 3.2.2 Methodology

Qualitative research methods were used. Individuals were identified from conducting the scoping review; consulting with the operational steering committee; and seeking guidance from each agency at national level. Each person was selected on the basis of their first hand professional knowledge of working within the area covered by the MAIS network, either within health or criminal justice services. Once key individuals were identified they were contacted initially via email. They were informed of the study and asked if they would consider taking part in the research.

The following information was provided:

- The study protocol;
- Details of the information collated and recorded on the MAIS network; and
- A visual presentation of the MAIS network.

If the individual consented to participate, a date was arranged to conduct the interview. On arrival the researcher would seek permission to audio-
tape the interview. If permission was not granted, notes would be taken. Issues around three key areas were explored with each participant:

- Their views about the MAIS network;
- What they would “do differently”; and
- The feasibility of introducing the network nationally.

Thematic analysis using the constant comparative method was used to analyse the data\textsuperscript{57-59}. Thus, as themes began to emerge they were explored in more depth in subsequent interviews, checking and re-checking the existing data in light of emerging information. Data collection ceased when saturation of themes occurred. Interviews were transcribed by an independent agency after which all tapes were destroyed.

### 3.3 Part 3: Conduct a process evaluation of the development of the MAIS network, and the issues raised around information sharing and partnership working.

The aim of this part of the study was to conduct a process evaluation of study establishing the MAIS network, investigating the research process itself and the process of delivering the MAIS network, including alternative delivery procedures. This stage also focuses and explains all significant amendments to the original study protocol.

### 3.4 Discrepancies between actual and original (funding protocol version methodologies

As presented, the three part methodology varies from the methodology included in the original funding proposal. The original protocol described a five part methodology, as follows.

In **Part 1**, we will build on the findings of Mason\textsuperscript{39}. We will create an operational research committee of professionals, including police, probation, GPs, PCTs, secondary health care providers, prison staff, voluntary sector providers and service users, to establish:

1. Level and type of data required by each profession;
2. Frequency of data requirements; and
3. IT requirements.
In **Part 2**, using good existing working relations with local community agencies, the research team plan to involve the following agencies in the MAIS network:

Healthcare agencies within Mersey Care NHS Trust
General Practitioners within Merseyside;
Voluntary agencies within Merseyside;
HMP Liverpool;
Merseyside Probation Trust;
Merseyside Police Service;
Sefton Social Services;
Housing Departments within Merseyside; and
HMP Manchester.

Using the results of Part 1 we will establish the MAIS network so that each agency will only be able to access the data they need. The MAIS network will then go live within HMP Liverpool. Community agencies will access information on the network via open Internet and Web technologies. The network will have a number of security and confidentiality services, including flexible multifactor remote user authentication, single sign on, role based access control, communication channel encryption, components mutual authentication, and data access accountability. Upon successful identification and authentication, community agencies will have read-only access via their web browser to certain health information contained within the MAIS data template. The research team will provide the community agencies and service provider with the necessary training and assistance necessary to access the network. They will not require equipment as access is via their web browsers. This satisfies objectives one and two.

In **Part 3**, all mentally disordered prisoners who are due for release from prison before 31st March 2010 will be recruited into the study, from both the Network prison (HMP Liverpool) and the Control prison (HMP Manchester). For consented participants, backgrounds demographics will be collected. These will include age, diagnosis, medication, sentence length, index offence, previous offending, previous contacts with mental health agencies, frequency of contact with healthcare while in custody and we will note date of release. Obtaining baseline data will allow for comparisons
between the Network and Control Prisons and the evaluation of the network as stated in objectives three and four.

In Part 4, users of the network and agencies working within the control group area will be provided with efficiency forms designed specifically for this study. Data provided from these forms will allow us to evaluate objectives 3 & 4. All released prisoners will be tracked to monitor engagement with mental health services using the NHS Strategic Tracing Service (NSTS) and the Secondary Uses Service (SUS). Comparisons between levels of engagement with mental health services for the Network prison and the Control prison will allow us to evaluate objectives three and five.

Questionnaires will also be sent out to a large sample of users of the MAIS network. These questionnaires will allow us to evaluate objectives three, four and five.

In Part 5, we will conduct interviews with a purposive sample of key informants from all of the agencies in Liverpool (n=20-25) to further explore facilitators and barriers in using the network. Semi-structured interviews with national IT leads for each criminal justice and health agency will allow us to establish the feasibility of a national roll-out. This will allow us to evaluate objectives three and four, but specifically five.

The reasons for the changes to this original protocol during the course of the research are described fully and discussed critically elsewhere in this report (sections 4.3.1 and 5.1).
4 Results

4.1 Part 1: Develop and Pilot the MAIS Network

4.1.1 Development of the MAIS Network Minimum Dataset

Table 2 lists all the data items which formed the ratified MAIS mental health and risk minimum dataset template. Items available to all, or clinicians only, are indicated.

4.1.2 Technical Development of the MAIS Network

Table 2 illustrates the MAIS data template’s composition of 11 tables, designed and developed to categorise and store data based on the nature of each item and the access requirements ratified by the operational steering committee. Figure 9 shows the entity relation diagram of the database. Three types of user accounts are created for the e-health database; (1) ‘read only’ privilege; (2) ‘read’ and ‘create’ privileges; and (3) ‘read’ and ‘update’ privileges. Depending on the roles of the users, different database user accounts are used to minimise misuse of the database.

4.1.3 Piloting the MAIS Network

To gain access to the MAIS network, individual users needed to be issued with personal login profiles and passwords. The initial tranche of staff to be registered were identified as police officers working in custody suites, police custody nurses, FMEs, the CJLT, the prison mental health in-reach team and the prison-based dual diagnosis team.

The police inspector supporting the study forwarded the work email addresses of all police-based staff who were to have network access to the university-based MAIS administrator. Each member of staff received an information sheet describing the study four weeks before the system went live (15th February 2010). On the 25th January 2010, the MAIS administrator sent each participant an email informing them how to register on the MAIS network. If a person did not register within five days, the administrator sent a reminder, via email. The same procedures were adopted to register members of the CJLT, mental health in-reach and dual diagnosis teams.
One hundred and eighty eight named individuals met the inclusion criteria to access the MAIS network. One hundred and twenty two (65%) successfully registered. Those registered include 96 police officers; seven police custody nurses; three FMEs; eight members of the CJLT; seven members of the mental health in-reach team; and one member of the dual diagnosis team.
### Table 2. Information included on the MAIS network

<table>
<thead>
<tr>
<th>Table Name</th>
<th>Fields</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service User Details</strong></td>
<td>First Name</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surname</td>
<td></td>
</tr>
<tr>
<td><strong>Available to the police and clinicians</strong></td>
<td>Aliases used (multiple)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Date of Birth (dd/mm/yyyy)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Date of release (dd/mm/yyyy)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ePEX number (only available to clinicians)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interpreter needed</td>
<td>Yes/no/unknown</td>
</tr>
<tr>
<td></td>
<td>Language spoken</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Last known address</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Directed address (e.g. hostel etc)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Familial /Preferred contact:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Would like this person to represent them as their appropriate adult</td>
<td>Yes/no/ Unknown</td>
</tr>
<tr>
<td></td>
<td>Main health professional contact:</td>
<td></td>
</tr>
<tr>
<td><strong>Summary of Patient Physical Health Issues</strong></td>
<td>History of epilepsy</td>
<td>Yes/no/unknown, details</td>
</tr>
<tr>
<td><strong>Available to the police and clinicians</strong></td>
<td>History of diabetes</td>
<td>Yes/no/unknown, details</td>
</tr>
<tr>
<td></td>
<td>History of asthma</td>
<td>Yes/no/unknown, details</td>
</tr>
<tr>
<td></td>
<td>History of brain injuries</td>
<td>Yes/no/unknown, details</td>
</tr>
<tr>
<td></td>
<td>History of heart problems</td>
<td>Yes/no/unknown, details</td>
</tr>
<tr>
<td><strong>Summary of Mental health issues</strong></td>
<td>This person will require an ‘appropriate adult’ if they are to be interviewed.</td>
<td>Yes (automatically ticked as every person listed on the network will legally require an appropriate adult)</td>
</tr>
<tr>
<td><strong>Available to police and clinicians</strong></td>
<td>Preferred significant other to represent them as an appropriate adult</td>
<td>Yes/no/no preference</td>
</tr>
<tr>
<td></td>
<td>If yes, contact details</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prefer a professional contact to represent them as an appropriate adult</td>
<td>Yes/no/no preference</td>
</tr>
<tr>
<td>If yes, contact details</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Has learning difficulties</td>
<td>yes/no/unknown</td>
<td></td>
</tr>
<tr>
<td>History of mental disorder</td>
<td>yes/no/unknown</td>
<td></td>
</tr>
<tr>
<td>Has had previous mental health problems</td>
<td>Yes/no/unknown</td>
<td></td>
</tr>
<tr>
<td>A history of self-harm (defined as self-poisoning or injury)</td>
<td>Yes/no/unknown</td>
<td></td>
</tr>
<tr>
<td>Significant dates linked to previous self-harm</td>
<td>Yes/no/unknown</td>
<td></td>
</tr>
<tr>
<td>If yes, specify</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A history of problematic drug use</td>
<td>yes/no/unknown</td>
<td></td>
</tr>
</tbody>
</table>

### Mental Health Issues

#### Only available to clinicians

<table>
<thead>
<tr>
<th>Primary Mental Health Diagnosis</th>
<th>Schizophrenia/other delusional disorders</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bipolar affective disorder</td>
</tr>
<tr>
<td></td>
<td>Depressive illness</td>
</tr>
<tr>
<td></td>
<td>Anxiety disorders</td>
</tr>
<tr>
<td></td>
<td>Dementia</td>
</tr>
<tr>
<td></td>
<td>Personality disorder</td>
</tr>
<tr>
<td></td>
<td>Organic disorder</td>
</tr>
<tr>
<td></td>
<td>Learning disabilities</td>
</tr>
<tr>
<td></td>
<td>Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Secondary Mental Health Diagnosis</th>
<th>Schizophrenia/other delusional disorders</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bipolar affective disorder</td>
</tr>
<tr>
<td></td>
<td>Depressive illness</td>
</tr>
<tr>
<td></td>
<td>Anxiety disorders</td>
</tr>
<tr>
<td></td>
<td>Dementia</td>
</tr>
<tr>
<td></td>
<td>Personality disorder</td>
</tr>
<tr>
<td></td>
<td>Organic disorder</td>
</tr>
<tr>
<td></td>
<td>Learning disabilities</td>
</tr>
<tr>
<td></td>
<td>Other</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Substance Misuse</th>
<th>History of substance misuse</th>
<th>yes/no/unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available to the police and clinicians</td>
<td>If yes, type of substance</td>
<td>Opiates, Stimulants, Other, unknown</td>
</tr>
<tr>
<td></td>
<td>History of problematic withdrawal</td>
<td>yes/no/unknown</td>
</tr>
<tr>
<td></td>
<td>If yes, specify</td>
<td>Opiates, Stimulants, Other, unknown</td>
</tr>
<tr>
<td></td>
<td>History of problematic alcohol misuse</td>
<td>yes/no/unknown</td>
</tr>
<tr>
<td></td>
<td>History of problematic withdrawal</td>
<td>Yes/no/unknown</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medication prescribed on the day of release</th>
<th>Prescription</th>
<th>Antipsychotics, Anti-depressants, Anti-anxiety, Hypnotics/sedatives, Mood stabilisers, Opiate substitution, Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only available to clinicians</td>
<td>Details</td>
<td>History of non-concordance with psychiatric medications.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Suicide and Self harm risk</th>
<th>History of self harm</th>
<th>yes/no/unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Available to the police and clinicians</td>
<td>History of suicide attempts</td>
<td>yes/no/unknown</td>
</tr>
<tr>
<td></td>
<td>If yes, occurred prior to release within</td>
<td></td>
</tr>
</tbody>
</table>
A history of self harm that required either resuscitation or outside hospital treatment  
Yes/no/unknown  
If yes, specify the detail  

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Available to police and clinicians</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual trigger/warning signs</td>
<td>Free text (not in great detail)</td>
<td></td>
</tr>
<tr>
<td>Significant dates</td>
<td>Free text (not in great detail)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Violence to others</th>
<th>Available to the police and clinicians</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered with MAPPA</td>
<td>Yes/no/unknown</td>
<td></td>
</tr>
</tbody>
</table>
| If yes, category | Category 1  
Category 2  
Category 3  
Unknown. |  |
| If yes, registered on level | Level 1 (Ordinary risk management)  
Level 2 (Local inter-agency management)  
Level 3 (MAPPP) Multi-Agency Public Protection Panel  
Unknown |  |
| Registered with HRAMM (Health, Risk and Management Meetings) | Yes/no/unknown |  |
| Registered with VISOR (Violent and Sex Offender Register) | Yes/no/unknown |  |
| History of Violence to Others | Yes/no/unknown |  |
| If yes, categories that apply (multiple) | Environmental: police  
Environmental: prison  
Environmental: probation  
Those in authority  
Racial  
Strangers  
Family members  
Relationships/significant others  
Other (specify) |  |
<table>
<thead>
<tr>
<th>History of serious violence to others</th>
<th>yes/no/unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>If yes, history of the following</td>
<td></td>
</tr>
<tr>
<td>Carrying weapons</td>
<td></td>
</tr>
<tr>
<td>Sexual violence</td>
<td></td>
</tr>
<tr>
<td>Arson</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>Distorted or discriminatory attitudes</td>
<td>Yes/no/unknown</td>
</tr>
<tr>
<td>If yes, towards:</td>
<td></td>
</tr>
<tr>
<td>Women (e.g. sexualised attitude)</td>
<td></td>
</tr>
<tr>
<td>Racial</td>
<td></td>
</tr>
<tr>
<td>Homophobic</td>
<td></td>
</tr>
<tr>
<td>Anti-authoritarian</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

**Agencies currently involved**

- Registered with community GP
- Criminal Justice Liaison Team
- Community Mental Health Team
- Receiving CPA
- Crisis Intervention Team
- Community substance misuse agencies
- Probation
- Social worker
- Neighbourhood police

**Available to police and clinicians**

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Telephone no.</th>
<th>Out of hours contact details</th>
</tr>
</thead>
</table>
Figure 9. The e-health E-R diagram

Overall 96 (74%) of the 130 eligible police officers registered on the MAIS network; three (9%) of the 32 eligible FMEs; and seven (70%) of the ten mental health in-reach team registered on the MAIS network. All \( n = 7 \) of the eligible custody nurses, CJLT \( n = 8 \) and dual diagnosis team \( n = 1 \) registered on the MAIS network.

The MAIS administrator encountered a number of difficulties achieving registration. Overall, the lowest registration rate was achieved for the FMEs (70%) and police officers (74%). The eligible staff had received information about the study from the service’s training officer and several reminders were sent out. Several of the registration emails provided by the police

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were invalid, due to staff turnover and we were unable to identify the identities of replacement staff. It was also an unfortunate coincidence that, at the time of registering staff and the network going live, the contract for the provision of healthcare services to custody suites across Merseyside changed and was awarded to a different contractor. This was not notified to the research team at the time, thus the opportunity to register replacement clinicians was lost.

The MAIS network went live on the 15th February 2010 and terminated on 31st October 2010, thus the network was live for eight and a half months. Over this time, nine separate searches by seven users were conducted. The lack of activity on the system was mainly due to the fact that only 31 participants were in the network. This low level of activity is a major limitation of the study and is discussed fully later.

Sample

Thirty-one participants (84%) of the 37 who met the inclusion criteria gave informed consent for participation between January 2010 and October 2010. All were male, with a mean age of 37 years (SD=12.1; range 21-56 years). The majority of participants (97%; n=30) were white British and one participant was Chinese (3%). All British participants spoke English as a first language and the Chinese participant had good command of the language. Twenty-one (68%) were single; five (17%) married; two (6%) divorced (6%); and one (3%) separated. The marital status for two (6%) participants was unknown. Ten (32%) had a history of homelessness. Seventeen (55%) had a history of substance misuse; 14 (45%) a history of alcohol abuse and 8 (47%) had a history of both substance and alcohol abuse. No participants had documented evidence of life-long learning difficulties. Eight participants (26%) had a personality disorder as a primary diagnosis and four (13%) as a secondary diagnosis. The participants had a range of mental health problems, detailed in Table 3.

<table>
<thead>
<tr>
<th>Primary diagnosis</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schizophrenia</td>
<td>9 (29%)</td>
</tr>
<tr>
<td>Depressive illness</td>
<td>9 (29%)</td>
</tr>
<tr>
<td>Personality Disorder</td>
<td>8 (26%)</td>
</tr>
<tr>
<td>Bipolar disorder</td>
<td>2 (7%)</td>
</tr>
<tr>
<td>Organic Disorder</td>
<td>1 (3%)</td>
</tr>
<tr>
<td>Drug induced psychosis</td>
<td>1 (3%)</td>
</tr>
<tr>
<td>Asperger’s Syndrome</td>
<td>1 (3%)</td>
</tr>
</tbody>
</table>
Twenty-five participants (81%) had a history of multiple suicide attempts, most commonly through attempted overdose (56%; n=14); cutting (36%; n=9); and hanging (36%; n=9). There was evidence that five (20%) of this group had previously required resuscitation or hospitalisation following a suicide attempt. Of those that attempted suicide, six (24%) had attempted suicide whilst in custody and half of these had made more than one suicide attempt whilst in custody. The dates of these incidents were not always documented in the clinical records. Attempted suicide in custody had been through hanging, cutting, overdose or setting fire to their cell.

Of the 31 participants, 11 (35%) had previously been mental health inpatients. Ten had been admitted informally on between one and three occasions (mean=1.7; SD=0.8). Two people had been detailed under mental health legislation; one for a 28 day assessment period under Section 2 of the Mental Health Act 1983. A second person had been detained for treatment under Section 3 of the Act; Section 3 admissions can last up to six months and may then be renewed further. This participant was also formally detained in hospital upon his release from prison.

Five (16%) participants had a history of asthma. Two (7%) had a history of brain injury; one had suffered a brain injury following a road traffic accident. A second had been treated previously for a brain tumour and subsequently suffered epilepsy. Two (7%) had a history of heart problems, four (13%) had a history of epilepsy and one (3%) had a history of diabetes. Twenty-seven (87%) participants had a history of violence to others. For this group, those perceived to be in authority (33%; n=9) and ‘significant others’, i.e. known individuals, including family members (70%; n=19), were noted as actual/potential victims. Fourteen (52%) had a history of serious violence (including, murder; manslaughter; grievous bodily harm; actual bodily harm; sexual Offences and any offences with a weapon).

With regards to index offence, 18 (58%) of the participants had committed violent offences (e.g. grievous bodily harm, actual bodily harm, robbery); 4 (13%) participants had committed acquisitive crimes; and nine (29%) committed other offences (e.g. motoring offences, breach of licence conditions, criminal damage etc.) when recruited.

At baseline, 17 (55%) of the participants had not been convicted and the remaining 14 (45%) had been convicted and sentenced. At the end of the study, only one participant remained unconvicted; one had received an Indeterminate Sentence for Public Protection (IPP) and the remaining (n=29) participants had been sentenced to between 3 months and 8 years (mean=27 months; SD = 21.1).

The 31 participants had previously served a total of 161 prison sentences, between 1977 and 2010, with sentence length ranging between 3 months
and 8 years (mean=33.7; SD=24.1). Each participant had on average received five prison sentences (range 1-18; SD=4.9). Fifty six (35%) of the sentences were for violent offences; 53 (33%) were acquisitive offences; 47 (29%) were for other offences (e.g. motoring offences, breach of orders, harassment etc.); three (2%) were for drug offences; and two (1%) were for sexual offences.

Fifteen (48%) were registered with MAPPA. The majority of participants were either registered under Category 2, Level 1 (n = 6; 19%) or Category 2, Level 2 (n = 6; 19%). Two participants (13%) were registered under Category 1 Level 1 and one participant (7%) under Category 3, Level 2.

**Post-Release**

Twenty-four (77%) participants were released from prison during the eight and a half months the network was live. Of these, one (4%) has subsequently committed suicide; six (25%) have been re-arrested and detained in police custody on up to three occasions (mean=1.7; SD=1.03) and four (17%) have subsequently been inpatients on up to three occasions (mean=2; SD=0.8). Two participants were admitted informally, and a further two under mental health legislation. Participants were either admitted on the day of release (n=2) or within 14 weeks of release from prison. The period of time spent as an in-patient ranged between three weeks and twelve months. Three participants (75%) are currently still inpatients, of which two are detained under the Mental Health Act (informal n=1; section 3, n=2).

**Obtaining Information for the MAIS Network**

Six separate data sources/IT systems across the NHS, Police, Probation and Prison services had to be used to access all the data required to complete the MAIS template. The data sources used were ePEX, SystmOne, PNOMIS, OASys, DELUIS and the PNC.

ePEX is a clinical mental health IT system used by Mersey Care NHS Trust. Its purpose is to document the clinical care that a Mersey Care Trust patient receives across a number of settings, including mental health in-patient units, high secure hospital, community and prison. It records a patient's demographic details and past and current risk assessments and care plans. Most of the information listed on MAIS was identifiable via ePEX. However, it was necessary to access other computerised systems to identify additional risk information.

SystmOne is a clinical system that provides healthcare professionals in HMP Liverpool with a complete management system including electronic records. SystmOne is widely used in community primary care services nationally. This system has less information about a Mersey Care patient’s mental
health care, compared to the ePEX system. However, it often provided additional risk information.

Participants’ current and previous convictions were identified on P-NOMIS. Information about those who were registered with either MAPPA or VISOR were identified via the *Offender Assessment System* (OAsys) or the *Delivering Information to Users System* (DELIUS) used by Merseyside Probation Trust. The PNC was used to identify participants who were subsequently arrested in police custody. The research clinician in the team had direct access to both ePEX and SystmOne but not the PNC, OAsys, and DELIUS. However, Merseyside Police Service and Probation Trust agreed to provide the information required to conduct the study.

It was not possible to utilise one IT system to identify the health/risk information required for the MAIS network. Consequently, this resulted in the clinician having three databases open at the same time (i.e. MAIS, ePEX and SystmOne) as he identified and extracted information from ePEX and SystmOne and inputted into the MAIS database. This proved to be problematic as each system had varying shut-down times and timeout periods. Once the clinician had extracted all relevant information from ePEX and SystmOne, he would contact an assigned person at Merseyside Probation to identify if the participant was registered with either MAPPA or VISOR. Once all available information was collated, the patient’s completed data template was uploaded to the MAIS network database.

The standard of the information recorded by health professionals on both systems varied considerably. This sometimes proved to be problematic for the clinician. Discrepancies were present in the recording of the same details across systems, including the two NHS systems, ePEX and SystmOne. For example, it could be difficult to even identify a participant’s diagnosis quickly and accurately without trawling through large amounts of documentation. Whilst this was undoubtedly time-consuming for the research team, it must also be problematic for the clinicians using these systems on a daily basis.

### 4.1.4 Evaluating the MAIS Network

This section analyses the MAIS network against the design requirements previously identified.

**Scalability:** The network was designed to be capable of holding a maximum 30,000 individuals in the database and provide timely responses for up to 150 concurrent requests. Optimisation of the MAIS software and a higher specification server may be needed for processing concurrent requests larger than 150 and a database of more than 30,000 data entries.
Robustness: The MAIS network ran reliably throughout its lifetime. The use of the IP authentication mechanism filtered out most of the unexpected (or unauthorised) requests. Requests made by authorised users were well handled and well logged. Back-up copies of the network and data were made on a weekly basis.

Accessibility and Usability: The MAIS network was designed to be straightforward for users to access and conduct data searches. User functions are self-explanatory and do not require detailed computing knowledge. The MAIS website conforms to HTML W3C XHTML 1.1 [Xhtml] and CSS (Cascading Style Sheets) [css] specifications. The network was tested and proven to work well on all the major web browsing tools including Internet Explorer versions 6, 7 and 8, Mozilla Firefox 3.0, Apple Safari and Opera v10.

Tests against Security Attacks: The resistance level of the MAIS network was analysed against four types of security attack.

- **The Session Hijacking Attack**

In the session hijacking attack, an attacker steals or predicts a valid session token to gain unauthorised access to the MAIS network. However, because the communication between an end user and MAIS network are SSL protected (i.e. all the communication messages are encrypted), even if an attacker could successfully steal a session token, it is still computationally difficult to decrypt the valid session identification from it, therefore they would not be able to use it.

- **The Replay Attack**

A replay attack occurs when an attacker intercepts a valid data message and re-transmits it to the MAIS network. The counter-measure is to use a SSL channel between the authentication service and an end user, thereby preventing the message’s eavesdropping and interception. SSL has a built-in mechanism to protect against this form of attack – it uses random numbers contributed by both communication entities for session key derivation, thus making the replay attacks computationally very difficult.

- **The Man-in-the-Middle Attack**

The man-in-the-middle attack is a form of active eavesdropping in which the attacker makes independent connections with the authentication services of the MAIS network and an end-user, and relays messages between them. This makes them believe that they are talking directly to each other over a private connection, when, in fact, the entire conversation is controlled by the attacker. Again, the counter-measure is to use the SSL certificate-based authentication to verify the authenticity of the MAIS server and use the verified server’s public key for session key establishment thus
making the man-in-the-middle attack computationally unfeasible. Cryptographic keys with good lengths and randomness are essential to counter the three types of attacks mentioned above.

- **The DoS Attack**

In a DoS attack, the attacker attempts to prevent legitimate users from accessing services/resources by making them unavailable. The most common form of attack is to send enormous valid but useless requests to a service provider, thus blocking the network and/or crashing the server. Since it is difficult to distinguish malicious requests from valid requests, the MAIS network could potentially be vulnerable to this type of attack. However, as the MAIS network employs IP address authentication, requests from unauthorised locations/machines are rejected promptly by the network. Thus, using IP address authentication ensures that the MAIS network is protected against DoS attacks.

In addition to these preventative measures, the MAIS network has a detective counter-measure in place, i.e. the auditing service, which can be used to detect and deter security attackers.

**Location of Computers**

The protection of the MAIS database is essential as it stores highly sensitive and identifiable information. Therefore the database was installed on a separate computer where only the security fortified e-Workbench server can access to it. In addition, the database machine was not linked to the Internet directly.
**Qualitative evaluation of the MAIS network**

Data analysis produced three predominant themes and several sub-themes.

Table 4. Qualitative Evaluation Themes

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<th>Main Themes</th>
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<td><strong>Theme 1</strong>  Approach Used</td>
<td>Recruiting participants; Reasons for participating in the study; Empowering service users; and Police access to MAIS network.</td>
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<td><strong>Theme 2</strong>  Police Custody</td>
<td>PNC Markers; Ineffective mental health model; Identification of detainees; and Progress.</td>
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<tr>
<td><strong>Theme 3</strong>  Participants’ Perceptions of the MAIS network</td>
<td>Information stored on the MAIS network; Additional support; Appropriate Adult &amp; significant others; Design; and Partnership Working.</td>
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During the interviews, the researcher touched upon the way in which service users had been recruited to the study, in light of the high consent rate. Interestingly, a prison-based clinician made a comment which highlights the danger of working with stereotypes when engaging with people labelled as ‘offenders’, reminding us that, in the twenty-first century, custodial healthcare should be a partnership between staff and service users, rather than merely a process which staff ‘do’ and that ‘happens to’ users.

‘Possibly we underestimate the power of service users sometimes or detainees or prisoners and their willingness to engage.’
This issue of partnership with service users supports the Bradley Review’s view of there being a need to explore issues around patient choice for this client group. Interestingly, of the six service users approached for inclusion in the study that refused to agree to their information being shared, only one did so on the grounds of being mistrustful of the police. In general, service users were aware that several agencies were involved in both their mental healthcare and their progress through the CJS. Each client accepted this and stated they were usually prepared to discuss a range of topics, both health and non-health related, with a range of staff. On a number of occasions service users discussed positive interactions they had had with prison officers without any sense of mistrust. It was clear that they were able to understand that, whilst their liberty had been taken away from them, they had learnt that, in general, they would still be treated with dignity and respect by both those charged with their detention and the clinicians responsible for their physical and mental health. It is possible to suggest that service users work within multi-agency partnerships on a daily basis. If we adopt this stance, then a request to share health/risk information with police officers on the MAIS network is neither an outrageous or unreasonable request.

Two of the national leads interviewed for stage 3 of the study commented that the information recorded on the MAIS network was too clinical for the police to have access to. Both were general practitioners and stated that, whilst they did think the police should have access to some health related information, this should be via a clinician and not directly available to them by a computer system. The majority of frontline workers disagreed with the view that the information stored on the MAIS network was too clinical for the police to access. A custody nurse commented

'To be honest it just proves to me how detached people at national level are from what’s going on on the ground.’

The view that police should have direct access to certain health data was supported by a prison based clinician who noted

'Well I think it’s okay (police to have access to information on MAIS), if they’ve signed confidentiality agreements and it’s for the good of the patient, then I think it’s okay that they know.’

A member of the CJLT also challenged the national leads’ views that authorised police custody officers should not have direct access to the MAIS network.

'Well if they don’t have a degree of information (police) and I accept we can’t disclose too much clinical information even though we got that consent, we’d be going back to what the police have already got which is an ‘S’ for suicide (referring to PNC marker).
One clinician-participant referred to Lord Bradley’s work when asked if police custody sergeants should have access to a detainee’s health information. They also emphasised the important contribution the police could make in identifying individuals who might need to be diverted from the CJS.

"I think that it’s important for them (police) to have that access (MAIS). It’s like the markers (PNC), you know, they have the PNC markers so I think they need that (MAIS network). They’re (police) essential to everything, they can’t be […] you know, be out of the loop if you like. […] it’s just madness isn’t it?"

Several participants stressed that criminal justice and health agencies were perceived as multi-agency partnerships and that accepting this need for partnership clearly justified the sharing of the health information listed on the MAIS network with authorised staff working in police custody.

Participants discussed the limitations of the risk information currently available to those working in police custody suites. The PNC is the main operational police database accessed by all police forces. A number of ‘markers’ are used to highlight detainees’ potential vulnerabilities associated with mental health problems and suicide/self harm. Officers are able to type free text alongside the marker, to give further details of past events/warnings which have highlighted the concern. However, only an extremely limited amount of text can be added; this has been noted elsewhere as a concern.

A CJLT worker noted

’The system that the police have, the PNC marker ‘S’ for suicide, ‘M’ for mental, ‘D’ for drugs and ‘W’ for weapon. […] It’s a very small textbox.’

This issue was also discussed by a police officer, who remarked

’It’s very limited on the PNC, I think it’s just a couple of lines of text, and it’s free text so you know the quality of information it’s not standardised at all it’s just free text.’

In addition to the limits of the quantity of risk information available through the PNC, it was also noted that its accuracy, subtlety and relevance could be doubted. A custody nurse commented

’PNC is all well and good, but there’s markers on PNC for girls who had depression, twenty years ago and it was post natal depression, there was an organic reason, they haven’t suffered with it since that, they’ve got a marker on PNC to say that they’ve got mental health issues, well they
haven’t got mental health issues [...] Once you get a marker on it stays and it doesn’t matter how inaccurate it is. Yeah, it becomes meaningless almost.’

The above example would suggest that the use of PNC markers tends to be over-inclusive and based on historical information which is not routinely reassessed. A member of the CJLT also highlighted that the markers listed on the PNC are the only information police custody staff have available for sixteen hours of each day, due to the mental health service model currently in place.

‘So you’ve only got us (CJLT) for 9 to 5, seven days a week. So you’ve got another [...] 16 hours of the day with no mental health provision in the police station [...] you’ve got to get the health model correct.

Arguably, those with severe and enduring mental illness might be in crisis when detained in police custody and might need to be assessed by a mental health professional at any time, day or night. The participant stressed that the implementation of the MAIS network into police custody suites would ensure that they had access to more accurate health/risk information about these extremely vulnerable detainees on a 24 hour basis.

Another member of the CJLT stressed that some detainees do not disclose that they have mental health problems even though they might be acutely unwell.

‘A lot of the people that they get through [...] They don’t say that they’re really unwell. [...] and often people can present as quite plausible. [...] often people who are acutely unwell don’t show any symptoms.’

Understandably, in such instances police officers might fail to refer them to a custody nurse for assessment but, if additional information had been available from the MAIS network, the chances of such people ‘slipping through the net’ should be reduced as it is not reliant on self-disclosure at the point of detention.

Participants’ views about whether the information recorded on the MAIS network was appropriate were explored and what they thought should be included/excluded from the current MAIS mental health risk minimum dataset in advance of a national roll-out.

Every participant stated that issues surrounding substance and alcohol abuse should be listed on the MAIS network. The majority of participants across all agencies perceived alcohol abuse to be the major risk factor when compared with substance misuse.

A senior police officer in charge of the service’s custody provision stated
'Alcohol is a bigger risk to us than mental health by far [...] People don’t die from general substance misuse in custody [...] people don’t tend to die from mental health issues unless they try to commit suicide which is fairly rare. People do die from alcohol abuse. Alcohol abuse is probably our biggest risk.'

Similarly, every participant believed it was important to document if a detainee had a history of a number of potentially life-threatening physical conditions, including epilepsy, diabetes, asthma, heart conditions and brain injury. A service user with epilepsy made a particular point of noting how important he felt it was for the details of his condition to be easily accessible by those responsible for his safe detention.

The majority of participants, including all CJLT clinicians, those from the mental health in-reach team and all police officers, felt that the police should have immediate access to information about suicide and self-harm. The majority felt that the information should detail dates of attempts and methods used. All stressed that it was also important to specifically document whether any attempts had occurred when a person had been in police or prison custody. The only participants who expressed some reluctance around this issue were the police custody nurses who appeared to view the risk of suicide/self-harm as a present/absent variable, rather than seeing any value in information around timing/methods.

'But why do the police need to know what type of suicide? The fact they’ve tried suicide is a risk, so why do they need to know how they’ve done it?'

'If they’re at risk, they’re at risk, if they’re not they’re not.'

This was somewhat unexpected, as it did not chime with the views of staff from the other frontline services, rather was somewhat more in turn with some of the views held by national clinical leads. This apparent reluctance to share this particular information was explored further, the interviewer commenting

'This has kind of thrown me a bit really how you’re really pulling it all back (not wishing some health information to be shared with the police), compared to all the others, I wonder why?'

A custody nurse responded by stating

'Their (police) actions will still be the same with the small amount of information or a large amount of information.'

This response led the participants to debate between themselves, resulting in conflicting views being voiced. However, one of the main concerns amongst custody nurses was that sharing this information with the police might result in detainees not trusting the nursing staff.
'Now, my other slight concern is that if the clients know that the health information is routinely shared with the police that may change their relationships with us. I think at the moment, we don’t have any trouble with the clients and they are willing to divulge and speak to us in a relaxed manner about their health and what we can do but that’s because they have our assurance that it is kept confidential.’

The emergence of this notion of a sense of over-arching client confidentiality is particularly interesting in the light of the sharing of health information with the police not being a major concern for the service users involved in the study, mentioned by only one of the 37 participants. It is also somewhat at odds with an approach of empowering and trusting the service user to become an integral part of the partnership of people involved in his/her care in line with the earlier expressed understanding users have that their care and progress through the CJS will inevitably involve a number of people across several organisations.

The majority of participants believed that it was important to list information surrounding violence on the MAIS network. However, several stressed that this information should be documented with accuracy. Participants from the CJLT and mental health in-reach team stressed the importance of being able to access information about past violence as a necessary requirement to conduct their work effectively.

‘(Assessment of risk of violence) is key to what we do here and what our team does in terms of liaison and sharing information, we’re the conduit (for other agencies).’

Such information was thought to be crucial to ensure that their team could make accurate risk assessments.

‘You’re going into people’s prison cell or your going in to see them in a police station and without all of the information you can’t make an accurate judgement on risk.’

This view has support in a number of the inquiries conducted following homicides by people with mental illness which reiterate that health professionals conducting risk assessments following admission and prior to discharge should have detailed information about any suspected violence (e.g. in Eldergill et al).

The researcher referred to a view expressed by a national lead who had voiced concern that access to such information might bias clinicians’ perceptions of service users, having a negative impact on the care that they subsequently receive. All clinical participants from both the CJLT and the mental health in-reach team challenged this perception, with one participant stating...
'If a person needs a service, they need a service and it doesn’t matter if they’re violent, you know, they’re sexist, they’re racist, if they need a mental health assessment, if they need mental health follow up then they need it and we’ve just got to work around it [...] I think it’s essential (to have access to violence history).’

A member of the in-reach team stressed that providing such information to health and criminal justice agencies is essential to public safety.

‘It’s public safety. When I’m talking about public I’m talking about the prisoner, the patient or whatever, the police officer you know, the woman who, gives them a cup of tea in the cell, it’s about public protection at the end of the day. Whether you’re taking about the protection of the person in the cell or anybody who’s coming into contact with them.’

The majority of participants stressed the importance of any information being factual, accurate and relevant and that both historical and current risk should be documented clearly. Several clinician-participants highlighted potential ethical issues when such information is either inappropriate or inaccurately documented onto a system.

It’s very easy to get a security marker on but it’s very difficult to take it off [...] and moves from prison to prison.

‘It’s about accurately putting on information; it’s about the accuracy of it [...] Like I’ve got one who’s tried to be a cleaner (in prison) and it said high risk of aggression that’s [...] when he was fourteen, he’s twenty nine now. See what I mean?’

In contrast, the custody nurses placed less importance on having access to information associated with violence through the MAIS network. This was an unexpected finding. One participant stressed that issues surrounding violence should be assessed by the clinician rather than having this information documented on the MAIS network.

‘To be honest no, I would not, [...] I wouldn’t have that on (MAIS) because I think that should be assessed by the clinician.’

Other custody nurses supported this view. One stressed that a marker should be placed on the MAIS network if an individual was prone to a specific pattern of violence. However, concern was voiced that some detainees who are mentally ill might be unnecessarily labelled as being violent, based on perceptions around their diagnosis.

‘Yeah if there’s a marker for violence like that as in a specific pattern of violence, then yes, but if you like, any violent act. I don’t think it’s actually the fact that somebody was violent when they were mentally unwell five
years ago, I don’t necessarily think it should follow them around every time they go into the criminal justice system.’

Overall, findings appear to suggest that custody nurses may be more reluctant to share a detainee’s health/risk information with the police than those working within diversion/liaison or prison based mental health services. Again, this was an unexpected finding, especially as it was evident that the custody nurses enjoyed good working relationships with police officers managing the custody suites. These contrasting responses from clinicians undertaking a variety of discrete roles across different parts of the criminal justice pathway highlights that certain information regarding the management of service users may be more important at different stages than at others. This concept warrants further investigation beyond the scope of the current project.

The MAIS network was designed to be accessible via the Internet, rather than hosted within an existing organisational IT system, for example the PNC or SystmOne. Every participant agreed that this was the correct platform and should be maintained for any national implementation. A clinician noted that, if the MAIS database were embedded within a clinical IT system, it would exclude rather than include those from other agencies.

‘No (to including within a clinical system) because that’s shutting too many people out and I think part of the beauty of the system is that it’s accessible to those that aren’t solely healthcare professionals and those people who, you know, need to know that information in order to trigger support, trigger services, trigger assessment.’

The researcher explained to all participants that she had been informed by the national leads that there was likely no funding currently identifiable to implement such a system and that, if the MAIS network were to be used in the future, it would possibly have to be integrated into an existing NHS or CJS IT system. This resulted in interviewees trying to identify what system the MAIS network could be integrated into, so as to remain easily accessible by all agencies. This proved difficult. A senior police officer noted

‘The first thing I would say is that it’s unlikely to be used...by the sergeants if it’s a clinical system.’

A custody nurse offered an alternative solution if the MAIS network had to be integrated into another IT system.

*I don’t see why it can’t be integrated but with multi-agency access. [...] You see I don’t get why the NHS and the police and all these government agencies, who are all government agencies, they’re all working to the same goal, are so paranoid about sharing the information with each other.’
Participants were asked which service users, in terms of types of mental health issues, should be placed upon the MAIS network if it were implemented nationally. They were informed of the national minimum dataset currently being developed for those in contact with the CJS and Lord Bradley’s suggestion that the MAIS network was relevant for all, not just those with severe and enduring mental illness. However, clinicians all thought that the MAIS network should specifically focus on those who required rapid access to secondary mental health services, otherwise it would become too large, unfocussed and unwieldy, due to the high prevalence of people in police/prison custody with common mental health problems. The majority stated that either the CJLT or prison in-reach clinicians would be the most apt professionals to recruit prisoners onto the MAIS network if it were to be implemented nationally. Others suggested that eligible prisoners could be identified as a routine task at initial health assessment upon reception into prison custody.

The researcher asked participants what contribution, if any, the MAIS network could make to agencies working together within the CJS. The majority stressed that it would help to ensure that detainees with mental health problems were identified immediately in police custody and quickly referred to appropriate health professionals if necessary. A CJLT clinician noted

‘It would highlight so many people we’re (currently) missing [...] I think so many people (detainees) are missed because they are plausible (do not appear to have mental health problems).’

A number of interviewees commented that information from the MAIS network could ensure police officers would be immediately able to identify those who require an Appropriate Adult. The Appropriate Adult role was created under the Police and Criminal Evidence Act (1984), with the intention of safeguarding the rights and welfare of young people and vulnerable adults in custody by ensuring that detainees understand the custody process, legal advice and any questions put to them by the police. This is especially pertinent for those who it might not be readily identifiable from their demeanour that they had mental health problems and/or did not choose to disclose such issues. Encouragingly, a service user participant commented without prompting that, in his experience, the police were getting much better at identifying those who required an Appropriate Adult.

This was of particular relevance when it was discussed with service users whether they felt they would be able to identify a family member or friend to act as either a suitable contact, or indeed an Appropriate Adult and the potential problems with this. For example, one service user said he wanted his partner to be contacted if he were to be detained in police custody, but stressed that he had a very volatile relationship with her and that she also
had serious drink problems. It is possible that involving such individuals could potentially exacerbate problems for the detainee and staff working in police custody and would certainly not be suitable to use as an Appropriate Adult.

Several participants said they would be unable to name a ‘significant other’ to be contacted if they were subsequently detained in police custody, a possible reflection of their sense of isolation and lack of support whilst living in the community. One person said he wanted, if possible, his CJLT clinician to be his named ‘significant other’, highlighting an absence of familial support but indicating the ability of clinicians to forge meaningful relationships with clients often thought difficult to engage. It is possible that developing positive therapeutic relationships whilst in contact with the CJS could be translated into improved engagement with community services upon release. An exploration of this would make for valuable and informative future research.

Similarly, the majority of participants stressed that the inclusion of contact details for community workers involved in a detainee’s care and management was potentially extremely helpful and should have the effect of reducing their workload in comparison to the current situation which often involves trying to identify such individuals on an ad hoc basis. The in-reach team members stressed this to be of especial importance if they received a prisoner from another prison, out of area and beyond their network of local contacts.

All clinicians stressed that having access to details of any medication a detainee had previously been prescribed was extremely helpful accepting that, based on the current method of documenting medication prescribed at the point of discharge from prison, it would need to be regarded as historical/indicative information. The researcher explained to participants that some national leads were concerned that adopting this approach had the potential to be dangerous if a prisoner was subsequently detained in police custody several months later and the medication details recorded on the MAIS network were no longer accurate. The majority of participants were not concerned by the potential inaccuracy of this particular item, acknowledging that it would represent a specific snapshot of a person’s care, stressing that such information still added to their current assessment of an individual.

‘And if I can say to that person (national lead) don’t patronise […] Do you think we’re not going to check like twelve month old information? […] against what’s happening currently?’
'Yeah it is a bit insulting for somebody in an ivory tower to say well that’s dangerous because it’s, you know, it’s twelve months out of date, because our whole job is about fact finding. Every time we see somebody.’

Service users saw the value of documenting medication they had been prescribed; some said that they forgot the names or doses of the tablets they were taking and, if staff could get that information quickly from the MAIS network, it might reduce delays in them being prescribed something appropriate for their current needs. Several participants stressed that, as the MAIS network would also provide contact details of clinicians involved in their care, this would enable them to contact them directly for clarification and progress updates. The issue also highlighted further possible developments to the MAIS network, notably that of developing it from a ‘read only’ resource to one that could be updated as part of someone’s ongoing care in the community.

‘I think their long term care givers should be able to add updates to this. The community mental health team […] should be able to, you know, so it’s up to date on the day of release, four months down the line they have a relapse and end up being sectioned, they should be able to update that […]’

It was encouraging to note that when participants were asked what the benefits of the MAIS network were, their main focus was on hoping to create a seamless service by providing health/risk information to agencies that are currently unable to access this information.

‘No information system is seamless across all agencies is there. Everyone has their own system. […] Not one of those systems is joined up by anything.’

‘I think potentially the major benefits (MAIS) are for people in police stations up and down the country really.’

A participant from the CJLT described the MAIS network as a ‘One stop shop information system’ that could be available to all agencies involved in the care/management of detainees with mental health problems. Another described police officers as early ‘alerters’, key to the identification of detainees with mental health problems when they are first detained. Service users also saw the value of involving community workers and viewed the sharing of information on the MAIS network as an additional source of support in custody, when they would be feeling especially vulnerable.

All participants were supportive of the research. Many had also been involved in aspects of either implementing the MAIS network or recruiting participants with SMI onto the network. The support provided by these
individuals was unfailing for the duration of the study. They willingly provided their time and expertise to help develop and populate the network and provided guidance on how to overcome some of the obstacles the researcher faced. Towards the end of each interview the researcher asked each participant their views about the research and their perception of how the research team could have conducted it more effectively.

Several questioned whether the development of the MAIS network would be developed in the future.

‘I suppose the limitations are who’s going to continue to champion this?’

The majority of participants stressed that an important aspect of this study was that it demonstrated that agencies with seemingly competing aims could work together effectively, a view repeatedly stressed by the national leads interviewed for stage 3 of the study. The head of police custody commented

‘I think the most pleasing element is that a group of agencies can see the rationale in sharing information; I think that is the real plus for the whole project. I think the subject matter is realistic and appropriate for this sort of information sharing process. I think that the level of information being placed on it is just too small to make it an effective process at the moment in time.’

To conclude, this has been an extremely sensitive and complex piece of research. The obstacles faced and overcome whilst conducting this study should not be under-estimated. This study has involved working with healthcare and criminal justice agencies with seemingly competing aims and differing perspectives of those with severe and enduring mental illness who have contact with the CJS. In spite of these difficulties this study has developed a prototype electronic multi-agency information sharing network that can help healthcare and criminal justice agencies to manage risk in a more informed way, if and when people are detained in police custody. An interviewee acknowledged the enormity of the task undertaken and commented

‘I think you’ve done remarkably well not to be at all patronising there. I think you’re working with huge systems right, the police, health, prisons, they’re massive services who have their own paranoias and suspicions and protocols and unwillingness and willingness to work.’
4.2 Part 2: Conduct an examination of how the lessons learnt from the pilot MAIS network can be incorporated into national health and criminal justice policy concerning the care and management of mentally disordered offenders

We discovered that, in terms of the issues raised by multi-agency information sharing, themes rarely occurred in isolation, rather they were frequently inter-linked. In an attempt to understand why a specific theme might occur, it was important to examine how and why they might be interlinked to other concepts. Thus, themes were analysed and interpreted separately, before considering their relationship with one another.

4.2.1 Setting the research into a chronological and political context

The overall study started before the publication of both the Bradley Review\(^2\) and the subsequent Department of Health offender health strategy\(^2\). Particularly likely to influence or inform the views of the professional respondents were Bradley’s recommendations that:

- commissioning and budgetary responsibility for healthcare services in police custody be transferred to the NHS at the earliest opportunity;
- that a minimum dataset should be developed to provide improved information to assess need, plan and performance manage services, and inform commissioning decisions; and
- that Connecting for Health, Primary Care Trusts and Strategic Health Authorities should work together to roll out integrated information systems to health services provided in all criminal justice settings.

Interviews were conducted after the general election of 6 May, 2010 and the subsequent formation of the Conservative-Liberal Democrat coalition government on 12 May, 2010 and were ongoing when the health White Paper *Equity and Excellence: Liberating the NHS\(^5\)* was published on 12 July, 2010. All interviews had been completed before the publication of the Chancellor of the Exchequer’s Comprehensive Spending Review on 20 October 2010.\(^6\)

It was clear that these political events undoubtedly created a certain amount of uncertainty in the professionals interviewed and they were repeatedly referred to during the interviews.
4.2.2 Identifying National Leads: Perspective of the MAIS Network and the Feasibility of Expanding the Network Nationally

The earlier fieldwork and scoping review of relevant research and policy documents identified twelve individuals with either national lead responsibility or expert experience on information sharing across health and criminal justice agencies. All were approached to take part in a semi-structured interview around the topic, to which eleven agreed. The person who declined did so on the grounds of being very new in post. However, they identified regional leads that could represent their organisation, thus all agencies originally identified were represented.

Four consented to having their interview audio-taped; six declined and requested that the researcher took notes during the interview. The majority of interviews were conducted on a 1:1 basis. However, three participants working in a specific team wished to participate in an interview collectively. Two participants had conducted independent reviews associated with information sharing. Other participants are identified throughout by virtue of their professional role:

- Director of Offender Health, DH;
- Head of Information and Communication Technologies, Offender Health, DH;
- Senior Medical Advisor for Offender Health and National Clinical Lead for Prison Health IT, DH;
- Prison Health IT Programme Manager, Connecting for Health, DH;
- Programme Manager for Health and Criminal Justice IT, Connecting for Health, DH;
- Association of Police Officers (ACPO) Mental Health and Disability Manager;
- Chief Executive Officer, Merseyside Probation Trust;
- Regional Commissioning Manager, NOMs, North West; and
- Clinical Director of SystmOne, the clinical IT system currently being rolled out across the prison estate in England and Wales.

Due to the prominence of the individuals interviewed, we have had agreement from each person that they are happy for their role to be stated and quotes used.

The participants’ perceptions of the pilot MAIS network and the feasibility of a national roll-out of the system were analysed using the interview...
transcripts, notes taken during the interviews and field notes recorded directly after each interview.

Analysis produced six predominant themes and several sub-themes that relate to multi-agency information-sharing along the criminal justice pathway and the MAIS network.

Table 5. Themes and Sub-Themes Identified

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Theme 1: Recruiting Prisoners into the Study

During the time-frame in which national leads were being interviewed, 17 people had consented to have their health and risk information recorded onto the MAIS network at HMP Liverpool. Interviewees were informed that ten of the 17 had already been released and, of those, one had died, three had been detained under mental health legislation and one had been recalled back to prison. Whilst acknowledging the small sample involved, all voiced concerns about the needs of this vulnerable population. One interviewee stressed that such examples highlighted the importance of risk information being captured, recorded and shared with appropriate agencies, to ensure the needs of such individuals are part of effective multi-agency information exchange, paying particular attention to offenders who are detained in hospital and subsequently return to the community:

‘What happens to them is important, because what you don’t want is them to disappear into a black hole or in secure accommodation having being sectioned [...] and more importantly, what happens to them when they’re reconnected back into the community? Hopefully, you don’t want [...] a break in the information gathered. And too often that happens.’

Despite the low recruitment rate, all interviewees were impressed with the high consent rate achieved of participants agreeing to share their health and risk information on the MAIS network. The Probation lead noted

‘They are a client group who don’t engage with things, that’s part of the problem [...] we have with offenders [...]. So [...] it’s an impressive response rate.’

The ACPO mental health and disability manager suggested that recruitment to a MAIS network could form part of routine prison discharge procedures.

‘I think actually in prison, [...] perhaps, if they go through the release risk assessment with the individual, with the detainee or prisoners, perhaps there should be work being done there you know (through prison staff saying) "We want to share this information with the police service because of...”...So that you get to a default position where most of the people in prison have information-sharing protocols.’

He then went on to mention that he had been working closely with Mencap, a charity for people with learning difficulties, particularly in relation to ways of acquiring informed consent if a person comes into contact with the police as either a victim or an offender.

‘I wanted Mencap to come up with a form of words that said actually there are real advantages of giving consent to the police service. So that they would kind of act as a kind of an advocate for us, in terms of “Actually, okay I understand that you’ve got concerns about telling people about your
learning disabilities. But if you do, then you will get a better response in terms of if you are in custody.”

He went on to discuss the negative perception some individuals within society have about the police, especially in relation to the sharing of health information.

‘Because to my mind it’s an imbalanced debate. It is, “If you give us (police) the information, what will the cops do with it that’s malignant, nasty, how will we use it to our own advantage?” as opposed to “How do we deliver a better quality of service to you, knowing now that you’re autistic, or that you’ve got a learning disability, or you’ve got bipolar?”’

The researcher described the approaches used when requesting consent, explaining it had been a learning process, influenced by each prisoner’s response.

‘This is all learning, ... about their responses (participants) about the police (in relation to sharing their health information). When I first asked them they go “Well I think it’s a really good idea.” Now they’ve been in prison about thirty times. “But I’m not gonna commit another crime.” And you think “Oh”. […] so I changed it (emphasis) […] which might be relevant to what you’re talking about these people (Mencap) and say “Well I understand that you’re not going to commit another crime, but you might become unwell, and when you’re unwell, you know, you’re confused, you don’t know what you’re doing. And the police then have a duty to make sure they care for you, keep you safe.”

The researcher highlighted this approach appeared to be effective and had impacted positively on the response rate and, additionally, seemed to result in the participant being able to perceive the police in a different light.

‘And when you start mentioning as being ‘safe’ and ‘cared for’ it’s changing the emphasis on you (police) being ‘bad’ and … you know, because that’s a reality isn’t it?’

The author of one of the relevant independent reviews discussed the high consent rate around concepts of patient choice.

‘Some of the barriers (to information sharing) are there because of legislation but some of them are through professional preciousness […] and not in the interest of the patients.’

He elaborated further, stating that the new government is to place much emphasis on patient choice:

‘There’s a real opportunity to actually embed a real sense of what patient choice means, not patient choice from the professionals’ view about what
the patients’ choice is, but really what the patient thinks is in their best interest.’

In terms of those in contact with the criminal justice system, he noted

‘If the offender chooses to allow information to be shared because it’s in their best interest to allow that to happen, then individual professional groups within that shouldn’t be a barrier to achieving patient choice.’

Referring to the MAIS pilot study, he thought it was a starting place from which to explore issues surrounding patient choice amongst this group.

‘That’s an opportunity to sort of broaden this work out and ensure, that, you know we use every peg as the new government policy unfolds to not allow the momentum behind this work to be dissipated in any way. So I think there’s real opportunities.’

Issues surrounding consent were discussed by the majority of participants. Several stressed the importance of agencies verifying that they still had the person’s consent to access the MAIS network if they are subsequently detained in police custody. The Director of Offender Health discussed issues regarding consent in prison healthcare.

‘Normally in the prison, you know, you’re in prison and we are looking after your healthcare, and we don’t really give you an option about whether your data is held on whatever system […] because you’re in the care of the state and it’s our duty to care […] Which is right and that’s good, that’s the way we (prisons) should operate.’

He referred to issues of consent specifically around the MAIS project.

‘But the issue of consent will be a significant issue because the risk is with this (MAIS network) the most riskiest (offenders) are going to say “you’re not putting our stuff on there.’

However, this view was challenged when it was noted that people being managed under MAPPA arrangements, arguably some of the “riskiest” people released from prison, had still agreed to having their data on the MAIS network.

‘So, sorry what you’re saying is the experience of the project is they don’t refuse?’

The participant then began to discuss issues surrounding consent in the NHS historically.

‘We’ve tackled this in the health service a few years ago […] a patient, when they give consent to the sharing of their information don’t do so to an individual. They are actually doing it to the team these days […] You’ve, in a sense, like you say, the ‘trust’ word, you’re trusting that team.’
Theme 2: Barriers that Impede Multi-Agency Information-Sharing

Every participant voiced concerns about barriers that impede multi-agency information sharing along the offender pathway and stressed the importance of these issues being addressed if we are to significantly improve collaborative working and the way in which risk information is viewed and shared. This issue is especially pertinent when considering people with mental health problems who have complex and inter-related needs which challenge the interface between the criminal justice system and health and social care agencies, often perceived to have competing aims (e.g. criminal investigative processes and healthcare provision).

Every participant stressed that many of the barriers associated with ineffective information sharing are cultural and institutional. Several stated that overcoming these cultural issues between agencies was often the major stumbling block. The ACPO representative noted

‘Working through some of the cultural issues I would say, is probably more important to us (police) than some of the legal issues.’

From a health perspective, the Director of Offender Health noted that the cultural issues that had either been addressed or challenged in the study were a key aspect of this work.

‘So if you want this study and the ideas generated from it, which were all good and all sensible and all ring true, you’ve got to think how you land what you’ve said […] but the thing that’s going to be useful up here (to policy makers) and in terms of thinking, is one that is actually, can demonstrate, you know, a critical analysis of those cultural bits, rather than over-worrying about the systems (technical) bit’

He elaborated further:

‘You should challenge yourself about, in terms of doing the study, is can you keep the balance right between a technical sort of technocrat solution and one that’s more […] sociological, one more discursive […]. The discursive one is always more difficult to deliver in some ways, because you’ve got to change the culture and the nature of the way people work.’

Two clinician-participants voiced concerns about police officers accessing health information recorded on the MAIS network. One asked if the research team had considered that the police could potentially exploit this information and use it to their own advantage. The researcher informed the participant that a key theme in the study was one of trust, which applied to every aspect of the study, ranging from NHS Caldicott guardians permitting access to NHS data, participants agreeing, in good faith, to having their information shared on the MAIS network for a stated purpose and the
The participant also voiced concerns surrounding information governance and stressed surprise that the study had received NHS ethical and governance approvals, and HM Prison Service permission. The researcher acknowledged the sensitivity of the study and explained that a considerable amount of time had been taken to prepare extremely detailed applications to these official bodies which highlighted the possible ethical and governance issues and, importantly, measures adopted to address them. It was noted that NHS ethical permission had been relatively unproblematic to gain, with provisional permission granted at first application, dependent only on the ethics committee having sight of the final MAIS dataset; this was then ratified at first presentation. The respondent was informed that delays with HM Prison Service permissions had, from our point of view, been fuelled by a misunderstanding/misrepresentation of our study during their review process and that was immediately rectified when we arranged a face to face meeting.

The Clinical Director of SystmOne, the preferred prison healthcare IT system stressed that the data items recorded on the MAIS network were simply ‘risk assessment’ templates and were too clinical for the police. He commented that the press would have a ‘field day’ if such a system as the MAIS network was made available to the police and that it might outrage the general public for the police to have access to detainees’ health information. He stressed that they should have access to some health information (via a clinician), but not necessarily access to the IT system which stores the health information. He informed the researcher that this principle is currently being piloted using SystmOne in some police custody suites. He explained that the MAIS template could potentially be integrated into SystmOne. However, arguably, this would defeat one of the key objectives of the MAIS network in that the risk data would only be available via a clinical system and police officers would only able to access such information via a health third party, with potential for delay and the possible withholding of basic, risk-pertinent information.

In contrast, the participant representing ACPO suggested that sharing such information would be reassuring to the general public.

‘I’d argue most of the public would be grateful that the police are managing the risk better [...] because they (press) have a field day with (e.g.) “Prisoner released and goes on a shooting spree in Northumbria [...] without a diagnosis of his mental health condition.”’
The researcher then informed the participant that some clinicians had expressed concerns around the police potentially exploiting the information they could access on MAIS.

‘There’s no vested interest in a copper (doing) that, because what they want is an easy life.’

In similar vein, the senior police officer who served on the study steering committee commented that such a suggestion was in fact very insulting, completely against the ethos of multi-agency working and made a nonsense by the fact that police officers already had access to vast amounts of confidential data of possible interest to third parties. He also noted wryly that the NHS needed to get its ‘own house in order’ with regard misuse of data before harbouring suspicions of others, referencing the frequent, sometimes very detailed, leaks of clinical information that regularly grace the media, notably regarding high profile patients in high secure hospitals.

All participants representing criminal justice agencies interviewed were very supportive of multi-agency information sharing and the principles of the MAIS network. However, several did have some negative attitudes toward clinicians, based in what they perceived to be equally negative attitudes of criminal justice staff held by some clinicians.

‘Clinicians are a truculent bunch, because they think that they know better all the time [...] There’s kind of “I’ve studied five years at university, you haven’t. Quid pro quo, whatever I say on mental health will be far more knowledgeable than [...] what you have to say.” And I said, “Well yes, in terms of the clinical, the clinical assessment of an individual, absolutely. In terms of the ramifications for what that means to the public at two o’clock in the morning – you ain’t there and I am.”’

Similar responses were reported by those working in probation

‘I think it’s certainly anecdotally, health are the most difficult to engage. And I think it’s only just really becoming strongly viewed that offending is part of their (healthcare professionals) world if you like.’

The participant elaborated further, highlighting that mental health, crime and public protection are often closely entwined and should not always be considered in isolation.

‘Certainly traditionally it’s been seen that they (health professionals) look after clinical risk or clinical issues [...] So if someone has got a drink problem, [...] they’re beating their wife up but they’re [...] not killing themselves through drink, then people who are killing themselves through drink are gonna get higher priority. [...] I entirely understand that. And so I think it’s taken a while for the idea of “Well hang on a minute, if he’s going home after getting drunk and beating his wife, then that’s obviously a
massive clinical risk for her.” Because she’s ending up in A&E […], potentially at danger of death or certainly serious injury. […] So it’s kind of seeing all those things together.’

The author of an independent review of diversion focussed attention on multi-agency information sharing and the issues associated with confidentiality and the Data Protection Act, suggesting that legislation was sometimes used unjustly as an excuse not to share. Interestingly, this has been repeatedly highlighted within the literature and especially homicide inquiries.

‘The barriers to sharing I think, are overstated, and I think they’re often used as an excuse not to share. You know, they use confidentiality or data protection as reasons not to do something.’

The Regional Commissioning Manager, NOMs North West, supported this view but also stressed that many working on the frontline seemed to lack an understanding of the relevant legislation and stressed that this issue needed to be addressed.

‘The Data Protection Act is there for a reason. Sometimes I think people use data protection as an excuse. And sometimes it scares people and they’re not prepared to do it, just in case they breach it, because they don’t really understand it. So I suppose you’ve got to kind of unpick those things really.’

The respondent representing ACPO offered insight through an extreme example of ineffective multi-agency information sharing which touched upon issues surrounding confidentiality and the DPA. He described an incident when health professionals refused to share health/risk information with the police when doing so had potentially life-threatening implications.

‘I’ve had situations […] where somebody been released from prison, well someone released from a secure mental health institution. He’d […] gone in, done a section 3 mental health assessment, treatment order. Had been treated […] had a desire to be very destructive, had an interest in incendiary devices. Came out of prison, within four or five days had kidnapped a couple of social workers that had been out to see him. They hadn’t reported it […] they had eventually escaped. […] Two days later we get a call to say that one of our social workers is missing. Last been at this address “Oh by the way, we sent two social workers around last week. He’d locked them in for these four, five hours. When we get there he’s got some of those gas, butane gas cylinders that you use for cooking and camping. […] He’d strapped some stuff to them, and was saying that “If you come any further I’m going to set light to this”. We called a firearms team because it was effectively an improvised explosive device, a bomb in any other language. […] Firearms guy said “[…] I don’t know what will happen
if he sets light to that [...] but in light of the fact that there’s people inside that building [...] if he comes out, we may have to shoot to kill.” At that point we phoned the mental health team and said “What information can you give us about this person?” And at that point said “We can’t share because of Caldicott.” And my response on the phone was “Well if you don’t share, you might not have a patient inside five to ten minutes time.’

The participant then stated

‘It’s a lovely example of where ‘jobsworth’ kicks in and practical policing....it’s to the benefit of the police to share, it’s the benefit of the individual patient to share, because we were likely to kill him if they didn’t [...] the social workers [...] it was of benefit to them. There was no one that was not gonna win from sharing this information, and yet we still got blocked by the Caldicott guardian.’

However, it was noted that no one agency had yet got the balance of sharing vs confidentiality exactly right.

‘There are instances where the police haven’t (shared risk information), [...] homicide inquests, [...] the police haven’t shared with health professionals.’

The author of one of the independent reviews acknowledged this need for balance.

‘I’m not saying you should ride roughshod over confidentiality [...] but you’ve got to look at what the real barriers are as opposed to the perceived barriers and training is crucial.’

The above-mentioned example supports the participants’ views that there remain difficulties associated with confidentiality and interpretations of the Data Protection Act as it highlights that some health professionals either currently use confidentiality as an excuse not to share information, or lack an understanding of current legislation, specifically issues surrounding confidentiality and when disclosure between agencies is necessary in the public interest. It also highlights the urgency of identifying the magnitude of this problem and emphasises the need to focus on the need to develop cross-agency training opportunities.

**Theme 3 Factors that can have a Positive Effect on Multi-Agency Information Sharing**

The mental health and disability manager representing ACPO stressed that ongoing repeated media or personally experienced accounts of extreme negative incidents of ineffective multi-agency information sharing are frustrating, as they tended to reinforce and maintain a lack of trust and respect between such agencies. He stated that it was more important to
learn from such incidents, rather than use them to isolate agencies from one another.

‘We (agencies) kind of live these, we live these kind of stories and they grow and grow. And in the end, at some point you have to break through that and say “There are gonna be times where we’re (police) gonna make a mistake.” There are gonna be times when the health service have made, will make a mistake. [...] And we’re going to carry on doing that, making mistakes because we’re all human beings [...]’

The participant made comparisons between NHS and police service responses when mistakes are made.

‘Now I would also argue [...] the police are not necessarily a learning organisation in the way that the health service are. [...]The response from the Independent Police Complaints Commission is to go after, finding the fault and then going after the individual who caused the fault. Where of course in the health service, my feeling is by and large they will look to learn lessons and then try and develop so it doesn’t happen again. So I think there is some stuff there.’

The above extract demonstrates how agencies are able to identify strengths and weaknesses both within their own organisation and others. It also highlights the potential opportunities for health and criminal justice agencies to learn and adopt effective practices from one another.

The most predominant theme in the study is one of trust which is interrelated to, and impacts upon, all themes identified.

Evidence suggests that ‘trust’ is key to ensuring successful multi-agency information sharing along the offender pathway. Certainly, gaining and building the trust of agencies and individuals helped to overcome seemingly insurmountable obstacles whilst conducting the study. The number of individuals, agencies, organisations and governing bodies that were required to trust the research team and other agencies that would potentially have access to extremely sensitive patient identifiable information, possibly for the first time, should not be under-estimated. Issues surrounding trust were mentioned during every interview. The Director of Offender Health referred to the current problems with multi-agency information sharing and stressed that lack of trust was a key issue. He stressed that attempts should be made to address this issue.

‘What we haven’t done is we haven’t, in a sense, constructed what the boundaries are, [...] and then done stuff about those inter-professional workers so that they trust each other, because they don’t trust each other.’

He then referred to similar problems faced and overcome between social workers and mental health workers when community mental health teams
were first developed, stressing the importance of the physical locality to develop trust between agencies.

'It’s like we were with social workers and mental health twenty years ago, they didn’t trust anybody. And then you put them in the same room and they all start trusting each other.’

The author of an independent review into diversion also supported the view that trust and effective multi-agency information sharing can develop between agencies if they are encouraged to be in the same physical vicinity of one another (e.g. via meetings or training).

'What I found was, [...] during the review period, getting all agencies in the room many of the barriers that were perceivably there beforehand just fell away. Dealing with the same people they were talking often on the phone to each other but never met, and then when they actually sat in a room together they thought “actually there is a better way we can do this”.’

During one of the interviews the researcher discussed issues surrounding ‘trust’ and ‘physical locality’, describing the positive interactions that take place within the multi-agency operational steering committee meetings that supported and guided the research team. The following extract exemplifies the point when the researcher discusses with the Director of Offender Health how different agencies are able to sit around a table and debate effectively even though they might be perceived to have competing aims.

'And I think the way we’ve tackled this (motivating agencies to work together)... I (researcher) work in the [...] in the in-reach office, so they see me all the time. The clinician (inputting data on MAIS) works in the criminal justice (office) so he’s there. [...] and the very fact that the police have created a team to support me (researcher). You know [...] I think nationally people could learn from how we’ve done this.’

(Researcher)

'Yeah and the report’s going to capture this as well? [...] It would be more important, for me (Director of Offender Health), that this study demonstrated there are principles and traits and ways of working that are transferable, regardless of the technicalities of the actual system [...] it’s the relationships that build up between people, and the trust. That is probably more significant than whatever we make them do like that’ [referring to IT systems].

He then stressed that the strength of the study was not necessarily the technical specifications and development of the MAIS system, but more the approach used to address the difficulties surrounding multi-agency information sharing.
'It’s less, a system and more an approach to the problem that adds the value.'

The researcher explained that the study suggested that one of the obstacles to multi-agency information sharing appeared to be overcoming the real, and sometimes merely perceived, barriers between agencies along the offender pathway and stressed that she had found that some of these can be at least partially addressed if each agency felt valued and their concerns listened to and taken into account when attempting to develop the multi-agency information system. She stressed that this approach had been adopted whilst conducting the study.

'It’s a case of overcoming the ‘them’ (criminal justice agencies) and ‘us’ (healthcare agencies). And then you’ve got the ‘prisoners’. [...] The reality is they know they’re vulnerable (mentally ill detainees), they want to feel safe [...] It’s about listening to everyone’

'Taking it one step further [...] we should be saying [...] what we were developing is not just for healthcare, it’s (also for) the police. And we should, rather than see them all separate (agencies), ask them what they want. Something so simple – what they want, what their problems are and sort of go from there.’

One of the independent review authors stressed the importance of identifying the actual rather than perceived barriers associated with multi-agency information sharing, stressing

'Training is crucial and (it) is not just about training within organisations. It’s about training across organisations. [...] so the culture of the police is different from the culture of the health service is different from the culture of the Prison Service, but if you share training then some of those cultural barriers immediately start to fall because they can then see from the different perspectives how they would handle the same person.’

He theorised that, by adopting this approach

‘You break down a lot of that, [...] risk averseness which has been imposed upon them because of fear of accountability and you have to shape the service to overcome those barriers.’

It is possible that providing training about confidentiality and the DPA across, rather than just within, organisations, might be the most effective way of addressing many of the current difficulties/concerns associated with legislation and ineffective multi-agency information sharing.
Theme 4 Current and Future Research

One of the objectives of this study was to develop a health and risk minimum dataset that would enable multi-agencies working within the criminal justice system to manage risk more effectively. This study commenced in January 2009; later that year (November, 2009), and in direct response to Bradley’s recommendations, NHS Connecting for Health were commissioned by Offender Health at the DH to understand criminal justice system health-related processes to identify whether existing NHS healthcare IT could ‘add value’ in terms of continuity of care, identification of risks/needs and support the process of diversion. Part of this work was to identify existing software systems that could be adapted to transport the minimum dataset securely throughout the offender pathway. CfH are due to report their findings to the national Health and Criminal Justice board in January 2011. A representative for this work stream at CfH agreed to be interviewed for the current study to examine points of similarity or difference in concepts, approach and likely recommendations.

The participant informed the researcher that he was focussing on existing NHS IT systems to identify what systems are currently available, how they link, what information would be required as the minimum dataset and with which agencies such data would be shared. He noted that determining what additional information was needed, how it would be distributed and kept up-to-date had created much debate. At the time of the interview decisions had not been finalised with regards to exactly what information would be collated for the CfH offender health minimum dataset project.

In dialogue between the two projects it was highlighted that, for the MAIS network, importance had been placed on adopting an inclusive approach to agree data items; that an important consideration had been the acknowledgement that people in contact with the criminal justice system often had complex health problems, notably the co-existence of mental health and substance misuse problems; and that, to ensure safe detention in custody, issues around significant physical problems were also recorded. The CfH professional questioned whether it would be ethical to include issues surrounding violence on the minimum dataset, suggesting that divulging such information might have a negative impact on how health professionals might respond to such individuals. This issue had been explored by our study when interviewing frontline staff and our findings of the absolute importance of including information about violence risks were discussed, thus hopefully the CfH work programme will take into account our findings without needing to replicate large portions of background research.

Several other participants discussed issues surrounding the development of a national offender health minimum dataset. The ACPO mental health and
disability manager supported the development of such a dataset, if done in a holistic way, rather than sticking to a rigid focus on severe and enduring mental illness.

'I think mental health is a sub-set and if I’m being critical [...] a lot of what they, (Offender Health) are trying to achieve is around. "Right, what do we do for mental health?” When, if you go into custody suites, you would have seen drug and alcohol liaison officers, intervention teams already working. And what I’m saying is bring mental health in the back of that, as opposed to just having a separate stand alone system for mental health.’

Another interviewee also referred to this tendency to compartmentalise a detainee’s health problems when in police custody. During interview he offered to guide the research team on how the MAIS network could be further developed in the future.

'I can give my views about what additional information I think should be collected, how assessment tools can play into the work you’re doing and the different aspects of the complexity of an individual. Because it seems to me we’re too silo-ed, we talk about people with mental health problems, we talk separately about people with learning difficulties, and they are different and then we talk separately about people with drug problems and alcohol problems.’

Whilst discussing issues around consent and 'duty of care' along the criminal justice system, two participants digressed and began to discuss the concept of team which would include healthcare and criminal justice agencies responsible for offenders along the offender pathway, who are often perceived to have conflicting aims. One referred to the concept as 'team'; the other described it as a 'network'.

The Director of Offender Health suggested that

'The concept, is the one of the team that is caring for you. And I think that’s a concept that we should develop in criminal health and criminal justice services.’

He then discussed the concept further

'Because actually, I don’t see any conflict between the [...] responsible wing officer, who is already bound by a duty of confidentiality, for example, - to be part, in a sense, of the care team. They’re already doing that when they (offenders) are on an ACCT[^3] [...] and the same is true of custody sergeants, [...] might be a liaison nurse and the clerk to the court [...] There are lots, probation officer or whatever.’

[^3]: To help identify and care for prisoners at risk of suicide or self-harm, the Prison Service uses a care-planning system called ACCT (Assessment, Care in Custody, and Teamwork).

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The participant stressed that, despite the conflicting aims between agencies, it is possible to focus on the common healthcare goals that all agencies share, such as ‘duty of care’ and ensuring a patient/detainee’s safety.

‘So as long as they (healthcare and criminal justice agencies) understand what their responsibilities are, they are, in a sense part of the criminal justice system.’ (referring to the concept of team).

He elaborated further

‘And for those aspects that are about health, they’re part of the care team for this individual. But I don’t think we’ve matured that concept, [...] that there is such a thing as a care team that would be looking after the health and social care related bits of an offender.’

The participant then stressed that the current study had the potential to advance our understanding of this phenomenon.

‘But the issue is that, one, we haven’t defined that concept sufficiently, because something like MAIS is the thing that underpins the functioning of that virtual team actually. That’s what I think.’

He then began to suggest what needed to be in place to further develop this concept, placing much emphasis on ‘trust’.

‘What we haven’t done, [...] in a sense, constructed what the boundaries and what the issues are about the team operating, and then done stuff about those inter-professional workers so that they trust each other, because they don’t trust each other.’

Developing the ‘concept of team’ when working across criminal and health agencies is a possible area for future research.

**Theme 5: Approach Used**

Whilst the participants were generally supportive of the MAIS network/concept, several paid close attention to the particular processes by which the research team had encouraged and motivated health and criminal justice agencies to work together to develop and implement the MAIS network and recruit participants. Several suggested that the lessons learnt and the obstacles overcome whilst conducting the study were of relevance nationally.

The Director of Offender Health stated

‘It’s got to be on the basis of what you have learned about what are the needs of the systems, why the system works, rather than a technical...’
answer to the problem. [...] The approach to actually making, you know, softening the relationships, building trust [...] that is the answer not the technicalities of the system.’

In similar vein, the ACPO Health and Learning Disability Manager noted

‘What I’ve learned from this (study) is about agencies not wanting to share information (referring to the literature). Seems to me that if there’s some structure that [...] all agencies are involved in. [...] and everyone knows what they can have and what they can’t have, seems to me that everybody’s (i.e. frontline services) happy to share.’

Despite the limitations of the study, several participants stressed that the lessons learnt should be considered to be key findings as they will be of significance nationally. The Director of Offender Health stressed

‘I know the study’s small but there’s a way to kind of rack up the scale and the size of the learning from it [...] if you took a slightly bigger [...] view about what you have learnt. I think if you drill down and it’s a reporting of the implementation of a certain system, if you want my opinion it’ll die.’

The participant then referred to the current financial constraints placed upon all agencies within the CJS and stressed that, whilst they were unable to finance such a project nationally, they could adopt the procedures used to encourage and motivate agencies to share information.

‘We can’t we can’t fund it, we can’t roll it out (MAIS network). But actually you can roll out ideas and principles and commitment.’

One of the independent review authors supported this view and stressed that the MAIS study could guide and inform ongoing aspects of his work.

‘Out of my report, [...] one of the key recommendations, there is a work stream, a national programme established and it is now a requirement that processes are developed in all areas to actually achieve what your researching. So you know, your work can be very instructive in helping to ensure the policy’s unfolded across the whole country [...] so knowing that you’re doing practical work on the ground to try and achieve this will be invaluable.’

Every participant stressed that the study was important as it was challenged and tested boundaries between criminal justice and health agencies along the offender pathway. The ACPO mental health and disability manager noted

‘The big thing for me is actually you’ve been able to break down some of these barriers [...] Rather than what the information (MAIS network) actually contains, it’s the issue of trying to bring these people (agencies)
Theme 6: Perception of the MAIS Network

Despite the limitations of the research, the majority of participants were supportive of the pilot study, especially the approach used and the lessons learnt whilst conducting it. The ACPO mental health and disability manager stated

‘You’ve got kind of an embryo of a really good system here.’

The Director of Offender Health highlighted the challenges of implementation

‘These are brilliant ideas, but it’s got to be deliverable [...] Deliverable into a system which is very complicated, in which there is no money to do anything extra. So you’ve got to land it with what we’ve already got.’

Another interviewee stressed that such a system would be relevant to those with a variety of mental health problem, not just those with SMI.

‘There is a huge cross section of people with mental health and learning disabilities who can benefit from information sharing and it’s actually the low level mental health that you can get quicker outcomes and start to reducing the prison population by more effective information.’

He also suggested that the MAIS network had the potential to act as a ‘trigger’ to grant access to other services but that

‘There’s no point having triggers if there aren’t services to respond to the triggers and there’s no point collecting information that doesn’t actually lead to some specific action being taken on behalf of the individual.’

This view was supported by the Chief Executive Officer of the Merseyside Probation Trust who stressed that the MAIS network, or indeed any other system that aimed to share information, should be supported by appropriate services, rather than it being perceived as just a database that stores information. He stressed that adopting this approach would help ensure that detainees’ needs were identified and also that they are diverted back into health services if appropriate. He also noted that, whilst acknowledging that those working on the frontline of probation care had been involved in the design of the network, they had not, due to technical considerations, had access to the network once it went live, which was thought to be a lost opportunity.

‘It’s absolute madness that Probation Services were not involved in this project.’
ACPO’s mental health and disability manager went further.

‘I’d include every criminal justice agency, courts, probation, prisons police [...] and even the third sector prisoner escort services.’

This needs to be considered in any future developments, including the CfH development of the national offender health minimum dataset.

One interviewee captured the importance of Probation Service involvement by noting that

‘Those people, you know, they may be on short sentences, they may not be on community supervision orders and so no one is taking responsibility for them and so probation [...] may have to be reconnected into the system and that may be having to change some of their policies and practices to be more engaged in what you’re trying to achieve.’

Leads acknowledged that the development of the MAIS network was in its infancy but had potential benefits for a problematic client group.

‘People need to cleave around a particular idea, MAIS (network) as a system. So we all say “okay, this sounds good, were going to try and make this work.” And it’s, you know, we’re looking at screens and doing all this and doing all that. But actually, that’s far less important than that we all share a common purpose, we all share a common idea. And there are limits to how we ought to share and we should share, that’s fine. But there’s a common interest in sharing this set of information, because that’s going to help us all. [...] Help us all in the care and management of the patient, because that’s what matters.’

As stated previously, the Government’s Comprehensive Spending Review was due to be announced within weeks of the interviews being conducted. Many participants referred to the spending review and the implications it would likely have for all public sector agencies. The Director of Offender Health stressed that funding was a significant issue when considering the development and support of a new stand-alone IT system.

‘There is no money. So the idea that we can have, you know, we might be able to design a super duper system, but [...] we’ve got no money to implement it from now basically.’

He acknowledged the rationale behind the development of the pilot MAIS network as a stand-alone system but stressed that, due to the number of IT systems currently in place along the offender pathway and the present financial constraints, integration was necessary for any national implementation.

‘Well, the thinking, I mean the design work for what the potential of this is, you know, obviously had to be done in terms of its own stand-alone or
whatever. But the future of the idea must be one that is, that is integrated into whatever system. Because otherwise its, its undeliverable, we can’t deliver it. You know, there is no money, we do not need another system.’

Another consideration was that of finding ways of efficiently populating such a system with large quantities of data, on a regional or national level.

‘We can talk about the detail of the system but what I’m bothered about is if something like this works, how do you land it? How do you make it work so that it can, on an industrial scale, take the information from these various points? Because if it can’t, in a sense, automatically upload from LIDS or VISOR or OASYS or whatever, […] If it can’t do that, you know […] if it can’t do that in an industrial, automatic scale, it’s not going to work.’

The Director of Offender Health spent a considerable amount of time discussing the complexity of the current IT systems and the difficulties thus created in relation to multi-agency information sharing (e.g. systems not adequately joined up or standardised within agencies). He also explained that many IT systems had not been designed to share information with other systems within a single organisation, let alone with other agencies. Whilst he was undoubtedly supportive of multi-agency information sharing between criminal justice and health agencies, he highlighted the current difficulties of joining up and integrating the different IT aspects of healthcare, let alone integrating healthcare and criminal justice IT.

‘We think the integration is health in the criminal justice system. Actually that’s, for me that’s not the principal issue. The principal issue is integrating with the rest of the health system that that person’s coming from. So whether its mental health system, might be drugs, but it will be primary care.’

The issue of integration leads to consideration of the Medical Director of SystmOne’s suggestion that the MAIS network’s data items could be perceived as a ‘risk template’ which could be incorporated into SystmOne, thus allowing integration within a current system for very little cost. However, doing so would defeat a number of the key objectives of the MAIS network by still requiring clinician-granted access to an individual’s information, rather than being available to criminal justice workers first hand. This would mean that police custody suites might not have immediate access to the risk information as many police custody suites do not have immediate, round the clock access to clinicians. Therefore, if risk information is to be shared effectively and accessible to all workers first hand, it is necessary to identify an IT system that can be freely accessed by all agencies.

The Director of Offender Health highlighted the lack of funding when he referred to work that is currently being conducted by CfH.
'(CfH’s) work is actually invaluable, [...] (they have) done a mapping of what the functionality needs to be, what minimum dataset would need to be. I’m sure it’s informed by this work (MAIS network), and also to look at how you might land in the systems that exist with no money. Because that’s the crucial thing you see.’

As stated previously, the person at CfH responsible for the development of the offender health minimum dataset also participated in the study. During discussion, it was apparent that there was a considerable amount of duplication when comparing the MAIS network and the national offender health minimum dataset under development. The main discrepancy related to the MAIS network’s aims to manage risk, so it additionally focuses on issues surrounding violence. As CfH are still developing the proposed minimum dataset, it is not yet possible to make direct and detailed comparisons between it and the MAIS health and risk dataset.

The tasks bestowed upon those at national level should not be underestimated. It is not just simply the development of an IT system that could share health information between agencies, it will undoubtedly require them to encourage and motivate inter-agency and multi-agency working as services develop in response to national policy edicts. Adapting to these changes will require a dramatic change in attitudes and possibly adopting different ways of working along the offender pathway.

Whilst this study cannot claim to address all of these problems, it has been able to achieve a number of things:

- It has provided insight into how to motivate and work effectively with agencies with seemingly competing aims;
- It has identified an acceptable mental health risk minimum dataset to inform immediate decision making at point of arrest;
- It has guided and informed CfH in their ongoing development of a national offender health minimum dataset designed to be accessible throughout the offender pathway; and
- Has identified and piloted a novel way in which risk information can be shared effectively with multi-agencies.

The ACPO mental health and disability manager questioned how best agencies could be motivated to buy in to such a system.

‘I think this (MAIS) is a good piece of work. I guess the trick is how do you get from where you are to a nationally approved database that everyone will sign up to’
He then went on to note that

’If nationally a process or programme replicates this or expands upon this, then I’d be delighted.’

Both those representing Offender Health and Probation Services made comparisons between the piloting of MAIS and the reality of implementing such a service nationally. The Director of Offender Health stressed

’I think the problem you’re going to have to overcome, […] is that the study is small and it’s been […] delivered through a dedication of individuals. And the issue will be, is whether you can, whether it’s possible to replicate this.’

As stated previously, the development of the MAIS network is in its infancy and thus not at the stage when it could be implemented nationally. However, there is no doubt that this study has been supported by individuals working within agencies who are committed to improving services. Much could be learnt from their work ethic, attitudes to change, research and multi-agency information sharing.

Developing a multi-agency information sharing IT system is a complex task. As this was a pilot study, the research team restricted access to the MAIS network for police officers and clinicians as ‘read only’. However, the MAIS network was designed with the capacity for clinicians and criminal justice staff eventually to both ‘read’ and ‘create to’ the network. Thus, for the pilot, the data stored on the MAIS network could only be guaranteed to be accurate on the day an individual was released from prison. This raised serious concerns for the Senior Medical Advisor for Offender Health, especially in relation to the medication prescribed. He stressed that it was paramount that such systems should be updated; suggesting if they were not, the provision of such information had the potential to be dangerous, especially for those subsequently detained in police custody several months later.

The ACPO mental health and disability manager questioned why it was a ‘read-only’ system. He suggested that the system could be further enhanced if the police could add information to the network if a prisoner were subsequently detained in police custody. This view is supported by the then Chief Constable of Merseyside who suggested this when involved in the initial design of the MAIS network. The ACPO representative noted

’You want a system where everyone puts in and everyone takes out. At the moment you’ve got a system where some people put in and everyone takes out.’

Despite the participant acknowledging the limitations of the current network, he discussed how the pilot study was developing proof of concept,
in spite of the financial restraints and highlighted the clarity and succinct way information had been displayed on MAIS.

‘In terms of proof of concept here. [...] I think there’s a lot of [...] merit in terms of what you’re doing. Understanding some of the limitations because of the fact that you’ve only got a certain amount of money. Okay I think I’ve tested those limitations and I understand what they are. But I also understand the rationale for why they are there because of cash flow etc which we all absolutely have to deal with. But in terms of proof of concept, I think, in terms of, if you like, a list of things that the police service would be interested in, and the way that you present it in kind of a succinct and easy read process. I think there’s a lot to be said for this.’

The participant then referred to current assessments that take place in police custody and stressed the potential contribution the MAIS network could make in police custody suites.

‘Because the risk assessment that police have to make when someone initially comes into custody, and then through the person’s detention, you know, at two o’clock in the morning that risk assessment, he’s probably only going to spend five, ten minutes doing it. [...] The custody officer wants that information easily available, up to date. And I know you’ve got issues about it (MAIS) being up to date, because as we know again that’s one of your restrictions of the work that you’re doing.’

The participant then described a scenario in which the MAIS network might be used in police custody suites, taking into account the fact that the data on the network is only accurate on the day of release from prison. It is of particular interest that the scenario included someone detained under Section 136 of the Mental Health Act, a provision which provides a police officer powers to detain a person suspected of having mental health problems if doing so would alleviate immediate risk to self or others.

‘If he’s got mental health problems for example, I might phone up, I don’t know, the out of hours mental health crisis team and say ‘I’ve got Michael Williams in custody. His GP is this person. This has come up on the MAIS network. Is there anything else I need to know? Because this information might be old now, or you know.” And they’ll say “Well actually he hasn’t engaged with us for the last six months.” “Oh, thank you very much because we’ve got him here on 136.”’

The above example highlights the importance of being able to identify contact details of agencies responsible for a detainee’s management/care, all of which are documented on the MAIS network.

Whilst the police stressed the importance of acquiring specific health information about detainees, they emphasised that it should still be based
on a need to know basis, for example to help to ensure that all detainees who require an appropriate adult are identified; that they are aware of who definitely needs to be referred to a health professional; and to allow informed decision making, promoting safe detention.

Whilst it is evident that the police wished to respond appropriately to mentally ill detainees and were receptive to working alongside healthcare professionals, they (police at national level and those working on the frontline) often commented on their fundamental role, that of conducting criminal investigations. Many also commented on their current limitations when understanding mental health issues.

‘Prior to me taking this job (mental health and disability manager for ACPO), if someone said, “Oh I’ve got Bipolar”, ‘I’d say “Right okay, I know it’s a mental illness, but haven’t got a clue what that means” […] Even now I don’t fully understand autism. But I don’t think the police service is ever going to want to get to position where we become street corner psychiatrists.’

This is, of course, a similar balance and conflict as that experienced by health workers based in police custody; they remain responsible for the assessment and immediate care of detainees’ mental or physical health, but are not gaolers responsible for the detention of that individual. Both the police and health professionals have specific responsibilities and neither agency expects the other to conduct their roles. Such an example supports the Director of Offender Health’s suggestion that we should revise the ‘concept of team’ within the criminal justice system. It also highlights how different agencies, with seemingly conflicting aims, can work together effectively, provided that responsibilities and boundaries are clear from the onset.

Originally the sole purpose of the study was to establish an IT network which would provide the mechanism through which information about recently released prisoners with mental health problems could be shared promptly, securely and reliably between health and criminal justice agencies. However, interviewing national leads has revealed that this study has the potential to inform and guide agencies at national level on many aspects of their current work, specifically, Bradley’s (2009) recommendations.

At interview, the author of an independent review into diversion suggested the important contribution this study can make in relation to his ongoing work.

Out of my report, as you know, that was one of the key recommendations, there is a work stream, a national programme, you know, established and it is now a requirement that processes are developed in all areas to actually
achieve what you are researching. So, you know, your work can be very instructive in helping to ensure the policies unfolded across the whole country which is, you know,...[...] So knowing that you’re doing practical work on the ground to try and achieve this will be invaluable, as I say in being a case study that can be [...] replicated elsewhere in the country because a total sign up by all the agencies to try and achieve it, but it is actually having a sort of practical model that shows how it can work in practice.’

This study also provides an insight into how the research team motivated multi-agencies to work together effectively, which might be of interest at government level, to policy makers and national leads. The Director of Offender Health stressed the importance of focussing on the sociological problems of implementing the MAIS network, rather than focussing on the technical problems.

‘I think what you have to do is you say, ‘the principles of this and the learning from this and the ideas from this, and the fact that you can get multi-agency working and you can get multi-agency collaboration, you can, you know, refine the concept of team, you can refine the concept of need-to-know. All those. And this system enables, it’s an enabler to help you to do those things, so it’s more sociological head to the problem, rather than a technical head.’

This study has demonstrated the benefits of involving all agencies in all aspects of research, ranging from the design of the network, participant recruitment and the identification of national leads to be invited to participate. National leads who participated in this study have also influenced its design by requesting that the researcher ask frontline staff what information they would required in a national offender health minimum dataset, proposed by Bradley\textsuperscript{28} and under development by CfH.

Findings suggest that effective communication between all agencies is key when researching this phenomenon. A fundamental purpose of any research is to advance knowledge and understanding. Based on these principles, the team has been guided by the participants’ specific needs when presenting the findings. Taking into account that this study is able to inform and guide those preparing to implement Bradley’s\textsuperscript{28} recommendations, justifies the considerable amount of attention which the team has paid to the processes of motivating and encouraging agencies whilst developing such a network.

To conclude, the majority of participants at national level were extremely supportive of the study in spite of its limitations. However, national leads stressed that the MAIS network in its current form could not be implemented nationally, and due to current financial constraints, it would not be possible to develop a stand-alone system, thus its concepts would
have to be integrated into another IT system in use along the offender pathway. Currently, there is no IT system available to all agencies along the offender pathway. It is the case that incorporating MAIS network template into a clinical system would result in very little progress being made against our study’s aims, as clinicians would remain in sole control of access to those health data.

4.3 Part 3: Conduct a process evaluation of the development of the MAIS network, and the issues raised around information sharing and partnership working.

The development and implementation of an Internet based multi-agency information system sharing health and risk related data about people with mental health problems upon their release from prison was an ambitious and challenging task. Key to the successful operation of such a system was the need to reconcile the different cultural viewpoints on information sharing between healthcare and criminal justice agencies and to address matters around forging and sustaining effective local inter and multi-agency partnerships.

The health and social care of people in contact with the CJS was a key area of interest for the previous government during whose tenure clinical and financial responsibilities for prison-based health services were transferred from HM Prison Service to the NHS. Latterly, the Department of Health has started work to support the extension of such NHS provision into police custody suites nationwide, replacing current services which are predominantly commissioned by individual police forces with no overarching national model of best practice. Early indications are that the current administration will sustain work in this area, with issues around improving diversion from the CJS for those with mental health problems forming part of the recently published Ministry of Justice Green Paper Breaking the Cycle: Effective Punishment, Rehabilitation and Sentencing of Offenders. As these work streams develop and the NHS assumes responsibility for the healthcare of detainees throughout the offender pathway, it is crucial that research keeps pace with such sweeping changes in order to shape both national and local policy developments and the development of gold standard frontline working practices and service models.

It has been long recognised that multi-agency information-sharing within the CJS is problematic. However, there is little practical guidance on how to motivate and encourage healthcare and criminal justice agencies to work together effectively, although such multi-agency partnerships are widely...
discussed as essential for the delivery of ‘joined up’ care across the offender pathway. The research team has considerable experience of conducting research within prison establishments however, at the start of this process had less experience working with criminal justice agencies operating within the community, for example the police and probation services. It was therefore considered necessary to conduct a preliminary exploration of what the concept of dealing with mentally disordered offenders and the difficulties encountered with multi-agency information sharing ‘meant’ to professionals from each organisation. To do this, we adopted the approached proposed by Magee\textsuperscript{11} whereby it was noted as necessary to

‘deal with the network (CJS) as a whole...addressing each of its facets in a coherent and consistent way. It involves adopting new processes, policies, practices and, necessarily, behaviour throughout organisations’. \textsuperscript{11} (p43)

The quote refers to the sharing of criminality information specifically; however we took this concept a stage further, believing that, if we were to develop a more effective system of identifying, managing and responding appropriately to those perceived to be at risk within the CJS, the same principles applied when sharing health and risk information across agencies\textsuperscript{9}. Thus, we considered all agencies that would have access to the MAIS network effectively as part of a single ‘risk network’, regardless of whether they were employed by health or criminal justice agencies. However, we were aware of the need to remain mindful of the (often apparently) competing tensions and conflict between health and criminal investigative processes and concentrated on developing a system fit for purpose for all agencies. To that end, all agencies (police and probation services, primary care workers and general practitioners, court, police and community and prison-based mental health workers) guided the research team on every aspect of the study, ranging from recruitment, what data should be shared on the MAIS network and best ways of implementing the system. Each voice was valued and valuable.

Involving all agencies from the start of the study has not only been extremely helpful to the research team, but also resulted in all agencies working effectively and amicably together to develop the MAIS network with a sense of shared ownership. Throughout the two year study, a core group of professionals remained involved, enthusiastic and motivated to problem solve. This gave the research a very different ‘feel’ to other research we have conducted in the CJS; essentially, the agencies involved were research partners, rather than merely research sites. Moreover, it has challenged and tested boundaries between academia and criminal justice and healthcare agencies; identified offenders’ perceptions of contact with the CJS as being a possible opportunity for positive change rather than just punishment; discovered discrepancies between the views of national policy makers and
frontline staff which could potentially affect the success of whole-system reform; and has generated many challenging questions, both ethical and legal, that were debated robustly as part of the research process and which, again, need to be considered by all agencies at national level.

Early observations of our NHS and CJS research partners highlighted that we were working with professionals who were open to information sharing, having worked to develop excellent working relationships over a period of years. When asked, workers explained that these effective working relationships had evolved purely due to individuals on the frontline seeing the benefits in fostering good working relationships with one another, rather than in response to any national directives encouraging partnership working. Relationships were observed as efficient, resulting in appropriate multi-agency information sharing becoming commonplace between individuals or agencies operating within a context of trust. Practical challenges to information sharing, such as IT difficulties, were pragmatically worked around, rather than allowed to become insurmountable.

However, it is important to note that professionals did not think that achieving their current multi-agency working practices had ‘come easily’; most stressed that it had taken a considerable number of years for the criminal justice and healthcare agencies to develop the current level of trust and also felt that the types of partnerships forged across Merseyside were not necessarily a reflection of what occurs in all regions. This is a view reflected elsewhere; for example, in a number of publications, the Mersey Care NHS Trust CILT who was involved in this project has been held as an example of particularly good practice. Nonetheless, many reported that obstacles still exist which affect multi-agency information sharing, acknowledging that there was still room for significant improvement in the working relationships and practices between health and criminal justice agencies across the region. Thus, it is possible to suggest that the geographical region we chose to implement our MAIS network is an area where health and criminal justice agencies already work and train together effectively and are receptive to both change and participating in research.

This was a pilot study, and our intention was to implement the MAIS network on a limited scale, initially into only two of the eight custody suites in the Merseyside jurisdiction. When making this request to the then Chief Constable of Merseyside Police, he asked that it be made available in all custody suites. He also noted that such a system would be more meaningful and productive if the police were able to add information upon a participant’s subsequent arrest. The team acknowledged this, but explained that it was a pilot study and thus was a ‘proof of concept’ test, rather than purporting to be a fully functional, highly polished system. We explained that the initial system must remain ‘read-only’, with the intention of later
being able to enhance the utility of the network by allowing partner agencies to populate the dataset with risk-pertinent information gathered within their own organisations. This was an unprecedented situation for us to find ourselves in, that of needing to temper the enthusiasm of host organisations as they wanted us to do more, rather than less; it is usually the case that organisations agree to host research as long as extra work on their part is kept to a minimum. When this was explained, the then Chief Constable was fully supportive of the study and informed the researchers that the police service would specifically assign officers to help assist implementing the MAIS network into their custody suites.

The police inspector responsible for all custody suites across Merseyside was tasked to support the team for the duration of the study, especially whilst making the MAIS network operational in police custody suites. He has been involved in most aspects of the study, including contributing to the agreement of data items; attending operational steering committee meetings; active liaison between specific departments within Merseyside Police; liaison between the study and national PNC managers to sanction the required changes to the PNC; and advising on national policing structures to ensure the involvement of key policy makers. In addition, Merseyside Police provided a team to support the researcher prior to and during the implementation phase, which included a training officer, two police inspectors and the technical analyst responsible for the IT systems in Merseyside police. Our decision to seek the involvement of Merseyside Police directly from the Chief Constable legitimised the study in the view of operational staff and, as a consequence, the support received from Merseyside Police Service has been unfailing throughout and we would recommend this type of approach to ensuring the effective engagement of criminal justice agencies in health related research.

Another unexpected development of the MAIS network involved the value it was felt to potentially have for a wider clinical group than initially intended. At the outset, the network was designed primarily for use by authorised custody sergeants, FMEs, custody nurses and the CJLT. However, very soon into the process, the manager of the prison-based mental health in-reach team requested access to the system for his staff. He reported that many of their clients were part of a ‘revolving door syndrome’, often returning to prison within a short period of time after release and thus, the information recorded on the MAIS network would be extremely helpful in ensuring continuity of care, especially with regard to having access to the contact details of any community services that had been involved in the person’s management prior to them being returned to custody. The decision was therefore made to extend MAIS network access to the in-reach team, to test out its utility in supporting the provision of seamless care for such individuals.
This example highlights the need for such a system to be available throughout the whole CJS, including allied community mental health services, to ensure continuity of information exchange. It also highlights the importance of building a system that can be updated contemporaneously to changes in a person’s status, to ensure accuracy. This would be a potential format for which to meet the concept of ‘patient passports’ suggested by NCISH and Lord Bradley’s view that all agencies need to be kept in the information-exchange loop. These concepts all form the basis for future research in this area.

As noted above, throughout the study, the research team worked closely with frontline professionals and clinician and informal feedback throughout the life of the study has been wholly positive. For example, the Inspector who oversees the operation of all custody suites on Merseyside described the network as

‘Of great significance nationally... the first time that clinical information has been shared with police officers and police-employed healthcare professionals to assist in the management of a police detainee’

Throughout, we have had to work to temper the enthusiasm of the professionals involved, rather than having to generate buy-in: their eagerness to engage and immediately develop new working practices around the system at times could have overtaken the required pace of the pilot aspects of the study which, for a research team, is obviously a very pleasant problem to manage. We feel that we have learnt key lessons to guide us in determining a fruitful forward direction for this work, based on both our own experiences in conducting the work and our interactions with service users and CJS and health professionals.

Investing in this study approach has proved to be extremely valuable because trust and rapport was quickly established between frontline staff and researchers, ensuring they felt involved in the research process; that it was safe to divulge information they might have otherwise have been reluctant to disclose; that concerns and suggestions were welcomed and appropriate actions taken; and that a sense of ownership of the MAIS network developed which motivated support of the study.

4.3.1 Study limitations and significant amendments to the original protocol

Significant amendments had to be made to the study due to unexpected difficulties associated with the recruitment rate of participants and difficulties in acquiring NHS follow-up data for those discharged from prison. This led to us having to omit some actions which were proposed in the original methodology. The necessary changes were fully notified to the
study’s funding body as part of ongoing progress reports submitted throughout the project.

Initially the study intended to assess a number of outcomes:

- The usability and security of the network;
- Cost evaluation;
- Efficiency evaluation;
- Impact on clinical decision making; and
- Feasibility of a national roll-out.

To assess a number of these outcomes, especially around impact upon clinical decision making, the original methodology detailed the use of two research sites, HMP Liverpool and HMP Manchester. HMP Liverpool was the designated ‘network prison’ and HMP Manchester the control site. Thus, prisoners with SMI residing at HMP Liverpool were to be approached for inclusion in the study and, upon them consenting to take part, the full MAIS health and risk data template would be completed from their clinical notes and uploaded to the MAIS network and ‘go live’ i.e. become searchable/usable by registered MAIS users. Similarly, people in HMP Manchester identified as having severe and enduring mental illness were to be approached and, upon receiving informed consent, a reduced dataset, including basic demographics (e.g. age, number/type of convictions, number of prison sentences etc) and some limited health data (e.g. diagnosis, any identified risk factors), would be collected. The plan was to track each person upon their release from prison and, using data from the PNC, identify which participants had further contact with the police and the outcomes of those contacts (e.g. further charges, imprisonment, diversion to health services, community sanctions). In addition, we aimed to use routine NHS data to document any contact with specialist mental health services in the community and/or admissions to mental health in-patient care.

The original recruitment target was 100 participants overall, i.e. 50 at each prison. However, it has oft been expressed, light-heartedly, that the way to reduce the prevalence of any illness is to start researching it, at which point ‘cases’ seem to melt away. This proved to be the case for this project, despite a high consent rate (100% in HMP Manchester and 84% in HMP Liverpool). Over the course of the study, we widened the inclusion criteria to include those being discharged from prison to addresses further afield than had been initially envisaged to increase the recruitment rates at both prisons. This required further NHS research governance applications and amendments to our ethical permissions. In spite of this, when data collection ceased, we had only recruited 31 participants from HMP Liverpool.
An additional problem was that of estimating the likely length of stay for those who were held on remand i.e. those unconvicted awaiting trial, or awaiting sentence following conviction. The inclusion criteria included the requirement for a participant to likely be released before 30 November 2010, thus those who were serving sentences with release dates beyond that date were excluded, as were those on remand for offences likely, if convicted, to attract a substantial term of imprisonment. The researcher worked with prison-based clinicians to make a ‘best guess’ as to likely length of sentence, based on the gravity of the criminal charges faced. This system was not fool-proof; some charged with serious offences were excluded from the study, but later had charges dropped or downgraded and, as a consequence, were released within the study period. This is the second study we have completed where recruitment has rested partly upon the ability to estimate the release dates of remand prisoners. In the other study, we liaised with defence solicitors as well as clinicians to estimate release dates which provided additional useful information. We have combined the learning from the two projects to produce an algorithm to predict release and this will be trialled in a forthcoming randomised control trial which will further explore discharge planning for remand prisoners with mental disorder. The learning from this project and our forthcoming work which requires maintaining contact with both intervention and control groups of discharged prisoners will further research knowledge around working with hard to engage groups which will be applicable beyond work with those in contact with the criminal justice system.

Due to the potential vulnerabilities of this population, every effort was made to ensure that each person approached for inclusion in the study felt free from coercion and able to make a free, informed choice about whether they wished to take part. Time was afforded by both the researcher and, very importantly, the prison-based clinicians to introduce and explain the rationale for the study to each person individually, allowing time for any questions or queries to be satisfactorily addressed before consent was requested. Study literature was written in clear language, taking into account the limited literacy skills of a large proportion of people in prison. Due to the sensitive nature of the study it was necessary that the researcher describe the study honestly, in a way that would motivate prisoners to participate in the research. Thus, the researcher concentrated on the possibility that information on the MAIS network would inform those working in police custody suites of their mental health issues and possible vulnerabilities and risk factors, helping to ensure their safety or health

and 17 from HMP Manchester. This is, therefore, a major limitation of the study and has had a negative impact on the use of the practical use of the MAIS network.
whilst held in police custody; enabling the police to identify and contact health professionals who are responsible for their care whilst in the community; and to inform the police that they required the support of an Appropriate Adult.

High rates of consent were achieved, we believe in no small part to the effort taken in recruiting participants respectfully. Consent rates were in line with our previous prison-based research; however, this study entered uncharted waters by asking permission for personal data to be used if people were further detained by the police. The team was aware that such a request might possibly upset, agitate or anger some prisoners. It was also envisaged that some would want to scrutinise the information that would be placed upon the network before deciding whether or not to participate in the study, thus gaining trust was especially important and a considerable amount of attention was therefore paid to recruitment procedures.

Due to the limited numbers of ‘live’ cases on the network, searches by the police and custody health staff were extremely low; the network in effect listed only potentially 31 of the many thousands of arrestees processed annually through police custody suites in Liverpool. Therefore the proposed activity of collecting efficiency data from users of the MAIS network was deemed to be meaningless. These data would have established what information from the network was used for each participant, whether the information available was useful/accurate and to identify outcomes of using the data, for example using a person’s mental health key worker information to ‘fast track’ them back into mental health services. Issues surrounding the usability of the network and the possible impact it might have on clinical decision making were however alternatively explored through the conduct of qualitative interviews with frontline staff. Any future research concerning the MAIS network should address the above limitations.

A second proposed strand of evaluation was to track participants from both the network and control prisons to establish rates of contact with community mental health services and any mental health in-patient episodes using the NHS Strategic Tracing Service (NSTS) and the Secondary Uses Service (SUS), making comparisons between the two groups as an indicator to whether inclusion on the MAIS network increased the chances of a person remaining in contact with services, or a means of re-establishing mental health service contact following police detention. Before the funding application was submitted the study team made contact directly with the NSTS to outline the research proposal, giving details of the data which would be required to check its suitability and availability. We were informed that earlier problems receiving and entering data returns from mental health trusts had been resolved and, by the time our study was
operational, the data would be complete and available. However, this aspect of the study did prove to be extremely problematic for a number of reasons.

Since the start of the study, the NSTS has been decommissioned and replaced by the Demographics Batch Service (DBS). We were also informed that Secondary Uses Service (SUS) data were subsequently transferred to the Hospital Episodes Statistics (HES) database, which was perceived to be more up-to-date and thus more accurate. Therefore, a decision was made to collate the required post-release service engagement information from the DBS and HES data. Ethical approval was sought and granted. However, a number of difficulties where then encountered when attempting to gather the data.

Firstly, numerous difficulties, problems and delays were experienced when attempting to seek guidance about the DBS and HES data. Over a period of several months the team made a number of phone calls and sent numerous emails asking specific questions. Most queries were answered, but in some cases it was several weeks before we received a reply and for others we are still waiting for a response. These delays created major stumbling blocks for progress of the project.

Secondly, we subsequently learnt that we were unable to acquire the required information from the DBS, in spite of it purporting to be the replacement for the NSTS which we had previously checked held the necessary data. With regards to HES data, we were informed that, as we wished to track participants’ access to community services within a relatively short time-frame (i.e. a few months after being released from prison), accuracy of data could not be guaranteed. Based on these issues, a pragmatic decision was made to exclude this stage from the current study. The problems encountered were frustrating and exceedingly time consuming and reveal fundamental issues around the use of routine NHS data sources in longitudinal research.

With regard to the service user experience of the MAIS network, it had originally been intended to explore participants’ perceptions and experiences of having their health information made available to community criminal justice and healthcare agencies via the MAIS network and its influence on future criminal or health outcomes if they were detained in police custody subsequently. However, this proved not to be possible for a number of reasons.

During the early stages of the study it became apparent that the team would have difficulties achieving a suitable sample for this part of the research. When discharged from prison, many people, especially those who have served short sentences, or a period remanded in custody, are not discharged to stable accommodation. For example, several participants
were homeless prior to being imprisoned; upon release some were referred to hostels, but it was uncertain how long they would live there. Three participants were detained in hospital under mental health legislation shortly after consenting to participate in the study, highlighting that capacity to consent to participate at a later date could not be taken for granted.

Those who had served short sentences were not under the supervision of the Probation Service upon release, therefore this could not be used as a method of keeping up to date with their living arrangements. In contrast, those who were managed under MAPPA, for example many registered sex offenders and violent offenders who pose a serious risk of harm to the public provided the opposite challenge, that of access to a suitably private but safe location in the community in which to conduct the interview.

Upon initial recruitment to the study, those who consented agreed that they were happy to have their information shared on the MAIS network, but the majority did not wish to participate in a subsequent interview when they were released. For those who had any forwarding address, however tenuous, only one agreed to be interviewed once they have been released. Thus, it was not feasible to satisfactorily conduct this stage as initially proposed. However, it was apparent from initial recruitment that the comments made by participants when asked to take part in the study provided a unique insight into their perspective of sharing their health information with criminal justice agencies. Therefore, a decision was made to focus on these issues and these views were incorporated in to the results. Identifying participants’ perspectives of having their health and risk information shared with criminal justice agencies is an area for future research, particularly when considering the imminent implementation of the national minimum data set within the CJS.

Due to changes in the project caused by the recruitment and follow-up issues described, the qualitative elements of the study developed organically. Interviews went beyond the strict remit of asking participants their opinion on the MAIS network as a discrete piece of work; rather they uncovered a whole range of opinions and thoughts relevant to the multi-agency management of offender health provision; cultural issues; concepts of ‘team’ and patient choice within a criminal justice setting; trust; and learning by mistakes. This, we believe, has produced a rich report with valuable information and lessons learnt for those providing services for offenders with mental health problems.
5 Discussion

The study aimed to establish an online multi-agency information sharing network, using the Internet as a way of overcoming the difficulties of cross agency access to clinical IT systems storing mental health and risk information for people released from prison with severe and enduring mental illness.

5.1 Limitations of the study

The technical aspects of the study were fully achieved and a secure, scalable, robust IT infrastructure was designed, established and activated. Real system testing showed that the MAIS network was secure and resilient against a wide range of security threats and attacks. However, an accurate picture of the performance of the system was not possible due to the small numbers recruited into the study in terms of participant prisoners. This adversely affected our ability to address study objective three by evaluating costs, efficiency, efficacy, impact on clinical decision making and levels of engagement.

The disappointing final recruitment figure was the result of several factors, notably eligible numbers of participants and lengthy ethics and governance procedures. The initial inclusion criteria included the requirements that participants had SMI, were likely to be discharged within the study period and, upon discharge, would be followed up by Mersey Care NHS Trust, our partner organisation. As the recruitment phase got underway, it was clear that the application of these criteria was not generating the number of eligible participants that had been anticipated and it was unlikely the recruitment target would be met. To counteract this, the eligibility criteria were relaxed to encompass those being discharged to a wider geographical area. This required the submission of both a substantial amendment to the study’s ethical permissions, and additional NHS research governance permissions from the relevant NHS primary care and mental health trusts. The ethics substantial amendment was given a favourable opinion in a timely fashion; however, obtaining the governance permissions proved drawn-out, with some permissions still not received at the end of the data collection period.

In line with a number of other studies we have conducted within the NHS, the issue of applying for and receiving the required permissions impacted negatively upon timescales and thus research costs and achievements. Over recent years, ethics and governance procedures have been under scrutiny and effort has been put into streamlining the process, notably through the integration of both ethics and governance applications into a single system,
the Integrated Research Application System (IRAS). In theory, this portal allows all organisations from who permission is sought to host a study to download standardised data, from which a decision should be made. However, it remains the case that some NHS organisations often then require additional information over and above the agreed national dataset, or in fact merely request the same information, but re-submitted in a localised format. Further delays are encountered when organisations undertake additional processes which seem, to the research team at least, to be out with the scope of the permission requested. For example, as part of some applications for governance permission, a number of NHS Trusts conducted additional scientific peer reviews of the study when in fact it had already been independently reviewed as part of the funding process and for its adoption to the NIHR portfolio, and evidence of such could have been provided quickly.

These issues compounded the initial delay of several months encountered in being granted initial governance permission from the main NHS organisation involved, Mersey Care NHS Trust, because, although the Trust’s Research Governance Committee granted permission, they then referred their decision for further ratification by the Trust Information Governance Committee. This committee only sat quarterly and the application submitted to, but not heard at, the first available sitting. This delay was particularly frustrating given that we had specifically involved the Trust’s lead Information Governance Officer in the study from the very earliest stage, and he had actively contributed to both study design and protocol development, expressing no reservations along the way.

Similarly, initial delays in receiving HM Prison Service permission to conduct the study were experienced and overcome by taking a head-on approach. Having received no timely response from the original application, we contacted the committee concerned directly on a number of occasions and discovered that delays were as a result of the study having been sent for review/opinion to a number of different bodies, including the DH prison IT programme team. When their response was received, we felt it displayed a lack of comprehension of the work proposed and arranged a face-to-face meeting with the lead HM Prison Service committee member. A short, amicable meeting resolved all outstanding concerns and permission was then granted swiftly. These initial delays severely limited the time-frame for active recruitment of participants to the study.

The continuing issues around NHS ethics and governance procedures have been addressed in a very recent report by the Academy of Medical Sciences which recommended the creation of a new Health Research Agency to rationalise the regulation and governance of all health research; a new National Research Governance Service to facilitate timely approval of
research studies by NHS Trusts; the provision of access to patient data that protects individual interests and allows approved research to proceed effectively; and the embedding of a culture that values research within the NHS.

The second major limitation of the study was the very low usage of the MAIS network by the health and criminal justice personnel registered as users. In total, 122 professionals successfully registered on the MAIS network, from a possible 188 eligible individuals. The majority were police officers (96; 79%). The remainder were clinicians, either working in police custody suites (10; 8%), or in the criminal justice liaison, prison in-reach or dual diagnosis teams (16; 13%). Only one unique search was undertaken by a police officer. This failure to bring about active use of the MAIS network by frontline staff was disappointing, especially in light of the enthusiasm and engagement that the research team had generated in the health and criminal justice agencies involved in terms of contributing to the set up, identification of data items and embedding of the MAIS network into a number of their established practices up to the point of making the network ‘live’.

We attribute the negligible use of the MAIS network to two main reasons; the low numbers of participants and awareness of the network by frontline police officers. The issues around the low number of participants and actions taken to rectify this have been previously discussed. The low number of participants (31 individuals) makes the lack of searches for detainees’ details understandable in terms of the number of people being processed through Merseyside’s police custody suites on an annual basis; approximately 40,000 arrests are made annually for recorded crimes. In light of such throughput of individuals, in busy custody suites it is therefore not surprising that officers did not take time to check whether an arrestee happened to be one of the 31 people registered on the MAIS database.

We believe that another important contributory factor to the low use of the MAIS network by police officers in particular rests in the way the initiative was communicated to frontline staff. Our initial plan had been for members of the research team to visit all participating custody suites and hold staff meetings with all police officers whose work was predominantly concerned with booking in detainees and managing them in the cells. However, this was felt to be unfeasible by the senior police officer charged with liaising between the research team and his organisation, due to existing problems in being able to free-up staff time, even for mandatory in-service training commitments. Thus, the plan was changed to the distribution of an information sheet about the study, compiled by the force’s training department, with input from the study team. The information sheet contained brief details of the reasons behind the study and instructions on
how to access and search the MAIS network. It was distributed to all officers working in custody suites via the force’s staff intranet. With hindsight, we believe this was not an effective method of communicating the project to generate interest and buy-in; if it had been effective, we believe the network would have received a higher number of exploratory ‘hits’, regardless of the low number of participants recruited to the study.

Secondly, the study PI was invited to present the study at the routine meeting which brought together locality inspectors, again to raise awareness about the project. However, the presentation was scheduled and then cancelled on a number of occasions and ultimately did not take place. Reasons for cancellation centred on the need to schedule more pressing operational matters into the meetings and latterly, the meetings appeared to be completely consumed with issues around managing the implications of the current financial crisis in public services.

These events provided a number of important lessons. Firstly, to be considered useful, any such development should in the future be comprehensive in terms of coverage of the target population, so that frontline staff consider it ‘worth their while’ to check if the detainee in front of them in a busy custody suite is possibly on the MAIS network. Secondly, the need to be extremely pro-active, even in the face of institutional resistance, in publicising studies, especially to frontline workers. Publicity should be couched in ways which emphasise the potential use of an initiative to make frontline work easier, rather than it being perceived as just another task to be completed for no apparent benefit. This includes the need to provide training to staff hands-on, rather than being reliant on third parties for who your study may not be of primary importance.

That training was delivered in what we regarded as an inappropriate and ineffective manner illustrates a key lesson learnt from the project, wholly applicable to the broad multi-agency partnership approach upon which both the Bradley Report and Improving Health, Supporting Justice are based28-29. In this situation, the research team felt themselves to be the “junior partner”, without the authority to mandate a criminal justice agency to undertake the actions we strongly believed would best guarantee the success of the project. Our experience is in the delivery and evaluation of clinical services, rather than the delivery and management of policing, thus we shied away from insisting on controlling staff training through adopting a hands-on approach. However, although we are not experienced in the delivery of policing services, we are experienced in working with frontline staff working as part of large, hierarchical organisations; the difference was in terms of the type of service delivered, not the basics around staff management and motivation which are, to a great extent, universal issues.
There is a need within multi-agency partnerships to acknowledge and embrace this universality, rather than allowing organisations to retreat to positions where they feel they necessarily “know best” about what works in their service. Multi-agency partnerships will not flourish unless each organisation is prepared to listen to, and take advice from others in how coordinated service improvements can best be delivered. In the current case, the outcome limited the use of the MAIS network in practice and, in terms of the overall project, prevented the testing of integral components of the study with particular importance to the NHS, for example costs and differences in clinical or criminal outcomes. If replicated on a wider scale in vivo, the negative effects on individuals’ health and social outcomes are inestimable. Similarly, NHS research which embraces work across organisational boundaries with non-health services needs to be based on a clear understanding of which each organisation will offer, contribute to and undertake as part of the overall research process to avoid situations where one partner unilaterally changes a particular agreed approach or process.

The third major limitation of the study was the inability to complete the proposed community follow-up, monitoring post-release contact with mental health services in the community. The problems faced when trying to access reliable NHS routine data are discussed at length in part three of the results section and will not repeated here, other than to reiterate the point that the problems faced by the research team in this study have implications for NHS research, service evaluation and clinical audit more generally.

5.2 Implications of the research for future service provision

The work undertaken for this study has several important implications for future service provision for those with mental health problems who are in contact with the CJS. Such people often lead chaotic lives, with high rates of unemployment, unstable accommodation and substance abuse problems which exacerbate their mental ill health. In a recent comprehensive study of prison mental health in-reach teams, our research group identified that only 18% of people in a current episode of SMI newly received into prison had been in contact with community mental health services immediately before custody, highlighting the difficulties of establishing contact with this group\(^7\). There is emerging evidence that time in prison can be an opportunity for people with SMI to engage with services and can result in the stabilisation or even improvement in their mental health\(^7\).Whilst of course not recommending a period in prison as a proxy treatment opportunity, such studies highlight the likely values of consistent engagement with mental health services throughout the offender pathway.
The lessons learnt from the pilot MAIS network can inform future developments for both the direct provision of healthcare services to people in contact with the CJS and also the development of the multi-agency partnerships which are required to maximise continued engagement across the offender pathway.

The development of the health and risk minimum dataset, determining data items to be included on the MAIS network, highlighted the ability of different agencies to achieve consensus regarding the nature and depth of information which would best facilitate decision making and, possibly more importantly, firmly established a willingness and platform for criminal justice personnel to have direct access to health-related data. This immediate access to certain data, unhindered by the time-limited availability of clinicians in custody suites, is a major advance. It means that, whether a person is detained during the standard working hours of the liaison and diversion team, or out of hours when no such clinical expertise is available, basic health and risk data remain immediately available to help ensure a person’s safe detention; highlight possibility vulnerabilities during criminal investigative processes; and inform processing decisions around their case. We believe that the MAIS network’s purpose of giving criminal justice staff direct and immediate access to relevant health and risk data without having to request it from clinical staff, and the acceptance of this general principle by the vast majority of participants from all agencies, and service users, to be the fundamental ‘lesson learnt’ from our work.

However, during our investigation of the views of the concerned national leads, it became clear that there was no appetite, or indeed funding, to develop a stand-alone MAIS network. Instead it was noted that the concepts explored by MAIS, if they were to be adopted nationally, would need to develop as part of a larger, pre-existing health or criminal justice IT system. The most likely system where this dataset could sit would appear to be SystmOne, the clinical IT application currently being rolled out across the England and Wales prison estate. If the NHS takes over the delivery of care in all police custody suites, as proposed by Lord Bradley and the Department of Health strategy for offender health, it seems likely, and indeed logical, that the same IT system should then be used.

In spite of the acknowledged limitations of this study, and the current economic climate in which all public services are operating, we feel that we have achieved a number of key successes in this study.

Firstly, we have clearly demonstrated proof of concept with regard to the principle of an Internet based multi-agency information sharing system. Further testing and refining of our concept will, we believe, prove the principle to be fully achieved in vivo.
Secondly, we achieved, by consensus, a health and risk minimum dataset for mentally disordered offenders which met the clinical, operational, cultural and legal requirements of all partner organisations.

Thirdly, we demonstrated clear willingness for, and engagement with, multi-agency working and information sharing when clear boundaries of information exchange were carefully set and managed.

We believe our study to be an important advance in the fields of both e-health and offender healthcare and would wish to see the work continued, both through further research and the support of, and adoption by, forward looking services.

5.3 Implications for future research

This study achieved some major advances at a local level, with lessons learnt with clear national implications. The work has advanced research and practice knowledge in this area and has opened up further lines of research enquiry.

Firstly, the issue around how to successfully embed the use of such a system into the everyday working practices of frontline staff, especially non-clinicians, warrants exploration. In this study, due to a number of factors explored above, we failed to achieve use of the MAIS network by police officers on a day to day basis. Future research could usefully focus on best methods to provide cross-organisational training in new and existing working practices to secure service development. This is particularly important if the principles of the MAIS network are to be included within an NHS clinical IT system, rather than be Internet based. If training and ways of promoting cross-organisational frontline ways of working are not given the highest priority, a MAIS dataset within an NHS IT system would remain untouched by CJS staff, influencing issues of national scalability and utility. The apparent ‘failure’ of the NHS to successfully roll out electronic summary care records should also form part of the background for any further work in this area to prevent the repetition of previous mistakes.

Secondly, this study did not achieve a critical mass of people with mental health problems whose health and risk information was uploaded to the MAIS network. Future research should focus on refining the inclusion/exclusion criteria for the MAIS network in terms of severity of illness/service needs of those to be covered to identify a key group for who it would be most useful for criminal justice personnel to have additional information. The ‘read’ and ‘write’ privileges of different staff groups need to be examined and refined, along with the development and evaluation of protocols around the review of MAIS information in terms of how contemporaneous and accurate data are. Extended ‘write’ permissions
would probably lead to changes to the MAIS dataset agreed as part of this study; such changes should be considered by the Connecting for Health offender health work programme.

Thirdly, research needs to be undertaken into the accuracy, availability, timeliness and utility of routine NHS and CJS datasets. An examination of what data are available, to what degree of confidence and within what timescales, is vital to inform the development of future work which requires the follow-up of hard to engage subjects. We started this research confident in our ability to use NHS routine data to trace people following discharge from prison, having checked with relevant NHS data co-ordinating bodies. Throughout the short life of the project, the situation changed completely and we were thwarted in any attempts to secure post-discharge data. For our small pilot study this became a minor frustration, tempered by the effects of other requisite changes in our work; for a large randomised controlled trial, the effect would be disastrous.

Fourthly, further streamlining of NHS ethics and, especially, governance procedures should be piloted and rolled out to allow ongoing studies to progress unhindered by bureaucracy which merely repeats previous submissions of information.
6 Recommendations

Implications for Management

- Direct access to certain health and risk information by criminal justice staff should be formally accepted as NHS national offender health policy.

- Service managers and national leads should embed local/regional multi-agency partnership developments within an ethos of them forming the bedrock of a single ‘team’ which exists to meet the needs of those in contact with the criminal justice system using a holistic, joined-up approach.

- Connecting for Health should refer to the findings of this study in relation to their examination of future developments in IT systems supporting offender health delivery with the aim of assisting frontline staff to best ensure safer detention and inform health and criminal decision making processes.

- The CfH minimum dataset, informed by the MAIS template and incorporating the additional CJS risk and offence data, should be embedded into the widest available clinical IT system operational across all criminal justice settings, including police, prison and probation services.

- Criminal justice staff should be allowed to be registered users of any clinical IT system which contains the health and risk MAIS dataset, granted ‘read-only’ access to role-specific items; items to be agreed by the consensus methods used in this study.

- Criminal justice staff should be granted ‘write privileges’ to populate the criminal justice risk and offence data items.

Implications for Practice

- The minimum offender health dataset should include data items regarding risk and past offences which will be populated from criminal justice agency information systems.
Implications for Service Development

- Criminal justice and health agencies at national, regional and local levels, should develop a sense of shared responsibility and ownership of their role in addressing the health and social care needs of those in contact with the criminal justice system.

- Service users and carers should be regarded as integral members of multi-agency partnerships, increasing patient choice, autonomy and responsibility.

Implications for Research

- Future research should examine best practice around rolling out the MAIS network in terms of embedding the initiative into frontline daily practice, including a review of cross-organisational training methods and working practices.

- Future research should focus on refining inclusion/exclusion criteria for the clients with mental health problem whose information could be most fruitfully included on the MAIS network.

- Future research should identify information available from non-health services which should be included within the MAIS dataset, addressing the issue of “write” privileges for criminal justice personnel.

- NHS research ethics, and particularly governance, procedures should be streamlined, with all NHS organisations ‘signing up’ to standardised procedures and reasonable timescales for the processing of applications.

- The utility and reliability of routine NHS mental health data as part of the research process should be investigated.
7 References


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Project 08/1803/225


8 Appendix 1

Professional roles of steering committee members

Health
Prison Mental Health In-reach Team Manager
Criminal Justice Mental Health Liaison Team Manager
Information Governance Officer
Primary Care GP lead, North West Offender Health Team
Seconded Research Clinician

Police
Police Inspector, Custody Management Unit
Police Inspector, Custody Suite Implementation
Force Chief Inspector
PNC Information Management Sergeant

Probation
Liaison Probation Officer for Mentally Disordered Offenders
Probation Liaison Officer, North West Offender Health Team
MAPPA/VISOR Liaison Officer
QUESTIONNIARE
PARTICIPANT INFORMATION SHEET

You are being invited to take part in a research study. Before you decide whether to take part, it is important that you understand why the research is being done and what it involves. Please read the following information before you decide whether to be involved.

1. **Research Title**
   A pilot study of factors influencing information sharing between health, social and criminal justice agencies.

2. **Aims of the Research**
   This research is looking at information sharing between agencies that provide care or services to people with mental health problems. It focuses on personal information about service-users. The term ‘service-users’ is a general term for clients/patients/prisoners/suspects etc. The research will examine what the views, knowledge and practices in information sharing are for various professional groups. The results of this research will identify current attitudes to information sharing and current practices. The findings will be used to inform the development of improved information sharing practices.

3. **Your Participation**
   If you decide to take part in this study, please complete the enclosed questionnaire and return it in the free-post envelope provided. You will not be named in the research report.

4. **Terms used in the Questionnaire**

   **Agencies**
   An agency is any health care, social care or criminal justice establishment/organisation that is involved with service-users or service users’ information.

   **Service User**
   This is a general term for a person who has contact with Health Care, Social Care or Criminal Justice Services e.g. a patient, a client, a prisoner, a suspect etc.

   **Service User Information**
   This refers to any information about a service user, whether written or spoken (e.g. clinical notes, psychologists report, police depositions, social work records, verbal reports etc.).
Policies
These are instructions, guidelines, procedures etc. that related to your workplace or your profession. For example, General Medical Council Guidelines, National Health Service Policies, Prison Service Instructions etc.

5. Contact Details
If you would like to know more about the study, your participation, please contact:
Dr Charlotte Lennox
Research Associate
Offender Health Research Network
Room 2.315, Jean McFarlane Building
University of Manchester
Oxford Road
Manchester
M13 9PL
Tel: 0161 306 8014
Email: charlotte.lennox@manchester.ac.uk

Thank you for taking time to read this Information Sheet
INFORMATION SHARING QUESTIONNAIRE
For Health Care, Social Care and Criminal Justice Agencies

Please read the attached information sheet before completing this questionnaire

Please indicate you age.

Under 21  
21-30  
31-40  
41-50  
51-60  
61 or over

Please indicate the type of place you work.

Prison Services   
Police Services   
Probation

Social Care Services   
Other

NHS Health Care Services:

High Secure   
Medium Secure   
Low/Non Secure

Please state your current job title:

How long have you worked in this particular post?

Less than 1 year   
1 – 5 years   
6 – 10 years

11 – 15 years   
16 – 20 years   
Over 20 years

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## INFORMATION FROM HEALTH CARE SERVICES

For service users* who have (or it is suspected have) mental health problems

<table>
<thead>
<tr>
<th>Type of information</th>
<th>I need this type of information for service users*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Always</td>
</tr>
<tr>
<td>Name of Mental Health Care Co-ordinator</td>
<td></td>
</tr>
<tr>
<td>Details of any current diagnosis</td>
<td></td>
</tr>
<tr>
<td>Details of any current medication</td>
<td></td>
</tr>
<tr>
<td>Details of any current Mental Health Act legal status (e.g. informal/formal)</td>
<td></td>
</tr>
<tr>
<td>Details of any current mental health risk assessment or pertinent risk information (e.g. safety of self and/or others etc.)</td>
<td></td>
</tr>
<tr>
<td>Mental health history</td>
<td></td>
</tr>
<tr>
<td>Physical health history</td>
<td></td>
</tr>
<tr>
<td>Details of any previous detention under the Mental Health Act</td>
<td></td>
</tr>
<tr>
<td>Any other type of Health Care Service information (please specify)</td>
<td></td>
</tr>
</tbody>
</table>

* This work was produced by Senior et al. under the terms of a commissioning contract issued by the Secretary of State for Health. Project 08/1803/225
**INFORMATION FROM SOCIAL CARE SERVICES**

For service users* who have (or it is suspected have) mental health problems

<table>
<thead>
<tr>
<th>Type of information</th>
<th>I need this type of information for service users*</th>
<th>I receive this type of information for service users*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Social Worker</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Details of any dependents</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Details of any current Social support input (including family/statutory/voluntary support etc.)</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Current financial status (e.g. benefit entitlement, outstanding debts/arrears etc.)</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Current accommodation status (e.g. type and suitability of accommodation etc.)</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Details of any risk assessment or pertinent risk information (e.g. safety to self and/or others etc.)</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Details of any previous contact with Social Care Services</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Any other type of Social Care Service information (please specify)</td>
<td>Always</td>
<td>Often</td>
</tr>
</tbody>
</table>

---

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Project 08/1803/225
<table>
<thead>
<tr>
<th>Type of information</th>
<th>I need this type of information for service users*</th>
<th>I receive this type of information for service users*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Details of any current charges</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Details of any outstanding court appearances</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Details of any risk assessment or pertinent risk information (e.g. inclusion of the Sex Offender Register etc.)</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Details of any victims (e.g. age, sex, etc.)</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Detailed criminal history (e.g. Police National Computer (PNC) data)</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Summary of criminal history (i.e. types of offences committed without specific details of offences)</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Details of any discontinued cases, acquittals or other 'soft' intelligence</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Any other type of Social Care Service information (please specify)</td>
<td>Always</td>
<td>Often</td>
</tr>
</tbody>
</table>

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Project 08/1803/225
### INFORMATION FROM PROBATION SERVICES

For service users* who have (or it is suspected have) mental health problems

<table>
<thead>
<tr>
<th>Type of information</th>
<th>I need this type of information for service users*</th>
<th>I receive this type of information for service users*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Probation Officer</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Whether the service user* is subject to a probation order, community sentence, licence conditions etc.</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Details of any previous contact with Probation Services</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Details of any risk assessment or pertinent risk information (e.g. Offender Group reconviction Scale (ORGS), Offender Assessment System (OASys) etc.)</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Any other type of Probation Service information (please specify)</td>
<td>Always</td>
<td>Often</td>
</tr>
</tbody>
</table>
## INFORMATION FROM PRISON SERVICES

For service users* who have (or it is suspected have) mental health problems

<table>
<thead>
<tr>
<th>Type of information</th>
<th>I need this type of information for service users*</th>
<th>I receive this type of information for service users*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of relevant keyworker (e.g. name of personal officer/primary nurse etc.)</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Details of any mental health care received on current/most recent sentence</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Details of any Offending Behaviour Programmes undertaken on current/most recent sentence</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Details of any risk assessment or pertinent risk information (e.g. suicide/self harm, safety to others, vulnerability etc.)</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Details of any previous sentences</td>
<td>Always</td>
<td>Often</td>
</tr>
<tr>
<td>Any other type of Prison Service information (please specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Project 08/1803/225
Please indicate how often, in your current post, you feel you need the type of information mentioned by circling the appropriate word. Then also indicate how often you actually receive that type of information by circling the appropriate word. When the question refers to your own service complete about information needed/received from any part of the service nationally or locally, including your own workplace.

* The term ‘service users’ is a general term for clients/patients/prisoners/suspects etc.
* The term ‘service users’ is a general term for clients/patients/prisoners/suspects etc.

This question requires you to think about when you need, receive or give service user* information to staff within the service that you work (this can be any part of the service nationally or locally, including your own workplace). Please indicate your responses by circling the appropriate word.

<table>
<thead>
<tr>
<th>Are there policies about sharing service user* information within the service that you work?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I am clear about the type of service user* information I need from within the service that I work, in order to do my job.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I am clear about what service user* information I can or cannot share within the service that I work.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The service user* information that I receive from within the service that I work is detailed enough for me to do my job.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Difficulties in sharing service user* information within service that I work, are sometimes due to incompatible information technology systems/equipment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
</tr>
</tbody>
</table>
My understanding of data protection/confidentiality requirements prevents me from sharing service user* information within the service that I work.
* The term ‘service users’ is a general term for clients/patients/prisoners/suspects etc.

This question requires you to think about when you need, receive or give service user* information to staff from other services. Please indicate your responses by circling the appropriate word.

Does the service you work in have policies about sharing service user* information with other services?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Don’t Know</th>
</tr>
</thead>
</table>

I am clear about the type of service user* information I need from other services in order to do my job.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

I am clear about what type of service user* information I can or cannot share with other services.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

The service user* information that I receive from other services is detailed enough for me to do my job.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

Difficulties in sharing service user* information with other services, are sometimes due to incompatible information technology systems/equipment.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>

My understanding of data protection/confidentiality requirements prevents me from sharing service user* information with other services.

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Unsure</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
</table>
Please indicate whether you believe the following statements to be true or false.

<table>
<thead>
<tr>
<th>Statement</th>
<th>True</th>
<th>False</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>In England, all public bodies (including the NHS) must comply with the</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>European Convention on Human Rights</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In England, health professionals have a legal duty to breach confidentiality in order to protect the public from harm.</td>
<td>True</td>
<td>False</td>
<td>Don't Know</td>
</tr>
<tr>
<td>Unless there is a legal requirement to do so, or an element of risk, health care professionals should not share service user* information with non-health care professionals without the service users* consent.</td>
<td>True</td>
<td>False</td>
<td>Don't Know</td>
</tr>
</tbody>
</table>

Please indicate whether you have **ever received** training on any of the following topics in relation to sharing information about service users*.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Yes</th>
<th>No</th>
<th>Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Protection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confidentiality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient Consent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Rights</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please indicate whether you feel you **need training** on any of the following topics in relation to sharing information about service users*.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Yes</th>
<th>No</th>
<th>Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Protection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confidentiality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient Consent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Don’t Know</td>
</tr>
<tr>
<td>------------------</td>
<td>-----</td>
<td>-----</td>
<td>------------</td>
</tr>
<tr>
<td><strong>Risk Management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Human Rights</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Addendum**

This document is an output from a research project that was commissioned by the Service Delivery and Organisation (SDO) programme whilst it was managed by the National Coordinating Centre for the Service Delivery and Organisation (NCCSDO) at the London School of Hygiene & Tropical Medicine. The NIHR SDO programme is now managed by the National Institute for Health Research Evaluations, Trials and Studies Coordinating Centre (NETSCC) based at the University of Southampton.

Although NETSCC, SDO has managed the project and conducted the editorial review of this document, we had no involvement in the commissioning, and therefore may not be able to comment on the background of this document. Should you have any queries please contact sdo@southampton.ac.uk.