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# Provision of healthcare and forensic medical services in Tayside police custody settings

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An evaluation of a partnership agreement between  
NHS Tayside and Tayside Police (2009-2011)

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“...we’ve had a few incidents in the cell area where nursing intervention has probably saved lives. I don’t know. It was about a month ago or 2 months ago, we had a guy in the cell who had to be NARCANed\* twice [by a custody nurse] before the paramedics got here.”

*Quote from interview with a Tayside Police Custody Care Assistant*

\* Narcan (naloxone) is an opioid antagonist administered by injection which works by blocking the opioid receptors in the brain and therefore blocking the effects of heroin and other opioids.

# Acknowledgements

The research team offers sincere thanks to the Association of Chief Police Officers in Scotland (ACPOS) for funding this two-year long research project. More specific thanks go to Chief Constable George Graham in his capacity as chair of the ACPOS Health & Medical Services Reference Group from the inception of the project through to June 2011, and to Deputy Chief Constable Mike McCormick after that time. The findings contained in this report are the result of the large number of police and healthcare professionals that gave us their time and insight in face-to-face interviews (some on multiple occasions), in focus groups, and through written questionnaires. The research team wishes to formally thank all concerned for their participation. A number of persons detained in police custody also volunteered their views, providing a valuable perspective for which, again, we would like to express our thanks, particularly in light of the difficult context for their participation. The team reserves its most sincere gratitude for Sally Patrick (Lead Nurse Out of Hours/Forensic Medical Service, NHS Tayside) and Chief Inspector Gordon Milne (Tayside Police) for their critical contributions in facilitating access to healthcare and police staff respectively, and for their unfailing support to the research team throughout the project. The respect shown for the independence of the study was both gratifying and heartening for the research team. Thanks also go to Chief Superintendent Roddy Ross for providing critical support and impetus at key stages of the project and for supplying valuable background information regarding the evolution of the partnership agreement. Finally, Bob Gordon, Head of Business Development, Tayside Police very helpfully provided insight on the custody IT system and an anonymised dataset extracted from the system.

# Executive Summary

This executive summary sets out the main dimensions of this report and summarises its main findings and recommendations.

## Introduction

In January 2009 a three-year partnership agreement between Tayside Police and NHS Tayside came into effect, providing for the delivery of the following services by NHS-contracted staff:

- Forensic medical services serving police requirements
- Nurse-led healthcare for detained persons (welfare or therapeutic)

The partnership agreement instituted some notable, substantive innovations in the delivery of medical services in Tayside Police custody settings. The most significant of these was the decision to establish a dedicated team of NHS nurses employed to operate solely within secure police custody areas (generally termed custody suites) on a round-the-clock basis, working from medically equipped rooms. A defining characteristic of the 'pilot' service brought in under the agreement was that it was nurse, rather than a medical or police-led service.

## Background and context

In the period immediately prior to the 'pilot' partnership agreement the requirement for healthcare services by Tayside Police was serviced through a contractual arrangement with a private healthcare provider. In 2008 Her Majesty's Inspectorate of Constabulary for Scotland (HMICS) found that Scottish police forces reported an 85-15 per cent split respectively between welfare (therapeutic) and forensic examinations carried out in connection with their day-to-day operations; the former occurring in custody suites. Around 12,500-13,000 detentions in Tayside Police custody suites occur annually. Research studies have established that detainees typically have proportionately higher health needs than the population as a whole, whilst having below average engagement with NHS services (for instance around 30 per cent of detainees are not thought to be registered with a General Practitioner). With an overall reconviction rate within two years of 42.4 per cent (2007-08 offender cohort) in Scotland it is clear that police custody affords a unique environment in which to deliver healthcare to a difficult to reach sector of the population. Such an approach also correlates with the objective of the 2007 Scottish Government *Better Health, Better Care: Action Plan* to address what it termed unscheduled care through ensuring that patients get the services they need in the places that they need them.

## Research aims and methodology

The research study aimed to provide a basis to evaluate the impact of the new ways of working between NHS Tayside and Tayside Police brought in through the partnership agreement. The study was designed to test three key questions:

1. What has worked for Tayside Police and its staff and why has it worked?
2. What has worked for detainees and why has it worked?
3. What has worked for NHS Tayside and its staff and why has it worked?

Unified by a realistic evaluation approach (focused on finding out 'what works?') the two-year study brought together researchers with specialist knowledge of both policing and healthcare (including mental health) and with methodological specialisms covering qualitative and quantitative research, as well as a specialist health economist. Primary data collection and data analysis took place in two phases, Phase 1 (2010) and Phase 2 (2011), and was undertaken through quantitative questionnaires, audit data and extensive interview-led qualitative study of the service from the perspective of healthcare and police professionals. A (more limited in scope) qualitative, interview-led study of the service from the perspective of persons detained in police custody was also undertaken.

## Key findings

The study found evidence that a clear and unambiguous set of benefits had arisen through the introduction of the pilot model of police custody healthcare service delivery in Tayside. Benefits were shown across policing practice, healthcare practice, and healthcare outcomes. The report concludes that the most significant benefits have accrued to the end users the service: those detained in Tayside Police custody. The study also found evidence that the pilot was actively contributing in perhaps the most significant way of all: the prevention of deaths in police custody.

This set of benefits is manifested across the following specific findings, which also identify those areas where features of the model were identified as sub-optimal:

- Police staff experienced greatly improved confidence in their risk management and mitigation abilities in relation to detainee healthcare compared with previous systems. This arose progressively as a growth confidence in collaborative working to meet healthcare needs of detainees was detected in both police and healthcare staff.
- The satellite model of service delivery, with a central hub site serving two other sites in relation inevitably leads to differentiated service levels, with the central hub receiving the most optimal service. The option of first-hand medical services 'on-tap' in the central hub generated additional benefits too.
- The central hub saw a progressive decline in the number of transfers from custody to external NHS facilities, suggesting nurses at this location, where resources were concentrated, were undertaking an effective 'triage' function. However, satellites – and the hub alike – retain the option of calling paramedics and sending detainees directly to A&E departments, and clinical need will always make this necessary in a small proportion of cases (seemingly less than 2 per cent of those detained).
- Detainees were receiving better healthcare whilst in custody under the pilot than had previously been possible. Police staff with experience of the previous systems clearly identified closer engagement with detainees by nurses (who saw almost 5,000 detainees in the first two years of the pilot), improving the probability of continuity of care beyond custody. Participants highlighted the value of added time spent with detainees, ensuring a more individualised form of healthcare in spite of the environment.
- Detainees themselves had positive perceptions of the care they were receiving under the nurse-led pilot, highlighting its empathetic quality, and drew clear distinctions between the police and NHS. Nurses echoed this finding, stressing the value of clinical neutrality and its benefit in terms of gaining the trust of detainees.
- A protocol making possible access to the NHS record of a detainee highlighted the benefits of integrated NHS working (in effect bringing the NHS to the point of need) and marked a major step forward over previous models, where consultation was mostly limited to the immediate condition of the detainee.
- Improved engagement and working relationships with other NHS services has arisen through nurse-led 'commissioning', improving on what had previously been problematic engagement and inability to effectively negotiate pathways when police staff became frustrated at perceived intransigence or lack of empathy with their needs.
- Clear evidence of progressive improvements in collaborative working by police staff, matched by a strong belief in the efficacy of the pilot service, did not compromise the clear sense in the absolute precedence of criminal justice priorities held by key police decision-makers (in this case, Custody Sergeants).
- The forensic aspects of the pilot service were working efficiently though from a police perspective the change was less radical as compared with the custody aspects. Greater specialisation in this aspect of the service by Forensic Medical Examiners (FMEs) affords the potential for long-term benefits in both service quality and innovation.
- Improvements in resource efficiency, including fewer delayed court attendances, and reduced need for detainees to leave custody to receive medical attention (with the consequent drain on police escort resources) were identified but the scale of this contribution was not easily quantifiable due to limited data availability.
- Nurses progressively assumed roles previously undertaken solely by FMEs (notably with medication and later fitness to release examinations), allowing FMEs to undertake new and more specialised activities. However, combined FME and nurse activity shows overall forensic and health service activity increased by over 60% when compared with the previous service.

## Recommendations

In the event that the pilot model was applied in another Scottish police custody context the study discerned a number of recommendations to promote good practice and successful implementation.

- Medical support for a nurse led service is vital. In Tayside, the role played by university-based FMEs was vital in championing the service and in recognising the mutual professional advantages from specialisation in respective areas of expertise: nurses focused on delivering healthcare in custody, and FMEs were able to expand upon their forensic expertise and roles whilst maintaining statutory responsibilities under the effective 'gatekeeping' and coordinating role allocated to nurses. Integrating educational attainment into the role of custody nurses – as followed in Tayside – is both beneficial in terms of expanding key roles (such as competence for fitness to release) and also likely to attract the best applicants.
- The Tayside pilot successfully matched healthcare skills to the needs of custody, backed by an effective recruitment strategy for the original team. Future services should carefully note the mix of backgrounds amongst nurses recruited in Tayside and aim to mirror the approach.
- The pharmacist and medical supported intervention of supplying prescribed methadone to detainees within the custody cells in conjunction with withdrawal treatment (excluding alcohol withdrawal) using minimal analgesic treatment may potentially have reduced incidences of deliberate offending to gain access to prescribed medications. It is recommended that health staff including head pharmacists, medical officers and nurses consult with Tayside staff on this intervention. We also recommend that further research be conducted to quantify and further investigate any potential impact arising in Tayside through this service innovation.
- Service provision is more effective within a model of detainees being held with a central location rather than distributed across multiple satellite sites. Economic savings that could be identified were restricted to the central site, which supports our finding that the model works most effectively with a central rather than satellite sites. Whilst we recognise this may not be feasible in some locations it is important to avoid false expectations that the implementation of a more diffused service could generate.
- Other police services considering using the Tayside model should immediately be evaluating the full financial costing of their current model of delivering health services and, should they implement such a model, set up monitoring systems for those areas identified in this report where the model is identified as having the potential to yield benefits. A detailed list of recommendations on these aspects is provided in section 5.3 of this report.
- Changing service model is not a panacea. Crime patterns, substance misuse prevalence rates, and legislative and criminal justice matters all affect and impinge upon the volume and category of persons entering police custody. We found that the Tayside pilot offered a buttress to such intangible, and intractable aspects of contemporary society centred on a needs-based philosophy in delivering healthcare in a uniquely challenging environment.



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# I. Introduction

Tayside Police operates within a geographical area of some 2,896 square miles and serves approximately 388,000 people. Tayside is the fourth largest of the eight Scottish police forces based on full-time equivalent police officer strength as of June 2011<sup>1</sup>. In the course of policing this area the force makes nearly 13,000 admissions to custody annually (based on 2008-2010 data) across its three main operational custody facilities, which are located in Dundee, Perth and Arbroath<sup>2</sup>. These three facilities correspond to the three territorial divisions that make up the force area: Central Division (covering Dundee city and the surrounding area), Western Division (covering the Perth & Kinross area) and Eastern Division (covering the Angus area). NHS Tayside is responsible for delivering healthcare via primary, community-based and acute hospital services for the populations of Dundee city, and the counties of Angus and Perth & Kinross.

In January 2009 a three-year partnership agreement between Tayside Police and NHS Tayside came into effect, providing for the delivery of the following services by NHS-contracted staff:

- Forensic medical services serving police requirements
- Nurse-led healthcare for detained persons (welfare or therapeutic)

The partnership agreement instituted some notable, substantive innovations in the delivery of medical services in Tayside Police custody settings. The most significant of these was the decision to establish a dedicated team of NHS nurses employed to operate solely within secure police custody areas (generally termed custody suites) on a round-the-clock basis, working from medically equipped rooms. Traditionally, healthcare for detainees in police custody was provided by forensic physicians (previously known as police surgeons), often general practitioners (GPs) working in the custody setting on a part-time basis. The terms forensic physician (FP) or forensic medical examiner (FME) have replaced the term police surgeon, in order to clarify and emphasise the independent role that such medical practitioners must play in the custody setting (Payne-James et al, 2009: 190).

## I.1 Structural overview of the pilot service

Under the terms of the Tayside partnership it was decided to base custody nurses in Dundee West Bell Street police station. Perth (22 miles to the south west of Dundee) and Arbroath (18 miles to the north east of Dundee) would be served as, in effect, 'satellites' through a mix of routine and ad hoc nurse visits. The rationale for this arrangement was based primarily on the fact that Dundee has historically been the busiest of the three custody suites and is also centrally located. Once the partnership was operational the custody nurses became the first point of contact for all Tayside Police custody officers<sup>3</sup> when seeking medical advice or diagnosis regarding a detained person. This dialogue provided the basis for expeditious clinical decision-making by the nurses, opening up a range of possible actions:

- To make an initial clinical assessment of the detained person, to be established or verified through physical examination at the first opportunity (a principle that applies to all cases).
- Either (a) determine a routine, non-urgent need for medication or treatment that could be delivered 'on site' within the terms of their own clinical competence and training.
- Or (b) determine an urgent need for hospital care requiring 'off site' care, or immediate paramedic attendance if a nurse is not physically present or available at the time.
- Or (c) determine a need for the intervention of an FME who may have specialist medical competencies and/or the required level of statutory authority for specific interventions such as assessments under the Mental Health (Care and Treatment) (Scotland) Act 2003.

In practice a variety of permutations of the above processes are possible but in all cases the custody nurse assumes a pivotal role, either through directly administering healthcare or through acting as a 'gatekeeper' to another healthcare professional. From the police side primary access to nurses is via a dedicated telephone number. However, for Dundee-based custody officers the service structure made for a higher probability that a nurse would be physically present on site on a given occasion, allowing for face-to-face discussion of individual detainees. Similarly, face-to-face dialogue with nurses for non-Dundee based custody officers would only be possible at times when a nurse was undertaking an external visit away from Dundee.

<sup>1</sup> In September 2011 the Scottish Government announced its intention to introduce legislation that will lead to the creation of a Scottish Police Service comprised of a single force rather than the present eight. See <http://www.scotland.gov.uk/News/Releases/2011/09/08142643>

<sup>3</sup> In the first instance responsibility for this dialogue is always undertaken by a Custody Sergeant (see section 2.2 for more detail on this role).

It is important to be aware of the significance of these changes. The medical training of police custody staff is limited to first aid (including defibrillation techniques). However, prior to the partnership agreement police custody staff had no option other than to, in effect, make medical need judgements regarding detained persons based on their untrained first impressions, both at first presentation and at any subsequent stage once a person had been admitted to custody. In cases where a serious or life threatening condition was perceived or suspected then police staff were able either to call upon emergency paramedics to attend the custody suite, or take a decision to convey a detainee promptly to an external NHS facility under the supervision of police officers. If police staff concluded that the medical needs of a detainee were non-urgent then an FME would be called to undertake assessment. The nurse-led nature of the partnership agreement did not make this process completely redundant, however. Under the new system Custody Sergeants still retained the authority to take the option of calling for emergency medical assistance or, if more expedient, using a police vehicle to deliver a detained person to an NHS Accident and Emergency (A&E) department. This situation could arise as a result of describing symptoms in a telephone call to a custody nurse, or equally could be independent of such a dialogue (e.g. a person lapsing into immediate unconsciousness). In any cases of disagreement between Custody Sergeants and custody nurses regarding the health of an individual in detention the precautionary principle would apply, with the Custody Sergeant exercising his or her statutory responsibility to protect life (hence, for example a Sergeant could still call an ambulance even if a nurse had deemed this unnecessary). It is important to recognise that this eventuality was possible under the partnership arrangements, albeit there was a clear expectation that nursing and medical judgement would be unambiguously accepted in the normal course of events. However, the most radical aspect of the concept of nurses working 'on site' for custody staff was the introduction of full medical competence into their workplace rather than it being something always brought in from outside that workplace.

## 1.2 Drivers for new ways of providing health care to custody suites

In a 2008 thematic report on medical service provision for persons in custody Her Majesty's Inspectorate of Constabulary for Scotland (HMICS) found that Scottish police forces reported an 85-15 per cent split respectively between welfare (therapeutic) and forensic examinations carried out in connection with their day-to-day operations (HMICS, 2008b: 3). On this basis it is clear that the nurse-led aspect of the partnership was able to address by far the major component of the healthcare needs of Tayside Police, at least on a kind of triage basis before – when clinically necessary – taking the decision to involve an FME. The 'gatekeeper' role for nurses applies for forensic as well as welfare cases, however. The British Medical Association (BMA) defines forensic medical examination as follows:

**A medical examination of a person in relation to the investigation of a crime, during which records are kept by the examiner for possible use in later court proceedings. A significant part of the forensic physician's responsibility is to undertake a forensic examination of a victim or suspect at the request of the police. This could include assessing the nature and possible cause of injuries, taking samples or assessing fitness to be detained or interviewed.**

*(BMA, 2009: 4)*

The forensic aspect of the Tayside agreement provided for a close working relationship with the expertise located in the Forensic Medicine Department of the University of Dundee. These factors represented a significant step towards ensuring continuity and quality of service for the forensic needs of policing, meeting a general concern previously expressed by HMICS regarding this aspect of policing requirements (see HMICS, 2008b: 9-10).

In evaluating the medical needs of those in police custody HMICS previously concluded that had they not been arrested a significant proportion of those people genuinely in need of medical attention or at least examination would not have sought treatment from a doctor "because of their disorganised or chaotic lifestyle" (HMICS, 2008b: 7). In 2007 the Scottish Government published its Better Health, Better Care: Action Plan in which the significance of what it termed unscheduled care was identified. To address this, an approach was advocated that "will enable us to ensure that patients get the services they need in the places that they need them" (Scottish Government, 2007: 70). In light of the well-established links between chaotic or chronic substance/alcohol misuse and multiple re-offending the notion of integrating NHS care with custody brings with it certain prima facie advantages. A more direct form of integration between custody healthcare and the local NHS board also brings the potential for joined-up access to critical service areas, such as mental health, substance misuse, and sexual and reproductive health. The ultimate, overarching aim of bringing healthcare closer to those in need who might otherwise overlook or avoid contact with NHS services is to improve health and assist in reducing crime and re-offending rates. This research study has examined the pilot model to assess its functionality and establish its suitability for those who experience it either as workers or in the course of their experience of the criminal justice process. Whilst the wider societal impact of the model as compared with alternatives was not within the scope of the study it does offer some important observations on its efficacy.

HMICS also counselled that:

More recently, changes to contracts, the introduction of modern working medical practices and further legislative requirements have made it increasingly difficult for forces to fulfil their statutory and other obligations to people in custody, and have had a significant knock-on effect on the workings of the criminal justice system.

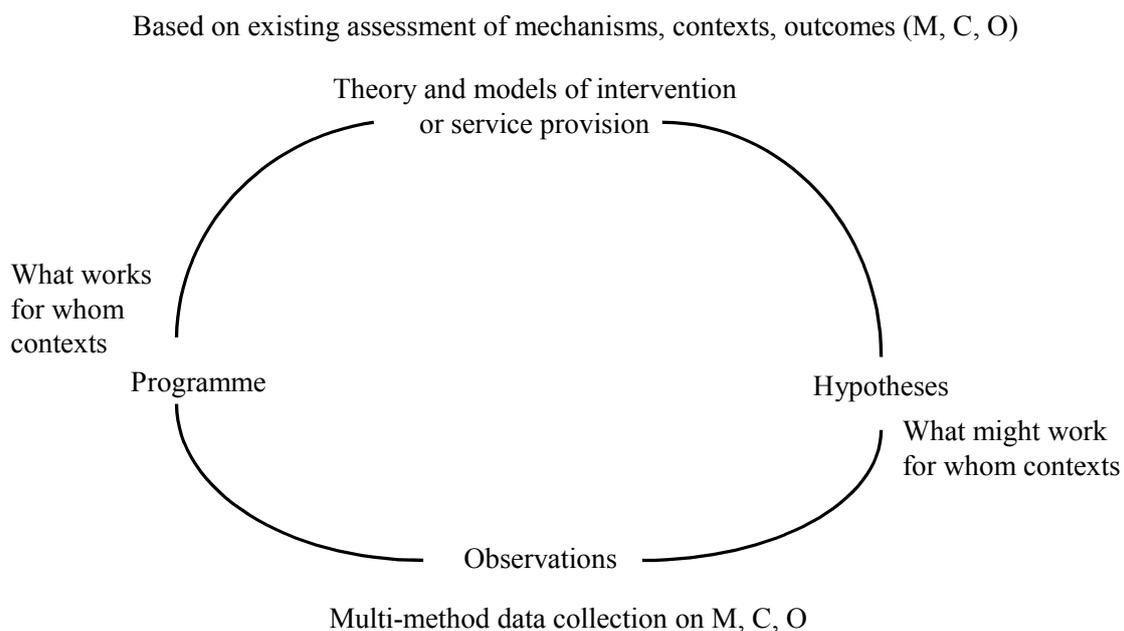
(HMICS, 2008b: 3)

It is in this context that the Tayside partnership agreement was put in place, for a three-year 'pilot' period through to January 2012, with co-funding from the Scottish Government. Prior to the start of the agreement in 2009 Tayside Police had contracted out provision of its forensic medical services to a private company, Medacs Healthcare, for just over five years (since November 2003).

### 1.3 About the study

The research study aimed to provide a basis to evaluate the impact of the new ways of working between NHS Tayside and Tayside Police brought in through the partnership agreement. The study employed a framework of realistic evaluation, first developed by Pawson and Tilley (1997), who drew upon critical realism to form its philosophical underpinnings. Critical realism was developed as an alternative to traditional positivistic models of social science as well as an alternative to post-modern approaches and theories: Realistic research seeks to produce a clear picture of intransitive structures and measures as well as the contextualised social situation of the investigative topic (Layder, 1993). According to realist evaluation programmes are 'theories', they are 'embedded', they are 'active', and they are parts of 'open systems' (Pawson and Tilley 1997). Realistic evaluation is simply an application of this insight into the examination of social programmes. Its concern is with understanding causal mechanisms (M) and the conditions (C) under which they are activated to produce specific outcomes (OC) (see diagram below). The question asked of traditional experimentation is 'Does this work' or 'what works?' the question asked within realistic evaluation is 'what works for whom in what circumstances?' (Pawson and Tilley, 1997).

Figure 1.3.1



Each stage proceeds, informs the other, and challenges researchers to be creative in both their thinking and approaches to the study.

Within this study realistic evaluation required the research team to logically propose three hypothesis-generating questions:

1. What changes and/or outcomes will be bought about by instigating primary health care services into the police cells of Tayside?
2. What contexts impinge on this?
3. What mechanisms (social, cultural or others) would enable these changes, and which may disable the new health care service?

The aim of evaluation should not only be to gather reliable and valid evidence as to the merits of programmes or activities, policy or processes, but also to enable such evidence to be translated into useable guidance regarding content design and delivery. Any evaluation of clinical practice, new programme or training should assess whether or not the objectives and / or learning outcomes were achieved. This should be the first, but not only question an evaluation should set out to answer. There are of course many other questions associated with the content, design, structure and delivery of an intervention / training or new service programme that any evaluation should take into consideration. Evaluation should provide sufficient information to assess what strategies are actually implemented, whether the implemented strategies are well received by participants and stakeholders and whether the strategies are associated with improvements to the overall programme.

## **1.4 Study design**

The study design had five distinct arms to test three key questions:

1. What has worked for Tayside Police and its staff and why has it worked?
2. What has worked for detainees and why has it worked?
3. What has worked for NHS Tayside and its staff and why has it worked?

Data collection and analysis took place in two phases, Phase 1 (2010) and Phase 2 (2011), and was undertaken through:

1. A quantitative, questionnaire based study exploring collaborative working within the new pilot service structures from the perspective of healthcare and police professionals.
2. An audit study incorporating a perspective from health economics to establish data benchmark standards.
3. A qualitative, interview-led study of the service from the perspective of healthcare professionals.
4. A qualitative, interview-led study of the service from the perspective of police professionals.
5. A (more limited in scope) qualitative, interview-led study of the service from the perspective of persons detained in police custody.

A literature review covering all aspects of the study was undertaken prior to commencing the study and was updated on a constant basis.

The five arms of the study were conducted under the unifying evaluative framework of realistic evaluation. In short and in its most straightforward interpretation for this study, this framework simply seeks to understand what has changed within the police custody environment, what contexts impacted upon these changes and what mechanisms helped and/ or hindered these changes coming about.

The study brought together researchers with specialist knowledge of both policing and healthcare (including mental health) and with methodological specialisms covering qualitative and quantitative research, as well as a specialist health economist. The latter was included in order to identify the types of data needed to evaluate a service with the characteristics of the pilot. Ethical considerations were afforded a high priority in the study and the research team were granted approval by the Ethics Committee of NHS Tayside covering all healthcare aspects of the study.<sup>4</sup> Police aspects of the study were conducted in accordance with the code of ethics of the British Society of Criminology.<sup>5</sup>

<sup>4</sup> Main project, approval date 15/01/10, ref 09/S1401/90; Detainee experiences, REC approval date: 30/04/10, ref 10/S1402/10.

<sup>5</sup> For details see: <http://www.britsocrim.org/codeofethics.htm>

## 2. Background and Context

### 2.1 Providing health and welfare care in police custody

The British Medical Association (BMA) has produced a comprehensive analysis of the categories of those in police stations who may require medical examination and the range and types of medical attention that are required:

#### Categories of those in police stations who may require medical examination

##### *Detainees*

- those detained for a period including overnight stay
- those detained for a short period for interview
- those detained but released without charge
- juveniles
- immigration cases
- prisoners – remand and sentenced
- Complainants
- of robbery, making statements
- of physical assault, with injuries
- of serious crime against the person

##### *Children*

- accompanying prisoners being detained
- needing assessment

(These two groups may occasionally be seen in police stations but are more frequently seen at referral centres.)

Persons requiring a 'place of safety'

- people with no fixed abode needing general care
- mentally ill, needing psychiatric assessment
- those who are drunk or on drugs requiring a place of safety

#### Types of medical attention required in police stations

##### *Fitness for detention*

- assessment of illness (physical or mental)/injuries/drug and alcohol problems
- advice to custody officer on general care while in custody
- provision of necessary medication
- referral to hospital
- admission under mental health legislation

##### *Fitness for interview*

- assessment of competence to understand and answer questions
- where the patient is mentally ill or mentally vulnerable, advising on the need for an appropriate adult
- advising on any special provisions required during interview
- reassessment after interview

##### *Forensic examination*

- assessment and recording of injuries (including injured police officers)
- interpretation of injuries
- collecting samples, e.g. blood to test for toxicology and intimate samples (e.g. in murder or rape cases)
- Road Traffic Act 1988 and Road Traffic (Northern Ireland) Order 1995 cases

### *Therapeutic assessment and treatment*

- for illness
- for injuries sustained
- advice to custody officers on general care while in custody
- provision of necessary medication
- provision of a report of any illness or injuries requiring attention to be passed to other health professionals when the detainee is transferred

### *Transfer and care*

- from one custody suite to another
- from police stations to court
- custody in court
- transfer from court to prison

(BMA, 2009: 4-5)

Under the terms of the Tayside partnership it was decided to base custody nurses in Dundee West Bell Street police station. Perth (22 miles to the south west of Dundee) and Arbroath (18 miles to the north east of Dundee) would be served as, in effect, 'satellites' through a mix of routine and ad hoc nurse visits. The rationale for this arrangement was based primarily on the fact that Dundee has historically been the busiest of the three custody suites and is also centrally located. Once the partnership was operational the custody nurses became the first point of contact for all Tayside Police custody officers<sup>3</sup> when seeking medical advice or diagnosis regarding a detained person. This dialogue provided the basis for expeditious clinical decision-making by the nurses, opening up a range of possible actions:

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- Or (b) determine an urgent need for hospital care requiring 'off site' care, or immediate paramedic attendance if a nurse is not physically present or available at the time.
- Or (c) determine a need for the intervention of an FME who may have specialist medical competencies and/or the required level of statutory authority for specific interventions such as assessments under the Mental Health (Care and Treatment) (Scotland) Act 2003.

In practice a variety of permutations of the above processes are possible but in all cases the custody nurse assumes a pivotal role, either through directly administering healthcare or through acting as a 'gatekeeper' to another healthcare professional. From the police side primary access to nurses is via a dedicated telephone number. However, for Dundee-based custody officers the service structure made for a higher probability that a nurse would be physically present on site on a given occasion, allowing for face-to-face discussion of individual detainees. Similarly, face-to-face dialogue with nurses for non-Dundee based custody officers would only be possible at times when a nurse was undertaking an external visit away from Dundee.

The preceding list highlights the sheer range of categories and types of medical attention that are intrinsic to police custody environments. The most significant, overarching aim of providing health and social care for those detained in police custody is the avoidance of death in custody, irrespective of the forensic needs of the criminal justice system. Risk assessment is a fundamental necessity in the modern police custody environment where "Every person who comes into Police custody is a potential risk" (ACPOS, 2010: para. 2.13). In this criminal justice environment the principal responsibility for the health and welfare of those detained rests with a police custody officer. However, in establishing individual circumstances and needs a custody officer will routinely consult with others in reaching a decision: the detained person, the arresting officer(s), and a healthcare professional. It is of course possible in individual cases that the health of a detained person does not present any cause for concern when first admitted to custody and for the duration of their stay. However, effective risk assessment is a vital process and its elevated status is emphasised in the 2010 ACPOS Custody Manual of Guidance:

**The Risk Assessment remains the responsibility of the Custody Officer and should be completed for every person in Police custody. If required this can be completed in consultation with [a] healthcare professional reflecting the findings of each clinical assessment. The Custody Officer and healthcare professional should agree an action plan for the care of the custody. Any disagreement, along with the decision-making process, should be recorded in the custody record.**

(ACPOS, 2010: para. 2.1.8)

The meaning of care "is different from medical treatment and includes meeting the basic requirements for food, drink, human contact, warmth, sleep, exercise, personal hygiene, clothing and protection from injury" whilst in custody (BMA, 2009: 3). In providing care in a police custody environment it is important to recognise that certain categories of detainee exhibit particular vulnerabilities, notably if they are mentally disturbed or under the influence of, or dependent on, alcohol or other drugs. Significantly, the BMA observe that persons in these categories "make up a high proportion of detainees" (ibid: 3). A Home Office report (Lan-Ho et al, 2002) found that detainees who had consumed large amounts of alcohol place a considerable burden on police resources. They found that detainees in this category were more likely to require frequent close observation by custody staff (to ensure they remained conscious) and were more likely to require attention from a healthcare professional than other categories.

Payne-James et al (2010: 12) highlight the absence of studies that explore the general healthcare needs of police detainees in the United Kingdom. However, Harris et al (2006) examined the evidence on primary care nursing in prisons in England and Wales and found that prisoners showed significantly greater degrees of mental health problems, substance abuse and worse physical health than the general population. In their own study of police custody in London Payne-James et al found the 'general' health conditions shown by the group of detainees they studied to be a major concern, concluding that:

**This study has shown that – in part because of the chaotic lifestyle of many detainees – many of these conditions are not being treated or managed appropriately, putting both detainee, and potentially others coming into contact with them, at risk. The range, extent and severity of these medical conditions, often in association with drug and alcohol misuse are such that it would appear –as with the prison population – that it is entirely appropriate to ensure that such detainees are assessed by properly trained and qualified healthcare professionals.**

(ibid: 17)

In conjunction with this they cite earlier findings from 2003 showing that almost 30 per cent of detainees were not registered with a general practitioner (GP), matched by their 2010 research which gave a figure of 29.8 per cent (ibid: 14). Police custody is thus an especially challenging environment in which to deliver health and welfare care, and one in which healthcare needs appear to be proportionately higher than in the population as a whole. As recently as November 2011 the Royal College of Psychiatrists was moved to observe in its guidelines on dealing with substance misuse detainees that:

**Many such detainees have not received the treatment and care in custody that they need because it is particularly difficult to undertake a proper assessment and initiate an appropriate response in the environment in which they are seen. However, a detained substance-dependent person who is at risk of complications is entitled to the same quality of healthcare as they would receive in other locations.**

(Royal College of Psychiatrists, 2011: v)

To the evidence of low rates of GP registration by detainees (assuming broad correlation between England and Scotland) must be added evidence of high reoffending rates in Scotland. Statistical data on overall reconviction rates in Scotland for the 2007-08 offender cohort show that 42.4 per cent of offenders were reconvicted within two years, with rates having changed little since 1997-98, fluctuating between 42.4 and 45.3 per cent over this period (National Statistics, 2011: 4). For specific groups the figures are markedly higher: for example, in 2008-09 the under 21 age group had a reconviction rate of 70.3 per cent within one year (albeit down from 93.4 per cent in 1997-98); those given a Drug Testing and Treatment Order by the court (an option used in Tayside since 2002-03) had a reconviction rate of 63.9 per cent within one year (ibid: 4). The tentative conclusion to be drawn from these data leads to broad agreement with the uncomfortable reflection that "the police custodial setting may be the only location that has the potential to provide some degree of appropriate continuity of care" (Payne-James et al, 2010: 17).

## 2.2 Custody and healthcare in the work of Tayside Police

Custody is an integral and necessary part of police work and in the course of exercising this function police forces routinely encounter persons with healthcare needs along a spectrum from minor and routine to immediately life threatening. In England, Wales and Northern Ireland a Custody Officer is straightforwardly a police officer “appointed to ensure that detainees are treated in accordance with the Police and Criminal Evidence Act (PACE) and its codes of practice” (BMA, 2009: 3). PACE does not apply in Scotland but the Scottish Police Service still has a statutory duty to:

look after and guarantee the safety of persons in custody. Provisions relating to the detention of suspects and potential witnesses are contained within the Criminal Procedure (Scotland) Act, 1995. Section 76 of the Criminal Justice (Scotland) Act 2003 amends the Police (Scotland) Act 1967 to give statutory powers to certain civilian support staff employed or appointed by police authorities. The section also enables suitably skilled and trained Police Custody and Security Officers, (PCSOs) under the direction and control of chief constables, to exercise powers and undertake duties in carrying out specified functions. PCSOs can perform functions in three broad categories: police custody; court security; and prisoner escorting. A PCSO is therefore also responsible for ensuring that detainees are treated fairly and according to the relevant laws and guidelines.

(*ibid*: 3)

Health is central to the decision making process from the moment a person is brought into a police custody suite by arresting officers and placed before a Custody Officer, as the 2010 ACPOS Manual of Custody Guidance stipulates:

The Custody Officer may decide that clinical attention is needed before a decision can be made about a person’s fitness to be held in custody; this is irrespective of whether the person has already received treatment elsewhere, for example, at hospital. They should also be aware that the effects of alcohol or drugs might mask other illnesses or injuries.

(ACPOS, 2010: para 2.2.1)

The high stress associated with the removal of a person’s liberty has the obvious capacity to exacerbate existing medical conditions, and a detained person may well have an injury incurred during the incident that has led to their detention. In such circumstances police forces become a provider of healthcare simply on humanitarian grounds. However, healthcare is also critical to the efficient functioning of the criminal justice system, as the 2010 ACPOS Manual of Custody Guidance again points out:

The guidance recognises that the core task of the Police is to uphold law and order and to tackle crime and disorder effectively. The evidence gathering process is crucial to this. Ensuring that a person who comes into custody receives the appropriate level of care to determine their fitness to be detained and fitness to be interviewed is a key element in the quality of evidence to assist in prosecuting offenders.

(ACPOS, 2010: Foreword)

A 1998 report by the Audit Commission report on the provision of medical services to the police concurred with the ACPOS findings that forensic work made up around 15 per cent of the work of FMEs, but found that at that time around two-thirds of that work was for examinations relating to fitness for detention or interview (findings cited in BMA, 2009: 31). Tayside Police, in common with all Scottish police forces, has been responsible for paying for the cost of medical services for people in police custody since the Scottish Home Department Circular No. 7362, issued on 1 March 1950 (for a full list HMICS, 2008b: 6).

Mental health legislation determines the circumstances in which compulsory admission to a psychiatric hospital can be made for a person’s own health and safety or to protect other members of the public. Police officers are generally the first to be alerted of behaviour causing some form of alarm or distress and on attendance may determine grounds for an individual to be charged with an offence or, in other cases, determine a need to remove a person from their home or a public place in order to take them to ‘a place of safety’. In each circumstance the Mental Health (Care and Treatment) (Scotland) Act 2003 regulates the treatment of persons who are suffering from a mental disorder and governs the actions – and roles – of police and healthcare professionals. For a full summary of the provisions of the Act see BMA, 2009: 15. Section 295 subsection (5) of the Act gives certain powers to police officers, that is, “If no place of safety is immediately available, a constable may, under subsection (1) or (3) above, remove a relevant person to a police station”<sup>1</sup>. The delivery of medical care and assessment until such a person can be taken to a suitable hospital thus becomes an important priority necessitating police liaison with appropriately qualified medical practitioners.

<sup>1</sup> <http://www.legislation.gov.uk/asp/2003/13/contents>

Tayside Police operates its three custody facilities on a 24-hour basis for 365 days per annum using a roster of 65 staff, comprised of 20 full-time police officers, and 45 civilian support staff (30 full-time and 15 part-time)<sup>2</sup>. A number of operational Sergeants are also trained in custody procedures and can be called upon to act as 'relief' Custody Sergeants, exercising identical responsibilities to a full-time Custody Sergeant when they take charge of a custody suite. Staffing levels and precise day-to-day organisational arrangements vary slightly across the three custody facilities but in broad terms designated custody staff work to a regular shift pattern in teams under a specified Custody Sergeant. Factors including scheduled holidays, sickness, formal suspension, retirement and post transfers all play a part in ensuring that in practice no team remains intact ad infinitum but in many cases there is a high degree of continuity, with more experienced team members often having quite long term working relationships and experience of collaboration with the same individuals. However, at any given point in time there is inevitably a spectrum of experience levels present within Tayside Police custody teams.

Within the Tayside Police custody environment a Custody Sergeant (CS) holds full executive responsibility in relation to persons held in custody. This is manifested in several ways, first by the fact that a CS can from the outset refuse to accept a person into custody if s/he believes that person unfit for some reason. Second, a CS specifies any special conditions about a person who is admitted to custody (such as frequency of cell-door observation checks), largely determined by an on-the-spot health and well-being assessment made of each individual on arrival.<sup>3</sup> Third, if a person shows signs of ill health whilst in custody (possibly after showing no signs at first admission) it is the CS who is the ultimate arbiter of what course of action should then be followed. In all three cases a CS has the option of speaking to a custody nurse to get a medically informed opinion under the pilot arrangements.

Non-warranted custody support staff employed by Tayside Police are contracted either as a Police Custody and Security Officer (PCSO) or a Custody Care Assistant (CCA). The former have duties in relation to assisting Custody Sergeants with administrative aspects of detainee processing (and, in Perth, have additional responsibilities covering public enquiries), whereas the latter have a more narrowly defined role in relation to detainee welfare. In practice it is CCAs that have the most amount of direct contact with those held in custody, mostly via routine cell-door observation checks, distribution of meals, and in escorting detainees within the custody suite (e.g. to a nurse/doctor's room) but their decision-making powers are wholly subordinate to the Custody Sergeant.

In the course of its primary inspection of Tayside Police in 2002 HMICS found a number of issues of concern regarding custody arrangements at this time and recommended that the force should review its arrangements for the custody and care of prisoners "paying particular attention to matters of custody management, health and safety and staff training" (HMICS, 2002: 54). In a follow-up review of its 2002 inspection in 2006 HMICS declared that it was satisfied that outstanding matters from the previous inspection had been attended to. However, the decision to negotiate and implement the partnership agreement some three years later in 2009 arose as part of a wider process of internal review of the place and significance of custody within Tayside Police, driven by specific and more general events and pressures. As a matter of public record three deaths in Tayside Police custody were recorded between 2001 and 2007 (Stephen Park 2001, George McLellan 2005 and Kristoffer Batt 2007). In 2009 a further death by suicide (Matthew John Kirk) took place in HMP Perth following a period spent in Tayside Police custody.<sup>4</sup> Police procedures were found to be deficient to various degrees in each case following review by other forces and through the auspices of Fatal Accident Inquiries (FAIs). An internal review of custody was conducted and a comprehensive, restricted access report issued in late 2009 (a copy of which was supplied for the purposes of this research study) making a series of recommendations for change. By this time the partnership was already in operation of course. However, one of the recommendations focused on the need to introduce awareness training for all working in the custody environment in relation to underlying health problems involving alcohol abuse, drug taking and mental health issues in relation to detainees. One tangible outcome of the review process was the creation of the role of Head of Custody within Tayside Police, highlighting custody as a significant and important matter in its own right rather than – as it had perhaps historically been seen – an adjunct process of day-to-day policing.

As has been noted, the vast bulk of day-to-day healthcare work in custody arises from welfare concerns. However, the significance of the remainder – forensic healthcare – is vital in relation to the efficiency of criminal justice outcomes. Tayside Police use of and demand for forensic medical services derives mainly from the three, divisionally organised Police Public / Family Protection Units (P / F PU).<sup>5</sup> These units have a specialist role in the investigation of crime involving sexual and violent abuse, including in relation to children, and require specialist forensic assistance from health professionals (including paediatricians when appropriate). Under the partnership agreement custody nurses facilitate access to appropriate specialists and the central point of contact for P / F PUs.

<sup>2</sup> Data correct at June 2011: published as part of a response to a Freedom of Information request (by an unknown third party): <http://www.tayside.police.uk/Default.aspx?LocID-013newOpr:RefLocID-013009009004001.htm>

<sup>3</sup> Sergeants follow a strict risk assessment protocol for each detainee, which includes asking each potential detainee a pro forma series of questions about their health and welfare (see sample script provided in Appendix 4). Answers given are recorded on the custody record IT system and used to inform care whilst in custody dependent on levels of vulnerability and assessed risk factors.

<sup>4</sup> A freedom of information request published on the website of Tayside Police on 23 June 2011 recorded that between 1998 and 26 May 2011 the number of deaths of persons whilst in the custody of Tayside Police was six. It did not specify how many of these deaths occurred within custody suites.

<sup>5</sup> Some variation in the precise configuration and nomenclature exists across the three divisions.

## 2.3 NHS Tayside and the Tayside Police 'pilot' agreement

To meet the anticipated level and temporal distribution of demand from Tayside Police a dedicated team of 9.8 whole time equivalent registered nurses was recruited by NHS Tayside to service the agreement, under the overall supervision of a senior nurse with managerial responsibility for the service.

Shift patterns cover a 24 hour period working over 365 days a year: One nurse is on duty from 0730hrs to 1830hrs and two nurses are on duty from 1830hrs to 0730hrs as well as at weekends and on public holidays. This staffing arrangement reflects that the cells are quietest during traditional working hours. Six of the nurses are registered general nurses, three are registered mental health nurses and one is dual registered. All have at least five years clinical experience with most having significantly more experience across a range of health settings including Accident and Emergency, general practice, substance misuse, acute mental health, and hospital at night. Importantly all these clinical fields require nurse led triage, decision making and a generic skill mix.

The 2010 ACPOS Custody Manual of Guidance sets out the procedures and duties which may be undertaken by healthcare professionals (FMEs, nurses and paramedics) in the custody environment (reproduced for reference here in Appendix 5). The legal framework as it relates to care of prisoners in Scotland for doctors working as forensic physicians is as follows:

...doctors working as forensic physicians in Scotland act under rules partly derived from the common law and professional guidance and partly under the Criminal Procedure (Scotland) Act 1995: section 13 – Suspects & Witnesses, section 14 – Detention at Police Stations, section 15 – Rights on Arrest & Detention. Sections 18 to 19B of the 1995 Act also provide powers for obtaining prints and samples from arrested or detained persons.

(BMA, 2009: 12)

A defining feature of the pilot service is that it is a *nurse*, rather than a medical or police led service. As noted above nurses also act as gate-keepers to the medical officers which is a significant underpinning approach aiming to allow clinical nurses to operate to, but not beyond their capacity and legal roles, whilst utilising more specialist resources in a more targeted manner. In other words, nurses have the skills to carry out many of the functions carried out exclusively by doctors in the past, but some functions must continue to be carried out by doctors. The ACPOS Guidance provides a clear reference point for the boundaries arising in this context.

Under the pilot the Centre for Forensic and Legal Medicine at the University of Dundee assumed responsibility for specialist clinical forensic policing requirements (see Table 4.1.1.1 for the range of activities performed during 2010-11). The terms of the agreement allow for this service to be provided Monday to Saturday between 8 a.m. and 6 p.m. on a 52-week per annum basis, with an on-call General Practitioner available outside of these hours.

# 3. How the research was conducted

## 3.1 Overview

Data collection for the study had two main phases: Phase 1 in 2010, and Phase 2 in 2011. Qualitative researchers also consulted key stakeholders in Tayside Police and NHS Tayside in the data collection methodology design phase, and continued to meet with these stakeholders at key stages of the project. Details of activity across the different arms of the study are detailed in the following sub-sections. An interim report on Phase 1 of the study was issued to the project funders and distributed to key stakeholders in December 2010, and included what had been learned to shape Phase 2 research activity.

## 3.2 Qualitative research

In Phase 1 specialist qualitative researchers conducted an extensive round of semi-structured interviews with police and healthcare professionals whose work was directly or indirectly involved in partnership working. Typical interview duration was one hour.

**Table 3.2.1: Police interviews conducted (March-April 2010)**

<b>Tayside Police role/job title</b>	<b>Number of individuals interviewed</b>
Custody Sergeant	18
Custody Care Assistant	5
F / PPU: Detective Sergeant / Constable	3
<b>Total</b>	<b>26</b>

A majority of Tayside Police staff interviewed had multiple years (and in a very few cases, decades) of experience in their role at the time of interview, with almost all having extensive previous experience of criminal justice roles (for example, custody sergeants who were ex- beat officers, and CCAs who had worked in the Scottish Prison Service). It was decided that if at all possible all current full-time Custody Sergeants should participate in Phase 1 of the study due to their key decision-making role. This objective was achieved and it was also possible to conduct an additional interview with a relief-trained Custody Sergeant.

**Table 3.2.2: Health interviews conducted (February-April 2010)**

<b>NHS role/job title</b>	<b>Number of individuals interviewed</b>
Custody Nurses	13
Medical staff	6
Pharmacist	1
Non government organisation	2
<b>Total</b>	<b>22</b>

In Phase 2 the primary qualitative data collection method took the form of five focus groups, utilising the findings from Phase 1 (both qualitative and quantitative) to structure the content of sessions, which were jointly facilitated by qualitative researchers responsible for the police and health dimensions of the study respectively. Target length for sessions was one hour.

**Table 3.2.3: Focus groups conducted (May 2011)**

<b>Tayside Police role/job title</b>	<b>Number of individuals interviewed</b>
Custody Sergeants	4
Custody support staff (CCA / PCSO)	5
Combination of (a) Custody Sergeants and (b) Custody support staff (CCA / PCSO)	6 [(a) x 3 & (b) x3]
Custody Nurses	5
Combination of (a) Custody Sergeants; (b) Custody support staff (CCA / PCSO); (c) Custody Nurses; and (d) Custody nurse managers	13 [(a) x 3; (b) x3; (c) x 5; (d) x2]
<b>Total</b>	<b>28</b>

When recruiting the focus group participants from Tayside Police every effort was made to ensure representation from each of the three divisions.

A limited number of semi-structured interviews were also conducted in Phase 2 to explore specific areas of enquiry identified at the end of Phase 1 as requiring further analysis.

**Table 3.2.4: Interviews conducted (March-April 2011)**

<b>NHS role/job title</b>	<b>Number of individuals interviewed</b>
Custody Nurses	10
Medical staff	4
Police staff	4
<b>Total</b>	<b>18</b>

Participants were audio recorded for both data collection phases and subsequent thematic analysis of the transcribed texts was undertaken. Researchers individually analysed the data for emergent themes and then compared initial findings. This was repeated throughout the analysis process with themes with potential alternative understandings discarded until only mutually agreed themes across the research team remained.

### 3.3 Quantitative research

This study employed a longitudinal design with two questionnaire data collection points over two years (see Appendix 3 for details on methods and procedures). Time 1 data collection was undertaken in the first year after the intervention study/new service (June-August 2010) and Time 2 was set in the second year (June-August 2011) after the intervention study/new service. All health staff in the new service were invited to participate. Police personnel were based in Dundee, Perth and Arbroath and included all Custody Sergeants and a convenience sample of custody care staff. Questionnaire participation rates are detailed in section 4.3 below.

### 3.4 Other data collection activities

The police researcher on the team conducted two participant observation sessions within Tayside Police custody suites: (1) Dundee (May 2010) and (2) Perth (June 2011). In both cases the observation took place during full night shift periods at weekends, enabling direct observation of booking-in and data entry procedures as well as dialogue between police staff and the NHS nurses working the corresponding shift. It also afforded extensive opportunities for discussion with custody staff.

A researcher conducted brief, semi-structured interviews with a total of 30 detainees whilst they were in custody in Dundee. Recruitment was facilitated by custody nurses who then contacted the researcher to arrange attendance. Responses were coded and the results of the analysis are provided in section 4.2.3.

An audit of service activity was requested and supplied to the research team on an ongoing basis by Tayside Police and NHS Custody Nurse management. In 2011 the policing researcher also met with the Business Development Unit of Tayside Police to establish the availability of certain data categories regarding hospital transfers, and was supplied with an anonymised statistical dataset drawn from the Tayside Police custody record database. Analysis of this dataset was carried out by the researcher and provided to a specialist health economist for additional analysis. Whilst in-depth evaluation was clearly not viable at such an early stage of the pilot service the use of a health economics perspective aimed to identify broad data collection needs and gaps that would assist in identifying the kinds of management data required to evaluate the ongoing service model.

## 4. What The Evaluation Found

### 4.1 Activity data

#### 4.1.1 NHS Tayside

Audit activity data presented here identifies what activities (outcomes) have been undertaken within the new pilot services, and the levels of those activities. When viewed with findings from the qualitative data set understandings of how the new service is generating improved service are released. Data on FME activity is reported on first followed by the nursing staff activity data.

#### Number of call outs: FME staff

<b>2009 - 10</b>	895
<b>2010 - 11</b>	817

#### Geographical breakdown: FME staff call outs

	<b>2009-10</b>	<b>2010-11</b>
<b>Arbroath</b>	177 (20%)	140 (17%)
<b>Dundee</b>	486 (54%)	570 (70%)
<b>Perth</b>	232 (26%)	107 (13%)

**Figure 4.1.1.1 Contrasted FME callouts with previous service**



(\* 2008 data based on 3 months of activity data extrapolated to a 12 month total)

Figure 4.1.1.1 shows a significant drop of FME time being spent within the custody suites under the pilot service, and a further decrease in 2010-11, mainly attributable to FMEs undertaking fewer fitness to release examinations as this was taken on by the nurses in the first instance.

The geographical spread of FME call out activity showed little variation in 2009-10 when contrasted with the previous service data. However 2010-11 data shows an increase in FME activity in Dundee and a decrease in Perth.

Whilst the volume of FME call outs dropped significantly from pre-pilot levels the range of reported FME activities increased, indicating that FME staffs are now enabled to respond to forensic and clinical need consummate with their specialist capabilities. The clearest example of this is with medications. Under the previous service available data indicated that FMEs spent 23% of their activities on medication related issues contrasted with only 3% in 2009-10 and again in 2010-11.

**Table 4.1.1.1: Type of FME callout consultation 2010-2011**

<b>Purpose of callout</b>	<b>Perth</b>	<b>Dundee</b>	<b>Arbroath</b>	<b>Total</b>
Mental Health Assessment	2	2		4
Unexpected death <sup>6</sup>	10	76	31	117
Fit to release	19	81	25	125
Fit to detain	15	25	16	56
Physical Examination	1	6	3	10
Medications	4	20		24
Section 5 RTA (Alcohol)		8	3	11
Section 4 (Drugs)	11	16	10	37
Fit to plead	35	97	46	178
Sexual Assault Victim Female	1	47	1	49
Sexual Assault Victim male		1		1
Sexual Assault Suspect	1	36	1	38
Paediatric Part 2 Examinations		83		83
Physical Assault Victim		14	1	15
Physical Assault Suspect	3	22	1	26
CS Spray				
Intimate Search	2	26		28
Photographs				
Police Assault?	2	4	2	8
Blood tests	1	3		4
Spiked drinks (blood and urine tests)		3		3

Nursing activity data

<sup>6</sup> The Fatal Accident and Sudden Death Inquiry (Scotland) Act 1976 requires that any death must be reported to the Crown Office and Procurator Fiscal Service if it resulted, directly or indirectly, from any cause other than natural illness or disease for which the deceased had been seen or treated within 28 days of their death. Deaths reported to the Procurator Fiscal thus tend to be sudden or unexpected deaths. In 2008-09, 24% (13,608) of deaths in Scotland were reported to the Procurator Fiscal. Approximately 10% of these resulted in a Procurator Fiscal instructing a post mortem. See: <http://www.scotland.gov.uk/Publications/2010/01/26131024/3>. None of the FME callouts in 2010-11 related to deaths which had occurred whilst a person was in Tayside Police custody.

Nurse led services into the custody suites are being piloted to replace many of the activities previously performed by FMEs. Hence the activity data of nurses is a key data set to examine to help evaluate if this goal is being effectively met.

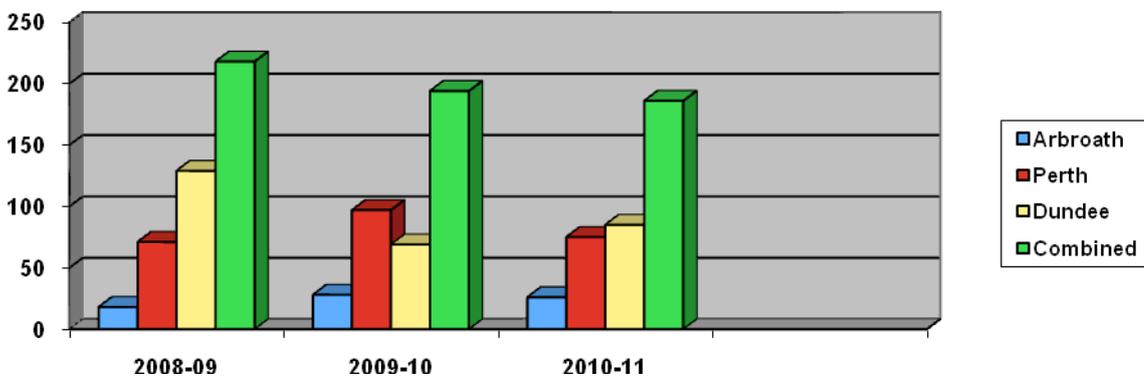
As stated earlier FME activity levels to the custody suites has decreased from around 4,800 service occasions per annum (representing the totality of health and forensic services being offered) to nearly 895 service occasions in 2009-10 and 817 service occasions in 2010-11. However, combined FME and nurse activity shows overall forensic and health service activity increased by over 60% when compared with the previous service, indicating more effective systems of working, and the impact of increased investment into detainee health care within custody suite environments. Two examples of such service expansion include nurses offering brief alcohol interventions within the custody suites and a sexual assault service whereby forensic evidence is taken in the absence of charges being made (this service is provided by the FMEs and supported by the nursing staff). However, the nursing staff have now taken over the majority of the fitness to release interviews.

Nurses responded to the health needs of 4953 detainees over the two years of this study offering 15,699 consultations, an average just over 3 consultations per person. 2010-11 nurse activity data shows 879 detainees being seen for co-morbid drug and alcohol issues, 653 being seen for solely drug related health issues, 263 detainees being seen for solely alcohol related health issues and 90 being seen by nurses for mental health problems. Over 10,000 episodes of medication administration occurred, which can require additional information and advice being provided. Within this number were 666 administrations of methadone.

Unpicking the nature of the nurse consultations reveals the diversity of nurse capability within the custody suites. As well as offering brief alcohol interventions to nearly 300 detainees the nursing staff consultations included undertaking global health assessments, pain assessments, and head injury assessments, as well as diabetic consultations and interventions, wound dressings and suicide/mental health assessments. Additionally, the nurses take base line observations, provide substance withdrawal management and offer low level counselling. Typically, nurses attended to a diversity of such health needs on a single shift.

In addition to direct health care provision the nursing staff regularly consult with and communicate information between police and FME staff, triage for the FME and provide direct clinical support to the FME, as well as communicating care packages and ensuring the governance, administration and managing of data, equipment and clinical environment. Such activities necessitate the nurses communicating clinical information with GPs, pharmacists and hospital staff, as well as staff from prison services, community health/mental health services and ambulance services.

**Figure 4.1.1.2: Accident and Emergency transfers from the custody suites 2008 - 11**



Referrals from the custody suites to the Accident and Emergency departments across Tayside shows a Tayside-wide decrease of around 15% from the pre-pilot period. While Dundee showed a significant decrease in referral rates the two satellite sites showed overall increases although it was an improving picture between 2009-10 and 2010-11 periods.

**Table 4.1.1.2 Combined Accident and Emergency transfers from custody suites (Tayside Police area)**

<b>2008 -09</b>	218
<b>2009 -10</b>	194
<b>2010-11</b>	186
<b>Overall reduction</b>	15%

**2011 Single month data snapshot**

Nurses were asked to undertake an audit of their activities during a single month in 2011 which yielded the following results:

<b>Accident and Emergency attendances prevented</b>	9
<b>Delayed court appearances prevented</b>	1
<b>Critical incidents prevented</b>	3
<b>Referrals to other (non NHS) agencies</b>	30

*4.1.2 Tayside Police*

Tayside Police provided a dataset extracted from the custody record system covering the three calendar years from 2008-2010. This provided a limited basis for comparison as during 2008 healthcare was delivered by MEDACS prior to the commencement of the pilot in January 2009. Data for the second year of the pilot (2010) thus permits comparison of the first two full years of its operation.

**Table 4.1.2.1 Custody admissions (Tayside Police area) 2008-2010**

<b>Tayside Police custody facility</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Dundee	5339	4841	4853
Perth	4399	4794	4150
Arbroath	3225	3315	3508
Tayside force area	12963	12950	12511

*Base data supplied by Business Development Unit, Tayside Police*

*(Note that so-called transit custodies – detainees held for short periods in connection with court or prison transfers – are not included)*

The dataset supplied by Tayside Police also detailed those detainees who were 'booked out' from custody to attend an NHS facility. This gives a picture of the volumes involved although from the data provided it was not possible to reliably distinguish between the different needs for transfer (for example the proportion of detainees sent to a specialist mental health assessment facility compared with the proportion sent to an A&E department).

**Table 4.1.2.2 Transfers from custody to NHS facilities**

This table shows transfers from custody to NHS facilities across the Tayside Police area 2008-2010, expressed as a percentage of annual total admissions in brackets:

<b>Tayside Police custody facility</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Dundee	131 (2.5%)	69 (1.4%)	80 (1.6%)
Perth	75 (1.7%)	98 (2.0%)	99 (2.4%)
Arbroath	58 (1.8%)	48 (1.4%)	58 (1.7%)
Tayside force area	264 (2.0%)	215 (1.7%)	237 (1.9%)

These data indicate an immediate and moderate decline in transfers from Dundee to NHS facilities in the year after the pilot was introduced, which was maintained in its second year of operation. Arbroath showed negligible change over the period but Perth showed an increase in transfers in both years of the pilot compared with the previous service. It should be noted that the overall volumes represent a small fraction of overall admissions, however: It can be assumed that the greater impact apparent in Dundee is associated with nurse screening and ability to deliver healthcare without the need for detainees to attend A&E. It is important to note that need is the key factor: detainees may require specialist care, such as mental health. In such cases (which will always be present) then transfer is wholly appropriate and unavoidable. The dataset did not allow for reliable distinction between clinical needs in each case.

**Table 4.1.2.3 Medical transfer return rates**

<b>Tayside Police custody facility</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Dundee	95 (72.5%)	54 (78.2%)	67 (83.8%)
Perth	55 (73.3%)	69 (70.4%)	72 (72.7%)
Arbroath	38 (65.5%)	33 (68.8%)	40 (69.0%)
Tayside force area	188 (71.2%)	156 (72.6%)	179 (75.5%)

This table shows the total of those booked out from custody to attend NHS facilities across the Tayside Police force area 2008-2010 who subsequently returned to police custody, expressed as a percentage of the annual total number booked out in brackets: These data reveal a consistent pattern showing that almost three quarters of those who leave custody for an NHS facility subsequently return to Tayside Police custody across the force area. Dundee and Arbroath showed an upward trend once the pilot was introduced compared with the predecessor service, most pronounced in the case of Dundee (which showed the highest individual return rate of 84% in 2010), whilst Perth showed a very small decline.

**Table 4.1.2.4 Medical transfer from custody elapsed time**

This table shows the average elapsed time in the case of those booked out from police custody to attend an NHS facility between the time they left and the time they returned following assessment or/and treatment.

<b>Tayside Police custody facility</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Dundee	3 hours, 05 minutes	3 hours, 54 minutes	3 hours, 03 minutes
Perth	3 hours, 44 minutes	3 hours, 15 minutes	2 hours, 46 minutes
Arbroath	2 hours, 15 minutes	3 hours, 21 minutes	2 hours, 42 minutes
Tayside force area	3 hours, 01 minutes	3 hours, 30 minutes	2 hours, 50 minutes

## 4.2 Qualitative findings

### 4.2.1 NHS Tayside

The research findings generated a series of major themes in relation to NHS Tayside staff and their role in the pilot:

#### *Theme: Expanding nursing roles and capabilities*

Initially the role of the nurse was restricted to the health screening of detainees on arrival in the cells incorporating standardised protocols and validated instruments of assessment. As the service matured nurses received training in and are deciding on 'fitness to plead' and 'fitness to release' issues, as well as helping in the collection of samples that could be used for evidence in court. There were now standardised policy and procedures for relational and procedural risk as well as core interventions such as care and treatment. This point highlights that evolution has been a key characteristic of the pilot.

#### *Theme: Improved diagnosis and delivery of care*

**(Nurse) The same amount of DFs [Dihydrocodeine] and Diazepam could have been prescribed to every single person who claimed they had a drug problem without checking an opiate withdrawal scale, without checking whether that person was already on Methadone, when was the last time they had their Methadone, do they require symptomatic relief, you know, none of that was done.**

The above quote presents a strong critique of the previous model of detainee health care delivery from a diagnostic point of view. Participant health staff created a powerful picture that the detainees were the focus and primary beneficiaries of the new pilot. Through having an expanded range of health services within the cells, as well as with care being integrated with community and hospital based services, detainees gained most from the new service. In contrast with the previous model a key feature of participants' perceptions and experiences was that detainees received care appropriate to need, with health care being informed by information systems and processes connected to wider 24/7 NHS services. Enhanced safety was understood to have been created through nurses responding quickly to detainees' health needs up to, but not exceeding their level of expertise; through detainees being less agitated with better management of substance withdrawal; through having access to detainee medical history and current treatment via NHS information systems; through instant (in the case of Dundee at least) response to health interventions or advice requests from police; through having mental health expertise within the holding cells and through having systemic policies focussing on clinical governance and risk minimisation.

Evidenced based protocols were repeatedly identified as a key mechanism to achieve improving clinical standards on an ongoing basis. While tensions were at times identified, these tensions were around which was the best quality evidenced protocol, rather than the need to have or use them. The use of a protocol for methadone being dispensed within the cells and the treatment of withdrawals (excluding alcohol withdrawal) with minimal analgesics were overt examples of this. The protocol and treatment regime were a joint project with input from nurse clinicians, managers and an expert pharmacist, and overseen by medical staffs, all in liaison with police. As indicated in the participant (detainee) quote below, the impact of the methadone protocols and withdrawal treatment regime was even perceived as extending into offending behaviours:

(RP16) I mean, even clients are – initially the feedback was they were not happy because they weren't getting the DFs [Dihydrocodeine] and Diazepam and as hard as it is to believe, some clients would get themselves arrested because that was the easier option for them to go in there and get Diazepam.

Police anecdotal evidence also supported this claim, observing that detainees with persistent histories of detention had adapted their behaviour over time as their awareness of and familiarity with the practices followed by the nurse-led service became established and communicated.

*Theme: Collaborative working*

Collaborative working:

- Between health and police
- Between nurse and medical staffs
- Between nurses

A qualitative finding which resonates with the quantitative arm of the study was that of effective collaborative working. Underlying this theme were the capabilities and behaviours which constructed the possibilities for collaboration, particularly between nurses and police. These can be grouped together under the banners of collaborative individualism and emotional intelligence. More specifically, through having shared outcomes, project working individual cases, and having clarity of each other's roles collaborative individualism was supported. Empathy, in effect seeing emergent issues from policing views, being open to the new experiences and change of working with police, and being able to cope with the emotionally charged environment of the holding cells were the primary emotional intelligent capabilities that supported collaboration with police. More generic factors such as simply "being friendly", "having cups of tea" and "getting on with people" contributed to outcomes such as 'presence building rapport' and 'mutual relaxed professionalism'. It is worthwhile separating out communication as being powerfully identified as underpinning the capacity to work collaboratively. Participants identified the mixing of formal and informal communication, two-way sharing of information and the capacity to be 'multi-lingual/cultural' to work across policing, medical and nursing terms and processes. This viewpoint was strongly affirmed through police qualitative research findings. For example:

**(Police Custody Sergeant) There was a feeling that we (the police) were going to have to have difficulty incorporating the new service into our ways of working... this was never the case... The nurses were all willing to work with us and explore ideas as to how the service should be managed... recognising each others role and the importance of professional boundaries**

*Theme: Public health roles*

Public health was seen as a unifying concept for health care in police cells by participants. Nurses saw one of their main roles as supporting detainees to adopt behaviour changes and seek appropriate support and follow-on care. This was reported by participants as one of the most challenging and frustrating parts of the nurses' role. The offending behaviour and motivation of detainees to take responsibility for their own health acted not only as a barrier to receiving further help and support but impacted on the persons' ability to keep such things as appointment times, despite some offenders being on drug rehabilitation and alcohol treatment orders as part of their sentencing by the courts. Several of the nurses had been 'surprised' by the number of detainees that repeatedly came through the cells and how this offered opportunities to engage in health promotion activities such as health education and health screening.

**(Nurse) I've never worked in a secure setting before, I was surprised at the amount of time that you had your disposal, that you could use to get to know your patient and work with them. My view on my role has changed.**

All the nurses recognised that detainees face significant barriers to adopting healthy lifestyle choices and that many detainees generally lived a chaotic lifestyle and rarely asked for help outside of custody.

*Theme: Improved Forensic examining*

**(FME) The training and the expertise of full time staff of this department is of course rather in the field of forensic science, forensic medicine and description and assessment of injuries and so on, so we would hope that the quality of the reports that the police and the procurator fiscal get about the truly forensic part of our work would also have improved.**

With nurses leading the health delivery component of the pilot study the FME staff at the University of Dundee now have the time to provide detailed reporting into legal cases of a non-lethal nature, rather than providing detailed forensic reports for deaths alone. This expansion of forensic reporting capacity is supplemented with greater opportunity to utilise more in-depth and complex investigations and to enhance the forensic education of GPs and nursing staff.

*Theme: Staff capabilities*

The selection and recruitment of health staff appears to be a vital aspect contributing to service efficacy. These staff capabilities can be crudely separated out into 3 broad capability areas of (a) intra-personal capabilities: self awareness, decisiveness and self confidence, as well as assertiveness, resilience and leadership; (b) inter-personal capabilities: advanced empathy communication skills and being open to share and take on board new knowledge, and finally (c) professional capabilities inclusive of specialised clinical expertise underpinned with generic nursing knowledge, diversity of expertise in clinical areas and knowing limitations. Key areas of specialised expertise included: diabetes, mental health and addictions as well as cardiac, neuro surgery and paediatrics, and finally minor injuries.

Although not initially planned for, the team of nurses are split between those holding a general nursing qualification and those holding a mental health nursing qualification. Staff reported that this skill mix had huge benefits when dealing with the varied conditions that detainees presented with and again enriched the care and support that they were able to offer as a service.

**(Nurse) 'Ideally, you would be dual qualified to work in the cells as a lot of detainees present with mental health problems as well as physical complaints. I've learnt a lot off my mental health colleges, particularly to how to approach people who are depressed and potentially suicidal'.**

*Theme: Ongoing education and training*

Training in support of the nurses' role was being undertaken by the Forensic Medical Team at Dundee University. Whilst this was interesting it was not always considered pertinent. Clinician craft such as navigating a secure environment was lacking, as was training relating to equality and diversity, the Mental Health Act and personal safety, for example. There is a need to develop a standardized method of assessing mental health and emotional well-being outcomes in line with those adapted to measure and record physical outcomes.

*Theme: Satellite sites less effective*

**(Nurse) the nurses are always there, especially in Dundee Bell Street, so if something happens, so they can contact them and within a few minutes they can go and see the detainee. So it's a really good situation in Bell Street but in Arbroath and Perth, it's no[t] the same.**

Participants constructed a picture of the service that indicated the new pilot service was more effective in the central Dundee holding cells compared with those at Perth and Arbroath. The main contributor to this appears to be that the service is stationed in Dundee, the busiest of the three pilot sites (see audit activity data). Triage of detainee health need in satellite sites that are deemed urgent will most likely result in an A&E referral, due to the travel time; while need triaged as being equal to that of co-existing Dundee cases will most likely result in the Dundee case being resolved first. Additionally, the satellite sites do not have the immediate access to the nurses for a health perspective on unexpected issues, nor have immediate access for ongoing non-urgent health views. Finally, due to not being situated within the cells at Arbroath or Perth there is decreased opportunity for ongoing collaborative working and network building between policing and health staff.

Finally, in terms of improvements, as might be expected, many of the suggestions that staff gave built on their earlier discussions on access and referral to other agencies. The main issues that staff raised centred on improving communication and systems of referral between the various agencies, strengthening collaborative working and the need to expand service provision, particularly in relation to drug and alcohol services.

The aim of the police focused qualitative dimension of the study was to access the experiences of employees of Tayside Police whose role entails direct engagement with delivery of healthcare in custody facilities or forensic medical services by NHS Tayside. Several different mechanisms for delivering healthcare provision for those in Tayside Police custody and for forensic purposes have been used prior to the NHS pilot hence those personnel with the longest length of service were able to make direct comparison with previously employed methods. Semi-structured interviews allowed the flexibility to explore and draw upon this experience where applicable whilst enabling it to be disregarded in cases where employees had commenced their present job since the NHS pilot began.

The research findings generated a series of major themes and related sub-themes:

### **KEY THEME A: IMPACT OF PILOT ON THE CUSTODY RISK ENVIRONMENT**

*Theme: risk management for Custody Sergeants*

Police participants consistently stated that, overall, they felt the new service was a major improvement on previous systems, enabling better decision-making leading to significantly better risk mitigation. One example, quoting a Dundee-based CS highlights both the sense of positivity towards the pilot service and also the context in which it operates (and implicitly its rationale):

*I would have to say it's fantastic and I say that because I'm comparing it to what we had before, before the nurses came along. It's just tremendous to have a medic on site if you like. I work in a custody environment and, as you can appreciate, the type of person that's coming in is either high on drink, high on drugs, they're suicidal, they want to harm themselves, they've got mental health issues, various other things.*

*Theme: Team work / lines of responsibility*

For one Dundee-based CS, on-site nurses have added another (welcome) dimension but the ultimate responsibility remains unchanged from the perspective of their role:

*It's like a lot of things - the custody sergeant still makes the decisions but we need a little bit of help and advice and assistance when we've got a multitude of staff, we've got turnkeys<sup>7</sup> down the stairs that check on the prisoners<sup>8</sup>, we've got the nurses, we've got staff up here that arrange things. So we very much work as a team and I mean, I need them as much as they need me and that includes the nurses too and they'll say exactly the same, we all have to work together. But ultimately and sometimes unfortunately the buck stops with the custody sergeant, I have overall responsibility.*

For Custody Sergeants based Perth or Arbroath their sense of responsibility and notions of teamwork were very similar (with a few deviations). However, the ability to easily seek a medical opinion from a nurse was simply not available to them in the 'down the stairs' sense available to their Dundee-based colleagues for most (though not all) of the time. A number were phlegmatic about this, accepting that overall their facilities were less busy, thus making it harder to justify an on-site nurse presence.

*Theme: Medical factors are the prime risk factors in custody*

The primary function (and expertise) of Custody Sergeants concerns the criminal justice process. One CS gave this honest encapsulation of the role:

*Normally we're wanting somebody locked up and we want to ensure they're safe and sound till they go to court the next day. Medically, I wouldn't have a clue, therefore you pass on responsibility for that side on to somebody else so it's a weight off your shoulders.*

Another (very experienced) Sergeant described the sense of exposure to risk that had become embedded in the role:

*I have often felt over the years that particularly custody sergeants were exposed down here...obviously with the type of individual that we tend to get in here, they're disadvantaged often, they've got various health issues and alcohol and drink features in the majority of custodies.*

*...I think previously we were being left completely exposed in relation to our care of prisoners.*

Another Sergeant condensed the day-to-day risk he felt in his job into a memorable and evocative phrase:

**A good day for me is when I go home and they're all breathing – that's the sum amount of it.**

However, despite having no medical credentials or training (other than in first aid) under previous systems the responsibility to dispense medication proscribed by doctors for persons in custody had been integrated into the role of Custody Sergeant (though not of their choosing). This responsibility has been entirely removed since the new service began and nurses now have sole responsibility for administering all forms of medication. This development is universally popular, encapsulated by the view of this long-serving Sergeant who had a well-informed basis for comparison with precursor services:

**The doctor would put a pre-determined prescription of drugs in a small bag and then all we would be responsible for is handing the contents of the bag over to the prisoner...to the system that we have now where the nurses are completely responsible for all medication dispensation and, yeah, I think that's perfectly great.**

*Theme: Needs-based healthcare and preventive action*

The fact that NHS nurses are able to access the NHS records of those held in custody was seen by CSs as having a number of benefits, mostly in removing any uncertainty and cases of detainees 'trying it on'. CSs also recognised the ethical value of this option. One CS captured the prevailing view amongst his colleagues on the matter :

**It's certainly been far more helpful to have the access because obviously because as I said, the nature of the clients we have that will try and chance their arm to try and get out. Oh, I've got this, I've got that, I've got this ailment, I've got this illness, I really can't stay in overnight, I need this sort of medication. The fact that the nurses are able to access the medical records and obtain the history behind it is great from our point of view. It puts a far greater peace of mind to ourselves in relation to their care and also whether or not they – I mean, you know yourself you can kinda tell who's at it, wanting to try and get out, you know, but the fact that they're able to access the data straight away, which we didn't have before.**

Another consequence of the protocols enabling nurses to access NHS records is the ability to continue methadone prescribing for anyone verified as being on an official programme. Several Sergeants expressed personal frustration with what they saw as the extensive and growing use of methadone in general but even the most negative were supportive of the principle that those individuals on a methadone programme should receive it whilst they were held in custody, so supported this innovation (which was not previously possible).

One Dundee CS highlighted the proactive risk management benefits arising from having nurses on-site:

**As a custody sergeant looking at this individual, I'm thinking, there's something not right here. If someone's fine, ticks all the boxes, 100%, I won't ask for a nurse but as soon as they're showing any signs of whatever, I'll go and see the nurses, so it's fantastic. So it's very much proactive. You're getting in there, what is it they say? Prevention's better than the cure kinda thing. So that system compared to what we had is night and day.**

One anecdotal account from a Dundee-based CCA gave a graphic illustration of how in their personal view the on-site nurses had made healthcare outcomes better:

**...we've had a few incidents in the cell area where nursing intervention has probably saved lives. I don't know. It was about a month ago or 2 months ago, we had a guy in the cell who had to be NARCANed [a drug administered to revive persons suffering from opiate overdoses] twice [by a custody nurse] before the paramedics got here.**

The CCA clearly felt that this was a direct example of a life saved due to the presence of a custody nurse.

## KEY THEME B: IMPACT ON MANAGING POLICE RESOURCES / OUTCOMES

*Theme: Impact on fitness to plead or release*

An important dimension of the work of custody teams is the efficient processing of persons in custody through the criminal justice system. The most pressing from the point of view of court proceedings is fitness to plead. Most Sergeants found the nurses very helpful in logistical terms, handling all requests for doctors to carry out fitness tests and all sites found this aspect of the service worked well for the majority of the time. However, a number of Sergeants said that under previous systems they had not experienced major problems in this area, hence the new system had not brought tangible change in outcomes, but the more streamlined process with nurses acting as 'gatekeepers' was popular across all three sites.

*Theme: Impact on police need to visit A&E with detainees*

Although an unstated objective of the SLA, reducing the numbers of detainees sent from custody suites to A&E is a desirable outcome for Tayside Police, avoiding the need to use resources as two officers have to accompany anyone in such circumstances. Objective comparative measurement of this outcome is likely to be elusive however, based on a number of pertinent observations from staff. First, the need for A&E attendances can never be removed entirely as life-threatening emergencies will always happen in the high-risk environment of custody. Second, the two 'satellite' facilities in Arbroath and Perth are less able to readily call on a second opinion from nurses as is the case in Dundee, hence are more likely to use the hospital option, as shown by the view of a satellite-based CS:

I'll always err on the safe side in terms of welfare and if there's a doubt I will give them [the detainees] the benefit of the doubt 'cause I'm not gonna make a judgement myself on that. But if something occurs with the prisoner, an episode or change of physical status which I think requires immediate medical intervention and I don't think the nurses are gonna be able to provide that, then I will immediately consider sending them [detainees] to hospital without consultation but I would obviously then speak to the nurses and explain what I'd done, which I've done recently when a prisoner came in with a shoulder injury. I decided to send him to hospital although they had been contacted and told he was needing seen.

Last, and perhaps most importantly, the Custody Sergeant will always have the final say no matter what advice s/he receives from nurses in attendance: risk management will always err on the side of caution. An experienced Dundee Sergeant observed:

We will still have occasions where officers will bring people into custody and either through my opinion and the nurse's opinion, [they] will then have to take them up to the hospital. That will still happen but certainly from the point of view of the number of times that I have had to phone up my inspector and say, I'm needing 2 cops for an escort up to the hospital, I would say that has reduced dramatically.

A more subtle benefit arises from the fact that nurses on site (this example again from Dundee, and probably a localised outcome) can help manage the timing of essential hospital visits, enabling resources to be used most efficiently by, for example, avoiding the busiest times such as the peak night-time economy hours:

[we] can ask the nurses, is it something that needs to go to the hospital now or can we keep him here with you monitoring and observing what's going on for an hour or so till the night clubs kick out and we're in a better position resource wise to then take them up. And a lot of the time the nurses will say, yeah that's OK, it's not that urgent but they do need to go to the hospital. So that is a benefit, yeah.

*Theme: Improved intra-NHS dialogue*

A key theme that emerged in year 2 research suggested a maturation process around the pilot, yielding a perceived benefit for Custody Sergeants arising out of nurse-led intra-NHS 'gatekeeping' producing better outcomes. One example cited concerned a vulnerable detainee:

A boy was threatening suicide, so the cops tried to get him to [name of NHS hospital], they wouldn't take him because he'd had a drink. Our protocol is as long as they're not intoxicated, they should be up there. I refused to take him cos the boy's stone cold sober, should be off to [name of NHS hospital] rather than in here. Told the cop to go and phone the SHO at [name of NHS hospital] again, not entertaining it. So it ended up the nurse phoned them having come through to [satellite station] and seen him for herself, phoned [name of NHS hospital] who then took him because it's another medical professional that's given them this rather than a cop.

Under the predecessor system, using contracted FMEs, police staff perceived a degree of friction when dealing with A&E and mental health facilities and that the nurse-led service had significantly improved the communication process. For one CS this also had a related criminal justice benefit:

It works better for us, it works better for the courts as well to that end, you know, we're getting people assessed by the doctor and they're either going to court or they're not and we know pretty quickly.

*Theme: Intervention opportunities*

A Dundee-based CCA expressed a view that outreach work by nurses was qualitatively better than what detainees had in the past:

I think the nurses offer more when it comes to providing help from other agencies than what doctors did in the past because with the doctors it was a case of, there's your pills, you'll get that every 6 hours for the duration you're here. Now, nurses will ask questions, if they've got a drug problem and they want to get them referred, they can do that. They leave messages for the arrest referral workers who will then come in in the morning and have a list from the nurses and what have you. So I think that's a better thing that the nurses bring in, which has improved. If these people then take that up and do something...

Whilst this does not offer definitive evidence it does provide some indication that the new service has brought improved opportunities for interventions regarding the lifestyle factors of detainees that may be linked to their offending. The same CCA added a further view on what could be termed new possibilities:

The options are these people are now being told what's there from the nurses. A lot of them know it's there anyway but to hear it actually being said to them now, that we can put you in touch with this, that and the next thing, do you want us to do that, and we can make appointments for you and stuff like that, which is a thing that never happened in the past.

## **KEY THEME C: CULTURAL ASSIMILATION AND COLLABORATION**

*Theme: Shared goals*

Police staff had a strong sense that collaboration with nurses had, for them, a clear functional logic, but the notion of whether this meant shared goals brought the following response from one Sergeant:

In the broadest sense, yeah. I mean, I think we're both looking towards the welfare of prisoners in our care and our accountability for them and I'm sure – I'm not saying that's for most of the nurses mind, they're obviously getting it from a clinical point of view, you know. They have been told there is a prisoner who has some sort of medical issue and it has to be resolved and that's their agenda, you know, to come and resolve that issue. For me, it's not just about resolving their medical issue, it's about ensuring their safety and welfare and addressing the accountability of them. So I have other thoughts at the back of my mind, it's not just simply a matter of looking after them, you know.

This – thoroughly representative – quote highlights a genuine empathy but also a clear professional dividing line.

*Theme: Professional respect / collaboration*

Overall, there was a strong sense of respect for the professional competence of the nurses, typified by one Sergeant's summation: I mean, they're obviously very competent and qualified staff that are dealing with the prisoners which is an important issue for me.

## KEY THEME D: SOURCES OF DISSATISFACTION WITH PILOT SERVICE

*Theme: Dundee experience is intrinsically different from the 'satellite' stations*

Dundee-based staff clearly felt the most reassured by the presence of the nurses on-site, captured in the view of an experienced Dundee-based Sergeant who offered the following observations when asked how things were managed differently on occasions when nurses were away at one of the satellite stations:

If it's somebody who's showing certain signs and symptoms, we'll describe it over the phone to them and the advice would normally be, yeah OK, get them to the hospital. If over the phone they think, no, bring them into custody but what we'll do is we'll phone the doctor to come in and see you, they'll phone the doctor, so although the nurses are out, we can still have the circumstance where the doctor comes in at their request anyway to do that initial consultation. So there are options and personally when both nurses leave this building, I don't feel any more vulnerable than when they're here, to be honest. That should be a contradiction but [it isn't].

This is the view of an experienced Sergeant and has to be seen on those terms. A less experienced officer may well feel relatively more exposed in the same situation, but the Sergeant's view does appear to highlight the flexibility inherent to a nurse-led service. Another Dundee Sergeant highlighted how he made use of the nurses when they were on-site to assist in deciding whether to admit a prisoner even before they reach the charge bar<sup>9</sup> and if so, what form of observation checks to apply:

Well, it's up to me – to go to one extreme, it's up to me to accept the prisoner. Now, whether I put him on hourly checks or half hour checks or constant obs[ervations], comes up with a number of circumstances and if we go to the highest extreme that I have doubts whether this prisoner should even be in our custody for medical reasons, right, or he's so intoxicated that he's unconscious and unable to answer any questions – in the bad old days, we would still take these people in. Now, if for instance, I had somebody coming in and I can see in the waiting room that they're unresponsive, I'd get a nurse or 2 nurses or whatever to examine the person.

An example of this precise scenario was witnessed during the year 1 participant observation whereby a custody nurse was asked by the duty CS to review the condition of a person in a police van in the secure yard behind the custody suite, and concluded that the person was fit to be detained. It is not impossible that such a scenario could arise in either Perth or Arbroath but it would be a coincidence of timing if it did so when a nurse was present.

The main frustration experienced by staff working in Perth and Arbroath arose from what they regarded as sometimes excessive waiting times for nurses to arrive once a visit had been requested by phone to Dundee. A satellite-based CCA offered a succinct, balanced account of the issue:

Our only really bugbear having obviously discussed things with other folk here is sometimes the time it takes for somebody to come. OK, it's not perhaps a serious matter at all but these people [the detainees] who have nothing to do through the hours other than buzz you every 5 minutes, is the nurse not here yet, is the nurse not here, you know, it's maybe wishful thinking on our part but sometimes it would be nice if they could be just a little bit sharper because sometimes you're waiting 7, 8 hours for something that takes maybe 10 minutes to deal with. But you appreciate there are demands on them elsewhere as well.

<sup>9</sup> For readers unfamiliar with the term, charge bar is the term used to describe the desk in the custody suite behind which the Custody Sergeant stands when operational officers present a person who has been arrested and explain to him/her why they believe the person should be placed in custody.

*Theme: Pilot has placed new burdens on CCAs*

A consistent theme raised by Custody Care Assistants concerned how the shift to a nurse-led service had added new responsibilities to their role and in the process was potentially diluting their ability to manage risk. These comments must be set in overall context, as CCAs were clear in their endorsement of the nurse-led service from the point of view of prisoner welfare. The longest serving CCAs noted how prior to the introduction of the present system the Custody Sergeant had the responsibility of accompanying doctors when on site but now that responsibility had been largely transferred to them. With nurses on site – particularly in the normally busier Dundee station – CCAs have the duty to accompany detainees when they visit the nursing office within the cellblock area. Whereas in the past a doctor's visits were sporadic the on-site presence (again, most prominently in Dundee) has seemingly led to a greater volume of medical interventions than in the past. One Dundee-based CCA observed the implications of this change in practice, highlighting that observation checks on individual detainees (as specified by the Sergeant for each case, e.g. half-hourly checks) were an overriding priority but taking detainees to the nurse made it harder to perform that role at busy times. In essence a classic case of being unable to be in two places at one time.

This example highlights a tension between healthcare priorities and risk management, with CCAs effectively caught in the middle of that tension. Another Dundee-based CCA further affirmed the problem from their perspective:

*If I'm working on my own with 30 or 40 prisoners and I'm taking people out to see the nurse in the nurse's room, there is nobody, even with a visual can see what's going on in the cell area because I'm in that room. If something happens within the cell area, say somebody, touch wood, cuts their wrists or self-harms, it falls back, well where were you – and then I'm into that.*

For Dundee CCAs there was strong concern that at the busiest times the demands placed upon them were unreasonably high, raising important questions about adequacy of police support staffing levels at such times.

*Theme: Nurse staffing levels and police requirements*

A Dundee-based CCA observed how nurse staffing levels and the fact that they are based in Dundee works in practice, and succinctly captured the dilemma arising from the unpredictable nature of the ebb and flow of custody workload:

*I think they'll maybe wait – if Arbroath wish to see somebody, obviously the nurse to see somebody, they tend to finish off what they're doing here anyhow but if they're maybe within three quarters of an hour they're medicating somebody, they'll maybe hang back half an hour, give the guy the medication and make their way to either Perth or Arbroath, so they're quite good. But then I think their staffing is an issue as well. I think through the day there's only one on. So if Perth's busy and Dundee is busy and Arbroath's busy, you know. So at nights you have two [nurses]. I don't know if there's a thing there for having two through the day, I don't know. It's hard to say 'cause you'll never know how many people are here.*

*Theme: Transition fears unfounded*

Several Sergeants reflected on how their expectations of problems the transition to the nurse-led service might bring proved largely unfounded:

*Now, when the nurses took over, they said, we're not giving out Dihydrocodeine and Valium any more, they're not getting it. And we all – well cynical sergeants sat there and thought, oh it's gonna be a bad one, this is gonna be horrendous. Absolutely nothing. I think we might have got one or two guys going, that's not right, why are we not getting that? New rules guys. Right, OK. I mean, it was staggering how easily that was accepted. So if you'd asked me this question probably a year and a half ago, I would have said, you couldn't possibly – but it's incredible how easy.*

Another Sergeant's view:

*Like any pilot that's introduced, there's always gonna be that initial settling in process but any issue that was identified during that period was very quickly rectified and dealt with and whether that meant a change in working practice for us or a change in working practise for the NHS but there was nothing major. Prior to the pilot starting, as custody officers we were kind of expected to potentially make decisions based on health grounds and stuff that we're not qualified to make. Given the nature that we were doing, there was an expectation level and the pilot has taken that away from us, which I'm perfectly glad about and it has – I mean, if you like, it's given us that safety net's probably the wrong expression to use but it's given us that security of knowing that we have on call – well, not on call but we have 24/7 medical professional cover which we have never had prior to this pilot starting.*

The latter account paints a generalised picture but one that was representative of the overall view: good overall from the point of view of those with the most direct responsibility on the police side.

#### *Theme: Mental health protocols*

Custody Sergeants from all three sites felt very strongly that protocols with the NHS for mental health assessment of those in police custody were problematic. Whilst this is unequivocally an NHS matter, and does encompass healthcare delivered by nurses to persons whilst in custody the precise issue is not a product of the pilot or of the service per se. The difficulty for Sergeants arises from ambiguity as to the circumstances under which mental health facilities will accept a person into their care, and particularly cases where the person in custody is intoxicated. Sergeants felt that they were often placed in an unwelcome position, being forced to keep someone in police custody when advice from the office of Procurator Fiscal was clearly indicating that the courts did not want to see criminal proceedings brought against persons whose actions were adjudged by police to be only a risk to themselves (that is, no involvement in a criminal offence was alleged). In other words the police station becomes a 'place of safety' for someone against whom the police will not be taking any further justice-related action. Typically, many suicide attempts fit this category.

Whilst a solution is not something that appears to require fundamental redrawing of the pilot model it is nonetheless a significant component of the overall demands placed upon police and nursing resources.

#### **Forensic medical services**

Police users of the forensic medical service aspect of the pilot from each of the three divisional units were interviewed. The interviews sought to understand and explore the nature and regularity of user engagement with the service and any changes or issues associated with the mode of delivery.

A reasonable degree of consensus was apparent across the three divisions and is constructed under the following three themes:

#### *Theme: Enabling police enquiries*

The key forensic requirements for Public Protection Units arise from their enquiries into allegations of child sexual and physical abuse as well as serious sexual offences committed against adults and vulnerable adults. Medical examinations for all divisions are carried out at a designated facility in Dundee (not the police station) and depending on the nature of the case may require a paediatrician as well as an FME. Such examinations are known as second stage medicals and under the pilot the coordination role in bringing the necessary parties together is handled by the custody nurses. One Detective drew a clear distinction between the current system and the call centre coordination model used during the pre-pilot contracted out service:

**Well, I mean, it's great, it's just really simple, it's just a phone call, to be honest, and it's kinda done for you. Before you had to – well, Medacs would organise the police surgeon and back then it was mostly for child medicals. We had to organise a paediatrician and it was a bit difficult trying to get people that fitted both of them and the child and you. You were kinda left just holding all the pieces of the jigsaw and you had to try and fit them together.**

The most urgent, time-sensitive demands for a medical examination normally relate to cases involving serious sexual assault allegations. Here, a perceived closer form of collaboration brought certain benefits in one Detective's view when compared with the Medacs system:

**Because it's actually us who are doing the phoning and saying, oh it's [Detective's name] from the FPU, oh right [Detective's name], what – yeah, I've passed on – there's a relationship there. And if you can say to them it's a sexual, they know, as opposed to the Medacs way where it was like a call handler. You know and they'll – it's a more – I don't know, it just seems a more personable rather than phoning [a call centre] – and if we've not heard in about an hour or something, you phone them back and you're like, have you heard, do you know who the paediatrician – ah well, we've got them but they're doing something and they're gonna away to phone you, they know about it. No, [under the previous system] you would phone up, I've got a reference number, oh well, I don't know, I'll need to go and check, it wasn't me that took the call. That kind of [thing].**

A different Detective affirmed positive approval for the new system, and at the same time implicitly demonstrated how what was perceived to be closer collaboration had occurred:

**Even just the fact that you're phoning somebody that is 20 minutes away in Dundee in a police station, it just helps, even that. I mean, with Medacs you actually got given a number, you had to write it down and you had to quote that and it was just all a bit – whereas now, like I never think that I'm phoning the NHS, I just think I'm phoning the cells in Dundee, like it's Tayside police, it doesn't feel like you're phoning anybody different and it's good.**

None of the Detectives felt that there had been a tangible change in the quality of forensic examination since the new system came into operation from their perspective, however:

*Theme: Victim benefits*

One Detective made a brief but important observation of what they regarded as a beneficial outcome for victims from direct engagement of the custody nurses in the forensic process:

Another thing that's good is that there's a female nurse on, so that if we do have a female victim, it is 99% of the time a male doctor, the fact that you can say to them, well there's a female nurse on duty, that helps. Well, before, it would be the doctor. Say it was just a clear-cut adult rape, female victim – the doctor would do the examination and it would be the police officer that would corroborate it and take the swabs and package them up and stuff. Whereas now, it's the nurse that is the sort of second in command to the doctor and they corroborate the medical, we take all the evidence away with us and sign it over but it is the nurse and the doctor doing it as a pair.

#### 4.2.3 Detainees

In the context of this evaluation the detainees are key stakeholders through being the recipients of the service. Populations within police holding cell environments have received scant attention from researchers, primarily due to the short-term nature of their stay and the ethical challenges of researching populations considered vulnerable. Additionally, detainee populations in police holding cells are at their highest numbers outside of traditional working hours for researchers. This section of the overall evaluation of the pilot service received separate ethical clearance from the Tayside Committee on Medical Research Ethics B.

Data collection was undertaken through conducting semi-structured interviews that sought to gain a better understanding of detainee experiences of the new health service. All detainees who received a health care service in the cells were invited by the nurses working in the cells to participate in an interview. Detainees who were clinically assessed to be under the influence of substances, who were considered to be otherwise incapable of making informed consent or who were considered to be of risk to others were not asked to participate. Detainees were given the option of having the study verbally explained to them or to be given a written explanation of the study. Where participation was agreed the nurses then contacted the project researcher who would attend the cells to undertake the interview. Interviews were conducted out of conversational earshot but within eyesight of nurses and policing staff to ensure confidentiality whilst also minimising risk to the interviewer.

Interviews sought to ascertain the experiences of the health service offered to the detainees. This direct phenomenological data collection then underwent thematic analysis whereby the interviews were transcribed verbatim and then explored for core meaning units. 30 interviews were undertaken of 25 male and 5 female detainees, all whom were of working age.

The research findings can be grouped under the following themes:

*Theme: Meeting diversified health needs.*

**(RP28) Well, it was pretty OK. They took my blood, temperature, everything, things like that and checked stuff, gave us a pin prick and things like that and then they said that basically I was OK just now like, I'm a wee bit shaky but I knew that myself, that's why I asked for her.**

The health needs of those detainees who consented to interview represented a wide range of clinical presentations which all required a general health assessment to be undertaken. Nine detainees identified having a mental illness, which was the largest single clinical grouping. Other presenting conditions included hypertension, diabetes and renal disease as well as one detainee with gynaecological health needs. Other health needs related to alcohol dependence (three detainees) and heroin dependence (three detainees) and included clinical responses to Hepatitis C and stomach ulcers as well as wound care. Six detainees required methadone and overall the dispensing of medication for pain, diabetes and mental health issues was widely evident. Other detainee health needs included requiring medications, needing analgesics and mental health input. Diabetes, wound care and Hepatitis C responses as well as health assessment and maternal needs were also evident in this small population. The interventions offered by the health staff of the pilot service accurately reflected the detainees' health needs:

Of significant note is that the overwhelming majority of interviewed detainees reported that the health interventions they received within the cells directly responded to their health needs. In other words interventions were not focused on organisational or staffing priorities but rather were patient centred. As detailed by the detainee below, the service shows a proactive capacity to meet patient need:

(RP 18) The medicine I'm on for my thumb, even in Arbroath, I had to wait. I had to wait for the nurse here – one of the nurses actually had to leave Arbroath and go to my chemist which was in Montrose.

*Theme: Positive experience of service*

(RP 10) I think the health service is fine in here, they do everything they possibly could for you, they help you as much as they could, and if you need anything or if you need to ask anything, they'll answer your questions. I think the health service in here is quite suitable actually.

Detainee experiences of the provided interventions were overwhelmingly positive. Detainees reported a prompt and responsive nursing service that was underpinned with non-judgemental staff attitudes and/or behaviours, advanced communication skills and advanced inter-personal relating. Interestingly, none of the participants confused the health service with the policing service, indicative of a clear demarcation between the services having been communicated, despite sharing a geographical location. These findings reflect the themes emerging from the interviews with the health staff who felt being separate from police and communicating NHS professionalism were highly important aspects of providing an effective service:

Participants typically described the nurse led health service as being "excellent", "efficient" and "good". The only complaint was a single case of a detainee challenging the times that methadone was dispensed. However, participants who had experienced the predecessor service associated the new service with introducing positive changes:

*Theme: Comparative improvements to the old structure*

(RP 10) But the last time when I was in here, I was only getting prescribed like a detox. I think it's better this time because I get my Methadone in here. I'm prescribed it, I'm prescribed the Methadone, so I should get it in here. Whereas the last time I had my own heroin habit, so it was my own fault but when people were coming in here, they were getting prescribed drugs off the doctor for nothing.

Six of the participants had received health interventions under the previous arrangements for offering clinical services into the holding cells. All of these participants noted comparative improvements delivered by the pilot service, focused on access to methadone and a quicker response to expressed health need. However, one participant felt that the provision of Dihydrocodeine and Valium under the previous service was better for drug withdrawal. This overall finding of comparative improvement reflects findings from the health staff interviews and audit that showed a more responsive, detainee health needs led and broader health service under the pilot structures:

*Theme: Linking with the outside*

(RP 9) They've said that they're gonna pass me on to another person that comes into the cells and he's gonna be able to see me outside to get put on a Methadone prescription.

Formal and extensive linking with health and social related services outside of the holding cells was also evident from the interview data. This reflects the findings from the health staff interviews that also highlighted that this was a vital consideration in providing high quality health interventions. Linking with agencies reflected the holistic health needs of the detainees and included both government and non-government health and social care agencies:

*Theme: Detainees contact with health services*

A point of interest within the study was whether detainees were engaged with health services before coming to the holding cells, and whether they intended to follow up after leaving the cells. Such data offers insights into the worth of establishing links with agencies as outlined in the point above. In short if detainees are not engaging in services then the values and benefits of linking with agencies is diminished. Nineteen of the detainees identified having contact with health services before coming into the holding cells. The majority of those had been seen within a 1-8 week time span, with five years being the longest time without contact. The remainder of the detainees denied having a health issue needing follow up. Fourteen of the interviewed detainees had future appointments for follow up.

*Summary*

Interview data from the detainees who had received health care interventions were overwhelmingly positive in terms of perceived meeting of their health needs, and in offering a comparatively superior service than the traditional model of on call medical officers. The prevalence of mental illness in this small population was high as was the connectivity of detainees with outside health and social care services. We should of course recognise the limitations of sample size and the inability to include certain categories of detainee.

## 4.3 Quantitative Findings

The Scottish Government Action Plan *'Better Health, Better Care'* (Scottish Government, 2007) outlines a philosophy of health improvement focused on tackling health inequality and improving the quality of health care provided to all people, albeit not necessarily within a traditional health care setting. In this policy context, the introduction of a health service based within the custody suites in North-East Scotland presented an opportunity for increased collaborative action between police and health service staff in meeting the health needs of prisoners.

From a theoretical standpoint (Social Cognitive theory; Bandura, 1997) the self-efficacy beliefs of staff are a key influence of their work performance. Self-efficacy is defined as the "belief in one's capacity to organise and execute the courses of action required to produce given attainments" (Bandura, 1997: 3). If staff are confident in their ability to work collaboratively (high self-efficacy beliefs) and believe that such collaboration will have a positive effect in meeting the healthcare needs of prisoners (high outcome expectancy beliefs) this makes engagement in collaborative activity more likely. Such beliefs can be held at self, role and group or collective levels (Bandura, 1999, 2000), see Figure 4.3.1. There is also evidence that age and length of experience are resources that help workers adapt to service innovation (Avolio, et al. 1990).

Effective collaboration is thought to have three key features: (i) the active and assertive contribution of each party; (ii) being receptive to, and having respect for, other parties' contributions; and (iii) building on the contributions of all parties to understand the task at hand (Weiss and Davis 1985). According to this model, collaboration comprises a "high" degree of both assertive and co-operative behaviour. Assertiveness is defined as attempting to satisfy one's own concerns while cooperativeness captures worker attempts to satisfy the other parties' concerns. See Figure 4.3.2.

**Figure 4.3.1 Structural paths of influence of Self, Role & Collective Efficacy (Adapted from Bandura, 2004 by Michell, 2008)**

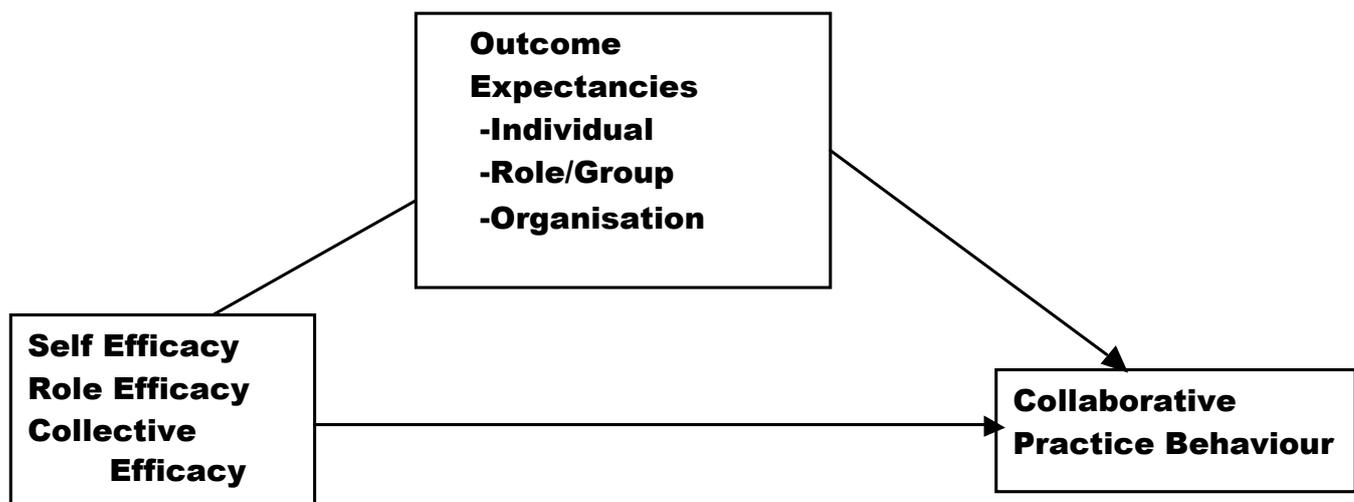
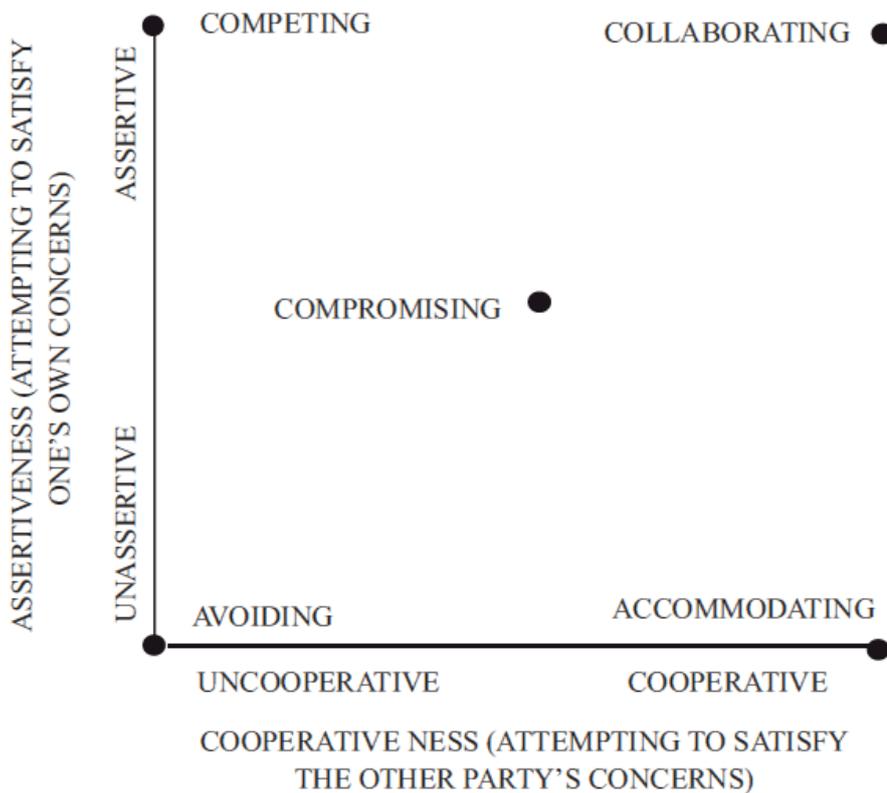


Figure 4.3.2 Model of Group Behaviour (Weiss and Davis, 1985, cited in Cheater et al. 2005)



**Aims**  
 The aim of this strand was to examine the relationship between health and police staff's perceptions of Self-efficacy beliefs, Outcome Expectancy beliefs (both at Self, Role and Collective levels) and their reports of Collaborative Practice in meeting the health needs of prisoners.

- Hypotheses**
1. Age and Years Working in Current Job (YW) will be positively associated with Self, Role and Collective Efficacy beliefs, regarding staff confidence in working collaboratively to meet the health needs of prisoners.
  2. Age and YW will be positively associated with Outcome Expectancies (at Individual, Group and Organisational levels), i.e. the belief that collaborative activities will improve health outcomes for prisoners.
  3. Higher levels of Self, Role and Collective Efficacy will be positively associated with Outcome Expectancies (at Individual, Group and Organisational levels).
  4. Higher levels of Self, Role and Collective Efficacy will be positively associated with Collaborative Practice Behaviour.
  5. Higher levels of Outcome Expectancy beliefs (at Individual, Group and Organisational levels) will be positively associated with Collaborative Practice Behaviour.

**Measures**  
 The study used a range of standardized self-reported measures that had undergone minor amendment to ensure their appropriateness for participant and setting. Each measure required participants to consider working collaboratively to meet the health needs of prisoners. All measures are reported to have good reliability and validity. In light of our amendment we consider reliability and concurrent validity of each measure. For the details of measurements and other information about the methods in this study, see Appendix under Methods section.

*General Self Efficacy* (Schwarzer & Jerusalem, 1995) is a 10 item with 4 point response scale (1-4) to measure participants' perceived personal competence to deal efficiently with a variety of situations. The internal consistence of this scale was .82 and .85 for Time 1 and Time 2, respectively.

*Role Efficacy Scale* (Pareek, 1993) is a 30 item with 5 point response scale (0-4) to measure participants' confidence in their capabilities to carry out formal interdependent role responsibilities in a group. The internal consistence of this scale was .92 and .95 for Time 1 and Time 2, respectively.

*Collective Efficacy Scale* (Schwarzer et al. 1999) is a 12 item with 4 point response scale (1-4) to measure individual's perception of the coping competence of his or her reference group and organisation. The internal consistence of this scale was .83 and .88 for Time 1 and Time 2, respectively.

*Outcome Expectancies* (Mitchell, 2008) is a 3 item with indicating on a scale of 0-100 to capture global three-dimensional aspects of Outcome Expectancies of collaborative assessment, i.e. with single items at each of the levels of self, role/group and organisation. The internal consistence of this scale was .98 and .78 for Time 1 and Time 2, respectively.

*Collaborative Practice Scale* (Weiss & Davis, 1985; Cheater et al 2005) is a 14 item with 9 point response scale (1-9) to measure inter-disciplinary collaboration. This measure has two dimensions with 8 assertive behaviour items (i.e. attempting to satisfy one's own concerns) and 6 co-operative behaviour items (i.e. attempting satisfies the other parties' concerns). The internal consistence of the assertiveness dimension of this scale was .89 and .79 for Time 1 and Time 2, respectively. The internal consistence of the cooperativeness dimension of this scale was .64 and .52 for Time 1 and Time 2, respectively.

#### 4.3.1 Results

##### Participants

Thirty participants were recruited with response rate of 67% at Time 1. The mean age was 44 yrs and the average years of working in the current job were 6.63. Participants in the health group were all doctors and nurses in the new service. The police group consisted of sergeants and custody care assistants. At Time 2, while we obtained data from 30 participants (a response rate of 64%) we present the data from 20 participants who took part in both Time 1 and Time 2. Those providing data at time 2 had a mean age was 48 yrs and the average YW were 8.24. The details of Time 1 descriptive information in groups are presented in Appendix 3, Table 1.

##### Score differences between health and police groups

There were no differences between health and police in most perceptions related to collaborating working (for details see Appendix 3, Table 2a for Time 1 and 2b for Time 2). The results indicated that health participants perceived greater Collective Efficacy toward meeting health needs of prisoners than police participants at Time 1. The results also suggested that police participants had worked longer in their current job than health participants.

##### Perceptions of collaborative working change over time

All data from 20 participants who provided data at Time 1 and Time 2 were entered for Paired-T-tests or Wilcoxon analyses. Fourteen of them were from the health group and 16 from the police group. The results indicated that Self Efficacy was significantly increased by Time 2 ( $t(17) = 2.125, p = .049$ ; Mean/SD for Time 1 was 32.72/3.46, for Time 2 was 34.22/3.62) and Collective Efficacy was decreased ( $t(18) = 2.391, p = .028$ ; Mean/SD for Time 1 was 39.63/5.02, for Time 2 was 37.00/5.68) over 2 years.

##### Hypothesis/Summaries

Participants' Age and YW were not related to Efficacy and Outcome Expectancy beliefs neither at Time 1 nor at Time 2 (Hypothesis 1 and 2, see Appendix 3, Table 3a for Time 1 and 3b for Time 2).

At Time 1, Collective Efficacy was found to be positively related to Outcome Expectancy at Group ( $r = .526, p = .003$ ) and Organisation level ( $r = .628, p = .000$ , Hypothesis 3), and Cooperativeness of Collaborative Practice Behaviour ( $r = .487, p = .006$ , Hypothesis 4). Cooperativeness was correlated with all levels of Outcome Expectancy ( $r = .454, p = .013$  at Individual level;  $r = .425, p = .022$  at Group level and  $r = .521, p = .004$  and at Organisation level, Hypothesis 5). Figures 4.3.3 and 4.3.4 summarise the relationships within the study theoretical model. Appendix 3, Table 3a provides details of all correlations relating to each hypothesis.

At Time 2, Outcome Expectancy at an Organisation level was influenced by both Role ( $r = .450, p = .047$ ) and Collective Efficacy ( $r = .691, p = .001$ ), Self Efficacy was correlated Assertiveness of Collaborative Practice Behaviour ( $r = .535, p = .018$ ) and Cooperativeness was impacted by both Outcome Expectancies at Individual ( $r = .789, p = .000$ ) and Group levels ( $r = .574, p = .008$ ). Figure 4 details the significant relationships within the study theoretical model. Appendix 3, Table 3b provides details of all correlations.

Figure 4.3.3 Summary of the correlations within the model at Time 1 (n=30)

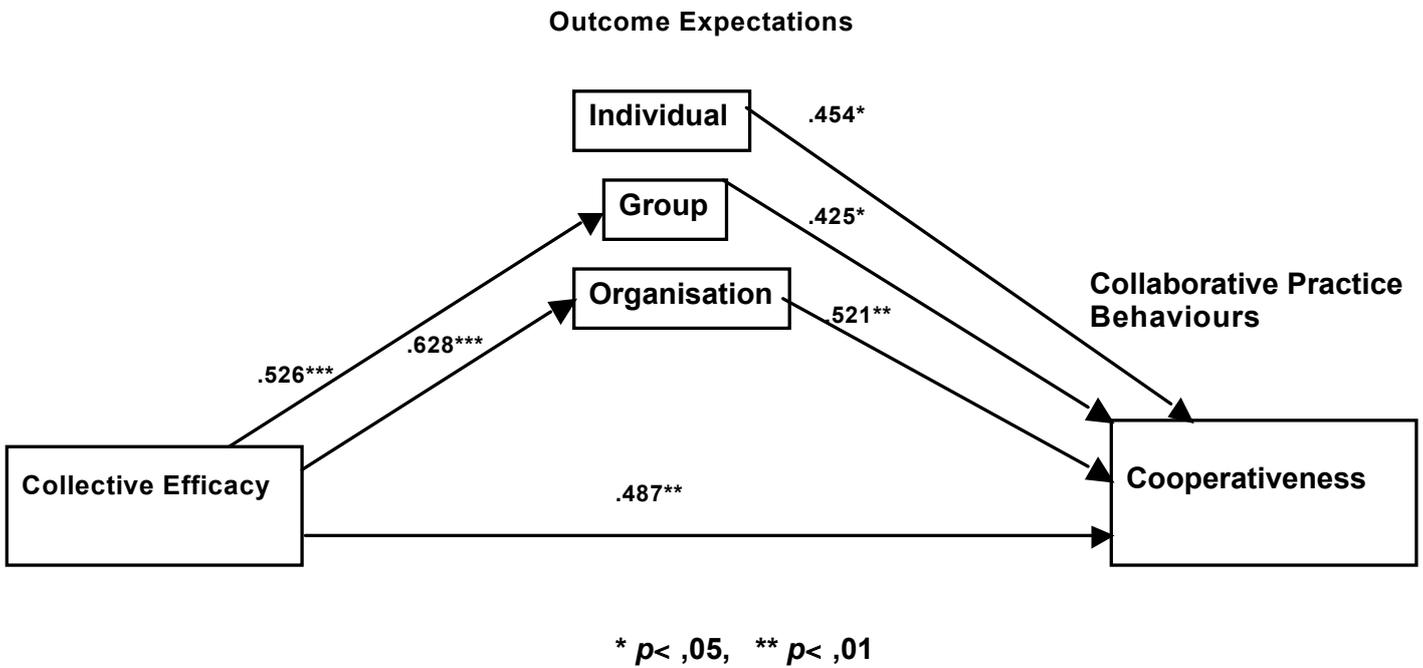
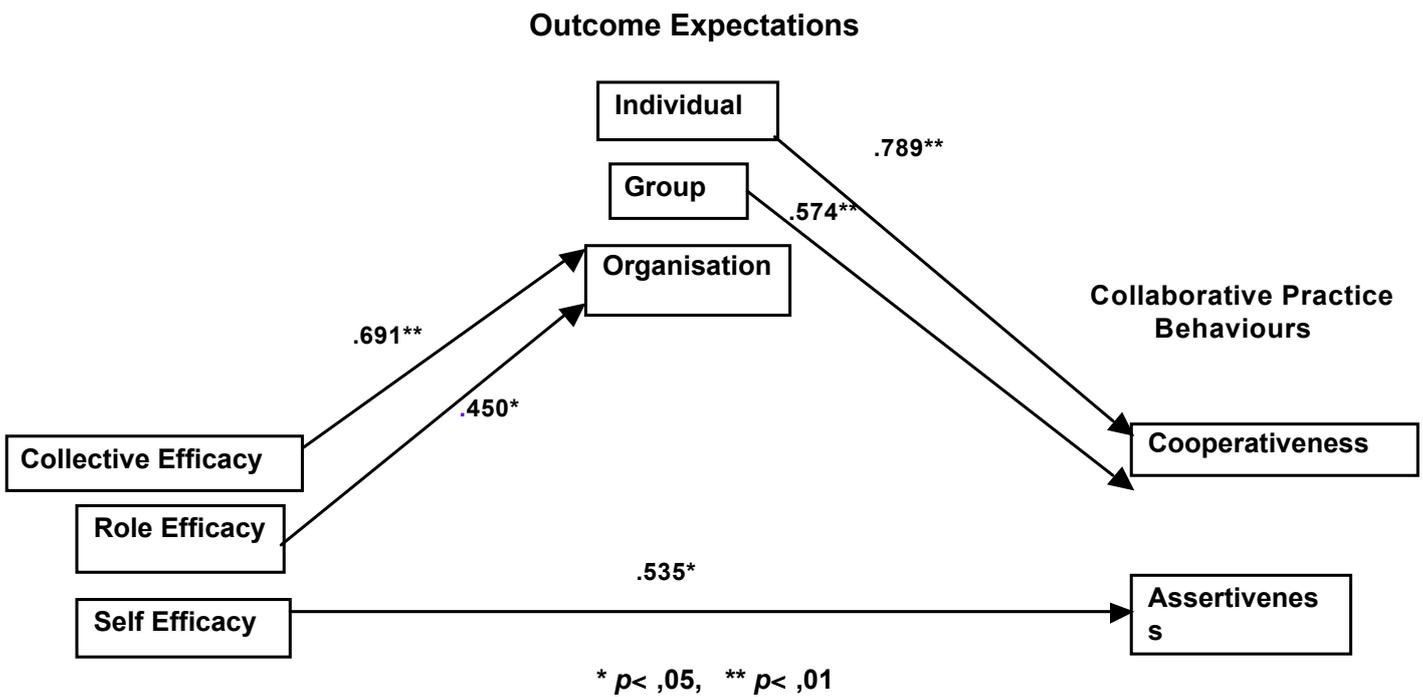


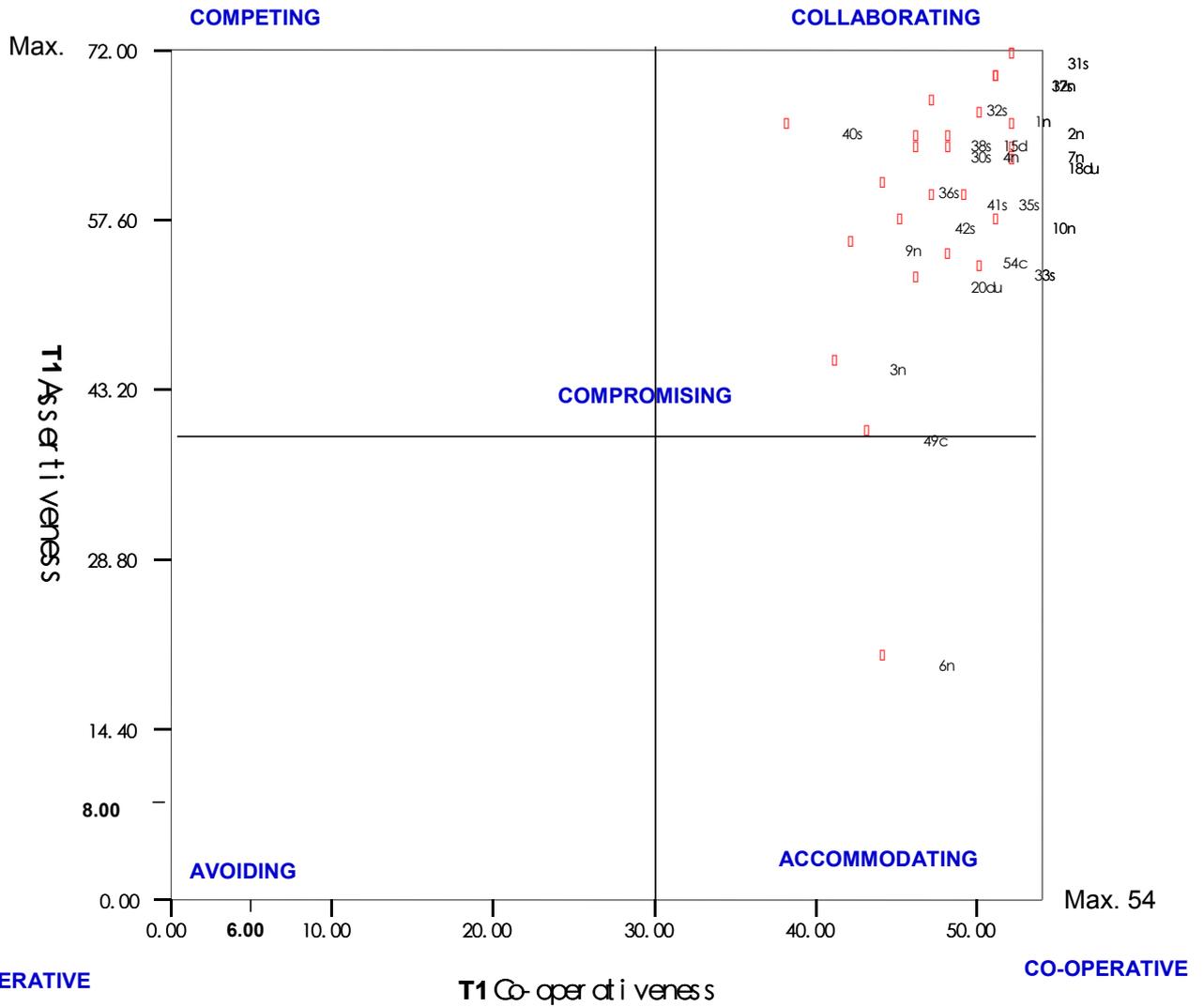
Figure 4.3.4 Summary of the correlations within the model at Time 1 (n=20)



### Collaborative behaviour

The patterns of Collaborative Practice Behaviour were found to be similar for Time 1 and Time 2. Scatter plot of model of group behaviour showed that majority participants' self reported behaviour could be classified as collaborative, rather than accommodating or compromising. See Figures 1 for collaborative behaviour at Time 1. A similar scatter plot for Time 2 is presented in Appendix 3, Figure 1 showing that this pattern did not change over time.

Figure 4.3.5 Scatterplot of collaborative behaviour (Time 1)(n=30)



\*Note:  
 1. the participants were identified by number and letters (n for nurses, d for doctors, s for sergeants and c for CCAs);  
 2. two lines in the middle to classify behaviour were set at the middle point of scales;  
 3. 6 and 8 were the minimum scores of Cooperativeness and Assertiveness

4.3.2 Discussion

This study had a good response rate, with 67% of respondents returning their questionnaires at time one. The questionnaires, which required minor adaptation to ensure their suitability, were acceptable to staff as demonstrated by return rates and the reliability indices. Staff comments on the suitability of the measures were broadly positive.

There were minor differences between health and police staff on demographic and study variables. Police participants worked longer in their current job than health staff, although this result reflected the relatively short period of time post for nursing staff at time one. Health participants perceived greater levels of Collective Efficacy or confidence in the organisation's effectiveness in meeting the health needs of prisoners than Police at both times 1 and 2. This may reflect the training opportunities available to health staff. Nursing staff, in particular, have undergone considerable staff development during the development of this service. Similar training was not routinely offered to Police staff.

This study tested a series of hypothesised relationships detailed by the Social Cognitive Model. Of these, Hypotheses 3, 4 and 5 were partially upheld at each time point.

Collective Efficacy correlated positively with Outcome Expectancy at Group and Organisation levels (Hypothesis 3), explaining 28% and 39% of variances, respectively at Time 1. Collective Efficacy is defined as, "A group's shared belief in its conjoint capabilities to organise and execute courses of action required to produce given levels of attainment" (Bandura 1997 p477). Collective Efficacy has been found to influence what workers choose to do as a group, the amount of effort exerted by the group and group persistence when encountering failure (Bandura 1986; 1997). Outcome Expectancies, in this context, reflect the belief that working collaboratively to meet health needs of prisoners will have a positive outcome, i.e. it will help achieve better outcomes for the prisoner. In other words, staff who were confident in the ability of their work group and organisation to take forward this initiative were also likely to think it would be effective at Group and Organisational levels. At Time 2, Collective Efficacy was no longer correlated with Outcome Expectancies at the Group level, but explained 48% of the variance in Outcome Expectancy at the Organisational level. Additionally, at Time 2 Role Efficacy correlated with Outcome Expectancies at the Organisational level (explaining 20% of variance) suggesting that confidence in the workers capabilities to carry out formal interdependent role responsibilities in a group was associated with a belief of organisational effectiveness in this regard.

Health and police staff who also reported high Collective Efficacy were also more likely to score highly on the Cooperativeness of Collaborative Practice Behaviour (Hypothesis 4). This suggests that confidence in the group or organisational abilities to take this initiative forward were more likely to report behaviour consistent with co-operative collaborative practice. This direct pathway was not supported at Time 2, however.

Outcome Expectancies at all three levels (Self, Group and Organisation) were related to Cooperativeness explaining 21%, 18% and 27% of variances, respectively at Time 1. The belief that the collaborative efforts would be effective at meeting the health needs of prisoners (at Self, Group and Organisational level) were significantly associated with Cooperativeness. It should be noted that Outcome Expectancy beliefs at the level of Organisation were the best predictor of Cooperativeness at Time 1 (Hypothesis 5). At Time 2, the association between Outcome Expectancy (Organisation) and Cooperativeness was no longer apparent.

At Time 1, Self and Role Efficacy beliefs (i.e. confidence in undertaking collaborative working at a personal and work group level) were not related to Outcome Expectancy (at any level) or Cooperativeness. At Time 2, however, Role Efficacy was now related to Outcome Expectancy at an Organisational level, with self-efficacy additionally related positively to the Assertiveness dimension of Collaborative Practice Behaviour. The increased salience of Role and Self efficacy beliefs seen in year 2, coupled with the general improvement in self efficacy beliefs and willingness to be assertive in the second year of service delivery suggests that this initial top down perception at year 1 was replaced by perceptions of confidence relating to personal and group (health and police staff) ability to work collaboratively.

#### 4.3.3 Conclusion

Confidence in the organisation's ability to support collaborative practice (Collective Efficacy) and Outcome Expectancy beliefs (at Self, Group and Organisational level) were the greatest correlates of Cooperativeness in year 1, suggesting that at year 1 the impetus for this innovation remained initially at a managerial or organisational level. In year 2 the increased salience of Self and Role Efficacy beliefs indicated a growth in confidence in both police and healthcare staff in their abilities to engage collaboratively to meet the healthcare needs of prisoners.

## 4.4 Health Economic analysis

### 4.4.1 *Costs of the new service compared to pre-pilot service*

A simple direct cost comparison between the pilot service and its predecessor is potentially misleading as it excludes indirect cost savings and other benefits related to the pilot service. The raw data showed that the direct cost of the final 12 months of the MEDACS service was £722,437, compared with a figure of £967,777 for the 2010-11 equivalent period under the pilot (noting that more recent 2011-12 data, albeit partial, appear to show a downward cost trend under the pilot model). This research study examined the effectiveness of the pilot in terms of outcomes for the participating partners and end users, and it has been detailed above that the range of services provided under the pilot is both qualitatively and quantitatively superior to its predecessor service. A limited health economic analysis was possible with the aim of identifying those areas where savings were being made and to show the mechanism and data needed for calculating such savings. A more comprehensive study would require more by way of data than was available covering the MEDACS service. Equally, the calculations which follow should be read as demonstrative rather than definitive. Clearly, after three years of operation we may also observe that the new service is now maturing and in a better position to be able to examine running costs to ensure they are delivered in the most efficient manner.

### 4.4.2 *Benefits from the new Service*

#### *(A) Saved police time accompanying those in custody to hospital*

Having full-time nursing support within the Dundee custody suite was likely to have prevented some cases which would have otherwise required police to escort those in custody to hospital. In order to provide an estimate of the potential reduction in transfers to hospital, the proportion of those in custody that were transferred pre-pilot was used as a counterfactual. The average time taken for each return journey is also taken into account as it may be expected that the nursing support saved the less serious cases from needing to be transferred to hospital. This was then used to estimate the saved police resources in terms of police time and miles travelled.

As can be seen in Table 4.4.1, the main benefits in terms of saved police time and resources appear to be seen within the Dundee custody suite which may be expected given this was the central location of the Nursing support. The estimated average savings from the reduction in the transfers from the Dundee custody suite to hospital was £4498 per year for 2009 and 2010. The Perth custody suite experienced no noticeable gain in police time with the proportion of those in custody being transferred increasing from pre to post pilot. In addition, while the numbers transferred from the Arbroath custody suite went down from pre to post pilot the time taken for transfers increased.

These results from the pilot should only be seen as indicative as the proportion of those in custody whom were transferred to hospital may have changed over time due to reasons unrelated to the new service. These other possible changes may mean that the above estimates are either an underestimate or overestimate of the resource savings made in terms of saved police time and resources.

**Table 4.4.1. Estimated police time and resources saved accompanying those in custody to hospital**

Year	Numbers in Custody	Numbers transferred to hospital	Numbers expected to be transferred <sup>1</sup>	Saved Police Time (hours) <sup>2</sup>	Saved travel (miles)	Saved Cost (£) <sup>3</sup>
<b>Dundee</b>						
Numbers transferred to hospital AND returned to custody						
2008	5,339	95	-	-	-	-
2009	4,841	54	86.1	110.0	192.8	3298.5
2010	4,853	67	86.4	123.3	116.1	3677.9
Numbers transferred to hospital but NOT returned to custody <sup>4</sup>						
2008	5,339	36	-	-	-	-
2009	4,841	14	32.6	32.3	111.9	980.9
2010	4,853	13	32.7	34.2	118.3	1037.8
<b>Average total savings per year</b>						<b>£4497.6</b>
<b>Arbroath</b>						
Numbers transferred to hospital AND returned to custody						
2008	3,225	38	-	-	-	-
2009	3,315	33	39.1	-45	195.5	-1301.6
2010	3,508	40	41.3	-29	43.1	-856.7
Numbers transferred to hospital but NOT returned to custody <sup>4</sup>						
2008	3,225	20	-	-	-	-
2009	3,315	14	20.6	21.1	211.6	670.1
2010	3,508	17	21.8	15.3	153.4	485.9
<b>Average total savings per year</b>						<b>-£501.1</b>
<b>Perth</b>						
Numbers transferred to hospital AND returned to custody						
2008	4,399	55	-	-	-	-
2009	4,794	69	59.9	0	-35.3	-21.0
2010	4,150	72	51.9	-9	-78.4	-291.6
Numbers transferred to hospital but NOT returned to custody <sup>4</sup>						
2008	4,399	19	-	-	-	-
2009	4,794	31	20.7	-14.0	-40.1	-423.2
2010	4,150	27	17.9	-12.3	-35.4	-373.1
<b>Average total savings per year</b>						<b>-£554.5</b>

<sup>1</sup> Expected numbers based on the proportion in custody transferred to hospital pre-pilot (2008).

<sup>2</sup> Saved time also takes into account the average time for each trip – the pilot may be considered to focus on reducing the number of less serious health issues that need hospital care which would increase the average time of each trip (in particular for Arbroath the time for each trip increased considerably after implementation of the pilot). Each trip is assumed to have two police officers present.

<sup>3</sup> Cost per officer is £29.63 per hour and cost per mile £0.21.

<sup>4</sup> It was assumed that for those not returned that an additional 30 minutes on top of travel time was needed.

**Table 4.4.2 Estimated saved A&E admissions**

<b>Year</b>	<b>Saved Admissions<sup>1</sup></b>	<b>Saved Cost (£)<sup>2</sup></b>
<b>Dundee</b>		
2009	50.8	6246.0
2010	39.1	4806.3
<b>Total average savings per year</b>		5526.2
<b>Arbroath</b>		
2009	12.6	1552.1
2010	6.1	749.0
<b>Total average savings per year</b>		1150.6
<b>Perth</b>		
Numbers transferred to hospital AND returned to custody		
2009	-19.4	2380.7
2010	-29.2	3590.2
<b>Total average savings per year</b>		2985.5

*(C) Reduction in the number of FME call outs*

The other major benefit was the reduction in the number of FME call outs. However, it is difficult to quantify this benefit due the lack of comparable data pre-pilot. Over the whole region an estimated 4,800 service occasions per annum was experienced pre-pilot (this was extrapolated to per annum figures using 3 months' worth of data) to nearly 895 service occasions in 2009-10 and 817 service occasions in 2010-11. There was a lack of data on the resources required for these call-outs in order to estimate the resource savings from the new service.

*(D) Other benefits*

In addition to the saved, police time, A&E admissions and FME call outs there were likely additional benefits that were difficult to quantify. In particular it is expected that the new service resulted in improved detainee safety and reduced risk of harm. With the new service those requiring to be transferred were likely done so in a timelier manner and given more appropriate care before being transferred. Additional health services were also administered by the nursing support to this hard to reach group within the police custody suites which were unlikely to have occurred otherwise in particular for drug and alcohol problems. The nursing support within the custody suite was also likely to have improved linking with outside health and substance misuse services (in a sample month there were 30 referrals to outside services made by the nursing support). Within a sample month, it was considered that having the nursing support within the custody suite prevented 1 delayed court appearance which would have also saved resources associated with rescheduling the court appearance.

<sup>1</sup> Based on all hospital transfers from custody pre to post new service.

<sup>2</sup> £123 per A&E attendance was used and is the estimated average cost for 2010 from the ISD Cost Book for an A&E admission at Ninewells.

# 5. Conclusions and Recommendations

## 5.1 General findings

The realistic evaluation approach adopted by this study directs readers of this report on its findings to examine why and how processes led to particular outcomes. The study sought to answer three key questions regarding the pilot system of healthcare and forensic medical services in Tayside Police custody settings:

1. What has worked for Tayside Police and its staff and why has it worked?
2. What has worked for detainees and why has it worked?
3. What has worked for NHS Tayside and its staff and why has it worked?

A rigorous, two-year examination of the Tayside pilot model for the delivery of healthcare in police custody settings has generated evidence for a clear and unambiguous set of benefits arising from its introduction. These benefits encompass policing practice, healthcare practice, and healthcare outcomes. To that may be added a further outcome in relation to the generation of a new basis for enhanced future cooperation between Tayside Police and NHS Tayside arising from the closer working relationship inherent to the pilot.

However, this report contends that the most significant benefits apply to the end users of the pilot service: those individuals who are detained in Tayside Police custody. The healthcare delivered under the auspices of the pilot programme is of a much higher order of individual engagement than was previously feasible. The effect of this mode of delivery benefits those with healthcare needs during their time in custody but also enhances the possibility of widening participation with NHS Tayside on a continuing basis once they have left custody. Put at its most elemental, the study also found evidence that the pilot system was making a direct contribution to the prevention of deaths in custody. On this basis it is possible to infer wider benefits arising from the pilot in relation to criminal justice, and wider societal benefits. Our study did not set out to quantify such benefits, however, but it has been possible to discern specific benefits for the parties involved and to make certain recommendations were the 'Tayside model' to be adopted elsewhere.

## 5.2 The impact of the Tayside pilot

### 5.2.1 On policing and police staff

The key findings on the impact of the pilot on the work of Tayside Police and its staff are:

1. *Risk management and mitigation.* Overall, police staff working in custody expressed much greater confidence in their ability to cope with the challenges arising from the health-related aspects of detainee care as a result of working alongside NHS nurses. Quantitative findings indicated a growth in confidence in both police and healthcare staff in their abilities to engage collaboratively to meet the healthcare needs of detainees. The healthcare needs of detainees were unambiguously identified by police staff as the most significant risk factor pertaining to the custody environment. For the principal decision-maker – the Custody Sergeant – the pilot offered a new way of working that removed longstanding concerns about the level of responsibility placed on their shoulders to take medical need decisions, beyond their direct competence and training. However, Custody Sergeants working in Dundee have significantly greater access to 'on-the-spot' medical expertise as compared with their colleagues in Perth and Arbroath, which leads to the next point.
2. *The satellite model has certain limitations.* The decision to base NHS nurses in the Dundee custody facility and service Perth and Arbroath as 'satellites' is a logical one and, in the main, has evolved into an efficient form of service delivery for the routine healthcare needs of detainees. Custody Sergeants in the two satellites find the resource management to be efficiently handled centrally by the nurses, albeit with some concerns that they receive a 'second class' service whereby detainees may wait longer for routine medication in satellite facilities than they would in Dundee (although there is no suggestion or evidence that this generates any clinical care failing). In the world of custody a prisoner waiting for medication can be a significant source of disruption and nuisance for both staff and other detainees. However, for satellite Custody Sergeants there is a significantly reduced ability to draw upon first-hand clinical expertise when a detainee first arrives (notably at the charge bar) and when the key decision about fitness to detain is made. The option of a phone call to the Dundee nurse office is always available and in many cases this is an effective option. However, if a detainee develops new or worsened symptoms or cause for concern once in a cell the option of 'first hand' advice is much more likely to be available in Dundee but not in the satellite stations. There was no indication that detainee health was at risk as the option of paramedic attendance for serious cases applies in all cases (including Dundee). The main issue is one of resource management and, to large extent, judgement about what is acceptable compromise.

3. *Better healthcare for detainees whilst in police custody.* Custody Sergeants previously were responsible for dispensing routine medication after it had been prescribed by an FME and unanimously welcomed the transfer of this responsibility to nurses. That persons with full medical competence now perform this task is a major improvement, greatly enhanced by the ability of nurses to access individual NHS care records. The ability to continue methadone prescribing to those on a registered programme also marks a shift from previous practice and this too was seen by police staff as a more appropriate measure. Overall, whilst custody environments generate stress, and outbursts of frustration and anger amongst detainees, the presence of nurses was widely viewed as having created a better environment for detainees, allowing police staff to fulfil their own roles more effectively. Nurses saw 4,953 detainees in respect of their healthcare in the first two years of the service, highlighting the scale of interaction and intervention opportunities.
4. *Healthcare for detainees beyond custody.* A limited amount of evidence from police staff – notably custody care staff, who work closely with both detainees and nurses – indicated improved outreach regarding wider (and possibly criminogenic) health issues affecting individual detainees. In general, nurses were seen as having more time to engage in discussion with individual detainees – and in some cases exhibiting a more empathetic approach – as well as having a good working knowledge of support services and how to direct detainees to access such services. A wider study would be needed to verify the longer term outcome of this process, but the approach is clearly congruent with the 2007 Scottish Government health care strategy.
5. *Impact on resources.* Overall, qualitative findings from police staff supported a view that the direct integration of nurses had produced better management of detainee healthcare to the extent that there were less occasions on which detainees were delayed from making a court appearance. This was largely anecdotal, although the self-declared findings of the one month audit snapshot carried out by the nurses did reinforce this view, albeit on a small scale. On the issue of reducing the need for transfers from custody to an NHS facility findings were much more mixed. The combination of police custody data (further analysed by a Health Economist) and nurse audit data suggested that an overall decline in transfers from custody to NHS facilities (and in three quarters of cases, back to custody) had occurred since the inception of the pilot. However, the main impact was centred on Dundee, which saw a fall in the annual percentage of transfers from 2.5 per cent to 1.6 per cent between 2008 and 2010. On the other hand Perth actually saw an increase in both of the first two years of the pilot. Our findings thus indicate that the preponderance of nurse time focused on Dundee has had an impact on reducing the need for police resources to accompany detainees who have to be transferred to an external NHS facility whilst in custody, but the satellite service model has limitations in this regard for the other sites. A wide range of factors determine the propensity or need for transfers (mostly to A&E, but in some cases to specialist mental health facilities), however, and there will always be a proportion of detainees whose condition demands specialist care and resources. This is supported by police data that showed in the year immediately prior to the pilot and in the first two years of the pilot a force average of around 2 per cent of detainees required transfer after being admitted to custody.
6. *Improved working with the wider NHS.* Police staff observed that nurse-led 'intra-NHS gatekeeping' had brought wider efficiency benefits. A number of experienced staff recorded how in the pre-pilot era they often found it difficult to convince NHS staff (for example, involving A&E admissions, or mental health assessments) of clinical need, this responsibility was far more effectively vested in nurses.
7. *Added pressure on custody support staff.* Staff who work exclusively in the cell area are not involved in the criminal justice decisions made by a Custody Sergeant but have vital responsibility for prisoner welfare, including observation checks. The integration of nurses into the custody suite requires more internal transfer (from cell to nurses' room) and at busy times – especially in Dundee – this stretched resources, placing a considerable burden on the individuals involved, and reducing their ability to be as vigilant as ideal. Ethical concerns also arose as the requirement for support staff to offer security whilst detainees consult with nurses often means that they cannot avoid overhearing sensitive conversations. This is unavoidable in practice, but something that could be addressed through an appropriate training regime.
8. *Professional dividing line unaffected.* Quantitative evidence indicated a progressive improvement in collaborative working by police staff, and a sense of belief in the efficacy of the service in delivering shared goals (shared, that is, with NHS staff). However, Custody Sergeants maintained a clear sense of their responsibility to ensure that criminal justice outcomes were given precedence, whilst recognising that the health of detainees was of utmost significance (both on humanitarian grounds and for efficient functioning of the criminal justice system).
9. *Forensic healthcare needs are well serviced.* The pilot did not bring a radical change from the perspective of specialist police users whose work creates demand for such services. The clear consensus finding was that the move to 'in house' resource management handled by the Dundee-based nurses (e.g. arranging for joint FME, paediatrician examinations of crime victims) was seen as efficient and reassuring. A minority view also observed subtle but important benefits in supporting and reassuring victims arising from the involvement of nurses in the examination of victims alongside FMEs, rather than FMEs alone as was the case under previous models.

### 5.2.2 On detainees

Our findings on the impact of the pilot upon detainees are drawn both from first- and second-hand accounts of their experience, but predominantly the latter (the views of police and NHS staff). It was only possible to gain limited insight through direct interviews with detainees, but the considerable methodological challenges involved made this an especially difficult task. With these issues in mind the key findings on the impact of the pilot on detainees held in Tayside Police custody are:

1. **More individualised healthcare.** Police staff with experience of predecessor services strongly indicated a belief that detainees were receiving more appropriate healthcare than was feasible under the FME-led model. The main finding from Custody Sergeants was the observation that nurses were able to devote more time for examination and together with their ability to access medical records this was ensuring the delivery of a more individualised form of healthcare. Custody care staff also observed that nurses were offering higher quality engagement with detainees than under previous systems. Most experienced staff affirmed a strong view that a greater proportion of detainees exhibited substance abuse than was the case in the past, however.
2. **Detainee care perceptions positive.** Detainee interviews yielded strong evidence that their experience of the service was positive. The fact that detainees drew clear a distinction between nurses and the police despite the embedded nature of the service strongly implies that any positive association (as well as practical advice received) had the potential to continue once they returned to the community. With high rates of recidivism the opportunity to reinforce positive messages over multiple stays in custody may be seen as having greater potential to reach the most challenging cases.

### 5.2.3 On NHS Tayside and its staff

The key findings on the impact of the pilot on the work of NHS Tayside and its staff are:

1. *Evidence-based clinical ethos.* A key aspect of the pilot service is that it has a clear vision of improving clinical care to the detainees. The constructions of the interviewed nursing staff had a powerful theme of continual improvement, rather than simply providing consistent basic care. Evidence based protocols were repeatedly identified as a key mechanism to achieve improving clinical standards on an ongoing basis.
2. *Clinical neutrality.* A fundamental aspect of being able to forge effective therapeutic encounters with detainees was being separate from the police. Communicating this separateness verbally, through behaviours and through having a separate physical space within the cells all contributed to the pilot service being experienced as an onsite NHS service, rather than a police sponsored service. This promoted trust from detainees that they could receive health input unrelated to their alleged offences, communicate concerns without impacting on court hearings and seek advice that was entirely health focussed. The NHS brand name holds an intrinsic level of trust.
3. *Healthcare skills must be matched to the needs of custody.* To provide services that meet the health needs of those in police custody requires a healthcare team with the appropriate range of skills and expertise in working with a range of injury and illness. The study found that the mix of backgrounds amongst nurses recruited to the specialist team was both appropriate and effective. Some police staff observed that staff with a background in prison nursing or mental health appeared to adapt most quickly to the challenges of the police custody environment, but also highlighted the key role of interpersonal communication skills whatever previous nursing experience. Again, the professionalism of nursing staff was widely praised by police staff.
4. *Intra-NHS communication benefits.* By being an NHS service, albeit one positioned within a police environment, referral and clinical communication pathways with specialist clinical services are well supported through both NHS IT networks and personalised understanding of local health systems and available clinical resources. Tensions do exist in establishing referral pathways with established clinical services. Local Emergency Departments negotiated directly with the pilot service representatives that resulted in better mutual understandings and protocols. Where such negotiations were either absent or insubstantial, such as in the case of mental health services, then referrals and the communication of clinical information remain problematic at the point of service articulation.

5. *Reaching the hard-to-reach.* Nonetheless, it needs to be recognised that whilst custody is often for a short period of time, the opportunity still exists for meaningful engagement with detainees. Health education and promotion to improve detainee lifestyle choices and practical advice on how and when to access health care in the community is an integral part of the nurse-led service, and key to its ethos. Holistic approaches to meeting the health needs of detainees in custody were emphasised within the findings as was the need to adapt a whole systems approach whereby the healthcare needs of detainees were taken into consideration prior to and following arrest, release or sentencing. In addition, a number of detainees stated that they had valued the nurses who had a genuine desire to help them, who explained their health problem to them rather than simply giving them a diagnosis, and who provided a professional voice to speak on their behalf about their health problems. This finding suggests that the service has closely followed the call of the 2007 Better Health, Better Care: Action Plan for greater effort to meet healthcare needs in the most appropriate place. We should add a note of caution to this finding, however, as the scope of this study did not have the scope to include follow-up research on subsequent access to NHS services. Such a study would be vital to assess long term effectiveness, but for now we can say with confidence that engagement that would previously have been unlikely is now actively pursued by NHS staff in relation to a group of persons whom the BMA acknowledges as having high need for healthcare.

### 5.3 Lessons for roll-out and underpinning success factors

The Tayside pilot has certain features that are unique to the Tayside setting, such as the geographic distribution of custody facilities, but there are a number of factors that have underpinned its success as well as a range of lessons on how to replicate the success. This section draws these together:

1. *Medical support for a nurse led service.* A unique characteristic of the pilot service was the relationship between NHS clinical health service delivery and university based Forensic Medical Examiners. The FMEs were able to envision distinct professional advantages for relinquishing their clinical roles to detainees which included being able to expand upon their forensic expertise and roles. The FMEs were consequently a driving force behind embedding, educating and supporting a nurse led clinical service. Where the provision of clinical services to detainees represents an existing income stream in the case of General Practitioner-led services than such support may be lacking. It is therefore recommended that any future rollouts of the pilot includes a partnership with university based FMEs or specialist FMEs wherever this is feasible.
2. *Multi faceted collaboration.* Collaboration occurred throughout the stratified policing and health organisations examined in this study. Structures and systems in the initial stages of establishing the service appear to require senior managerial direction and individuals motivated to champion the service within each organisation. However the managerial approach also simultaneously permits clinical leadership to be driven by clinicians with a graduated evolution to increasing ownership of service direction across staffing levels. Simultaneously, having policing and health staff within close proximity generated collaboration through more informal and inter-personal mechanisms which evolved into collegiate working practices. Pre service agreements with all external organisational articulation points also have acted as a mechanism to generate collaborative working across multiple agencies. This paved the way for the growth in confidence in both police and healthcare staff in their abilities to engage collaboratively to meet the healthcare needs of prisoners seen in year two of the study. It is recommended that Tayside Police and NHS Tayside generate a concise but comprehensive list of mutually agreed changes in protocol that have occurred over the lifetime of the pilot, allowing future users to examine these alongside the original Service level Agreement.
3. *Maintaining the NHS brand.* The NHS is a brand name that is widely trusted. Nursing staff situated within police offices and interfacing directly with policing organisational structures maintained separateness from detainee legal issues, policing priorities and other non- health related roles. This separateness can be understood as being embedded within the non-judgmental values of the nursing staff toward detainees and the formally agreed duties of the nursing staff. The NHS information systems connected the health service to the wider NHS allowing for an immediate two-way flow of clinical information. The nurse's experiential knowledge of NHS systems and of local health services complimented this wider connectedness to the NHS. Additionally, through adopting and maintaining a focus upon patient centred continuous clinical improvement the nursing service was able to stake out a clear unique professional identity within the custody cells. It is recommended that a clear separation between policing and the health service is communicated and maintained in any further roll out of the pilot.
4. *Recruitment of nursing staff.* The selection of nursing staff at the point of initiating the service was pivotal to the health service's success. Staff capabilities that contributed to this included clinical experience in other nurse led services, a clinical background from multiple speciality areas and experience in decision making clinical roles. Selecting a mix of staff that incorporates a range of clinical expertise inclusive of mental health then seeds the service to engage in peer led learning at the clinical interface. Individual staffing capabilities of emotional resilience, advanced communication skills and preparedness to engage in continual learning also appear to have been important. It is recommended that nursing recruitment reflects these characteristics in any further roll out of the pilot.

5. *Education.* Formal university forensic education has underpinned the implementation of the nurse led service, as well as the General Practitioners supporting the delivery of clinical interventions to detainees. This education which culminates in Masters level forensic nursing awards has been scaffolded to initially prepare the nursing staff for their clinical roles. As the nurses are increasingly trained and educated they assume wider roles such as fitness to release examinations consequently releasing more specialist FME time for complex forensic reporting. It is recommended that formal forensic education be supplied to nurses and general practitioners entering any rollout services.
6. *Methadone and withdrawal programme within custody cells.* The pharmacist and medical supported intervention of supplying prescribed methadone to detainees within the custody cells in conjunction with withdrawal treatment (excluding alcohol withdrawal) using minimal analgesic treatment may potentially have reduced incidences of deliberate offending to gain access to prescribed medications. It is recommended that health staff including head pharmacists, medical officers and nurses consult with Tayside staff on this intervention and that further research be conducted to quantify any potential impact.
7. *Central versus satellite sites.* Service provision is more effective within a model of detainees being held with a central location rather than distributed across multiple satellite sites. It is recommended that careful consideration is given to the logistical implications of serving satellite sites using Tayside travel times and custody volumes as a benchmark for decision-making. Economic savings that could be identified were restricted to the central site which supports our finding that the model works most effectively with a central rather than satellite sites.
8. *The need for accurate knowledge of true cost.* Other police services considering using the Tayside model should immediately be evaluating the full financial costing of their current model of delivering health services in their custody settings such as delayed court appearances due to poor health, A&E or other hospital transfers, mental health transfers for assessments, the full cost of FME call outs, costs of prescribed medications, critical incidents and near misses of critical incidents in the cells.
9. *Collecting benchmark data.* Services considering using this model should immediately identify key service activity data and set up monitoring systems for the new model and include areas such as delayed court appearances due to poor health, A&E or other hospital transfers, mental health transfers for assessments, the full cost of FME call outs, costs of prescribed medications, critical incidents and near misses of critical incidents in the cells, impact on convictions due to expanded forensic reporting capability.
10. *Recognition of things the Tayside model cannot change.* This study has been able to describe those areas where it found that the pilot model is capable of having a positive impact. However, any further adoption should be aware of the things that a service model alone cannot change. These range from crime patterns and substance misuse prevalence rates to legislative and criminal justice matters such as mental health protocols, or use of police stations as a place of safety for vulnerable persons.



# Appendices

# Appendix I

## Research team

**Dr Martin Elvins** was principal investigator for all policing aspects of the study and overall editor of this final report. He is Lecturer in Politics at the University of Dundee and a member of the Scottish Institute for Policing Research (SIPR) and has a particular research interest concerning policy and policing aspects of illegal drugs and alcohol, and has published in both of these areas (his book *Anti-Drugs Policies of the European Union* was published by Palgrave Macmillan in 2003). He was also recently co-investigator (with Professor Nicholas Fyfe) on a study examining independent custody visiting in Scotland published in 2010.

**Dr Chuan Gao** has a PhD in health psychology from the University of Aberdeen. She was involved in this project as a research assistant in the School of Nursing and Midwifery, University of Dundee. She conducted the quantitative strand of this project, contributing to the questionnaire preparation, the data collection, analysis, report writing and conference dissemination. She also interviewed detainees for the qualitative strand of the project.

**Dr John Hurley** was the project lead and responsible for the overall management of the study. He is now a senior lecturer with Southern Cross University and has particular research interests in mental health, emotional intelligence and leadership. John initiated the project, structured the overarching research design and was the principal investigator for the qualitative health data, audit data and the detainee section of the study.

**Professor Martyn Jones** has a Personal Chair in Healthcare Research in the School of Nursing and Midwifery, University of Dundee and is Associate Director of the Social Dimensions of Health Institute in the Universities of Dundee and St Andrews. Professor Jones leads the “Personalising Care” Research programme within the School. He is particularly interested in researching the effect of the work environment on the well-being and performance of trained nurses and has published in the past on scale development, real-time data collection and models of stress and stress management intervention. Professor Jones led the “collaborative working” quantitative strand of this project, contributing to the study design, analysis report write up and conference dissemination.

**Paul Linsley** was responsible for aspects of the qualitative health data section and played a prominent role in year two of the study. He is a Principal Lecturer for Mental Health with the University of Lincoln. He began his nursing career as a general nurse working within acute medicine. Following conversion to mental health nursing he gained valuable experience in a variety of clinical settings. Paul is registered as a Clinical Specialist in Acute Psychiatry and is trained in Cognitive Behavioural Therapy, as well as being a Lead Trainer in Conflict Resolution and Management. Paul’s research interests include violence and aggression management in health care, emotional intelligence in communication, and health informatics. He is Programme Lead for the Masters in Health in Secure Environments and the BSc (Hons) Nursing (Mental Health) Programme for the University of Lincoln.

**Dr Dennis Petrie** was responsible for the health economic analysis undertaken within the project. He is a Lecturer within Economic Studies at the University of Dundee and an Honorary Research Fellow at the Health Economics Research Unit (HERU), University of Aberdeen. He has published extensively on the economics of drugs and alcohol and has also written on other topics including the measurement of health inequalities.

# Appendix 2

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Note: all Internet-derived references included in this document were accessible as of January 2012

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<sup>1</sup> Based on all hospital transfers from custody pre to post new service.

<sup>2</sup> £123 per A&E attendance was used and is the estimated average cost for 2010 from the ISD Cost Book for an A&E admission at Ninewells.

# Appendix 3

## Meeting the Healthcare Needs of Prisoners within Police Holding Cell Environments: Correlates of Collaborative Practice in Police and Healthcare Staff

### Methods

#### Measures

The study used a range of standardized measures with minor amendment to ensure their appropriateness for participant and setting. All measures are reported to have good reliability and validity.

*General Self Efficacy* (Schwarzer & Jerusalem, 1995) is a 10 item of self report questionnaire that measures participants' perceived personal competence to deal efficiently with a variety of situations. This measure was focused on meeting health need of prisoners and used a 4 point response scale ranging from 1 (Not at all true) to 4 (Exactly true). A summative scoring of 10 items was used in all analyses with a higher score representing higher efficacy beliefs. The internal consistence of this scale was .82 and .85 for Time 1 and Time 2, respectively.

*Role Efficacy Scale* was developed and standardised by Pareek (1993). This 30 items scale measures participants' confidence in their capabilities to carry out formal interdependent role responsibilities in a group, and was focused on meeting the health needs of prisoners. Respondents were asked to rate their agreement using a 5 point Likert scale ranging from 0 (Strongly disagree) to 4 (strongly agree). Thirteen items were reverse scored. Summative scoring of 30 items was used in analyses. A higher score represented higher role efficacy. The internal consistence of this scale was .92 and .95 for Time 1 and Time 2, respectively.

*Collective Efficacy Scale* was adapted from the Collective Teacher Self Efficacy Scale developed and standardized by Schwarzer et al (1999). This is a 12 item scale measuring individual's perception of the coping competence of his or her reference group or organisation. In this study, minor amendment focused the questionnaire on individual's beliefs about their organisation's capabilities to meet the health need of prisoners. The response format was a 4 point Likert scale ranging from Not at all true (1) to Exactly true (4). Summative scoring of 12 items was used in analyses, with a higher score reflecting greater collective efficacy beliefs. The internal consistence of this scale was .83 and .88 for Time 1 and Time 2, respectively.

*Outcome Expectancies* was adapted from Mitchell (Mitchell, 2008) and was based on the definition of outcome expectancy used by Social Cognitive Theory (SCT). The questions were designed to capture global three-dimensional aspects of Outcome Expectancies of collaborative assessment, i.e. at the level of self, role/group and organisation. Participants were asked to think about collaborative assessment and to rate the likelihood that action at each level would be effective in meeting in the health needs of prisoners on a 10cm scale (0 = very unlikely; 100 = very likely) for each dimension. The internal consistence of this scale was .98 and .78 for Time 1 and Time 2, respectively.

*Collaborative Practice Scale* (Weiss & Davis 1985) has been designed to measure inter-disciplinary collaboration. A modified questionnaire (Cheater et al 2005) was used that had been adapted to reflect UK terminology. This measure comprises 14 Likert statements: 8 assertive behaviour items (i.e. attempting to satisfy one's own concerns) and 6 cooperative behaviour items (i.e. attempting to satisfy the other parties' concerns). This measure used a 9 point scale ranging from Totally disagree (1) to Totally agree (9). Summative scoring of each dimension was used. A higher score represented greater reports of collaborative practice. Collaboration is considered to comprise a "high" degree of both assertive and co-operative behaviour. The internal consistence of the Assertiveness dimension of this scale was .89 and .79 for Time 1 and Time 2, respectively. The internal consistence of the Cooperativeness dimension of this scale was .64 and .52 for Time 1 and Time 2, respectively.

#### Procedure

All potential participants provided signed consent forms when were recruited to the qualitative strand of this study prior participating in this study. All questionnaires were distributed under the auspices of managers of health and police groups in their respective organisations.

## Statistical Analyses

SPSS version 15 was used for analysing data. Descriptive statistics, Pearson correlations (Spearman's correlation, if data was not normally distributed) were used to explore the relationships between variables within the Social Cognitive Model. Independent T-test was conducted for examining scoring differences between Health and Police Groups. Mann-Whitney U was used if data was not normally distributed. Cronbach's  $\alpha$  was used for checking internal consistency of scales.

## Results

**Table 1. Means and standard deviations of variables in groups as whole, Nurse, Doctor, Sergeant and Custody Care Assistant (Time 1)**

<b>Group</b> <b>Variables</b> (Max. score)	<b>Whole</b> (Mean/SD)	<b>Nurse</b> (Mean/SD)	<b>Doctor</b> (Mean/SD)	<b>Sergeant</b> (Mean/SD)	<b>CCA</b> (Mean/SD)
Age	44.36/6.45 n=30	44.20/6.20 n=10	45.50/4.43 n=4	46.00/5.85 n=12	38.75/9.32 n=4
Years in working in current job	6.63/8.10 n=29	2.21/1.67 n=10	5.85/9.44 n=4	9.64/9.88 n=12	8.38/7.65 n=4
General Self Efficacy (40)	33.75/3.71 n=28	34.20/3.16 n=10	34.25/5.56 n=4	32.82/3.60 n=11	35.00/4.58 n=3
Role Efficacy (120)	84.23/18.17 n=30	76.80/21.52 n=10	102.25/9.36 n=4	87.83/11.61 n=12	73.97/20.32 n=4
Collective Efficacy (48)	40.17/4.71 n=30	41.90/4.51 n=10	43.50/3.42 n=4	37.67/4.77 n=12	40.00/2.83 n=4
Outcome Expectancy OESind (100)	84.34/18.17 n=29	85.30/19.17 n=10	89.00/8.04 n=4	83.82/13.17 n=11	78.75/21.16 n=4
Outcome Expectancy OESgroup (100)	85.93/15.97 n=29	87.00/20.06 n=10	90.50/7.59 n=4	84.45/13.25 n=11	82.75/21.87 n=4
Outcome Expectancy OESorg (100)	87.20/13.42 n=29	88.20/17.00 n=10	92.25/5.91 n=4	86.91/8.76 n=11	80.50/20.66 n=4
Collaborative Practice Assertiveness (72)	59.90/10.63 n=30	57.50/15.28 n=10	59.50/5.26 n=4	63.00/5.51 n=12	57.00/13.59 n=4
Collaborative Practice cooperativeness (54)	49.27/4.10 n=30	49.40/4.45 n=10	50.75/3.30 n=4	48.33/4.10 n=12	50.25/4.79 n=4

**Table 2a. Mean scores differences between health and police groups (Independent t-test) (Time 1)**

<b>Variables</b>	<b>Groups</b>	<b>Mean / SD</b>	<b>t-test</b>
Age	Health (n=14) Police (n=16)	44.57/5.61 44.19/7.28	t (28) = .160, p = .874
Years working in current job	Health (n=13) Police (n=16)	3.33/5.21 9.32/9.15	t (27) = -2.213‡, p = .036*
Self Efficacy	Health (n=14) Police (n=14)	34.21/3.75 33.29/3.75	t (26) = .656, p = .518
Role Efficacy	Health (n=14) Police (n=16)	84.07/21.98 84.37/14.83	t (28) = -.042‡, p = .967
Collective Efficacy	Health (n=14) Police (n=16)	42.36/4.16 38.25/4.40	t (28) = 2.614, p = .014*
Collaborative Behaviour (Co-op)	Health (n=14) Police (n=16)	49.79/4.08 48.81/4.20	t (28) = .642, p = .526
Collaborative Behaviour (Tot)	Health (n=14) Police (n=16)	107.86/16.02 110.31/10.68	t (28) = -.500, p = .621

‡ t value for equal variances not assumed

**Table 2b . Mean scores differences between health and police groups (Independent t-test) (Time 2)**

Variables	Groups	Mean / SD	t-test (t(df) = t value, p value) (2-tailed)
Age	Health (n=10) Police (n=10)	47.60/4.50 48.00/3.43	t (18) = -.223, p = .826
Years in the current job (YW)	Health (n=9) Police (n=10)	4.18/6.18 11.90/9.00	t (17) = -2.155, p = .046*
Self Efficacy	Health (n=10) Police (n=10)	34.60/4.06 11.90/9.00	t (18) = .776, p = .448
Role Efficacy	Health (n=10) Police (n=10)	79.50/28.16 87.30/14.21	t (18) = -.782‡, p = .444
Collective Efficacy	Health (n=9) Police (n=10)	39.33/5.36 34.90/5.34	t (17) = 1.803, p = .089
Collaborative Behaviour (Ass)	Health (n=9) Police (n=10)	61.89/5.40 56.20/11.66	t (17) = 1.338, p = .199
Collaborative Behaviour (Co)	Health (n=10) Police (n=10)	39.33/5.36 34.90/5.34	t (18) = 2.863, p = .010*
Collaborative Behaviour (Tot)	Health (n=9) Police (n=10)	112.67/7.68 102.50/13.101	t (17) = 2.031, p = .058
Outcome Expectancy 1 (Individual)	Health (n=10) Police (n=10)	90.80/9.25 81.90/10.81	t (18) = 1.979, p = .063
Outcome Expectancy 3 (Organisation)	Health (n=10) Police (n=10)	88.00/11.89 85.80/12.04	t (18) = .411, p = .686

‡ t value for equal variances not assumed

**Table 3a. Correlations between Age, YW and the variables in the Social Cognitive Model at Time 1 (Pearson and Spear-man Correlations, 2-tailed) (N=30)**

Variables	Mean/SD	Age	YW	SE	RE	CE	OE 1 #	OE 2 #	OE 3 #	CPS- Ass	CPS- Co	CPS- Tot
Age	44.37/6.45	1										
Years working in current job YW)	6.64/8.10	.124	1									
Self Efficacy (SE)	33.75/3.71	-.139	-.077	1								
Role Efficacy (RE)	84.23/18.17	.293	-.004	.182	1							
Collective Efficacy (CE)	40.17/4.71	.066	-.204	.266	.264	1						
Outcome Expectancy 1 #	84.34/18.17	.099	-.091	-.105	.148	.328	1					
Outcome Expectancy 2 #	85.93/15.97	.072	-.150	-.134	.141	.526**	.880**	1				
Outcome Expectancy 3 #	87.20/13.42	.201	-.237	-.117	.128	.628**	.796**	.878**	1			
Collaborative Practice-Ass #	59.90/10.63	.362*	.260	.272	.211	-.057	.121	-.065	.039	1		
Collaborative Practice-Co	49.27/4.10	.301	-.063	.138	.183	.487**	.454*	.425*	.521**	.604**	1	
Collaborative Practice-Tot	109.17/17.24	.410*	.040	.268	.310	.022	.285	.137	.137	.925**	.843**	1

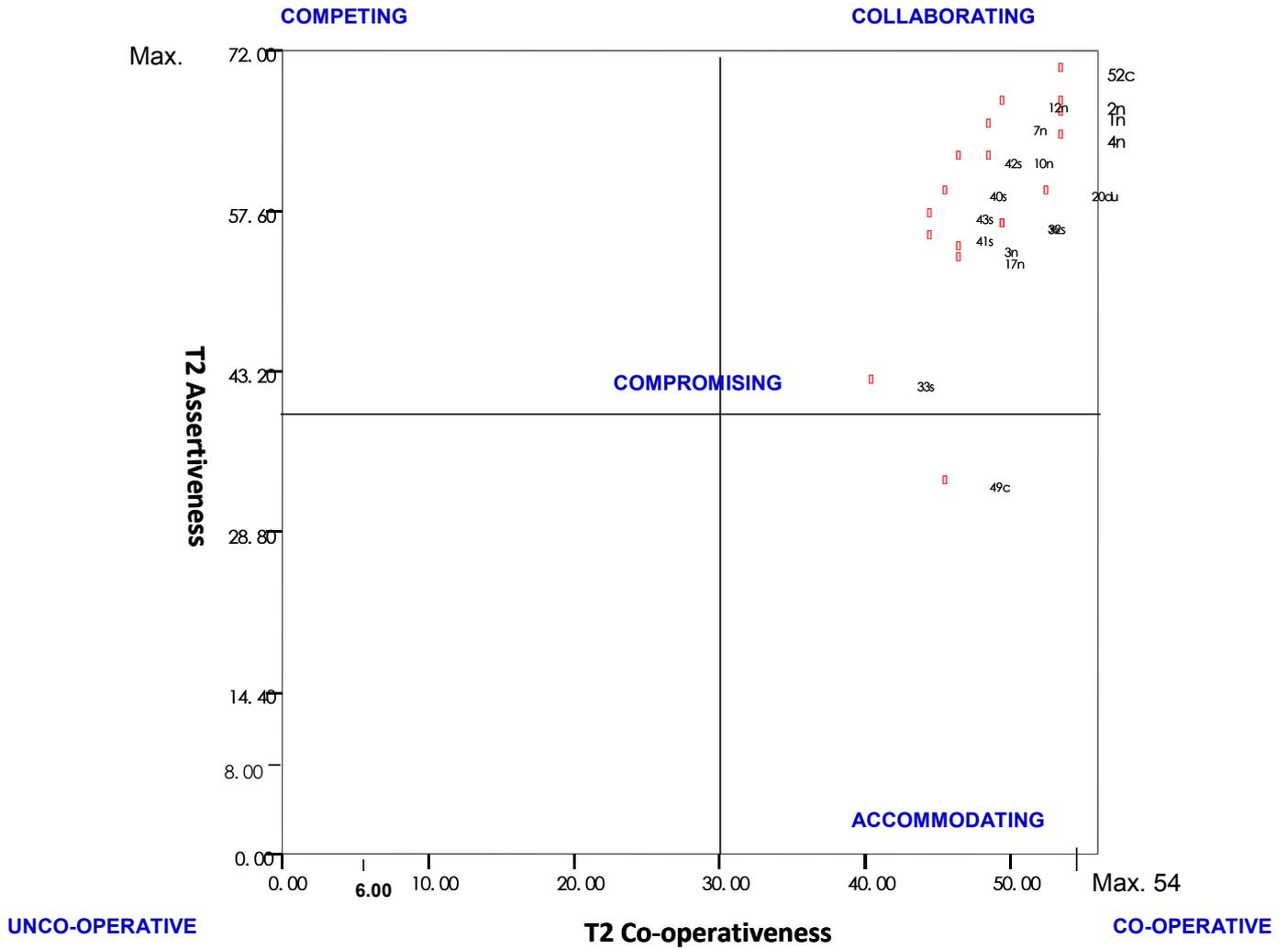
\* p < .05, \*\* p < .01 #With Spear-man Correlation

**Table 3b. Correlations between Age ,YW and the variables in the Social Cognitive Model at Time 2 (Pearson andSpear-man Correlations, 2-tailed) (N=20)**

<b>Variables</b>	<b>Mean/SD</b>	<b>Age</b>	<b>YW</b>	<b>SE</b>	<b>RE</b>	<b>CE</b>	<b>OE 1</b>	<b>OE 2#</b>	<b>OE 3</b>	<b>CPS-Ass</b>	<b>CPS-Co</b>	<b>CPS-Tot</b>
Age	47.80/3.90	1.00										
YW	8.24/8.55	-.192	1.00									
Self Efficacy (SE)	33.95/3.71	.323	-.319	1.00								
Role Efficacy (RE)	83.40/22.08	.366	.036	.014	1.00							
Collective Efficacy (CE)	37.00/5.68	.050	-.261	.253	.335	1.00						
Outcome Expectancy 1	86.35/10.80	.130	-.070	.160	-.031	.151	1.00					
Outcome Expectancy 2 #	88.25/11.27	-.098	.021	.219	-.050	.218	.904**	1.00				
Outcome Expectancy 3	86.90/11.70	.396	-.043	.127	.450*	.691**	.324	.390	1.00			
Collaborative Practice-Ass	58.89/9.46	-.066	-.134	.535*	-.293	.030	.069	.219	-.258	1.00		
Collaborative Practice-Co	48.70/4.40	.107	-.061	.151	-.270	-.088	.789**	.574**	.000	.379	1.00	
Collaborative Practice-Tot	107.32/11.80	-.086	-.119	.446 (p=.056)	-.391	-.008	.340	.452 (p=.052)	-.229	.940**	.671**	1.00

\* p< .05, \*\* p< .01 #With Spear-man Correlation

Figure 1: the scatterplot of collaborative behaviour (Time 2)(n=20)



\*Note:

1. the participants were identified by number and letters (n for nurses, d for doctors, s for sergeants and c for CCAs);
2. two lines in the middle to classify behaviour were set at the middle point of scales;
3. 6 and 8 were the minimum scores of Cooperativeness and Assertiveness

# Appendix 4

## Risk assessment questions put to all detainees by Tayside Police at time of presentation for admission to custody

### Sample Screen

Type: PRISONER SELF RISK ASSESSMENT  
Creation Date: 06-May-2011 09:13:38  
Version: 1

Title: PRISONER SELF RISK ASSESSMENT

Station Officer SPT 000000 H SMITH

Corroborating Officer SPT 000000 H SMITH

1	ARE YOU SUFFERING FROM ANY INJURY?
2	ARE YOU SUFFERING FROM ANY ILLNESS OR MEDICAL CONDITION?
3	ARE YOU TAKING ANY MEDICATION?
4	DO YOU TAKE ANY OTHER KIND OF DRUGS?
5	DO YOU SUFFER FROM ANY FORM OF ALCOHOL DEPENDENCY?
6	HAVE YOU USED ANY DRUGS IN THE LAST 24 HOURS AND IF SO WHAT TYPE, HOW MUCH AND WHEN?
7	HAVE YOU CONSUMED ANY ALCOHOL IN THE LAST 24 HOURS AND IF SO WHAT TYPE, HOW MUCH AND WHEN?
8	DO YOU SUFFER FROM, OR HAVE YOU EVER SUFFERED FROM ANY FORM OF MENTAL ILLNESS OR DISORDER?
9	HAVE YOU EVER COMMITTED ANY ACTS OF SELF HARM OR ATTEMPTED SUICIDE?
10	DO YOU HAVE ANY OTHER RELEVANT INFORMATION RELATING TO YOUR PERSONAL CARE AND WELFARE WHILST IN CUSTODY?
11	DO YOU HAVE ANY SPECIAL DIETARY REQUIREMENTS OR FOOD ALLERGIES?

# Appendix 5

## ACPOS Guidance on procedures/duties which may be undertaken by healthcare professionals in the custody environment

Note: Any healthcare professional working in a custodial environment must be adequately trained before undertaking any of the procedures listed below. This applies equally to Doctors, Nurses and Paramedics. Some of the procedures and duties listed will also require specialist competencies or statutory powers. Healthcare professionals should not be required to work outside the scope of their professional competency or clinical guidelines. The most appropriate level of competencies for a Custodial Nurse should be that of Charge Nurse Level.

Procedure/Duty	Police Surgeon	Nurse	Paramedic
Taking medical history	Yes	Yes	Yes
Conducting clinical examinations	Yes	Within scope of clinical guidelines	Within scope of clinical guidelines
Diagnosing clinical conditions	Yes	Yes, depending on scope of competence, for some conditions	Yes - within defined competencies
Obtaining consent for treatment	Yes	Yes	Yes
Verifying patient's medication	Yes, with caution	Yes, with caution	Yes, with caution
Prescribing medication	Yes	No (although some Nurses can, depending upon their competence and the type of medication)	No
Administering medication (non-controlled drugs)	Yes	Yes. Named individuals can administer medicines under Patient Group Directions	Yes, within scope of clinical guidelines
Administering medication (controlled drugs)	Yes	Yes	Yes, within scope of clinical guidelines
Assessing alcohol/drug intoxication and withdrawal	Yes	Yes, with appropriate prior training	Yes, with caution
Providing therapeutic interventions	Yes	Yes	Yes
Obtaining consent for disclosure of medical information	Yes	Yes	Yes
Providing brief health education interventions	Yes	Yes	No
Undertaking mental health assessments under the Mental Health Act 2003	Yes if suitably qualified	No, but community mental health Nurses can undertake pre-assessment screening	No
Assessing fitness to be detained	Yes	With appropriate training	With appropriate training
Assessing requirement for medication	Yes	Yes	Yes
Advising referral to hospital	Yes	Yes	Yes
Assessing fitness to be liberation (alcohol intoxication)	Yes	Yes	Yes
Assessing fitness to be charged (competence to comprehend)	Yes	With appropriate prior training	With appropriate prior training
Assessing fitness to transfer (general clinical assessment)	Yes	Yes	Yes
Assessing fitness for interview	Yes	With appropriate prior training	No, unless appropriate prior training

## Appendix 5 (Cont.)

<b>Procedure/Duty</b>	<b>Police Surgeon</b>	<b>Nurse</b>	<b>Paramedic</b>
Advising requirement for Appropriate Adult (vulnerable mentally disordered)	Yes	With appropriate prior training	No, unless appropriate prior training
Assessing person's ability to drive a motor vehicle (general clinical assessment)	Yes	With appropriate prior training	With appropriate prior training
Making precise documentation and forensic interpretations of injuries	Yes with suitable prior training	Yes to documentation only. Other aspects - with appropriate training	Yes to documentation. Other aspects - with appropriate training
Undertaking intimate body searches (not on Police premises)	Yes, with consent	Yes, but caution is advised by NMC if no consent	No
Taking forensic samples	Yes	With appropriate prior training	With appropriate prior training
Dealing with Police Officers injured while on duty	Yes	Yes	Yes
Pronouncing life extinct and giving opinion on any suspicious circumstances	Yes	Yes. Opinion only recommended with appropriate prior training and experience	Yes to pronouncing life extinct in any circumstances. Appropriate training would be required for aspects of 'opinion'
Examining adults complaining of serious sexual assault and alleged perpetrators	Yes	No, unless appropriate prior training	No
Examining alleged child victims of neglect, physical or sexual abuse (including joint examinations with Paediatrician)	Yes	No, unless appropriate prior training	No
Liaising with drug referral workers	Yes	Yes	Yes
Liaising with alcohol referral workers	Yes	Yes	Yes
Providing statements to Police on request	Yes	Yes	Yes
Attending Court	Yes	Yes	Yes
Providing reports (to Solicitors, Social Services, CICA)	Yes	Yes	Yes
Appearing as a witness of fact	Yes	Yes	Yes, within defined competencies
Appearing as Expert Witness	Yes, with suitable training and experience	No, unless has suitable training and experience	No



