# Integration, population commissioning and prison health and well-being – an exploration of benefits and challenges through the study of telemedicine

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## Abstract

**Purpose** – This paper seeks to understand relationships between prison healthcare and integrated care systems (ICS), including how these affect the delivery of new healthcare interventions. It also aims to understand how closer integration between prison and ICS could improve cross system working between community and prison healthcare teams, and highlights challenges that exist to integration between prison healthcare and ICS.

**Design/methodology/approach** – The study uses evidence from research on the implementation of a pilot study to establish telemedicine secondary care appointments between prisons and an acute trust in one English region (a cross-system intervention). Qualitative interview data were collected from prison ($n = 12$) and community ($n = 8$) healthcare staff related to the experience of implementing a cross-system telemedicine initiative. Thematic analysis was undertaken on interview data, guided by an implementation theory and framework.

**Findings** – The research found four main themes related to the closer integration between prison healthcare and ICS: (1) Recognition of prison health as a priority; (2) Finding a way to reconcile networks and finances between community and prison commissioning; (3) Awareness of prison service influence on NHS healthcare planning and delivery; and (4) Shared investment in prison health can lead to benefits.

**Originality/value** – This is the first article to provide research evidence to support or challenge the integration of specialist health and justice (H&J) commissioning into local population health.

**Keywords** Prison health and well-being, Prisoners, Health and justice, Specialist commissioning, Health inequalities, Resource allocation, Integrated care

**Paper type** Research paper



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## Introduction

### *Background to prison healthcare commissioning*

Commissioners of prison healthcare services require an in-depth understanding of the health needs and inequalities experienced by prisoners in order to commission the types of specialist services that are effective for this vulnerable patient group (Davies *et al.*, 2013a). Prison healthcare in England is commissioned by specialist regional National Health Service (NHS) health and justice (H&J) commissioning teams, overseen by a central NHS H&J directorate (NHS England, 2020a; England, 2020). This responsibility was transferred from the prison service to the NHS in 2006 (Birmingham *et al.*, 2006). Regional NHS H&J commissioners issue contracts for prison healthcare services to both NHS and private healthcare providers, typically lasting around five years. These NHS-commissioned prison healthcare teams sit within establishments owned and operated by Her Majesty's Prison and Probation Service (HMPPS), with health commissioning and oversight operating in close partnership with the justice system, accommodating their organisational priorities, policies and politics (National Offender Management Service, 2015; NHS England, 2020a). These contracts for on-site prison healthcare services include primary care, mental health, dentistry, ophthalmology, public health functions, sexual health and substance misuse. Other required healthcare is provided in community settings.

### *Integrated care systems and their relationship to prison health*

In recent years the English NHS has driven the evolution of local integrated care systems (ICSs) (NHS England, 2020b). ICSs were developed to integrate care across local system partners (including NHS and local government), bringing about major changes in how health and care services are planned, paid for and delivered. ICSs disrupt the organisational autonomy and the separation of commissioners and providers, and promote values associated with collaboration, locality and local populations (Charles, 2020). In 2017 some of the earliest ICSs signed an agreement with NHS England and NHS Improvement (NHSE/I) to commit to the progressive implementation of delegation/transfer of funding and commissioning responsibilities from central government. In 2021 this supported "evolution" became legislation, with all local areas in England mandated to form an ICS by April 2022 (NHS England, 2021). Until now, prison healthcare commissioning has remained separate from evolving ICS community commissioning, due to concerns about maintaining quality and consistency of healthcare provision across the prison estate if not commissioned centrally. New legislation supports delegation of some aspects of NHSE/I direct commissioning functions but takes a cautious approach to the delegation of complex services such as prison healthcare. Prison healthcare is considered a complex service, requiring highly specific governance mechanisms and extensive national stakeholder networks. Therefore, responsibility for prison healthcare has not yet been delegated to ICSs. Future decisions on delegation of H&J commissioning will be based readiness of services to be delegated to ICSs, and readiness of systems to take on greater responsibility.

Commissioning notwithstanding, there is an important relationship between prisoner health and other ICS healthcare functions. Prisoners, by nature of their residency within an ICS region, are considered local citizens. During imprisonment, many require access to community-commissioned services such as secondary care and may return to the community on completion of their tariff requiring continuing care for issues such as substance misuse. Implementation of cross-systems interventions or care-pathways that span community and prison systems can help prisoners to access the same healthcare services as members of the community whilst incarcerated (RCGP-SEG, 2018), and ensure continuity of care when leaving prison (Abbott *et al.*, 2017; Care, 2015; NHS England, 2018; Schmidt, 2010; Davies *et al.*, 2013a; RCGP-SEG, 2018).

*Background to this research*

Further integration of prison and community health commissioning may improve ICS accountability for prisoner health and act as a catalyst for cross-system intervention development. However, currently there is no published research evidence to support or challenge the integration of specialist H&J commissioning into local population health. Available evidence on healthcare integration is often unapplicable to prison commissioning. For example, research frequently focusses on the integration of primary and secondary community healthcare or health and social care (Edwards, 2015; Lewis and Ling, 2020), many of which had integrated functions or relationships pre-ICS. Findings often report on indicators such as impacts on hospital admissions or overarching integration priorities and barriers (e.g. sharing patient data) (Kozlowska *et al.*, 2018; Erens *et al.*, 2020; Lewis and Ling, 2020), but do not consider how specialist commissioned services relate to these issues.

*Research objectives.*

(1) In this article, we aim to understand relationships between prison healthcare and members of the wider healthcare ICS, including how these affect the delivery of new interventions. Evidence presented will inform future implementation of cross system initiatives

(2) A broader aim is to understand how closer integration between prison and ICS could improve cross system working between community and prison healthcare, and highlighting challenges that exist to integration between prison healthcare and ICS.

The study uses evidence from research on the implementation of a pilot study to establish telemedicine secondary care appointments between prisons and an acute trust in one English region (a cross-system intervention), to interrogate this question (Edge *et al.*, 2020a).

This research is the first to consider the current challenges of prison/community cross-system implementation and how this relates to new ICS legislation and the future of prison commissioning functions.

*Context of the intervention*

Telemedicine in this research refers simply to the use of video software to deliver virtual healthcare consultations between prisoners and hospital clinicians. Implementation of the telemedicine system requires technological and governance approvals from the prison service and NHS providers, resource to purchase and implement the technology, agreement on care pathways and processes and training and adoption amongst frontline staff.

Prison-hospital telemedicine is known to be both clinically and cost effective (Edge *et al.*, 2021; Aoki *et al.*, 2000, 2004; Brady and Brady, 2005; Brunicardi, 1998; Deslich *et al.*, 2013; Doty *et al.*, 1996; Mccue *et al.*, 2000; Mccue *et al.*, 1998; Wong, 2001; Zollo *et al.*, 1999) and this pilot was proposed to inform future implementation efforts if proven successful locally (Edge *et al.*, 2020a). Although the aim of this research was to inform telemedicine implementation specifically, the themes identified from staff interviews strongly related to the wider contextual influence of the community health and commissioning system, and are the focus of this paper. The pilot was located in a geographical area that was in the process of evolving into an ICS as a pilot area well ahead of the current national move to ICS implementation. The current prison healthcare provider had been commissioned in our research sites for a period of three years, reaching a period of contract stability by the time the main implementation phase of telemedicine was underway. At this time (prior to the COVID-19 pandemic), the ICS, local hospital trust and prison healthcare team had no experience of the implementation or operation of telemedicine models.

*Previous telemedicine implementation evidence*

Most successful prison telemedicine implementation projects have been studied in healthcare contexts outside of England, for example in the USA and Australia, which operate very

different commissioning structures (Edge *et al.*, 2021). The USA has seen tremendous success with prison telemedicine implementation, however they operate a clear chain of command by which prison healthcare services are commissioned or directly provided by and report to the correctional system, who also maintains financial responsibility for healthcare provision in prisons, and sees the financial benefit telemedicine accrues (Justice, 1999, 2002). In these very different settings the issues that related most to successful implementation were: combining top down and bottom up support, demonstrating need versus benefits, linking prison and health care providers, considering anticipated versus realised benefits and logistics and clinical compatibility (Edge *et al.*, 2021).

## Methods

### *Study design*

This was a qualitative interview study, using a key informant approach to selecting staff who were involved in the relevant organisations that were attempting to implement a cross-system telemedicine intervention This included staff from a prison provider NHS trust and a community ICS, including hospital trust staff. We refer to these throughout as "prison healthcare staff" and "ICS staff". Our interviews covered staff concerns, perceptions, understanding and experiences of prison-hospital telemedicine implementation.

### *Recruitment*

Participants were selected through purposive and snowball sampling. Staff with known relevance to telemedicine implementation were approached in person with a leaflet explaining study purpose and activities. Further snowball sampling was undertaken based on advice from initial interviewees. Interviewees were selected to provide perspectives from different types of staff at varying levels of seniority from within the two healthcare provider systems involved in local prison telemedicine implementation.

### *Participants*

A total of 26 people were invited to interview of which 20 agreed to participate. Those who declined cited a perceived lack of knowledge/relevance to telemedicine implementation and were mostly community ICS staff. No participants dropped out once they had agreed to participate.

Around 12 participants were from the prison healthcare organisation and eight from the community healthcare system. Participant demographics (provider, role) are shown in Table 1. Several participants had dual roles, e.g. as both senior clinicians as well as a defined management role and are represented in multiple columns in Table 1.

### *Theoretical approach*

An implementation theory and framework were used to design the interview topic guides and also data analysis and interpretation. These were normalisation process theory (NPT) and the consolidated framework for implementation research (CFIR) (Murray *et al.*, 2010; Damschroder *et al.*, 2009). NPT focusses primarily on the work that individuals and groups undertake to operationalise and normalise an intervention and was selected for use to allow an understanding of the process problems of implementation and the structural problems of intervention integration. NPT has previously been criticised for its focus on individual and collective agency, and not paying enough attention to the wider organisational and relational contexts of the implementation. Therefore, to provide more generalisable contextual information, in parallel to NPT, several constructs from CFIR were used to guide an in-depth description of the inner and outer context surrounding the intervention itself.

| Staff role | ICS | Prison healthcare | Total |
|---|---|---|---|
| Administrative | | 2 | 2 |
| Nurse | 2 | 4 | 3 |
| Health advisor | 1 | | 1 |
| Consultant clinician | 4 | 4 | 8 |
| Prison head of healthcare | | 1 | 1 |
| Lead nurse | | 1 | 1 |
| Regional operational manager | | 1 | 1 |
| Head of governance | 1 | | 1 |
| Head of IT | 1 | 1 | 2 |
| Service director | | 2 | 2 |
| Head of outpatients | 1 | | 1 |
| Clinical director | 1 | 1 | 2 |
| Medical director | | 1 | 1 |
| CCG lead | 1 | | 1 |
| Integrated care system lead | 1 | | 1 |
| Chief clinical information officer | | 1 | 1 |
| Director of transformation | 1 | | 1 |
| Total | 14 | 19 | |

**Table 1.**
Interview participants

In this research the outer setting has been considered as the wider healthcare system (NHS or ICS policy/procedures) and the wider prison system (HMPPS policy/procedures). The inner setting is defined as the context within the two different providers involved in the local telemedicine implementation work, the local community-based hospital providing secondary care to the prisons, and the prison healthcare provider hospital who staffs the prison healthcare teams.

*Data collection*

Semi-structured interview guides were developed drawing on the principles of NPT, wider contextual factors of CFIR and evidence from a previous literature review on factors affecting prison telemedicine implementation (Edge *et al.*, 2021).

Throughout the data collection process, researchers iterated the topic guide in response to data from participants, and adapted their questioning style appropriately.

*Ethics*

This study received ethical approval from the South East London NHS Research Ethics Committee (IRAS 229646) and the Health Research Authority.

*Informed consent*

All participants gave written informed consent prior to data collection.

*Analysis and reporting*

Data collection activities were recorded on an encrypted dictaphone and transcribed professionally.

We used thematic analysis to analyse the anonymised transcript data, identifying patterns in data through systematic coding, discussion and interpretation. Following familiarisation with transcripts, the lead author (CE) coded each transcript inductively, focussing particularly on the impact of the ICS on prison healthcare, and particularly exemplar of the telemedicine intervention. Figure 1 shows how major themes were formed

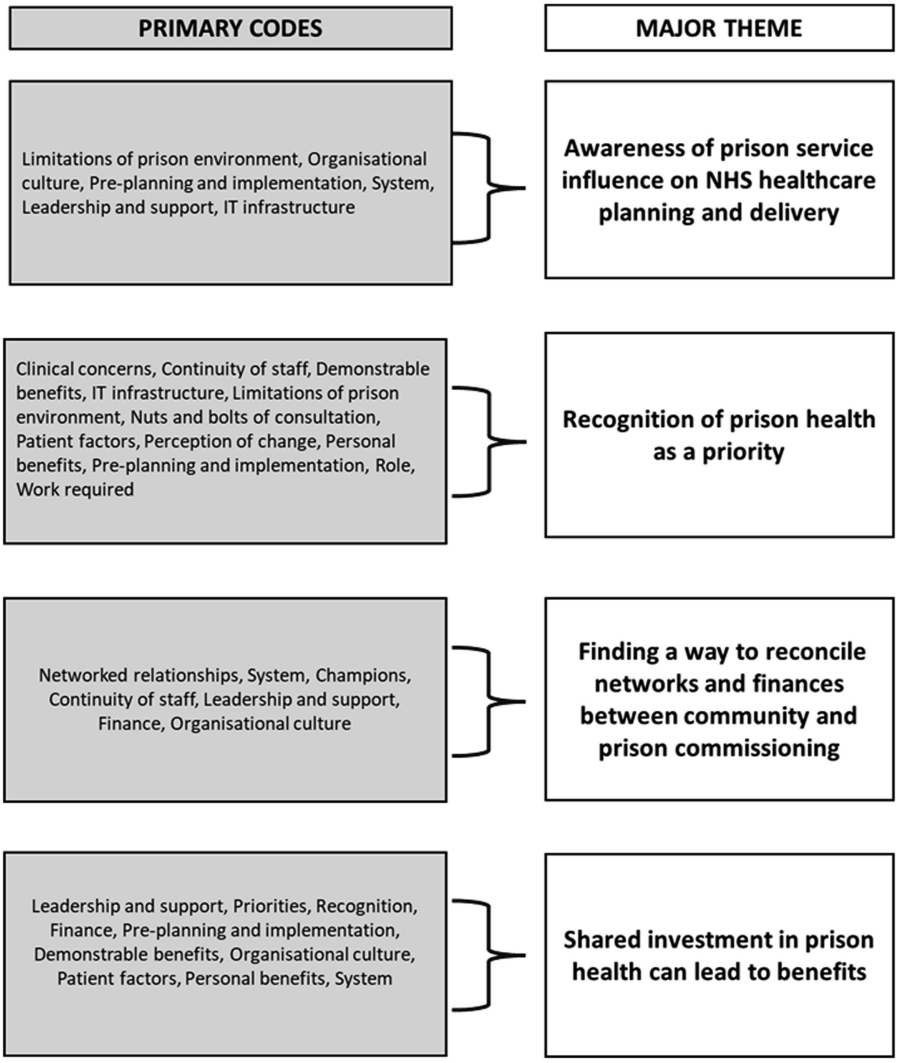


**Figure 1.**
Formation of major themes

from primary codes. CE and GB discussed the inductive codes in relation to the theoretical domains of NPT and CFIR to understand the influence of these domains on implementation (Figure 2). Once coding of all transcripts was complete, these discussions were used to generate major themes by considering the influence of different components within the theoretical frameworks and interrogating the data. For example, the theme related to ICS priorities was developed through consideration of the inner and outer setting component of CFIR, and the NPT coherence domain. All authors offered their own interpretations of each theme and the constituent quotations according to their contrasting perspectives as qualitative researchers, public health practitioners and NHSE H&J professionals. Themes described major issues reported by staff that influenced prison telemedicine implementation.

| NPT/ CFIR domain | Themes explaining domain |
|---|---|
| NPT - Coherence | Perception of Change<br>Clinical concerns<br>IT infrastructure<br>Pre-planning and implementation<br>Patient factors<br>Limitations of prison environment<br>Networked relationships<br>Work required<br>Nuts and bolts of consultation<br>Personal benefits<br>Demonstrable benefits<br>Recognition |
| NPT - Cognitive Participation | Roles<br>Champions<br>Patient factors<br>Demonstrable benefits<br>Personal benefits |
| NPT – Collective Action | Nuts and bolts of consultation<br>Clinical concerns<br>Limitations of prison environment<br>Work required<br>IT infrastructure<br>Networked relationships<br>Continuity of staff |
| CFIR – Inner Context | Finance<br>Organisational culture<br>Champions<br>Leadership and support<br>Demonstrable benefits<br>Patient factors<br>Recognition<br>System<br>Priorities |
| CFIR- Outer context | Champions<br>System<br>Networked relationships<br>Leadership and support<br>Pre-planning and implementation |

**Figure 2.**
Relating major themes to theoretical domains

Finally, all authors discussed how the data could support the further integration of prisons into ICSs in future. Many themes overlapped in their importance to individual staff, providers and the wider system.

All quotations presented have been anonymised to ensure that individuals or establishments cannot be identified.

## Results

Our themes present issues observed with the current working relationship between prison healthcare and members of the local ICS. These themes can also be considered in relation to the potential future integration of specialist prison commissioning.

### *Recognition of prison health as a priority*

Participants reported that differences between the priorities of H&J systems and providers caused implementation issues for telemedicine. All senior community healthcare participants reported that prisoners were not seen as a priority patient group to the hospital or ICS given the small potential patient numbers, and wider challenges facing the broader community population:

> I would say from an ICS perspective I do not think it is [prisoner healthcare] on a radar really. (Participant 1, Community)

Participants felt this absence of awareness could be mitigated through use of a strong and convincing narrative around the needs of the prison population. They felt that where hospital staff members were inconsiderate of prisoners' needs it was mainly due to a lack of awareness, as opposed to a conscious decision not to engage with provision of adequate care services for prisoners.

Although prison health as a topic was not seen as a priority for community systems, most senior participants reported that support for telemedicine was a uniting factor which meant some implementation progress had been made. This research took part prior to the rapid adoption of digital technologies as part of the COVID-19 pandemic; at this time, many hospital systems were at the outer fringes of consideration for remote digital service delivery. Strategic leaders from the H&J systems saw future potential benefits that could be derived from development of a working telemedicine pilot.

However, provider teams in both hospital and prisons who were actually required to deliver the work saw telemdicine as a lower priority for action. Prisoners represent a very small and often misunderstood cohort of hospital patients. Despite potentially low patient numbers, implementing telemedicine was perceived to require a large amount of work by the hospital from multiple hospital departments such as outpatients, governance and IT. Senior staff frequently questioned whether this was an efficient use of resources for so few patients, and most community-based participants felt it was not seen as an organisational or departmental priority:

> I would like to say it is business as usual in regards to we should have been doing this a long, long time ago. But unfortunately from my perspective we have many, many good projects that hit our door on a daily basis. (Participant 2, Community)

Prison healthcare teams usually provide reactive patient care and participants frequently cited other more pressing operational issues that needed attention within the prisons, meaning the telemedicine agenda remained low priority. Some prison healthcare staff acknowledged that community hospital care fell outside of their prison on-site primary care remit, and that taking responsibility for organising and chaperoning telemedicine secondary

care appointments would actually increase their workload, as described by the following participant:

> [. . .]there is an element of, "I have done the referral. Now it is the hospital's problem." [. . .] We have got probably more priorities of actually being on the ground, so staffing and things to deliver what we are meant to be dealing with. (Participant 3, Prison healthcare provider)

*Finding a way to reconcile networks and finances between community and prison commissioning*

The interviews revealed that underdeveloped relationships between prison and community healthcare organisations affected the implementation process. This included commissioning, provider and financial benefits.

*Poor networks between prison and community healthcare commissioning systems.* Despite their operation within the same geographical footprint and treatment of common patients, prison healthcare teams and community hospitals sat within different NHS commissioning structures. Many participants from both providers reported that this limited strategic partnerships, and meant their organisations operated almost entirely independently of each other. Hospitals are commissioned by clinical commissioning groups (CCGs), sit on the transformation board of the ICS, and are generally well integrated into the community health system. Prison healthcare providers are commissioned directly by regional NHS H&J commissioning teams, who at this time had little integration into the wider community health system. A senior ICS leader elaborated on the difficulties of working with the prison commissioning function in this way:

> If I am honest as well the relationship with specialist commissioning generally has almost been a sort of a separate entity, and I am not saying that the individuals working there were not hospitable but getting anything out of them or working together was always quite difficult. (Participant 4, Community)

In previous studies of telehealth technology, effective collaboration within organisations has been identified as crucial to supporting telemedicine delivery in the community. (255, 256) Further to this, the very nature of increased collaboration itself is seen as a positive outcome of implementation. (257) Collaboration to deliver prison telemedicine involves the coming together of prison and community health stakeholders. At this time of evolution (prior to legislation), there was little clarity on how the rapidly evolving community ICS outer system and associated policies would integrate with the centrally operated NHS H&J commissioning teams, and what this would mean for community citizens residing in prison establishments:

> [. . .] what I do not know is what the long-term plan is with integrated care partnerships where prison health then comes into that, which is very interesting. [. . .] you would imagine that for citizens who are in prison that their rights to access are the same as the rest of the population living there and therefore I would imagine it is a bit of a sticky wicket trying to do it from NHS England. (Participant 4, Community)

Similar views were held by senior managers from the hospital and prison providers. Prisoners as "local citizens" were recognised as being entitled to the same care and access as all community citizens within the ICS region, but with no financial responsibility or accountability for their healthcare provision sitting within the ICS. Participants were concerned that further differences in healthcare access and provision would emerge as the community healthcare landscape transformed.

*Financial relationships between community and prison commissioning systems.* The separate commissioning structures of the prison and community healthcare systems also raised issues with financial relationships between organisations, specifically around reimbursement

and benefit realisation. Most participants stated that the main financial benefit expected to be attributed to prison telemedicine was in the reduction of escort costs (associated with paying for prison officers to escort patients to hospitals) running into thousands of pounds per prison each month. Both prison and hospital providers were vocal that any savings from prison telemedicine were likely in this instance to fall to regional NHS H&J budgets as opposed to their own provider organisation, despite the work they had undertaken to implement and operationalise the telemedicine model. This was felt to dampen enthusiasm for implementation.

*Poor networks between prison and community health providers.* The issues with poor networks extended from system commissioning bodies to the commissioned providers of prison and community healthcare services themselves. Healthcare providers within prisons were often on short-term competitive tendering contracts offering little time to build sustainable relationships with a complex network of community health organisations:

> [. . .] another thing that is particularly unique to custodial service delivery is the concept of competitive tendering of procurement [. . .] there is a move towards longer service tendering cycles, but that still lends itself to procurement cycles, whether it is every three years or five. (Participant 5, prison healthcare provider)

Participants from prison healthcare reported that the short-term contracting process depleted their enthusiasm for innovation. For example, a provider would be less likely to embark on implementation of a telemedicine model, or relationship building with a local hospital if their contract term was very near to completion.

Participants also reported difficulties finding time to build outward facing relationships with community-based providers due to the reactive nature of prison healthcare. Even when time and resource was available to dedicate to relationship building, participants mentioned that it could be difficult to establish relationships between community and prisons providers due to the lack of forums where they interacted with one another.

> [. . .] there is no real forum where there is any sort of cross-over. Some things have been piloted between prison and the hospital and they have not always worked out brilliantly. [. . .] I think there is a missing link sometimes, "cause they are so separately commissioned. There is almost the left hand does not talk to the right hand, a bit. So I think, I think there is some work to be done there" (Participant 3, Prison healthcare provider)

*Awareness of prison service influence on NHS healthcare planning and delivery*

The prison system introduced challenges to implementing telemedicine related to provider complexity as well as an emphasis on security. Prison-hospital telemedicine is unique in that its implementation and coordination does not sit solely within the community healthcare setting, but instead straddles the community and prison systems. Therefore, in order to be implemented, a number of competing NHS and HMPPS priorities, governance structures and approvals processes must be resolved:

> For simplifying it you have got health and then you have got prison, and those are two big organisations with, with quite different agendas in terms of what their priorities are for (telemedicine). (Participant 6, prison healthcare provider)

Nearly all staff from the prison healthcare provider referred to the unpredictable and sometimes stressful nature of working within prison environments, both in terms of day-to-day service delivery and also longer term strategy in the context of the transforming prison estate (Beard, 2019). Many participants reflected that government policy and HMPPS decisions can affect the ability for healthcare teams to make long term strategic plans for service delivery, for example closure of neighbouring prisons, or the "re-roll" of a current prison to take a differing population:

> [. . .] you have got organisational uncertainly in terms of the prison transformation board, that is complicated by the political agenda [. . .] before it was less beds, more community work, now it is "No, no, no, sentence people for longer". So that means, when you have got a transforming prison agenda, prisons that do not know what their identity is, because they can be closed overnight. (Participant 5, prison healthcare provider)

Almost all participants spoke about the additional HMPPS scrutiny procedures for digital technologies, a factor we have reported previously (Edge *et al.*, 2020b). The overall influence of the prison system on the delivery of prison healthcare was summarised quite simply by one participant as,

> [. . .] we are delivering healthcare services in someone else's backyard. (Participant 7, prison healthcare provider)

Referring to the difficulties in delivering NHS services within buildings owned, managed and governed by HMPPS.

*Shared investment in prison health can lead to benefits*

Aside from financial drivers, both prison and ICS staff identified ways to make telemedicine more attractive to their organisations. For prison providers, delivering prison telemedicine successfully was seen as a benefit to their competitive tender process. Most participants recognised the potential of telemedicine to improve their reputation or attract awards. Both providers agreed that telemedicine would reduce pressure on escorts within the prison system, reducing appointment cancellations. These was seen as an opportunity to improve prison-hospital relations, reduce patient complaints, support prison contract delivery and impact on externally commissioned reports from bodies such as the Care Quality Commission and Her Majesty's Inspectorate of Prisons.

Staff also articulated numerous reasons why telemedicine would benefit patients, who were felt to suffer in the current model of secondary care service delivery (Edge *et al.*, 2020c). Joined up telemedicine models were predicted to improve timely access to appointments, provide a better handover of information from the hospital to the prison, and improve dignity for patients who would otherwise have travelled handcuffed to hospital sites.

> So they are, kind of, almost being discriminated against by being in an offender care service because the prison will only provide X number of escorts. HMP xxx has one escort in the morning, one in the afternoon. If the morning escort is delayed for whatever reason the afternoon escort is cancelled, so we are constantly going back to patients and saying "sorry, you have still got to wait" which stimulates complaints, unhappiness and could have direct correlation to deteriorating health and or mental health and or self-harm. (Participant 8, prison healthcare provider)

## Discussion

Using the example of implementation of prison telemedicine, this research is the first to consider the current challenges of prison/community cross-system implementation and how this relates to new ICS legislation and the future of prison commissioning functions. We found that the outer community and prison systems set the overarching context for cross-system implementation and slowed the progression of telemedicine implementation due to its poor fit with system-wide strategic objectives.

We found that there were poorly developed networks between community and prison commissioning systems and between community and prison providers. Development of these relationships was hindered by separation of commissioning teams, a lack of forums where providers or systems interfaced and the short-term tendering nature of prison healthcare contracts. The concept of prison health at a community system level was under-developed,

with leaders unaware of the need for investing in prison telemedicine or prison health specifically. This suggests that community healthcare systems were at the time unlikely to consider the needs of prisoners when developing general ICS healthcare services or policy, despite the fact these services may be accessed by patients from prison.

Similar issues have been observed in previous instances of prison healthcare reorganisation. In 2006 the movement of commissioning from the prison service to primary care trusts was seen as an opportunity to improve collaboration and introduce a public health approach to prisons, yet concerns were raised that the poor health of prisoners would be an added burden to community commissioning (De Viggiani *et al.*, 2005; Smith, 1999). In 2013 the Health and Social Care Act moved prison commissioning responsibilities to the newly formed NHS England with identified risks to healthcare delivery including poor engagement with partner organisations, and lack of capability and capacity to deliver specialised services (Davies *et al.*, 2013b). A review of health and social care partnership approaches to people in contact with the criminal justice system found similarly that differences in attitudes, agendas and cultures of partner organisations introduced structural, procedural, financial and professional barriers to health and social care delivery (Williams, 2009). Although the body of literature on this topic is small, findings reported are similar to our results, suggesting that undeveloped relationships between partners can cause issues with the delivery of effective health care to the prison population.

In relation to international evidence on prison telemedicine implementation, we similarly found issues with linking prison and health care providers, combining top down and bottom up support in the inner and outer system setting, and in considering the realised benefits (Edge *et al.*, 2021).

The culture of the community setting may need to change to make prisoner health a local priority. The need for skilled change management has been observed in previous research about integrated settings (Edwards, 2015). For cross-system interventions to spread at scale, prison and community health systems need to be conducive to partnership working and provide support for patients they may see as falling outside of their remit especially at the implementation stage. Research on integrated care for other inclusion groups has stressed the need for system-wide collaboration to deliver an effective health response. For example, holistic primary care services for homelessness require involvement of social services and housing authorities and asylum seeker mental health should address issues of social isolation and exclusion (Jego *et al.*, 2018; Maffia, 2008).

Similarly, a move towards longer contract terms for prison healthcare providers may improve their willingness to embark on longer term innovation projects.

### *Implementation and the future of integration of prison healthcare*

At the time of writing new legislation has been published regarding the future of prison health commissioning, clarifying the uncertainties observed by study participants relating to the future of prison healthcare. This legislation will allow for the future delegation and potentially transfer of prison healthcare commissioning to ICSs, provided readiness is demonstrated and agreed with NHSE/I H&J. Building on our findings about the benefits of shared investment, it is likely that closer alignment of the prison health commissioning functions within ICSs and local responsibility for commissioning, outcomes and associated financial savings, will improve both the ability and the enthusiasm for prison and community providers to collaborate. Although considerable evidence has been amassed on barriers, benefits and facilitators to integrating locally commissioned functions (Europe *et al.*, 2012; Maruthappu *et al.*, 2015) this has not to-date considered specialist commissioning, and subsequently academic understanding of this topic remains in its infancy. As ICSs evolve

those studying processes and outcomes of integration should ensure they capture lessons related to niche populations or services. Where outcomes of integrated care have been evaluated these often focus on a disease area (Nuño *et al.*, 2012; Wagner *et al.*, 2001), or outcomes such as hospital admissions (Edwards, 2015), losing the nuances related to specific populations such as patients from prisons who may be even more disadvantaged given the overarching context of the justice system.

Some lessons from other research evidence support the themes which we identified. For example, previous financial barriers to integration are well reported (Maruthappu *et al.*, 2015); however, ICS legislation will bring about pooled budgets, forcing integration to happen. H&J budgets will, at least initially, remain separate, leaving the issues caused by financial separation of commissioning budgets to linger. Early preparation by ICSs to receive H&J budgets will be essential to ensure these are fully integrated as and when delegation can take place.

Prison commissioning is a niche area, and H&J commissioners have specialist knowledge that cannot afford to be lost in the transfer to local systems (Davies *et al.*, 2013a). Our findings suggest that this sort of knowledge is needed to reconcile networks and finances between community and prison commissioning in particular. ICSs will also need to come to terms with working within the rules and constraints of the justice system. For example, although individual hospitals in this study were free to make their own decisions surrounding telemedicine implementation, individual prisons would not be able to make a decision to implement prison telemedicine without national agreement from HMPPS. Other ICSs must ensure that prison healthcare is given a "seat at the table" even prior to delegation of any commissioning responsibilities. Whether this takes the form of senior HMPPS staff such as prison Governors attending ICS fora or acute staff joining prison forums will depend on local circumstance.

Finally, the COVID-19 pandemic has shone a bright spotlight on the subject of health inequalities and the need for more equitable access, experience and outcomes of health care services. Prisoners as a population are subject to substantial health inequalities, often coming from the most deprived areas in society and with a disproportionate representation of people from Black and minority ethnic groups. Ensuring the health needs of prisoners are met will take ICSs one step forward towards meeting their duties around the reduction of health inequalities. This may cost more in the short-term, but will improve access to services in the long-term and address unmet need (Glasby and Miller, 2020).

### *Conclusions*

This research is the first to consider the challenges of prison/community cross-system implementation and the future of prison commissioning functions, set in the context of telemedicine implementation.

As the ICS evolution gathers pace, systems must ensure they do not inadvertently disadvantage marginalised population groups (such as prisoners) by failing to consider their needs within future plans. Prison commissioning will not be devolved instantly to ICSs, yet this does not remove the rights of prisoners to equitable service access as local citizens. ICSs ready to consider delegation of prison commissioning will have to ensure they have the relevant expertise and governance mechanisms in place to receive responsibility. Our recommendations to ICSs are shown in Table 2.

### *Limitations*

This research was completed in one ICS so there may be variations in how these findings relate to other ICS regions. However, at the time of study this ICS was one of the first established in England, suggesting that findings can help to inform the development of the large wave of new ICSs that are currently forming as a result of new legislation.

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|---|
| *All ICSs* |
| Recognise that prisoners as local citizens have rights to access/experience of ICS services (such a secondary care) equivalent to community residents |
| Ensure prison healthcare providers and commissioners can interact with ICS system leaders in shared forums |
| Understand the influence of the prison service on healthcare, e.g. technology use and approvals in prisons |
| Consider whether prison Governors/Directors should be included in ICS forums, given their involvement in facilitation of healthcare service delivery to prisoners |
| Recognise that improving integration and healthcare for prisoners is a vital contribution to the reduction of health inequalities |
| *ICSs ready to consider delegation of prison commissioning* |
| Consider how to ensure existing prison commissioning expertise is not lost during the delegation of functions |
| Understand the potential benefits of high quality healthcare to patients in prison and the wider system, and develop mechanisms to monitor realisation of these benefits |

**Table 2.** Recommendations to ICS related to prison healthcare

The study included only the staff members who were known to have an implementation role, therefore we did not gather data from community staff who specifically did not want to try telemedicine or treat prisoners. Several community participants also opted out of the research because they felt they had no knowledge of the telemedicine implementation work. Their perspective on the more general topic of prison health may have provided illuminating information on why the prison telemedicine agenda was not a priority.

This research considers a specific technological innovation as opposed to the provision of service which is likely to be more complex in delivery. However, given the rapid digitisation of clinical services during the pandemic this is now an issue that will require continued focus in the integration agenda.

*Future research.* There have long been known issues with continuity of care for prisoners as they are released into the community, which can contribute to both poorer health outcomes and recidivism (Patel *et al.*, 2018; Gulland, 2010). Closer working between H&J and ICSs offers an opportunity to improve this gap; future research would be beneficial to understand how to successfully deliver and finance models that span both prison and community systems to improve patient outcomes, for example, substance misuse.

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