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Integration, effectiveness and costs of different models of primary health care provision for people who are homeless: an evaluation study

Findings and implications for NHS primary care managers and practice staff

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Integration, effectiveness and costs of different models of primary health care provision for people who are homeless: an evaluation study

Findings and implications for NHS primary care and practice staff

This briefing summarises the findings of an evaluation of the effectiveness and costs of different models of primary health care services in England for single people who are homeless (HEARTH study), and the implications of these findings for primary care managers and practice staff.

A separate briefing is available for primary care and integrated care commissioners https://www.kcl.ac.uk/research/hearth

Full report: https://www.kcl.ac.uk/research/hearth

Summary report: https://fundingawards.nihr.ac.uk/award/13/156/03

Overview of study

The HEARTH study started in 2015 and fieldwork ended in 2019. It involved a mapping exercise across England of primary health care services for people who are homeless, followed by an evaluation of four common models in operation:

1. Specialist health centres primarily for people who are homeless (Dedicated Centres).
2. Mobile homeless health teams that hold clinics in hostels or day centres for people who are homeless (Mobile Teams).
3. Mainstream general practices that also provide targeted services exclusively for people who are homeless (Specialist GPs).
4. Mainstream general practices that provide 'usual care' services to the local population, including to people who are homeless (Usual Care GPs) as a comparison.

Two Case Study Sites (CSSs) were recruited for each of the specialist models (1-3), and four for the Usual Care GP model. A total of 363 patients who had been homeless during the previous 12 months were recruited as 'case study participants' and interviewed three times: at baseline, four and eight months. At each interview, we collected information about their circumstances, health and service use in the preceding four months (totalling 12 months data). We also obtained medical records for 349 participants. We interviewed 65 CSS staff and sessional workers, and 81 other service providers and stakeholders.

Several outcomes were evaluated to assess the effectiveness of the four Health Service Models. These included: (i) the extent of health screening; (ii) management of long-term health conditions; (iii) changes over time in health and wellbeing; (iv) oral health status and receipt of dental care; (v) use of health and social care services over 12 months and service use costs; and (vi) satisfaction with the service by patients, practice staff and external agencies. Comparisons

were made between models using regression analyses, adjusting for factors such as participant characteristics and CSS features.

Case study participants

- Most (80%) of the 363 participants were men and their average age was 41.6 years.
- Almost three-quarters were White British or Irish; most (86%) were born in the UK or had British citizenship. A small percentage (6%) were born outside the UK and had no recourse to public funds.
- Health and substance misuse problems were prevalent (this partly reflects the study sample which was recruited from primary care services). Nearly all (95%) reported physical health problems, and 91% mental health problems. Using NICE's classification of alcohol consumption[1], 11% were 'hazardous' drinkers and 32% were 'harmful' drinkers. Three-fifths (60%) reported drug problems, including 23% who injected drugs. Many described both mental health and substance misuse problems.
- Almost one-tenth (9%) had been homeless for less than one year, while 32% had been homeless continuously or intermittently for 10 years or more.
- At their baseline interview, 52% were staying in a hostel or supported accommodation, 21% were sleeping rough, and most others were in makeshift living arrangements such as bed-and-breakfast hotels. Many changed accommodation several times during the study, and some moved to different locations and changed GP.

Performance of the Health Service Models

This section summarises the overall performance of the Health Service Models, service use and costs. Later sections address specific working practices.

Key findings

- Outcomes for **Dedicated Centres** were consistently among the best. Many factors are likely to have attributed to their success. Dedicated Centres worked primarily with patients who were homeless and had fewer registered patients than most mainstream general practices. They provided flexible and holistic services, such as drop-in clinics, longer than customary GP consultations, street outreach, and on-site mental health, substance misuse and social services. They were well-integrated with homelessness sector services and local hospitals.
- With regards to the **Specialist GP** model, outcomes for one site (SP1) were comparable to those of Dedicated Centres, but the other site (SP2) performed less well for health screening and continuity of care. Service delivery factors are likely to have attributed to performance differences. SP1 provided similar services to Dedicated Centres for patients

who were homeless, namely designated nurses and caseworkers, on-site specialist services, clinics in hostels and day centres, and street outreach. SP2 ran a weekly clinic at homelessness services but, according to CSS staff, insufficient resources prevented them undertaking more intense work with patients who were homeless. It also had no on-site substance misuse service.

- **Mobile Teams** comprised specialist nurse practitioners but no GP, and patients were encouraged to register with a local general practice. Compared to other models, Mobile Teams scored less favourably for health screening and continuity of care for long-term conditions, even when interventions by GPs were included. Service delivery factors are likely to have attributed to poor performance for some outcomes. Whereas health care by Dedicated Centres and Specialist GPs was delivered by GPs and nurses from the *same* general practice and patients were registered with a *single* primary health care provider, Mobile Team participants received health care from *both* Mobile Team nurses and a separate general practice. Moreover, patients of each Mobile Team were not registered at a single general practice, and therefore Mobile Team nurses had to coordinate care with several general practices.
- **Usual Care GPs** scored favourably regarding health screening but performed less well with regards to continuity of care for long-term conditions and patient satisfaction. This model operated very differently to other models, and service delivery factors are likely to have had an impact on outcomes. The CSSs had no dedicated staff or targeted services for patients who were homeless. There was no street outreach or clinics in hostels, and CSS staff had few links to homelessness sector services. According to CSS staff, insufficient resources prevented them from working in more proactive and targeted ways with patients who were homeless.

Service use and costs

- Dedicated Centre participants had substantially more GP contacts and nurse contacts during the 12 month study period than participants registered in the other GP-led models. Participants recruited through the Mobile Team model had the most contacts with nurses, and fewer GP contacts than all other participants except for those attending Usual Care GPs. This pattern of service use was reflected in costs, and to some degree in outcomes. Dedicated Centre participants incurred significantly higher costs than all other participants and, as described above, outcomes were among the best. The Usual Care GP model was associated with the lowest costs and provided less continuity of care and lower patient satisfaction. The two case study sites in the Specialist GP category displayed variability, one being aligned more with the Dedicated Centre model, the other providing only a few targeted services for patients who were homeless. The Mobile Team model is not directly comparable to the other models.

What needs to happen

- Although Dedicated Centres had the most favourable outcomes, this model may only be financially viable in locations with considerable numbers of people who are homeless. The benefits of enhanced and targeted primary health care services that encourage engagement and integration, such as drop-in clinics, lengthening contact time with patients and outreach, should be taken into consideration when commissioning primary care services for people who are homeless. One of the Specialist GP sites performed as well as Dedicated Centres when such services were in place.
- The relatively poor performance of Usual Care GPs for some outcomes raises questions about their capacity to support patients who are homeless, and the threshold at which additional support for practice staff is required. A general practice may be able to provide health care to a hostel if residents are relatively settled, but may struggle to deliver a service to large numbers of people sleeping rough who have complex needs. Managers of mainstream general practices should assess the effectiveness of their service in addressing the needs of patients who are homeless, and inform commissioners when additional or enhanced service provision is indicated.
- The introduction of a 'homelessness lead' into mainstream general practices that have several registered patients who are homeless should be considered. Such a role would involve a clinician having responsibility for patients who are homeless, and facilitating more targeted and integrated care on their behalf. NICE similarly proposed 'homelessness leads' in mainstream services to coordinate care for patients who are homeless.[2]
- Consideration needs to be given to the function of Mobile Teams and whether they would be more effective operating as part of a GP practice rather than the current arrangements (Mobile Team plus separate GP). It would mean patients would be registered with a single primary health care provider, have a fixed site from which to obtain health care, and there would likely be improved collaboration between GPs, nurses and other practice staff. It would be important that the outreach element of the Mobile Teams' work continued.

Health screening

HEARTH's primary outcome was the extent of health screening among people who are homeless, *and* evidence of an intervention (advice, referral, monitoring or treatment) if indicated. Using data from participants' medical records, six 'Health Screening Indicators' (HSIs) were examined: documentation of body mass index (BMI), mental health, alcohol use and tuberculosis (TB) in last 12 months; record of smoking status in previous 24 months; and documentation of hepatitis A immunity or vaccination in last 10 years.

Key findings

- Screening practices varied between the four models and between CSSs within a model. Dedicated Centres, Specialist GPs and Usual Care GPs were more likely to have undertaken screening than Mobile Teams. Even when screening by GPs was included in Mobile Teams' scores, there was a statistically significant negative effect for this model.
- Two Usual Care GP sites used a computer based 'homeless template' to assess the needs of patients who were homeless and achieved relatively high screening scores, which were comparable to those of Dedicated Centres.
- Screening for smoking status was common across all models, and screening for alcohol use and mental health was common in all models apart from the Mobile Teams. Overall, around four-fifths of participants had been assessed for each of these indicators and were offered an intervention where appropriate.
- Many participants reported a poor diet and difficulties eating healthily, yet just under half (46%) had their BMI recorded during the study. Usual Care GPs scored high (64%) compared to the three specialist models.
- Only one-third of participants were screened for hepatitis A and just 9% for TB, yet reports indicate high prevalence rates of these diseases among people who are homeless or inject drugs. Some CSSs explained that they did not routinely screen for these conditions.
- Screening of HSIs was *not* always followed by an intervention when a problem was indicated. For example, one Usual Care GP site administered the PHQ-9 as part of the 'homeless template', but no further action appeared to have been taken when scores suggested depression.

What needs to happen

- Improved health screening is needed for people who are homeless. Agreements need to be reached between primary care managers and clinical staff as to which health conditions and behaviours should be screened, taking into account national guidelines and service contract agreements. The Faculty for Homeless and Inclusion Health recommends screening for mental health, alcohol and drug problems, smoking, TB and blood borne viruses, and vaccination against hepatitis A and B particularly for people who inject drugs or have hepatitis C.[3] NICE also recommends active TB case finding among people who are homeless and sleeping rough or in hostels,[4] and routine alcohol screening in primary care.[5]
- It is essential that health screening leads to an intervention (advice, referral, monitoring or treatment) if a problem is indicated.

- The use of a 'health screening plus intervention' template for patients who are homeless should be considered by mainstream general practices and specialist primary care models without a screening process. Alerts should be placed in patient records as reminders of follow-up actions and further screening.

Management of long-term health conditions

A secondary outcome of HEARTH involved the management of four 'Specific Health Conditions' (SHCs) that may be long-term or require integration with other services. These were chronic respiratory problems, depression, alcohol problems and drug problems. For each SHC, information was extracted from medical records as to whether a problem had been recorded, whether a treatment plan (e.g. medication, advice or referral) had been initiated if a problem was identified, and whether the CSS provided continuity of care or follow up for that condition over the 12 month study period. The latter included patient reviews by CSS staff, or shared care arrangements between the CSS and specialist services, or regular updates to the CSS from specialist services about a patient's progress. At baseline and eight months, participants completed validated instruments (scales) which identified chronic respiratory problems and depression, and provided information about alcohol and drug use.

Key findings

- Alcohol and drug use were documented in the medical records for most participants who described these problems to the research team. However, several participants described chronic respiratory problems or depression and their scores from the validated instruments suggested severe problems, yet these conditions were *not* mentioned in their medical records. This applied to all models suggesting oversight at times by primary care staff to identify or record these conditions.
- For each SHC, treatment plans had been started for most participants where there was documentation in the medical records of a problem. Continuity of care was achieved for most (70.8%) diagnosed with chronic respiratory problems, and for just over half with depression, alcohol and drug problems.
- Dedicated Centres, followed by Specialist GPs, were most likely to have maintained continuity of care for depression, alcohol and drug problems, and the findings were statistically significant. SP1 was more likely than SP2 to have achieved continuity of care for depression and especially drug problems. Features of Dedicated Centres and SP1, such as dedicated staff for this patient group, on-site specialist services and outreach services, are likely to have facilitated continuity of care.
- Mobile Teams were least likely to have provided continuity of care for all SHCs apart from drug problems, for which Usual Care GPs scored lower. When interventions by GP services were added to the Mobile Teams' scores, continuity of care reached levels

comparable to or above those of Usual Care GPs (but not as high as Dedicated Centres and Specialist GPs).

- The management of SHCs was not straightforward as many participants had multiple conditions which impacted on each other. For example, medication for depression could not be prescribed in some instances because a person was drinking heavily. Alcohol detoxification or opiate substitution therapy were sometimes offered but declined, or were introduced but not sustained by participants. There were periods when some participants failed to comply with treatment but subsequently re-engaged and treatment resumed.
- In most instances, the management of mental health and substance misuse problems involved close working between CSS staff and specialist services. At some CSSs, mental health and substance misuse workers held regular on-site clinics, and shared care arrangements were in place involving both CSS clinical staff and substance misuse workers. Where on-site specialist services were not in place, CSS staff referred patients to external services. However, at times there was little communication between the services, and CSS staff were not aware of whether their patients attended external appointments and were not provided with progress reports.

What needs to happen

- Scheduled or opportunistic reviews need to be undertaken periodically with patients who are homeless to improve identification of chronic respiratory problems and depression. Treatment should be offered if a problem is identified.
- It is important that services for people with mental health or substance misuse problems are easily accessible to those who initially refuse help or do not follow treatment. Some will eventually accept help or re-engage with services.
- There needs to be improved working relationships between primary care, mental health and substance misuse services, particularly where specialist services are not provided at the general practice, and where mental health and substance misuse services are not part of the same service. It is important that GPs receive regular and consistent communication from specialist services regarding patients' progress and treatments, and that they are involved in their care and invited to multidisciplinary meetings.

Oral health and dental care

Key findings

- Across all models, poor oral health was common, many participants did not seek dental care, and dental pain and other dental needs were unaddressed. At baseline, most (82%) participants reported needing dental treatment, yet only 39% were registered with a dentist. Over the study period, dental registration rates increased slightly to 49% but

many participants did not seek help, and more than three-quarters (77%) reported unmet dental needs at eight months.

- Compared to the general population, dental anxiety and dental phobia were more common among HEARTH participants. Dental fear was the main reason given by participants for not seeing a dentist. Other common reasons included having other priorities, and embarrassment about the state of their teeth or about being homeless.
- NHS dental services specifically for people who are homeless or vulnerable were available at or nearby several CSSs, but many participants did not use these services. There was little integration or established formal networks between most CSSs and dental services, with just four CSSs describing close collaboration.

What needs to happen

- Primary health care teams need to have greater awareness of the extent of oral health problems among people who are homeless. Practitioners should proactively ask patients about dental problems, and provide advice about maintaining oral health and assistance to access local dentists. The Faculty for Homeless and Inclusion Health recommends screening for dental and oral problems for all patients who are homeless.[3]
- There needs to be better integration between primary health care teams working with people who are homeless and local dental services. Consideration should be given to access and referral routes to dental care. Strategies to engage this population in dental services need to be explored locally.

Accessible and proactive primary care services

Key findings

- The importance of primary care services being easily accessible and flexible for people who are homeless was emphasised by CSS staff, study participants and external agencies. Dedicated Centres and Specialist GPs offered both booked appointments and drop-in clinics for patients who were homeless, and Mobile Teams operated drop-in clinics. Several study participants at these sites valued being able to 'drop in' when they wanted to see a doctor or nurse, and that receptionists would fit them in if no GP slots were available or if they were late for an appointment.
- Usual Care GPs were less flexible, with no drop-in clinics and people who arrived late for appointments could not always be seen. Some participants at these sites described difficulties getting same-day GP appointments and booking appointments, and experienced long waits until they could be seen. Some hostel and day centre staff also mentioned these problems.

- The importance of primary care services being welcoming for people who are homeless was emphasised by CSS staff and study participants. Participants from the specialist models were more likely than Usual Care GP participants to mention welcoming and friendly approaches by staff, such as receptionists greeting them by their 'first name', and staff smiling at them. Staff of the three specialist models described how they devoted time to listening and building trust with this patient group.
- Most study participants from all models believed they were treated with respect by CSS staff and that the staff were non-judgemental, although almost one-quarter of Usual Care GP participants said they had no confidence or trust in the GP or nurse when they were last seen.
- Staff of the three specialist models described the need to work proactively, innovatively and opportunistically with patients who are homeless, as their health problems tended to be more neglected and advanced than those of comparable ages in the general population. Their comments included having to 'think outside the box' and 'go the extra mile' when planning and tailoring health care to this patient group. The need for partnership working and the delivery of holistic care was also emphasised.
- There were mixed views among CSS staff and external agencies about the benefits of regular health clinics in hostels and day centres for people who are homeless. Apart from one Dedicated Centre, CSS staff in the three specialist models but not Usual Care GPs held such clinics. The staff believed these clinics are invaluable in encouraging people who are homeless to attend a GP surgery, and in delivering basic health care if a person declined to attend a general practice. Some questioned, however, whether such clinics should be available to *all* hostel residents or day centre users, or whether it deters use of general practices. Furthermore, the health care that can be provided in such settings is limited, and some settings lack suitable facilities for clinical work.
- Street outreach was conducted by CSS staff from Dedicated Centres, Mobile Teams and SP1. Several CSS staff and external agencies believed that more street outreach was needed, citing their awareness of people sleeping rough who were not engaging with services and who had unmet health needs. However, some CSS staff described the impracticalities of delivering health care on the streets, and believed the key aims of street outreach by health professionals should be engagement and encouragement to attend the CSS.

What needs to happen

- Primary care services for people who are homeless should be welcoming, accessible and as flexible as possible. It is important that Usual Care GP services are readily available for patients who are homeless, and that appointments with the practice staff can easily be arranged.

- The importance of working proactively and opportunistically with people who are homeless needs to be acknowledged by all primary care staff, including mental health, alcohol and drug workers. Training and support need to be available where specialist health care services for this patient group are not in place. It would be valuable for staff of Dedicated Centres and Specialist GPs to share their expertise with staff of Usual Care GPs.
- The running of regular health clinics in hostels and day centres needs to be reviewed by practice managers and clinicians. Consideration should be given to the role and frequency of such clinics, their impact on staffing levels if undertaken by staff from a primary care practice, the extent to which such clinics might discourage use of general practices, and whether they should be available to *all* hostel residents and day centre users or only to those who will not access a general practice.
- Regular reviews of street outreach should also be undertaken by practice managers and clinicians, with particular attention to its performance and ability to engage with people sleeping rough, and its impact on staffing levels at the primary care practice. The experiences of external agencies working with people sleeping rough, such as day centre and street outreach workers, should also be sought.

Recording and monitoring performance

Key findings

- The study involved extensive data extraction from medical records to assess service use and outcomes. Some medical records were comprehensive. They clearly stated health conditions and provided a great deal of information about consultations, treatments and outcomes. Other medical records contained very little information about consultations, health problems and treatment. Some relied on Read coded text with no added detail, making it extremely difficult to determine the health status or treatment plan for such patients.
- In a few instances, conditions such as asthma or depression were listed in the medical records of participants as a 'current active problem' but had been diagnosed many years ago and appeared to be 'inactive'. There was no reference to these problems during the study period, and participants said they had not required treatment for several years.

What needs to happen

- It is essential there is clear documentation in the medical records of health problems, consultations, treatment and health promotion activities. This will enable continuity of care by practice staff, and patient outcomes to be monitored effectively.
- Conditions listed in the medical records as 'current active problems' should be reviewed periodically by practice staff and amended accordingly.

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