

# **Improving Hospital Discharge for Patients who are Homeless: A Realist Evaluation**

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Competing Interests

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*Michael Clark is a member of the COVID 19 reviewing committee, and Prophylaxis Platform Study Funding Committee. Graham Foster reports consultancy and speaker fees from Gilead, Roche, Uniqure and Biomarin. Andrew Hayward reports membership of the HTA Antimicrobial Resistance Themed Call Board 2013-2014. All other authors have nothing to disclose.*

**Key Words:** homelessness, hospital discharge, intermediate care, medical respite, permanent supported housing, transfer of care, delayed discharge, unplanned admissions, realist synthesis, realist evaluation

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*The research reported in this 'first look' scientific summary was funded by the HS&DR programme as project number 13/156/10. For more information visit <https://fundingawards.nihr.ac.uk/award/13/156/10>*

*The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HS&DR editors have tried to ensure the accuracy of the authors' work and would like to thank the reviewers for their constructive comments however; they do not accept liability for damages or losses arising from material published in this scientific summary.*

*This 'first look' scientific summary presents independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, NETSCC, the HS&DR Programme or the Department of Health and Social Care. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, NETSCC, the HS&DR Programme or the Department of Health and Social Care.*

## **Scientific Summary (words 2370)**

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## Background

In 2013, £10 million funding was made available by the Department of Health and Social Care (DHSC) to develop specialist integrated homeless health and care services (SIHHC) including 52 hospital discharge schemes (HHDs). A key aim of the *'Homeless Hospital Discharge Fund'* (HHDF) was to increase capacity in 'step-down' intermediate care (time limited support to bridge the gap between hospital and finding a home).

## Objectives

The overall aim of this study was to explore how SIHHC worked to deliver consistently safe, timely care transfers for homeless patients. The study objectives were:

1. To situate what is already known about delayed transfers of care among people who are homeless in terms of the broader literature on hospital discharge and intermediate care.
2. To explore how different models of SIHHC are being developed and implemented across England to facilitate effective hospital discharge.
3. To explore the views and experiences of people who are homeless and whether, and if so how, SIHHC works to improve experiences of hospital discharge and to deliver improved health and wellbeing outcomes
4. To explore how SIHHC impacts on outcomes and different patterns of service use across the whole system (e.g. the use of unplanned care) and the associated cost implications of this.
5. To produce a 'toolkit' for commissioners on developing SIHHC if the findings support this.

The evaluation commenced in September 2015 and was completed in December 2019. It was carried out by a consortium of researchers from different universities, led by King's College London. Ethical approval was obtained from the London and South East Research Ethics Committee in April 2016 (16/EE/0018)

## Methods

The study adopted a realist evaluation methodology on the basis that the heterogeneity of the HHDs warranted a mixed method approach incorporating theories that relate context to outcomes. The first stage was a series of literature reviews to arrive at a tentative programme theory about works to deliver safe, timely transfers of care (Objective 1). This was then tested empirically and refined through three work packages (WPs). WP 1 undertook a documentary analysis of project information for 52 HHDs (plus and additional 10 schemes not HHDF funded). This enabled us to map how the schemes were being implemented (Objective 2). WP1 also generated qualitative case studies of different HHD typologies (and configurations) (5 sites) comparing these to standard care (2 sites). In-depth fieldwork was carried out in each site and explored how these different schemes '*worked*' (or did not work) from the perspective of people who were homeless and recently discharged from hospital. Semi-structured interviews were carried out shortly after discharge and then again three months later (Objective 3). WP2 and WP 3 (Objective 4) explored how HHDs impacted on outcomes and different patterns of service use across the whole system (e.g. use of unplanned care) and the associated cost implications of this. In WP 2 we undertook a data linkage. This involved an analysis of linked Hospital Episode Statistics and Civil Registration death data for homeless patients (n=3,882) at any one of 17 sites with an HHD scheme between 1st November 2013 and 30th November 2016. Our primary outcome was death which we analysed in subgroups of 10th version of the international classification of disease (ICD10) chapter specific deaths; and deaths from causes amenable to health care. WP3 was an economic evaluation. This used a range of modelling techniques to explore: (i) What is the cost-effectiveness of HHDs for the NHS? (ii) What is the cost-utility of HHDs for the NHS? (iii) What is the cost-utility of HHDs for the broader public perspective?

## Findings

The first study objective (Objective 1) was to situate what is already known about delayed transfers of care among people who are homeless in terms of the broader literature on hospital discharge and intermediate care. This evidence was used to arrive at a tentative programme theory.

Hospital discharge has always been a challenge for the NHS. However, there is increasing evidence about '*what works*' to facilitate safe timely transfers of care. This evidence has been synthesised by government bodies in a High Impact Change Model (HICM). We hypothesised that this model may offer a set of mechanism-intervention-resources (MIRs) and key practice principles (KPPs) to ensure improved discharge for homeless patients. The HICM encompasses eight changes including protocols for managing patient flow; multidisciplinary discharge coordination and 'step-down' intermediate care. Empirical testing of this 'generic' model was important because much of the evidence underpinning it related to research with older people.

### *Early programme theory refinements*

A second review of the literature on intermediate care that catered specifically for people who were homeless highlighted an additional MIR for 'patient in-reach'. Multi-disciplinary 'patient in-reach' where specialist GPs and nurses work alongside housing workers was identified as an important MIR for addressing issues such as early 'self-discharge' and continuity of health care post discharge. While delayed discharges are rare, many homeless patients will leave hospital before treatment is completed due to poor management of their substance misuse issues. Clinically-led homeless teams providing 'patient in-reach' addressed this for example, by ensuring ward staff adhered to clinical pathways pertaining to urgent stabilisation of drug withdrawal through access to the prescriptions of NICE recommended medications such as methadone.

### *Implementation*

The second objective (Objective 2) of the study was to explore how specialist discharge schemes were being developed and implemented across England. A documentary analysis and series of preliminary interviews revealed that the HHDs were employing HICM interventions in different ways and in different combinations. Some offered a specialist (clinically-led) discharge coordination service (ending support when the patient left the acute sector/hospital) while other 'housing-led' schemes combined (non-clinical uniprofessional) discharge coordination with a period of 'step-down' intermediate care (usually via floating

support in the community and less commonly in a dedicated residential facility). We characterised the main typological distinctions between the HHDs in terms of (i) clinically-led (multi-disciplinary) schemes versus housing led (uniprofessional schemes) and (ii) schemes that had direct access to intermediate care and those that did not (all versus standard care).

#### *What works, for whom in what circumstance and why?*

Overall, there was good evidence from across the three work packages to support our programme theory about the utility of the HICM:

- ✓ Employing a range of different economic modelling techniques, specialist HHD schemes were consistently more effective and cost-effective than standard care (WP3)
- ✓ NHS Trusts with specialist HHD schemes had lower rates of Delayed Transfers of Care (DToCs) linked to 'Housing' than standard care (WP1)
- ✓ Employing a range of different economic modelling techniques, HHD schemes with direct access to specialist intermediate care (step-down) were more effective and cost-effective than HHD schemes that have no direct access to intermediate care (WP3)
- ✓ The data linkage showed that HHD schemes with a step-down service were associated with a reduction in subsequent hospital use, with an 18% reduction in A&E visits compared to HHD schemes without step-down (WP2)
- ✓ Clinical advocacy (patient in-reach) provided by hospital-based homeless health care teams increased access to planned (elective) follow-up care. This is an especially important outcome as 1 in 3 deaths of people in our homeless hospital discharge cohort were due to common conditions (e.g. heart disease) which are amenable to timely healthcare.

#### *What 'troubles' our programme theory?*

WP2 collected 13,529 records from HHDs sites that were linked to 3,882 individual admissions and 600 deaths. The data linkage showed that the HHD cohort were more likely to be readmitted in an emergency, with five times the rate of unplanned hospital readmission

and five times the rate of A&E visits than housed people from deprived neighbourhoods. The data linkage also showed that 1 in 3 deaths of those in the hospital discharge cohort are from conditions amenable to timely health care.

While this outcomes data raises some uncertainties about the efficacy of discharge schemes to deliver its intended outcomes, we concluded that it may be indicative of a need to find ways to ensure they are more *impactful*. Using the metaphor of the lighthouse, we further hypothesised that since the end of the HHDF a lack of sustainable recurrent funding may have progressively dimmed their effects.

We identified three key contextual factors that could dampen the effect of the MIRs and KPPs in out-of-hospital care: (i) a lack of adequate funding for the HHD itself; (ii) situations where permanent supportive housing and wider community support services (including those for chronic care management) are poorly resourced, inadequate or lacking; (iii) and circumstances where stigma and cultural distance persist.

#### *Need for increased investment in intermediate care*

Nationally, it is recognised that all types of intermediate care (for all patient groups) remain ‘curiously invisible’ to commissioners and that there is a need for a major change in investment in intermediate care services to ensure great impact on the full range of key metrics such as reducing hospital readmission rates. We observed how the lack of investment in HHDs was impacting on scheme fidelity and the ability to achieve intended outcomes. Some HHDs ceased to operate while others have progressively reduced in reach and scale, sometimes reducing the numbers of hospitals they are able to work with or reducing the size of the team (workforce). In one site, the increasing gap between workforce capacity and demand led to a range of problems including recruitment and retention difficulties (low team morale) and an increased focus on freeing-up hospital beds rather than other aspects of the services (such as patient engagements and choice). This was associated with poorer outcomes including discharges to the street.

### *Need for increased investment in housing, care and support*

The second dampening effect was shown to be the wider context in which some HHDs were situated. Namely, a shortage of permanent supportive housing, care and support. The findings of this study strongly support those reported in the national evaluations of intermediate care for older people where it is reported that interventions that are shown to work well in areas with well-resourced and efficient community support services will have much reduced impact in areas where services are inadequate or lacking. We observed how HHDs could become blocked as these ‘time limited’ interventions started to substitute for long-term care and support.

### *Need for investment in chronic care management*

Compared to the comparator group (matched housed patients), patients in the HHD cohort had much higher levels of multiple-morbidity or combinations of long-term conditions or illnesses, with 8% having 5 or more conditions compared to 3% in the comparator group. These findings alert us to the strong possibility that regardless of scheme typology the benefits of *any* type of short-term (time-limited) intervention targeted at this specific population group will quickly evaporate if they are not embedded as part of a fully integrated complex adaptive system that encompasses adequate provision for longer-term chronic care management and, indeed palliative care. It goes without saying that more preventive working is needed to reduce homelessness and prevent these conditions from arising in the first place.

### *Changes in reasoning*

The HHDF introduced additional ‘resources’ into contexts that were heavily impacted by austerity. Indeed, there is a strong case to be made this additional resource *per se* has improved outcomes (without necessarily firing any change in reasoning as is anticipated in realist theory). However, with regard to challenging poor practice (discharge to the street) there are questions as to what extent the HICM mechanisms have secured changes in reasoning. Where services were inadequate or lacking, we observed that it remained (tacitly) accepted practice (across both standard and specialist care sites) to discharge homeless patients to the street rather than delay their transfer of care. Older people meanwhile were much more likely to have their discharge delayed (to avoid unsafe discharge). This raises the



question as to why patients who are homeless are not accorded the same leeway to remain in a hospital bed while they wait for the housing, care and support of their choice to be arranged? We observed that patients who were homeless and using substances were particularly impacted by unsafe discharge especially when their behaviour was perceived to be challenging. Our observations suggest that this difference may lie in the perpetuation of stigma and cultural distance which positions 'homeless patients' as somehow less vulnerable and/or deserving than other groups of patients. This suggests that, MIRs for adult safeguarding that focus attention on unequal treatment (neglect) are currently the missing piece of the jigsaw and may be a necessary driver for changes in reason.

#### *Mixed evidence for multidisciplinary team working*

A key finding of WP3 was that uniprofessional (housing-led) schemes are as effective and cost-effective as multidisciplinary (clinically-led) schemes on a wide range of measures. Indeed, other studies of intermediate care have cautioned against overinterpreting the impact of multi-disciplinary working. Most likely these positive results are reflecting the value of good quality step-down 'floating support' in bridging the gap between the hospital and the community. We observed how the benefits of a hospital stay and the interventions of the clinically-led multidisciplinary homeless teams could quickly evaporate where there was a lack of practical support immediately after discharge.

#### **Conclusion**

There is good evidence to support the commissioning of specialist HHDs as they are consistently more effective and cost-effective than standard care. In terms of implementation, the empirical data support our original programme theory about the utility of the HICM for guiding the development of specialist (homeless) provision in a wide range of different contexts. Evidence that troubles the theory alerts us to what can dim the effects of HHDs. In particular the persistence of stigma and the consequent need to strengthening safeguarding to trigger the change in reasoning to ensure safe, timely transfers for all patients. The Covid-19 pandemic has made the need to increase the capacity and responsiveness of community and intermediate care services even more urgent. The morbidity and mortality data for the HHD cohort confirms that homeless patients are precisely some of those who stand to benefit most.

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Such intelligence adds to policy aims to impact on under-served populations and reduce inequalities. The full range of sensitivities and how they can be applied to the HICM have been brought together in a ‘support tool’

[https://kclpure.kcl.ac.uk/portal/en/publications/transforming-outofhospital-care-for-people-who-are-homeless-support-tool--briefing-notes\(fca232e9-1d6c-44f7-a477-c69963393807\).html](https://kclpure.kcl.ac.uk/portal/en/publications/transforming-outofhospital-care-for-people-who-are-homeless-support-tool--briefing-notes(fca232e9-1d6c-44f7-a477-c69963393807).html)

**Funding:** This study was funded by the National Institute for Health Research (NIHR) Health Services & Delivery Research Programme (13/156/10)