Housing to Health

Nottingham City Homes

&

Nottingham CityCare Partnership

Evaluation of Pilot Year 1+
November 2015 – March 2017

Contents

1. Executive summary

Project scope

The Housing to Health (H2H) project supports two Housing and Health Coordinator (HHCs) to integrate housing support within the local healthcare system. The project is delivered by Nottingham City Homes and Nottingham CityCare Partnership, jointly funded by NCH and Nottingham City Clinical Commissioning Group (CCG).

Nottingham City Homes (NCH) manages Nottingham's council-owned social housing properties. This includes around 1,900 Independent Living (IL) properties, which provide supported accommodation for over 60s.

Nottingham CityCare Partnership is coordinating a local approach that streamlines services and delivers joined-up care to patients. The 'Integrated Care' programme brings together the local Clinical Commissioning Group and Local Authority to integrate adult health and social care services.

The H2H project provides the housing options and housing support element to Integrated Care. The project aims to support citizens who are inappropriately housed, where this is impacting on their health and wellbeing. The HHCs take referrals from health professionals where the patient is deemed unable to return to their own home, or the home is unsuitable and negatively impacting on their health. Where appropriate, the HHCs support individuals to be re-housed into social housing for older people (in Independent Living schemes or bungalows). The aim of the scheme is to intervene at an earlier stage to support and enhance the best possible outcomes for citizens and their carers, and hopefully reduce the number of (re-)admissions into hospital.

Evaluation results

The project was launched as a 12 month pilot in November 2015, which was further extended until March 2017. An evaluation has been carried out to assess the outcomes and financial cost-benefit of the H2H project over these 17 months of operation. The model compared the outcomes under the H2H project with a hypothesised 'counterfactual' scenario, based on the team's insight into what would have happened to individuals had they not been supported by the H2H project.

The evaluation found that the running costs of the H2H project over the first 17 months were just under £126,000. It is estimated that so far the H2H project has created savings of over £930,000, as compared to the alternative scenario in the absence of the H2H project. This shows that the estimated net financial return on investment is £6.40 for every £1 spent on the H2H project, as a result of savings generated for local public sector agencies (NHS, NCH and Nottingham City Council).

The headline findings included:

- Healthcare and community staff made 294 referrals to the HHCs over 17 months. Most cases were referred from referred from health or other professionals in the community, because the individual's home was considered no longer suitable given their current health needs (early intervention). Around 18% of cases were referred because the individual was currently occupying a hospital bed and were unable to return to their home (delayed transfer of care - DTOC).

- 129 clients were successfully re-housed into a suitable social housing property over the 17 months. The H2H project has significantly speeded up this process – on average this process took 39 days, compared to the average letting time for IL properties of 129 days for an individual with a medical priority on the general housing register.

- Those supported often have multiple health issues, the most common of which are mobility restrictions, respiratory illness, mental health issues and cardiovascular disease. Over half of the client group required rehousing primarily because of accessibility issues. The client group has poorer mental health than average for their age group, with a quarter reporting mental health issues. The second most common reason for rehousing is to improve the mental wellbeing of the individual.

- Of the first 129 cases, 31 were occupying high-demand NHS or social care beds, with delayed transfer of care (DTOC). The H2H project reduced the total number days of delayed in transfer of care in residential health or social care facilities by 2,642 days. This results in savings of £223,600 for the NHS, and £95,000 is saved by the local authority (Adult Social Care). The average saving per case is just over £10,000.

- There were 97 cases of early intervention, where clients were referred from community healthcare staff. It is estimated that 48 cases were at risk of future hospital admission due to the unsuitability of their home and associated health risks due to poor health. These cases had the potential to result in future occupation of high-demand health/social care beds and delayed transfer of care. A risk-based model estimates that the early intervention through the H2H project has avoided £346,200 in future costs to health and social care.

- Early intervention has also saved resources for mental health services, and the local authority's Housing Aid (where the individual was at risk of becoming homeless) and Adaptations Agency services. These additional savings to are estimated to amount to £125,800.

- 129 properties were let via the H2H project, of which 117 were NCH properties. These NCH properties had been empty for 96 days on average prior to letting and just under half of these properties were from NCH's 'hard to let' stock. The number of empty NCH IL properties is now at the lowest ever level. By letting the properties more swiftly through the H2H scheme, NCH has received £113,900 in rental income that it might otherwise not have received and saved £29,500 in costs for empty properties.

- Data from Nottingham University Hospitals on hospital admissions data shows that those who have been supported to move through the H2H project have seen a significant reduction in the number of hospital admissions, comparing the six months before they

moved with the six months after moving. Results from a comparison group (those who were referred to H2H but didn't move) show that this group also saw a reduction in hospital admissions, but that this change wasn't statistically significant, i.e. could be due to chance. This indicates that supporting individuals to move via the H2H project could significantly reduce hospital admissions, over and above non-intervention.

- H2H clients are very satisfied with the service they receive, giving it an average score of 9.6 out of 10. Most clients (94%) state that they wouldn't have been able to move without the support of the HHCs.
- Results for a sample of H2H clients who have been living in their new property for over six months show an average 20% increase in health-related quality of life, and 24% improvement in self-reported health. Mental wellbeing scores have improved from below the UK population average to above average. This sample group also report improved social outcomes, such as feeling safer, improved financial comfort, reduced social isolation and improved confidence in self-care at home. The wellbeing value generated far exceeds the cost of intervening in each case, with a social return on investment ratio of £1 to £28.
- Carers also indicate that they have seen an improvement in their quality of life since their friend/relative has moved. From a small sample of carers who were surveyed, their average life satisfaction score has increased by 48% in the six months since their friend/relative moved.

Conclusions and next steps

In the first 17 months, the H2H project has supported 129 people who were living in housing that was unsuitable or negatively impacting on their health, to be re-housed into appropriate social housing accommodation. Many of these individuals were highly vulnerable and required a high level of support to enable them to move.

The evaluation shows that the project is highly cost-effective, generating significantly more in savings than it costs to deliver the scheme. The evaluation model is based on conservative estimates, so the actual cost savings may be higher than estimated.

There is also clear evidence of social value, with significant improvements in a number of social outcomes such as health, mental wellbeing, self-care, financial comfort, safety and social isolation. These improvements extend to the carers of those helped through the project.

The first 17 months' operations have revealed a previously unmet need for housing support for those in the healthcare system, with increasing numbers of referrals and a full case load for the two HHC officers.

The project has now received further funding from Nottingham City CCG to continue and expand the project for a second year. The project team has been expanded to include 2.5 FTE Housing and Health Coordinators and an admin support officer. The criteria for H2H clients has been expanded to include:

- **Supported Housing into NCH or other Registered Social Landlord (RSL) properties**. This largely supports older people, but criteria depends on the specific supported housing scheme. Includes clients occupying high-demand beds (DTOC) or in the community (early intervention)
- **Essential wheelchair users** - Clients of any age who are essential wheelchair users, occupying high demand bed space. Rehoused into suitably adapted accommodation in NCH or other RSL stock.
- **Mental Health patients** - Single applicants of any age who are occupying high demand beds in a Mental Health unit/facility. Rehoused into suitable single-person accommodation within NCH or RSL stock.

Further future developments include:

- NCH is leading a subgroup of the Nottingham and Nottinghamshire STP, to implement the action to develop a common hospital discharge scheme across the footprint. The group are exploring the potential to further expand hospital discharge schemes across the north and south areas of the STP footprint, based on the models already being implemented through Nottingham City's Housing to Health project and a similar scheme run in Mansfield District (ASSIST Hospital Discharge Scheme).
- The H2H team are considering the option for one of the HHCs to be permanently based within one of the local hospitals, to improve the links and relationships with discharge teams and other NHS staff.

2. Introduction

2.1. Project background and overview

The Housing for Health project brings housing staff within Nottingham's integrated health and care system, providing a holistic approach for supporting people to regain or remain independent.

The project is delivered by Nottingham City Homes and Nottingham CityCare Partnership (jointly funded by NCH and Nottingham City CCG), initially as a 12 month pilot that began in November 2015. The project has since been extended and expanded, currently funded until March 2018.

The project partnership

Nottingham City Homes (NCH) manages over 26,000 council properties in Nottingham, including around 1,900 properties within its Independent Living (IL) communities. The IL communities provide supported accommodation for over 60s, with specialist Independent Living Co-ordinators and access to 24 hour telecare alarm through the Nottingham on Call service. NCH is also member of the Nottingham Homelink partnership, which enables staff to help individuals search and apply for properties managed by other Registered Social Providers (RSLs) in Nottingham.

Nottingham CityCare Partnership is coordinating a local approach that streamlines services and delivers joined-up care to patients. The Integrated Care programme brings together the local Clinical Commissioning Group and Local Authority to integrate adult health and social care services, including an 'Independence Pathway' that focuses on helping people to remain independent and 'Coordinated Care' pathway in which neighbourhood teams support citizens with long-term conditions. Nottingham City Care is commissioned by the Nottingham City Clinical Commissioning Group (CCG).

Delayed discharge from hospital care is a serious issue for the NHS, costing £820m a year as well as putting older patients at risk (Health Watchdog). The H2H project supports the timely discharge of patients occupying a high-demand bed, whose discharge is being delayed because they cannot be discharged to their current home.

However, the project is more than a hospital discharge scheme, as it also operates within the community to intervene before individuals are hospitalised. Healthcare and other community staff are able to refer individuals who are identified as living in poor or inappropriate housing, which is likely to have a negative impact on the individual's health or wellbeing – taking a proactive, early intervention approach.

As well as supporting the NHS in its aims, the project also helps social housing providers to make optimal use of social housing stock, ensuring the uptake of empty social housing properties across the city.

The project embeds Housing Health Coordinators (HHCs) into the Integrated Care system. HHCs are housing officers with extensive knowledge of the housing system, who take referrals from healthcare staff from both within the city's hospitals and community care

teams, as well as other local community organisations. The HHCs support individuals (from any tenure) to be re-housed into suitable social housing. They are able to speed up the housing process, and provide intensive one-to-one support to the individual and their families/carers, to help them through the entire process.

The HHCs are dedicated to the clients they work with, going the extra mile to support them through their journey. Those helped through the service are often vulnerable, and require a high level of support. The HHCs support each person in selecting, applying for and viewing appropriate properties. They also arrange a review by an Occupational Therapist and installation of aids and adaptations as required, source furniture where needed, support with the moving process and follow-on support after re-housing. They are able to signpost individuals to further support, for example for help with financial management including managing rent, maximising their welfare benefit income, managing fuel bills etc., and to activities and support offered in the Independent Living communities, providing the opportunity to engage with their community and/or social activities and reduce social isolation.

The project started in November 2015, initially as a pilot year. During this time two HHCs were employed, jointly funded by NCH and Nottingham City CCG. The evaluation of the pilot year demonstrated that the project was meeting its aims, including considerable cost savings to both the NHS and the Local Authority. Partners agreed to continue with the project. NCH continued to fund the two HHC posts from November 2016 – March 2017, at which point Nottingham City CCG was able to provide funding for a further year (Year 2, April 2017-March 2018). For Year 2 of the project, the team has been expanded to include three HHCs and an admin support post.

2.2. Aims and objectives

The Housing to Health (H2H) project provides the housing options and housing support element to Integrated Care. The project aims to support citizens who are inappropriately housed, where this is impacting on their health and wellbeing. The aim of the scheme is to intervene at an earlier stage to support and enhance the best possible outcomes for citizens and their carers, and hopefully reduce the number of (re-)admissions into hospital.

The evaluation aims to assess the success of the project against its objectives, and to measure the cost-effectiveness of the interventions, as well as the social value generated. The objectives for the project are to:

1. To support the citizen's transition from a reablement bed to self-care/ supported living at home
2. To facilitate earlier discharge from hospital where inappropriate housing is the delaying factor in discharge
3. To provide early intervention in supporting citizens affected by poor or inappropriate housing
4. Improve the uptake of empty social housing properties for older persons in the city
5. Improve the health and wellbeing of citizens who are negatively impacted by poor or inappropriate housing
6. Enable citizens to live independently for longer, with less reliance on intensive care packages

This evaluation update brings together all the data for the pilot year and extension period, i.e. November 2015 to March 2017.The evaluation results are reported against the numbered objectives for the project set out above.

2.3. Meeting local strategic aims

Joint Strategic Needs Assessment

The Nottingham City Joint Strategic Needs Assessment (JNSA) is a local assessment of current and future health and social care needs, and determines what actions local authorities, the NHS and other partners need to take to meet health and social care needs and to address the wider determinants that impact on health and wellbeing.

The JNSA provides some of key facts about the local population's health and wellbeing needs, which are relevant to the H2H project. For example, in Nottingham:

- Nearly half our older people have at least one long-term health condition e.g. dementia, diabetes or respiratory disease
- The biggest killers are cancer, respiratory disease and cardiovascular disease (e.g. heart attacks and strokes)
- One in 10 of local 999 calls are from older people who have had a fall
- People living in the poorest wards are living on average 10 years less than those in the most affluent ward
- 46,000 have common mental health problems (e.g. depression)

The JSNA includes a chapter on Housing (2014)[1], which is of particular relevance to the H2H project. The JNSA specifically identifies older people as a vulnerable group, stating that *'local demographics are changing with the population ageing and numbers of vulnerable people increasing. This increase will impact on the number of physically disabled people in unsuitable accommodation with unmet needs'*. The JNSA states that *'improving housing conditions helps to improve health and reduces the call on resources from health services'* and that *'it is vital that the best possible use is made of existing housing stock – it is more cost effective and sustainable than building new homes'*. The H2H project directly addresses a number of the challenges and needs set out in the JNSA, as shown in Table 1 below.

Issues/needs identified in the JNSA	Solutions provided by H2H project
The need to support people to remain living independently and avoid going into care.	Objective of the H2H project is to enable citizens to live independently for longer, with less reliance on intensive care packages.
An increased need for repairs or adaptations to support people to live independently, but the difficulties of adapting some of the current housing stock.	The H2H project supports people to move into already adapted housing where they can live independently, saving costs of (potentially difficult) adaptations to existing homes.

[1] JNSA Housing (2014), see http://www.nottinghaminsight.org.uk/insight/jsna/adults/jsna-housing.aspx

The JNSA risk assessment recognises that older people are often 'cash poor', so that they are less likely to be able to pay for necessary adaptations (putting them at risk of falls) and also potentially unable to pay for high fuel bills to keep their home warm during the winter.	This is mitigated by moving into IL properties that are already adapted and relatively fuel efficient.
The JNSA advocates an integrated approach to care around health and housing, and the need to offer a personalised, tailored service that links in with other advice services to make people aware of all of their options.	This is supported by the H2H project, which brings housing and health together and also links individuals into other services such as benefits advice, social activities.

Table 1: H2H solutions to issues identified in the JNSA

The JNSA provides the evidence base that feeds into the city's strategies to tackle the issues identified.

Nottingham City Joint Health and Wellbeing Strategy (Health and Wellbeing Board)

The Nottingham City *Joint Health and Wellbeing Strategy* sets the priorities for the Nottingham City Health and Wellbeing Board (HWB), which oversees joint commissioning and joined up provision for citizens and patients. Nottingham City's Clinical Commissioning Group (CCG) also has a Commissioning Strategy that sets out the priorities and actions for local healthcare services.

The primary aim of the recently launched *Joint Health and Wellbeing Strategy 2016-2020* is to increase the healthy life expectancy in Nottingham, particularly focusing on deprived neighbourhoods to reduce health inequalities. The H2H project aligns with a number of the objectives within the strategy, such as:

- Housing will maximise the benefit and minimise the risk to health of Nottingham's citizens
- Services will work better together through the continued integration of health & social care that is designed around the citizen, personalised and coordinated in collaboration with individuals, carers and families
- Reduce the harmful effects of debt and financial difficulty on health and wellbeing
- People who are, or at risk of, loneliness and isolation will be identified and supported
- Adults with, or at risk of, poor mental health will be able to access appropriate level of support as and when they need it.

NHS Outcomes Framework and Nottingham City Clinical Commissioning Group's Commissioning Strategy

The Nottingham City CCG's commissioning strategy is set within the framework of the national NHS Outcomes Framework. The HCC project has been identified as contributing to two of the five domains in the Outcomes Framework, i.e. Domain 2 – Enhancing quality of life for people with long-term conditions; and Domain 3 – Helping people to recover from episodes of ill-health or following injury. Within the local strategic framework, the H2H project is relevant to three of the local strategic aims: to improve the health and wellbeing of the frail

and elderly; to enhance the quality of life for people with long-term health conditions; and to improve mental health outcomes. The H2H project sits within the structures introduced in the CCG strategy, such as the implementation of Integrated Care, including the development of the Independence Pathway. The aims of the H2H project align with the targets for the CCG, to reduce avoidable hospital admissions, for example by providing better prevention and self-care in the community.

Nottingham and Nottinghamshire Sustainability Transformation Plan

Nottingham city is also part of the 'Nottingham and Nottinghamshire Sustainability Transformation Plan' (STP), a five-year plan to improve health and social care in the city and county for the benefit of local people. The STP is a cross-organisational strategy that brings together all organisations (such as CCGs, local authorities and other health and care services) within a geographical footprint, with the aim of improving the quality of care, their population's health and wellbeing and NHS finances. The STP aims to increase the local population's healthy life expectancy, reducing the number of years spent in poor health.

Nottingham and Nottinghamshire's STP is one of the only STPs that specifically identifies a role for housing. The 'Housing and Environment' theme aims to maximise potential health and wellbeing improvements by addressing wider determinants of health such as housing standards and environmental factors. This includes the aim to support people to live independently at home, and an identified action to develop a common hospital discharge scheme across the footprint.

A subgroup has been formed to take forward this action, chaired by NCH's Assistant Director of Housing Operations – the project lead for the H2H project within NCH. The group are exploring the potential to further expand hospital discharge schemes across the north and south areas of the STP footprint, based on the models already being implemented through Nottingham City's Housing to Health project and a similar scheme run in Mansfield District (ASSIST Hospital Discharge Scheme[2]). The group also links in with the A&E Delivery Board to ensure the work we do compliments the 'Discharge to Assess' process being developed by the board.

[2] For more information, see https://www.nice.org.uk/sharedlearning/better-together-assist-hospital-discharge-scheme-ahds

3. Evaluation results

3.1. Engagement and generating referrals

In the early months of the project the HHCs dedicated a lot of their time to raising awareness and making links within the relevant teams. For example, they met with all of the Care Co-ordinators from across the city's eight Care Delivery Groups, as well as presenting to staff at the rehabilitation units and two main hospitals. In addition, they met with other community healthcare staff (e.g. district nurse teams, link social work teams, specialist nurses, GP practice managers), and other community agencies and local authority teams (e.g. Age UK, Framework, NCC Environmental Health team).

In reality, the HHCs have found that the most successful route for generating referrals has been to develop relationships with key individuals who have then seen the benefits of the project first-hand, and have promoted the scheme via word of mouth. In the initial months of the project, the HHCs experienced some of the difficulties of working in a cross-sector project, arising as a result of differences in culture and knowledge between housing and health. For example, coming from a housing background meant that the HHCs were not familiar with the structural organisation of the health system, and it took time to find and develop relationships with individuals who were best placed to provide referrals. In the same way, they also found that healthcare staff initially didn't take on board the operating factors of the housing system, such as referring individuals that didn't meet the criteria for the project e.g. patients in their 20s or 30s. However, over time the project established links with several key individuals, who referred their patients into the scheme and were able to see first-hand the benefits of the support that they gained.

Since the project was launched there have been over 300 referrals into the project. Of the referrals, 18% were referred because they were currently occupying a hospital bed and were unable to return to their home (DTOC). However the majority of those referred (82%) were referred directly from the community, because the individual's home was considered no longer suitable given their current health needs.

Reflecting this, most referrals come from professionals working in the community – primarily support workers such as Community Care Coordinators or social workers. An increasing number of NCH's own staff (such as housing officers and lettings officers) have become aware of the scheme and are referring tenants to be rehoused. Other referrals come from hospital staff, and from Occupational Therapists and physiotherapists.

Source of referral	%
Support/social worker	29%
NCH housing staff	16%
Occupational Therapist/ Physio	16%
Hospital staff	16%
Community healthcare staff	6%
GP	4%
Unknown	14%

Table 2: Source of referrals

Out of the 300 referrals, a third of cases were subsequently closed. Of those closed, 37% were closed at the initial assessment stage, prior to an assessment visit (for example, if the client did not meet the criteria for the scheme or the client was not willing to engage with the scheme). The remaining 63% of closed cases were closed at some stage after the initial

assessment visit, for a number of reasons. For example, in some cases clients chose to remain in their current home with some home care support in place. In other cases, clients or the family refused the properties that were offered to them, and decided not to move.

At 31st March 2017, a total of 129 clients had been successfully rehoused into social housing properties. A further 53 applications were live, still undergoing the assessment or allocation process.

3.2. Description of re-housed client group

Clients are referred into the project because they have health issues that mean their housing is unsuitable for their needs, which can be for a number of reasons. A review of each case classified the primary reason why the individual needed to move. The most common reason is that the property is no longer accessible due to restricted mobility of the individual. The majority relate to external access to the property, for example if the property is not on the ground floor or is accessed by steps or stairs. A smaller number of cases refer to accessibility of facilities within the property, such as problems using stairs or bathing facilities.

Primary reason for move	%
Accessibility	59%
Wellbeing/ mental health	17%
Insecure housing/ homeless	12%
Disrepair/hazardous	9%
Other (e.g. under-occupancy)	4%

Table 3: Primary reason for move

The second most common reason is as a result of the property or location negatively impacting on the individuals' wellbeing or mental health. For example, wellbeing issues could be where there are problems with neighbours or they have been victims of crime or anti-social behaviour, or they need to be closer to family or carers. The need may also arise more specifically from mental health needs, i.e. the need for suitable housing given the individual's needs.

Clients were also moved due to 'insecure housing' or threat of homelessness, i.e. where the individual's ability to remain in their current home is under threat, and this is negatively impacting on their health. This can be due to eviction/end of tenancy a rented property, a family home being sold, overcrowding, or a relationship breakdown.

A number of clients were not able to return to their home because it was in a hazardous condition. Referrals have been received directly from the Environmental Health team, and at least five properties would be classified as Category 1 Hazards i.e. unsafe for habitation. Other issues include homes in a state of general disrepair or specific repair issues that are impacting on health e.g. damp or cold housing.

Finally, a small number of cases were referred for other reasons. This includes where clients were living in a home that was too big for them to manage (under-occupancy).

Case study: Rehousing due to poor housing and wellbeing issues

Mr Hill* was referred to the H2H project by a support worker from the 'Sixty Plus' support service. She was concerned over the state of Mr Hill's property, a three-bedroom NCH house that he had succeeded to following the death of his mother. Mr Hill had refused to engage with NCH's previous attempts to intervene and support him to move. His home was extremely unclean and had little furnishing. Mr Hill only owned one pair of trousers and shoes.

The support worker was also concerned that Mr Hill was being targeted for financially abuse by a neighbour and rogue/scam doorstep callers. For example, his neighbour was charging him up to £300 a week to provide daily meals, and a passing tradesman quoted him £100 to cut back his hedge, but then pressed for £1,000 in payment following the work.

The HHC and the Sixty Plus support worker visited Mr Hill regularly to support him in his case and build his trust with them. As a result, he felt safe and calm with them, and was not anxious – as he had been during previous attempts to engage with him.

The HHC sourced an upper floor flat within an Independent Living community, which meant that he would not be victim to scam doorstep callers. Mr Hill was taken to visit the property several times, and given time and space to consider his decision.

The HHC did everything for him so that on the day of the move, all he had to do was turn up at the new property. For example, all his furniture was sourced from a local charity and delivered to the new property, and his heating and hot water switched on. Arrangements were also made for Meals at Home to visit to set up delivery of hot and cold meals. A family member supported Mr Hill to engage with the Money Carers Foundation, who in turn now manage his finances (e.g. pay all his bills and give him a weekly allowance) to keep the financial abuse at bay.

*Name has been changed.

The health status of clients was gathered via case notes from assessment visits by the HHC. Table 4 shows the pre-existing medical conditions experienced by HHC clients at the point of referral into the scheme. The most common medical issues are related to mobility restrictions or difficulties, reflecting the primary reason for people needing to move being accessibility to their current home. Around a fifth of the group have already had fall recently.

The second most prevalent health issue is respiratory conditions, which is in line with the high incidence of respiratory conditions amongst the Nottingham population. A quarter report that they have a disability. In addition, a quarter have reported mental health issues (these may be diagnosed or self-reported), mostly relating to common mental health problems (e.g. depression or anxiety).

Health issue	Count of clients	% of clients
Mobility restriction/issues	74	57%
Respiratory conditions	47	36%
Disability (self-reported)	34	26%
Mental health	32	25%
Cardiovascular conditions	30	23%
Stroke	*8*	*6%*
Fall	29	22%
Arthritis	18	14%
Amputee or other surgery	12	9%
Alcohol or drug dependency	9	7%
Dementia	8	6%
Kidney disease/dialysis	7	5%
Cancer	7	5%
Other medical conditions	16	12%

Table 4: Medical conditions experienced by H2H clients (multiple conditions per person)

The previous tenure of the 129 clients who were rehoused is shown in Table 5. Just under half were existing NCH tenants, who were living in other NCH properties (i.e. general needs stock) that is no longer appropriate for their needs.

Previous tenure	%
NCH tenants	49%
Private rented	18%
Other RSL tenants	13%
Owner occupiers	10%
Living with family	7%
Unknown	3%

Table 5: Previous tenure of H2H clients

Other demographic information about the main client is shown in the table below:

Age group	%
<55	2%
55-59	11%
60-64	19%
65-74	44%
75-84	30%
85+	14%

Gender	%
Male	63%
Female	38%

Ethnicity	%
Non-BME	77%
BME	23%

Disability	%
Yes	24%
No	75%

Table 6: Demographic information

3.3. Supporting citizens in NHS or social care: Reducing Delayed Transfer of Care

Objective 1: Transition from a reablement bed to self-care/ supported living at home;

Objective 2: Early discharge from hospital where inappropriate housing is the delaying factor in discharge

The cost-effectiveness of the scheme is assessed by comparing the costs of the care pathway under the H2H project with an alternative scenario of the generalised care pathway without the intervention of the H2H project[3]. This provides an estimate of the costs saved to health and social care, as a result of the H2H intervention.

The first category of clients is those who were occupying a high-demand NHS bed, and unable to return to their own home – resulting in a delayed transfer of care (DTOC). Within this group, generally the clients had been referred into medical care following an acute medical incident. Most were deemed unable to return to their current home, as it was unsuitable given their medical needs. After initial treatment, most patients were transferred to either a residential rehabilitation/reablement unit, or to a residential care unit.

Case study: Inappropriate housing as the delaying factor in hospital discharge

Mr Smith* is a frail elderly gentleman who was admitted into hospital after having a fall on the stairs at his home. He was living in a third floor property, which was accessed via multiple staircases. The injuries that he sustained were extensive and included three broken ribs, a punctured lung and extensive cuts and bruises. Mr Smith had previously suffered several falls which caused injuries that required medical intervention.

An Occupational Therapist at Nottingham City Hospital made the referral to the Housing & Health Co-ordinator via the Independence Pathway. The referral was made because the mobility problems that Mr Smith suffers from prevented him from being able to negotiate the access to his home. The OT also felt that returning Mr Smith to his current accommodation would result in future readmissions. Mr Smith could not return to his own home, and therefore had to remain in hospital until he had a suitable home to return to.

The Housing & Health Co-ordinator met with Mr Smith, and within 18 days had secured an Independent Living property on the ground floor, with a level access shower/wet room. Mr Smith was able to be discharged from hospital straight to his new home, and return to supported living at home.

*Name has been changed

[3] The cost-effectiveness model, including the alternative generalised case scenario, was developed based on the operational and professional insight of project team, including the HHCs, a senior physiotherapist from the Urgent Care team and managers from CityCare's service transformation team.

The case review of the first 129 cases that were successfully re-housed by March 2017 identified 31 Delayed Transfer of Care (DTOC) cases, i.e. where the individual was in hospital/rehabilitation or social care unit at the point when they were referred into the scheme and unable to return home.

On average across the 31 DTOC cases, it took 39 days (min=12, max=139) from the initial referral to the start date of the new tenancy. Several factors affect the length of this process. For example, it can be dependent on how long it the rehousing process takes e.g. finding a suitable home that is also acceptable to the client, preparing the property and setting up the new tenancy. However in some cases, the process was delayed because patients were not yet ready to be discharged from hospital care. For most cases the tenancy was arranged to start when the patient was ready to be discharged home, so that they could be discharged directly to their new property. However in some cases, the tenancy was ready to start in advance of the discharge date, due to unanticipated delays in the discharge process, thus resulting in some additional length of stay in care.

During this period, these clients were either in hospital, a residential rehabilitation unit or a residential care unit (or a combination). They were deemed unable to return to their own home by the medical professionals supporting them, so were occupying either NHS bed spaces or residential care units until suitable alternative housing could be found. The total estimated cost of care during this period (from the point that they were referred to the scheme, to the date that they were discharged) amounted to just under £215,000.

The model for the cost-effectiveness assessment is that without the H2H project, these individuals would have applied to the Choice Based Lettings (CBL) housing options service for social rented properties in Nottingham (Homelink) for an Independent Living (or other appropriate) property. Given the medical needs of the individuals referred to the H2H project, it is assumed that they would meet the requirements for priority rehousing due to medical grounds (Band 2) [4]. The project team confirmed that the usual care pathway would be for individuals to remain in the reablement/residential care unit until suitable alternative accommodation could be found. It is assumed that they would receive four weeks of full rehabilitation care including therapy from the multi-disciplinary team (MDT), and then receive nursing care only for the remainder of their stay.

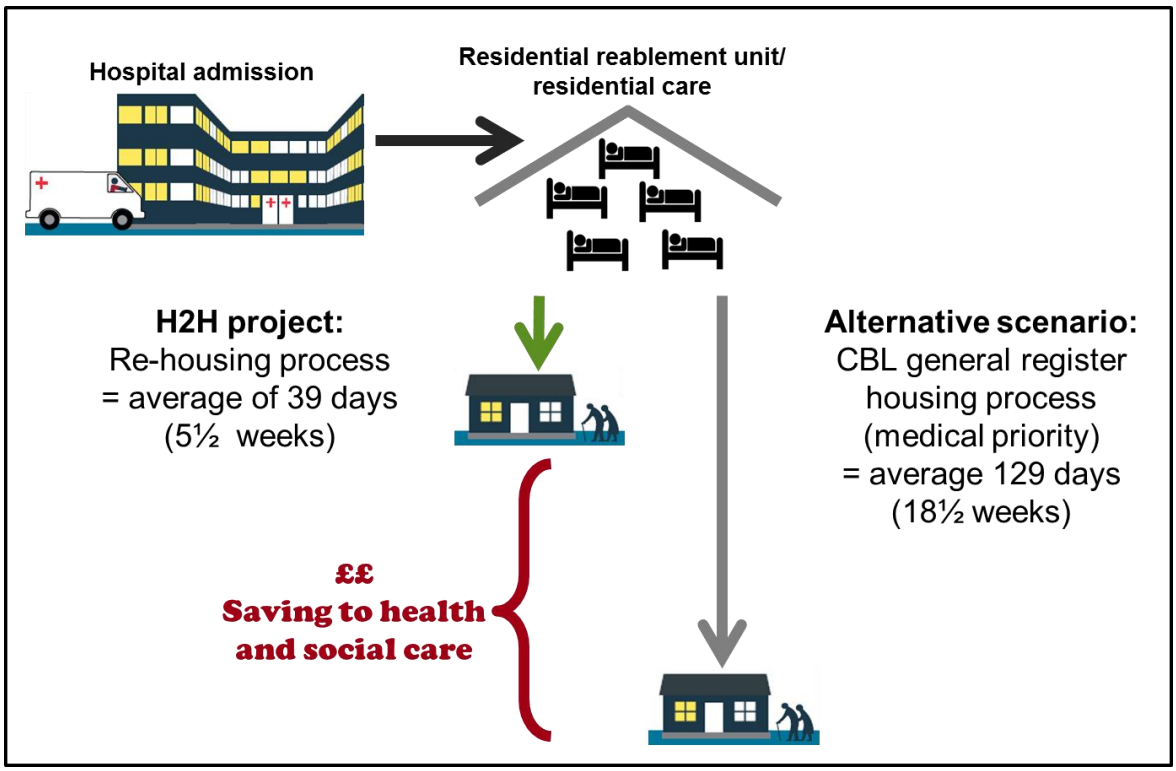
As a benchmark, the average time for rehousing an applicant in Band 2 across all new NCH tenancies in 2015/16 is shown below.[5] This is used to demonstrate the alternative hypothetical situation, showing the average waiting time for those accessing social housing through the general application process, rather than supported by the HHCs.

Property type	Average rehousing time (days)
Independent Living	129
Bungalow	170

[4] Band 2 includes those requiring housing due to medical or disability grounds, either because their accommodation is unsuitable for them by virtue of their medical condition/disability, or because they are currently in hospital ready for discharge, and their own home cannot be adapted.

[5] Excluding HHC clients. The average waiting time for Band 2 applicants for IL properties *including* HHC clients in 2015/16 was 126 days.

Figure 1: Cost-effectiveness model, DTOC



The costs per bed day for various types of health or social care facilities were provided by Nottingham City CCG (Table 7).

Health/social care facility	Cost
Hospital ward	£2,980 for 15 day stay (£199 per day)
Hospital rehabilitation unit	£1,338 per week
Residential reablement unit (with nursing and MDT therapy)	£985 per week
Residential reablement unit (resident only)	£595 per week
Mental health hospital or step-down unit	£333 per day
Social care residential unit	£595 per week

Table 7: Health and social care unit cost data, source Nottingham City CCG

Using this model, the H2H project has **saved 2,642 bed days of health or social care**, over the 31 DTOC cases dealt with by the project between November 2015 and March 2017. Within this, 1,490 are NHS bed days and 1,152 are Adult Social Care bed days.

This results in **total savings of £315,891** over these 31 cases. Of this saving, £223,559 falls to the NHS, and £92,333 is saved by the local authority (Adult Social Care). The average saving per case is £10,190.

The savings per annum (for 2016-17 financial year) are £213,137, of which £157,478 falls to the NHS and £55,660 falls to the local authority (Adult Social Care).

Case study: Inappropriate housing as the delaying factor in hospital discharge

Following a road traffic accident in which she was knocked off her bicycle, Miss Williams* remained in hospital for a two months after undergoing operations to her hips and knees. Once she was deemed medically fit she was transferred to Lings Barr Hospital for rehabilitation. On arriving at Lings Barr it became apparent to the discharge team that Miss Williams did not have a home to return to after her rehabilitation.

Miss Williams had previously been working as a carer on a zero-hours contract. Although working, her hours were irregular and she was unable to provide proof of income to qualify for housing benefit. While she was in hospital, she found that she had been given notice by her landlord on the grounds that her rent account had gone into arrears, meaning Miss Williams was therefore 'of no fixed abode'. In addition, the landlord still had her personal belongings and she had no furniture of her own.

Miss Williams was referred to the Housing & Health Co-ordinator by the Hospital Discharge Team. The HHC contacted the previous landlord and arranged for her belongings to be stored until new accommodation was secured. A property was sourced very quickly. The tenancy was part-furnished with white goods, several items of furniture were secured free of charge through the Arches charity, and funding for carpets was supplied through the hardship assessment of the HHC scheme.

The management of Miss William's case through the HHC scheme meant that the delay in her transfer of care was reduced to a minimum. Furthermore, her personal circumstances, especially financial hardship, were taken into account - ensuring a long-term, secure and affordable housing solution.

*Name has been changed

Case study: Insecure housing as the delaying factor in hospital discharge

Mr Jones was admitted to hospital as an emergency, as infections due to long-term drug use had resulted in abscesses on his spine. However, his nerves in his neck and spine were so badly damaged that he is now a permanent wheelchair user. Following his recovery from the surgery, Mr Jones was moved to a neuro-rehabilitation unit at Nottingham City Hospital.

Mr Jones had no long-term housing, and had been 'sofa surfing' for a number of years. He was unable to be discharged to this housing situation, as his health needs – in particular his wheelchair use – meant that he needed a suitable property to stay in. He was therefore referred to the Housing Health Coordinator.

The HHC completed a housing application with Mr Jones, identifying that he had a priority medical case due to his health issues and the fact that he was occupying a high-demand NHS bed. The HHC identified a fully adapted, wheelchair accessible bungalow that would be suitable for Mr Jones. He moved into the new property six weeks after he had been referred to the HHCs – compared to the average 24 week wait for an NCH bungalow.

The HHC made sure that Mr Jones was able to live comfortably in his home, completing a hardship application that paid for carpeting and furniture from a local charity. The HHC also supported Mr Jones in ensuring he was receiving the right welfare benefits, including a Discretionary Housing Payment to cover his rent costs until his regular welfare income was established.

*Name has been changed

3.4. Supporting citizens in poor or inappropriate housing in the community: Early Intervention

Objective 3: Early intervention in supporting citizens affected by poor or inappropriate housing

Out of the first 129 cases successfully rehoused by August 2016, there were 97 cases where individual was referred from the community, due to living in accommodation that unsuitable given their medical needs (early intervention).

It is more difficult to assess the cost-effectiveness of the H2H intervention in these cases, due to the preventative nature of the intervention. These individuals were not currently occupying hospital or other NHS beds, but were at risk of future admission due to the unsuitability of their home and associated health risks.

To help assess the likely cost savings, the early intervention cases were grouped into categories, based on the H2H team's assessment of the most likely alternative outcome for each individual, if they had not been referred into the H2H scheme (i.e. a hypothetical counter-factual situation, based on the knowledge of the HHCs of the individual cases and housing system).

Alternative housing outcome (hypothetical/counter-factual)	Count of clients	% early intervention cases
Remain at home at risk	27	28%
Social housing waiting list, lowest priority	27	28%
Remain at home with adaptations	15	15%
Social housing waiting list, medical priority	14	14%
Homeless	11	11%
Increased care or medical/residential care	3	3%

Table 8: Alternative housing outcomes for early intervention cases, if H2H not available

The most common hypothetical alternative outcome is that the individuals would have remained in their current property, with on-going risks to their health or wellbeing resulting from the issues that caused them to be referred into the scheme. Many individuals would not be in a position to apply for social housing or contemplate a move, without the intensive support provided by the HHCs.

A similar amount may have applied for social housing of their own accord (i.e. without the support of the HHCs, under the general lettings system), but would have been assigned to the general waiting list without any prioritisation. This is due to the early-intervention nature of the scheme i.e. as their current health or wellbeing needs would not be enough to qualify for priority re-housing at the present time, despite the clear potential for deterioration in their health or wellbeing in the future. A further 14% would have sufficient evidence of current health needs to have gone onto the social housing list with a medical priority (Band 2).

There was the potential for 15 of the cases to have remained at their current home, if suitable adaptations were made, with associated costs.

In addition, in 11 cases the individual was at risk of becoming homeless, and the immediate outcome would have been a homeless application to Housing Aid.

Further details and estimated savings are set out below for each of these categories.

Risk assessment of health incidents and DTOC costs

The cost-effectiveness for early intervention cases is assessed on a risk-based model, assessing the likely risks to health for each individual of the counterfactual situation i.e. if the H2H project hadn't intervened and they had remained in their previous accommodation. Each case was discussed by the project team, who assessed the likely risks to health for each individual.

Of the 97 early intervention cases, 48 were judged to be at high or medium risk of a future health incident requiring hospitalisation, based on their existing health conditions and the impact of their housing on these conditions. For example, those who had experienced a fall or who had serious mobility issues and were struggling with accessibility of their home (such as steps or stairs) were judged to be at risk of a fall, and subsequent hospitalisation. The types of risks to health and wellbeing included:

- 16 at risk of a fall, and associated injuries
- 14 at risk of cardiovascular illness, such as heart failure or stroke
- 13 at risk of respiratory illness, such as an acute episode (flare-up) for clients with COPD
- 3 potentially requiring hospitalisation due to cancer
- 1 at risk of hospitalisation for kidney/renal illness
- 1 case requiring end of life care

Case study: Early intervention, supporting citizens affected by poor or inappropriate housing

Chris was referred to the HHCs by a community nurse. He has terminal cancer, and his poor health meant that his current accommodation was no longer suitable. Chris was living in a second floor bedsit, with shared kitchen and bathroom facilities on the first floor. He was currently having to go up and down the stairs on his knees or sitting down.

Chris moved into a ground floor Independent Living property, supported by the HHC and his Macmillan support nurse. The HHC followed up with Chris a few weeks later, and found that he had struggled to furnish the property by himself, even with financial support from a Macmillan grant. The HHC, together with the Independent Living Coordinator and Macmillan nurse, helped source carpet, furniture, curtains and crockery to ensure he had basic essentials to be comfortable in his home.

Chris is able to live independently in his new home, and able to manage his current health state with support. This would not have been possible in his previous property, and potentially he may have had to go into permanent or temporary hospice care.

An assumption is made that if these individuals had been admitted to hospital, they would then be unable to return to their home and therefore would have the potential to become DTOC cases.

The earlier model for DTOC cases is then applied. This is based on the assumption that without the H2H project, individuals would have then remained in hospital, rehabilitation or residential social care for the average waiting time for an appropriate property. The average cost of this full length of stay (based on the 31 DTOC cases from this evaluation) is just over £17,100.

The worst case counterfactual scenario would be if all 48 of those deemed to be at risk then subsequently had a health incident and were hospitalised, and then became a DTOC case.[6] The total cost of this counterfactual scenario would be over £809,000.

However, a more conservative counterfactual situation is derived by applying relevant risk factors of the likelihood of the proposed health incidents occurring. A review of evidence suggested the following risk factors for each relevant condition:

- Falls: 50% of those over 80 experience a fall in a year
- COPD: 55-60% of COPD patients experience a flare-up in a year
- Heart failure: 1 in 4 patients with chronic heart failure are re-admitted within three months
- Stroke: 12% of stroke patients are readmitted within 28 days
- Kidney/renal illness: 13% of patients with chronic kidney disease progress into advanced stages of kidney failure

These risk factors are then applied to the counterfactual situation. For example, 16 individuals were judged to be at risk of a fall if they had remained in their home. 50% of older people are likely to experience a fall, and so the risk-based outcome is 8 people experiencing a fall. The DTOC cost is then multiplied by this figure, i.e. 8 x £17,100.

Applying the relevant risk factors to each case results in a counterfactual situation in which 21 individuals are hospitalised and become DTOC cases. **By intervening earlier, it is estimated that the H2H project has therefore saved £346,178.**

Based on the data from DTOC cases in this evaluation, 73% of this cost would fall to the NHS and 27% to Adult Social Care.

[6] The one case of end-of-life care is costed differently, based on evidence of the cost of end-of-life care in a hospice setting of £4,500. The end-of-life care is included with a risk factor of 100%, given that the individual was definitely in need of this care.

Case study: Early intervention, supporting citizens affected by poor or inappropriate housing

David lived alone in a private rented one bedroom flat. David has long term heart problems; he also has a learning difficulty with low-level mental health problems which manifests itself when he feels anxious. His tenancy suddenly became under threat, as his landlord had run into financial difficulty and the property was about to be repossessed.

David was referred to the Housing & Health Coordinators by his heart failure nurse, who was very concerned that David's physical health was deteriorating due to the stress of potentially becoming homeless. She recognised that having security of tenure is paramount to her patient's wellbeing, and that adverse housing conditions would be likely to exacerbate David's health. This could result in ill health and repeated hospital admissions, at a financial cost to the NHS as well as the personal impact on her patient.

The HHC was able to support David in finding an Independent Living property. Under the general register housing system, David would not have been able to access an Independent Living property, as he was not quite 60 years of age and was not in receipt of disability benefits. However, the HHC was able to make the case on his behalf and find him suitable accommodation.

Mental health costs

A quarter of the early intervention cases report having common mental health issues such as anxiety or depression (23 individuals from the 97 early intervention cases). This is a higher prevalence than a general average for the age group – for example, the Nottingham City JNSA chapter on Mental Health reports that 16% of those aged over 60 experience depression. This is supported by other evidence of low mental wellbeing across the group (such a scores for mental wellbeing at referral).

According to the New Economy Unit Cost Database, the average cost for services for adults with depression and/or anxiety is £977 per year.

The cost savings are again assessed against a counterfactual situation i.e. what would have happened without the intervention of the H2H project. Most people in this group would have remained in their own home at risk, or have been put on the waiting list in the lowest priority banding. As a conservative estimate, the cost of the counterfactual is calculated for just one year.

The total cost of mental health treatment over the year for these individuals would have amounted to almost £22,500.

Of course, housing conditions are not the only determinant of mental health, and resolving housing issues will not necessarily address all cases of depression/anxiety. An assumption is made that depression/anxiety will return to average levels for this population group, i.e. 16% (as reported earlier). If 16% of the early intervention group experienced depression, the annual cost would be just over £15,000. Therefore, it is estimated that the **H2H project has saved £7,308 in mental health treatment costs**.

Case study: Early intervention, supporting citizens affected by poor or inappropriate housing

In 2015 Mrs Howard* was broken into whilst she was in the property. The perpetrator was a well-known local who has previous convictions and custodial sentences. Since the break-in Mrs Howard has had a barrage of abuse from associates of the perpetrator who live nearby, and experienced distressing incidents such as eggs thrown at her windows and items taken from her garden. She had been called to court as a witness to the case, and was afraid of the further repercussions from this.

Mrs Howard did not feel safe, She was not comfortable living in the property and her mental health was significantly affected. She was diagnosed with severe anxiety and depression which resulted in her having regular input through the NHS service.

Mrs Howard had previously applied to move under the general housing system (Homelink). She had placed bids on available accommodation, but not been successful in securing any new accommodation. Under the regular housing system, Mrs Howard was given low priority for rehousing, as her current one bedroom bungalow was considered adequate for her needs. As Mrs Howard's circumstances worsened, her family sought advice from the local councillor, and their enquiry was passed on to the HHC.

The HHC met with Mrs Howard and her family, and agreed that although on the surface her current property was adequate, the more complex issues around her security and mental wellbeing meant that she required priority rehousing into more secure accommodation, to alleviate some of the anxiety that she was experiencing. The HCC accompanied Mrs Howard to see a property in a corridor complex, which she agreed would be suitable.

Since Mrs Howard has moved home, she has settled in well and enjoying being part of a community of similar aged people.

*Name has been changed.

Savings to the local authority, Nottingham City Council

Adaptations – savings to Social Services

Around 60% of H2H clients were re-housed due to problems with accessibility, either into or around their previous property. In the majority of these cases, the issue was due to the property being on an upper floor, accessed by stairs or steps, with no alternative access such as level-access or lift access. As identified in the JNSA: *'Making the best use of our existing housing stock will be a challenge, terraced properties are difficult to adapt and access upstairs is often problematic'*. Therefore in most cases where upper-floor access is the issue, it would not be possible to resolve this with any form of adaptation to the existing property.

However in 15 cases there would have been some potential to make adaptations to the clients' existing home that would have reduced their problems with accessibility. The

potential adaptations included ramp access to the front door, support rails for steps, a stair-lift for internal staircase, or conversion of a bathroom to a level-access wetroom. The average costs of these adaptations range from £88 for support rails, to £4,800 for a level-access shower.[7] These costs would fall to NCC's Adaptations Agency Service.

However, by moving these individuals to properties that are already adapted (with ground floor/lift access, and level-access wetrooms), this has avoided incurring these costs. Therefore the H2H project has **saved £69,944 for NCC in adaptation costs**.

Homelessness – savings to Housing Aid

There were 11 cases within the within the early-intervention group of clients where they were at risk of becoming homeless at the point where they were referred into the scheme. Without the H2H intervention, these individuals would most likely have sought help from Housing Aid, requiring temporary accommodation until suitable housing could be found. The New Economy Unit Cost Database estimates that a homeless application (including the first four weeks temporary accommodation) costs the local authority £2,724 per case, plus a further cost of £117 per week for on-going temporary accommodation. Assuming that these individuals would have been in temporary accommodation until an Independent Living property could be found under the general housing register (18½ weeks), the cost per case is £4,412. Therefore the **total cost saved for Housing Aid as a result of the H2H intervention is £48,534.**

Case study: Early intervention, hazardous housing conditions

The HHCs received a referral from NCC's Environmental Health team, for a gentleman who was living in hazardous conditions that were potentially harmful to his health. Mr Walter's* house was in a serious state of disrepair, with no running water, no gas supply or central heating, dangerous electrics, rat infestation, as well as structural damage to the property. Mr Walter had been using a bucket of rainwater on the flat roof to bathe and wash his clothes.

The Environmental Health team were forced to issue a no-entry order on the property. The HHC was able to find Mr Walter an Independent Living property for him to move into the next day. He left his previous home with a cup, teddy and a lamp. The HHC helped him get furniture from a charity, and supported him to get his benefits in place.

Mr Walters had neglected his health and didn't engage with any support to start with. Through the HHC, he now has 'comfort calls' from social services to ensure he is managing and spot any problems before they escalate. He is now managing by himself in his new home and is doing well.

*Name has been changed.

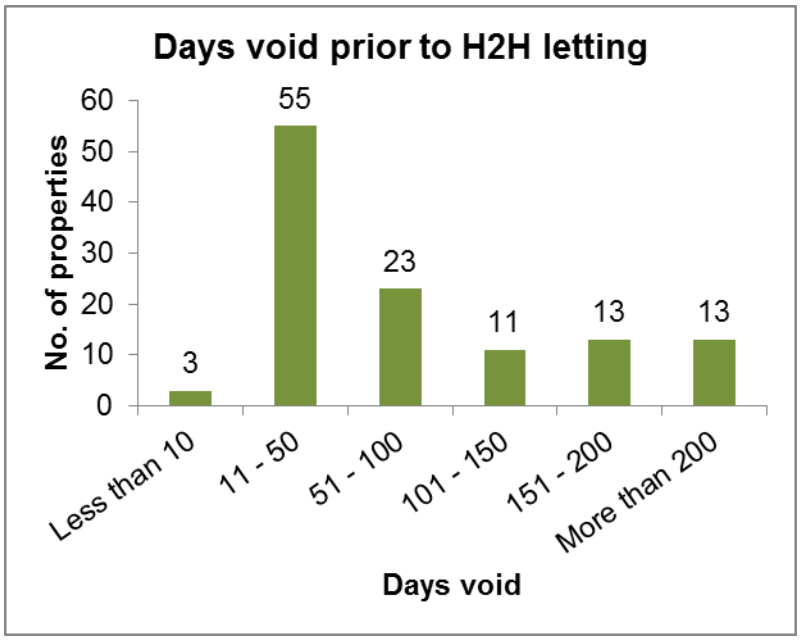
[7] National figures, sourced from the New Economy Unit Cost Database.

3.5. Effects on social housing accommodation for older persons

Objective 4: Improve uptake of empty social housing accommodation for older persons

From the launch of the project to March 2017, a total of 129 properties were successfully let via the H2H scheme. Of these, 117 were NCH properties and 12 were managed by other RSL providers (let through the Homelink partnership).

Property data is only available for the 117 NCH properties. This shows that, on average, these properties had been void for 96 days (with days void prior to letting ranging from 0 to 889 days). Of those let, 43% were 'hard to let' i.e. were empty for longer than the average void time for an IL property.



NCH aimed to reduce the number of long-term empty properties amongst its IL stock through the H2H scheme, to optimise the use of their housing stock. At the beginning of the scheme, NCH hoped to let 50 properties in the first year of the H2H project; therefore, the project has already exceeded this target. NCH's performance data shows that the number of long-term empty IL properties is at its lowest ever level, in part due to the contribution of the H2H project in letting empty IL properties.

Empty properties have a cost implication for NCH, as there are associated costs (such as council tax) and lost rental income. For example, while these properties were empty prior to being let through the H2H project, this accrued £145,000 in lost rental income.

The cost-effectiveness model for the scheme assumes that the properties would have remained empty, incurring lost rental income and costs to NCH (e.g. council tax payments), until the individual was ready to be rehoused. A comparison is made between the period of the re-housing process under the H2H scheme, compared to the average re-housing time for a medical priority (Band 2) applicant under the general system.

On average across the 117 H2H cases rehoused in NCH stock, the re-housing process took 51 days. Assuming the properties would have otherwise remained empty for the full 129

days of the average re-housing time for a Band 2 application, the H2H project has saved on average 78 days of lost rental income per property. Therefore **by letting the properties more swiftly through the H2H scheme, NCH has received £113,854 in rental income that it might otherwise not have received**.

In addition, letting the properties more swiftly through the H2H project potentially **saved NCH £29,494 in council tax payments** (at £22.71 per week).

As more NCH IL properties have been filled and the choice of empty NCH properties reduces, the project has expanded to offering properties managed by other social housing organisations to H2H clients. The project team have worked to make links with other RSLs in the city with appropriate available properties. This enables them to provide a wider choice of homes and optimise the use of housing stock across the city.

3.6. Impact on the health and wellbeing of citizens and their carers

Objective 6: Improve health and wellbeing of citizens and their carers

H2H clients completed a survey at the first assessment visit when they signed up to the project, and the survey is completed again six months after the client moved into their new home. This provides data on their satisfaction with the scheme and new home, comparison of their health and wellbeing scores since being rehoused, and assessment of changes in other social outcomes.

The health and wellbeing of the 129 H2H clients who were successfully rehoused were assessed during the process, using a number of tools that are validated by the health service to measure health outcomes. These assessments are repeated six months after the client moves to the new property, to assess change in physical and mental wellbeing. The measures include:

- **Health-related quality of life** (EQ-5D - 5 level) – assesses levels of mobility, self-care, usual activities, pain/discomfort and anxiety/depression, converted to an overall health utility index. This is the measure developed by the National Institute of Clinical Evidence (NICE) to evidence whether an intervention is cost-effective
- **Self-reported health scale** (Visual Analogue Scale) – asks patients to score their overall health between 0 (worst imaginable health) and 100 (best imaginable health)
- **Mental wellbeing** (Short Warwick-Edinburgh Mental Wellbeing Scale) – asks patients 7 questions that give an overall score for mental wellbeing of between 7 and 35.

The health-related quality of life (HRQOL) index indicates that at the point of engagement with the H2H project, most clients had slight/moderate problems across the five health areas assessed. Most clients are able to manage their self-care, with over two thirds of clients having no/slight problems with self-care (washing and dressing themselves). However, around a third (30%) have severe problems walking or are unable to walk about. Around a quarter of clients have severe problems or are unable to perform their usual activities, such as work, study, housework, family or leisure activities.

At the point that they were referred to H2H:

- On average, the H2H clients scored their general health at 46 out of 100 on the self-reported health scale. As may be expected, this is much lower than the England population norm of 82.5.
- The average mental wellbeing score was 19.8 out of 35, which is lower than the England average of 23.6

Of the 129 clients who have been rehoused, a dataset is available from 33 six month follow-up surveys. This sample of 33 is used to measure changes in outcomes before and since rehousing.

Customer satisfaction

H2H clients are very happy with the service that they received through the project. Customers gave an **average score of 9.6 out of 10** for 'the support you received from the Health and Housing Coordinator throughout the process of finding and moving to your new home'

The support provided by the HHCs is essential to customers in supporting them to move to a more suitable property, with 94% stating that they would not have been able to find and move to a more suitable home by themselves, i.e. without the Health and Housing Coordinators.

All customers are satisfied with their new property, with 88% stating that they are 'very satisfied'.

> "
>
> Service was perfect.
>
> If I could give more out of 10, I would. Fantastic service and if I have any issues they are dealt with swiftly.
>
> Made very easy with assistance of [HHC].
>
> [HHC] has made such a difference to my life. [HHC] is very supportive even to this day. She has made a large impact to my life.
>
> Very pleased with what has been done for me. Lovely property and quite relaxed.
>
> "

Health and wellbeing outcomes

The results show that health outcomes and ability to manage health at home have improved for this group since moving.

Just under half (42%) of respondents felt they had received some help managing their health at home since moving, including from carers, support workers, Independent Living Coordinators and the Nottingham on Call telecare alarm service.

91% feel more confident managing their health at home now, compared to 12 months ago.

The health scores show that respondents' health-related quality of life has shown a significant improvement. This covers aspects such as mobility, self-care, undertaking usual activities, pain or discomfort, and anxiety/depression. It gives an overall index score, with a

maximum score of 1 – this is the measure used by NICE to prove the cost-effectiveness of interventions. The average score increased from 0.6 to 0.8 (out of 1), i.e. a **20% improvement in their health-related quality of life**.

Respondents were also asked to rate their own health state, using a scale from zero (worst imaginable health) to 100 (best imaginable health). Respondents' average self-reported health score increased significantly, from 48 to 72 (out of 100) – **an increase of 24% in self-reported health**.

H2H customers also completed a set of questions on mental wellbeing. This also showed a significant improvement, increasing from 19 to 25 (out of 35). This indicates that this group now have slightly **higher mental wellbeing** than the average for the England population.

Other social outcomes

The biggest improvement reported by H2H customers is in regards to their own safety, both inside and outside their home. **Almost all (97%) H2H customers now report that they feel as safe as they would like**, compared to only 18% who stated this in relation to when they were in their old home. Prior to moving, 42% didn't feel at all safe – now, no customers state that they feel less than adequately safe. Comments indicate that this is due to the Independent Living Coordinators, the safety systems in place (such as secure entry fobs, and Nottingham on Call telecare alarm), as well as friends and other residents.

The next biggest improvement is in levels of social contact. When living in their previous home, over half of respondents (58%) reported that they had little or not enough social contact with others. **Since moving, 85% now have adequate or as much social contact as they would like.** Respondents have commented that they meet people in the IL complex, such as in the common room. Comments include: "I went to my first coffee morning in the common room", "All the other residents are very friendly". A small group (15%) still feel that they don't have enough social contact.

Respondents also report an improvement in their financial wellbeing. Before moving, around a third were finding it 'quite' or 'very' difficult to get by. Around a quarter of the group have received help with finances, including support from the HHCs with benefits. **Six months after moving, 73% now report that they are 'living comfortably'.** No respondents report that they are finding it difficult to get by since moving.

Carers were also asked about the impact of their friend/relative moving. To date, nine carers have completed a question on their own quality of life. This shows that their overall satisfaction with their quality of life has increased from 3.1 out of 10 whilst their friend/relative was living in their previous accommodation, to 7.9 out of 10 now. This is **a significant improvement in the quality of life of those caring for H2H customers**.

Conclusions

The results from this sample of H2H clients who have completed six month follow-up surveys evidences that the H2H project helps improve health, wellbeing and other social outcomes. This provides further evidence to show that the H2H project is achieving its aim, to 'improve the health and wellbeing of citizens who are negatively impacted by poor or inappropriate housing'.

3.7. Effects on living independently at home and reliance on intensive care packages

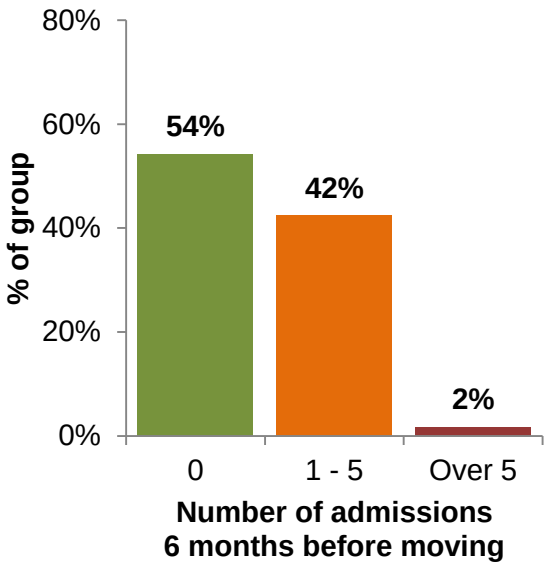
Objective 7: Enable citizens to live independently for longer, with less reliance on intensive care packages

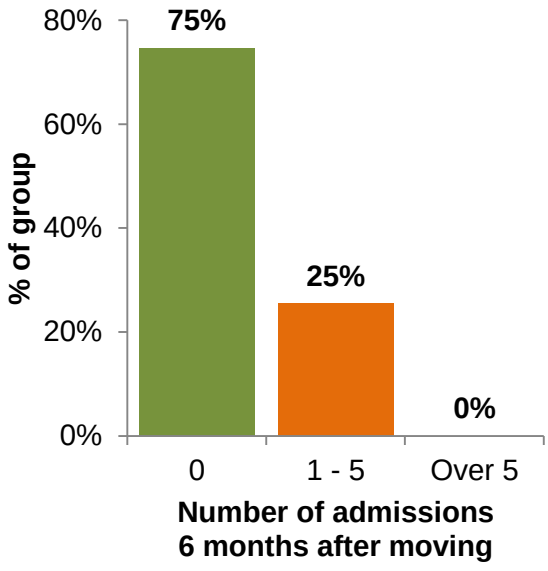
An indicator for this outcome is a reduction in hospital (re)admissions. A data sharing exercise has been completed with Nottingham University Hospitals, to share data on hospital admissions for H2H clients in the six months before and after they have contact with the project. In total, 82 H2H clients gave permission to access and share their hospital admissions data for the project evaluation.[8]

This included 58 clients who were successfully rehoused via the scheme. It also included 23 clients who had contact with the scheme, but were not rehoused (reasons included clients refusing to move, or clients with live applications who have not yet accepted a property). This provides a comparison group of individuals with similar needs to those who have been rehoused (i.e. meeting the criteria for H2H project), but who haven't actually moved. This helps to isolate the difference that moving into more appropriate housing makes to hospital admissions.

Re-housed group:

Before 6 months before start of new tenancy, i.e. living in previous home	**After** 6 months after start of new tenancy, i.e. living in Independent Living
Average number of admissions (per person): **0.9 admissions**	Average number of admissions (per person): **0.3 admissions**
Average total number of days in hospital (per person): **10.7 days**	Average total number of days in hospital (per person): **2.7 days**





[8] One HHC client sadly passed away after moving. This case data has been excluded from the analysis, to avoid distorting the data on reduction in hospital admissions.

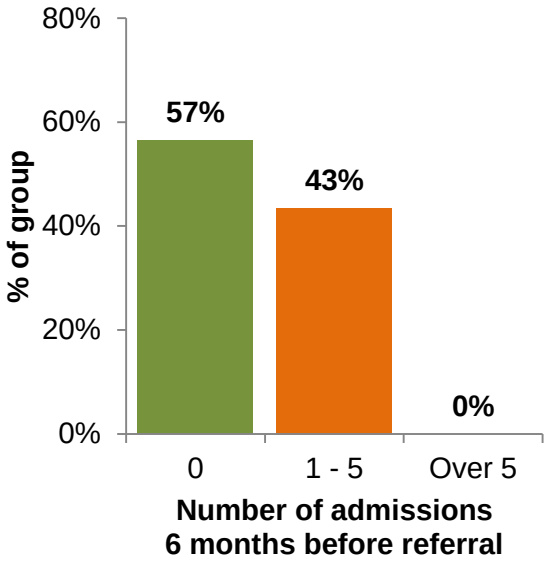
In the six months before moving, on average this group experienced 0.9 admissions per person, averaging a total of 10.7 days in hospital over the six months before moving. In the six months after moving, the average number of admissions fell to 0.3 admissions per person. The average total number of days in hospital also fell to 2.7 days per person. Both of these reductions are statistically significant, i.e. not due to chance.[9]

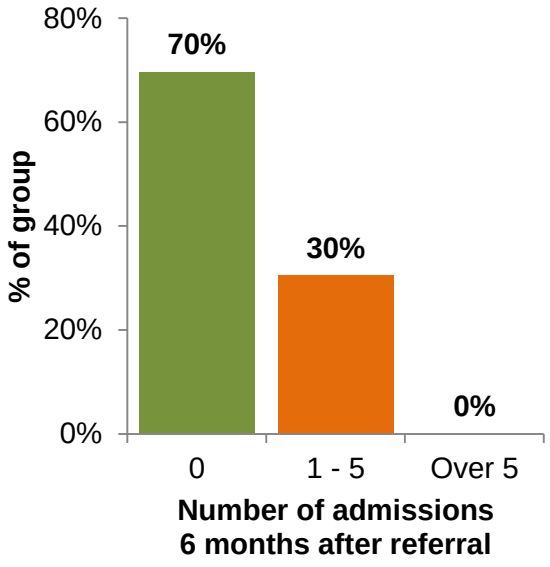
Looking in more detail at the number of admissions per person shows that just over half of this group were not admitted to hospital in the six months before they moved. A further 42% were admitted less than 5 times over six months. One individual had nine admissions in the six months before moving.

After moving, the proportion of the group who had no admissions increased to 75%. The remainder of the group had less than five admissions. No individuals had more than five admissions.

Not re-housed group:

Before 6 months before referral	**After** 6 months after referral
Average number of admissions (per person): **0.8 admissions**	Average number of admissions (per person): **0.4 admissions**
Average total number of days in hospital (per person): **6.2 days**	Average total number of days in hospital (per person): **2.6 days**





In the six months before moving, on average this group experienced 0.8 admissions per person, averaging a total of 6.2 days in hospital over the six months before moving. The average for this group is therefore slightly lower than the re-housed group in the period before contact with the project.

[9] Paired T-test, 95% confidence, $p<0.05$

In the six months after moving, the average number of admissions fell to 0.4 admissions per person, and the average total number of days in hospital also fell to 2.6 days per person. However, neither of these reductions are statistically significant, so we cannot say with confidence that the change is not due to chance.

The spread of admissions per person in the six months before referral to the project is similar for this group as the re-housed group.

After referral, the proportion of the group who had no admissions increased to 70%. The remainder of the group had less than five admissions.

Conclusions

Hospital admission data shows that all H2H clients, whether rehoused or not, had higher admission rates in the six months before they were referred to the project, compared to the six months after. However, only the group that were successfully re-housed saw a statistically significant reduction in the number of admissions between the before and after period.

This seems to suggest that **being re-housed into Independent Living through the H2H project does have a positive impact on reducing the number of hospital admissions, over and above those who are in similar circumstances but do not actually move home.** The H2H project is achieving its aim to 'enable citizens to live independently for longer, with less reliance on intensive care packages'.

4. Financial and social cost-benefit of the H2H project

4.1. Financial return on investment

The evaluation aims to assess the financial return on investment (ROI) of the H2H project, comparing the costs of delivering the scheme with the expected savings as a result of the intervention.

The costs and savings are shown for the full duration of the project to date, i.e. the 17 months from November 2015 to March 2017. They are also broken down for a period of one financial year i.e. April 2016 to March 2017, to show the cost-benefit on an annual basis.

The total set-up and running costs for H2H project to date is £125,896. This includes staff costs for the two HHC officers and manager from the Homelink team, as well as set-up costs. The pro-rata set up and running costs for 2016/17 were £88,868.

During the first 12 months of the pilot period, the staff costs were jointly funded by NCH and Nottingham City CCG. NCH provided the resources for management and set-up, and in addition an extension of staff funding during the period from December 2016 to March 2017, until new funding arrangements were in place for the continuation of the project. From April 2017 onwards, the project will be mainly funded by the CCG, with in-kind contributions from NCH.

The **total estimated savings made as a result of the H2H project to date are calculated to be £931,203**. Of this, £685,383 falls within the 2016/17 financial year.

The savings fall to three stakeholders; the NHS (locally funded by the Nottingham City CCG), NCH and the local authority, Nottingham City Council (NCC). Overall, 52% of the savings fall to the NHS, 34% to NCC and 14% to NCH.

The total net savings achieved by the scheme is £807,307. The estimated **net financial return on investment is therefore £6.40 for every £1 spent on the scheme**. For 2016/17, the net savings are £596,515 and the ROI is £6.71.

For each of the commissioning organisations, the individual rate of return is based on the net saving to that stakeholder in relation to the costs expended. For the NHS, the ROI is £14.07 for every £1 invested. For NCH, the ROI is £0.53 for every £1 invested. If the savings to NCH and NCC are grouped together (as part of the same overarching stakeholder), the ROI is £2.26 for every £1 spent.[10]

[10] The differences in ROI per stakeholder are affected by the level of funding inputted by each stakeholder. The intention was that the funding would be equally split between NCH and CCG, but due to additional costs borne by NCH (management and set up costs, and extension of staff funding for four months), NCH funded 75% of the total costs for the Year 1+ period. This is rectified in the Year 2 funding model, which is funded in the main by the CCG.

Table 9: Total costs and savings for H2H project (November 2015 - March 2017)

Costs	**££**	**Savings**		**££**
		Stakeholder	***Due to***	
Staff and on-costs	£91,773	NHS	Reduction in delayed transfer of care	£223,559
Management and set-up costs	£25,123	NHS	Early intervention (avoided DTOC)	£251,220
Project expenses	£9,000	NHS	Reduced mental health service costs	£7,308
		NCH	Rent gain	£133,854
		NCH	Avoided void costs	£29,494
		NCC (Adult Social Care)	Reduction in delayed transfer of care	£92,333
		NCC (Adult Social Care)	Early intervention (avoided DTOC)	£94,958
		NCC (Housing Aid)	Reduced homelessness costs	£48,534
		NCC (Adaptations Agency)	Reduced adaptations cost	£69,944
TOTAL	**£125,896**			**£931,203**
Net savings				***£805,307***
Return on investment ratio (Net savings/costs)				**£1: £6.40**

Table 10: Total costs and savings for financial year 2016/17

Costs (pro-rata)	**££**	**Savings**		**££**
		Stakeholder	***Due to***	
Staff and on-costs	£64,781	NHS	Reduction in delayed transfer of care	£157,478
Management and set-up costs	£17,734	NHS	Early intervention (avoided DTOC)	£196,064
Project expenses	£6,353	NHS	Reduced mental health service costs	£2,149
		NCH	Rent gain	£78,463
		NCH	Avoided void costs	£20,630
		NCC (Adult Social Care)	Reduction in delayed transfer of care	£55,660
		NCC (Adult Social Care)	Early intervention (avoided DTOC)	£74,110
		NCC (Housing Aid)	Reduced homelessness costs	£30,885
		NCC (Adaptations Agency)	Reduced adaptations cost	£69,944
TOTAL	**£88,868**			**£685,383**
Net savings				***£596,515***
Return on investment ratio (Net savings/costs)				**£1: £6.71**

4.2. Social value of the H2H project

The H2H project aims to increase the social wellbeing of clients, supporting them to achieve a number of improved outcomes, such as:

- Improved perception of their own physical health and mental wellbeing
- Increase in their economic wellbeing
- Reduction in social isolation
- Feel safer in their home and community

Section 3.6 above indicates that a number of these outcomes have been achieved, amongst the sample of 33 H2H clients who have had a follow-up assessment after six months.

These outcomes also have a social value to the individual. A new approach to understanding people's wellbeing allows us to place a financial valuation against some of the positive changes achieved. 'Wellbeing Valuation' allows you to measure the success of a social intervention by how much it increases people's wellbeing. The approach works by measuring how much uplift achieving an outcome makes on people's life satisfaction scores (using large national surveys) and then equates this to the same amount of money that would generate the same uplift in life satisfaction. This value is not a 'cashable' saving, but is a way of indicating the value of the outcome to the individual.[11]

The Wellbeing Valuation approach was used to assess the social value generated amongst the 33 H2H clients who have been re-housed for six months or more.

Project outcome	Indicator	Value per person	No. clients	Total social value
Feel safer	Not worried about crime (feel as safe as they want)	£12,274	20	£167,642
Reduce social isolation	Talks to neighbours regularly (have as much social contact as they want)	£4,511	15	£61,667
Improve mental wellbeing	Relief from depression/anxiety (improved, now state 'no problems')	£36,766	13	£372,974
Improve physical wellbeing	Good overall health (increase to above average VAS score)	£20,141	13	£191,568
Improve economic wellbeing	Financial comfort (increase to 'living comfortably' or 'doing alright')	£8,917	13	£93,491
Achieve secure housing	Temporary accommodation to secure housing (individuals at risk of homelessness)	£8,019	5	£40,095
Total social value				**£927,437**
Net benefit ***(Total SV minus project costs)***				***£895,231***
Social return on investment				**£1: £28**

Table 11: Wellbeing valuation and net social value (33 H2H clients)

[11] Wellbeing Valuation has been developed by HACT and Daniel Fujiwara, for more information see www.socialvaluebank.org

This indicates that the project is generating considerable social value. Even amongst a sample of 33 H2H clients, the wellbeing value achieved far exceeds the cost of delivering the project to those 33 individuals.

> “
>
> I feel safer, and am able to get out into the community.
>
> I feel more secure now, having permanent independent accommodation.
>
> The most important change is that I’m able to get around the property in my wheelchair.
>
> I feel very safe and secure.
>
> I feel happier, more relaxed – I can leave my windows open without worrying about intruders.
>
> I feel safe in my own home, knowing help is on hand if required.
>
> The property is warm and I can breathe a lot better.
>
> The biggest benefit is being social in the community room and meeting the residents.
>
> ”

5. Conclusions and next steps

Since its launch, the H2H project has supported 129 people who were living in housing that was unsuitable or negatively impacting on their health, to be re-housed into appropriate accommodation. Many of these individuals were highly vulnerable and required a high level of support to enable them to move.

Awareness of the H2H project has increased amongst local health professionals, resulting in referrals from different teams and a range of health care roles. There are also increasing numbers of referrals from other community organisations, including NCH's own staff.

The financial cost-benefit model demonstrates that the project has been cost effective, delivering much more in savings than the set up and running costs of the scheme. The project generates savings for several stakeholders. Over half of the savings are to Nottingham City CCG (NHS), and just over a third benefit local authority (NCC) budgets, and 14% of savings fall to NCH.

The model assumes that H2H clients would have otherwise applied for a suitable social housing property through the general housing register. In reality, many of those supported through H2H would not have been aware of the alternative housing options, or have been able to go through the process without a high level of support. Of those surveyed, 94% stated they wouldn't have been able to move without the support of the HHCs. Therefore, in many cases the alternative scenario without the intervention of H2H would have been remaining in inappropriate housing or health/social care beds, with even higher long-term cost implications. The cost savings are therefore a conservative estimate.

The insight into the personal stories of the clients revealed through the case studies demonstrates the significant impact on those who are assisted through the H2H project. This is supported by evidence of improvement in a range of social indicators from a sample of H2H clients who have been living in their new home for more than six months.

The evaluation model that has been developed for this project has relevance across both the housing and health sectors. In particular, the challenges and learning around estimating the effectiveness from early-intervention, downstream measures should be noted and further developed. The evidence could be further strengthened by including data from a control or comparison group, to ensure the changes measured can be attributed to the project and would not have otherwise been achieved.

The project is also supporting NCH in its aims to improve the uptake of empty social housing accommodation for older people, particularly those properties that have been empty for a length of time. A significant proportion of the properties let through the H2H project have on average been empty for longer than the average re-let time across the Independent Living stock.

5.1. Next steps for the H2H project

The H2H project was initially funded for a 12 month pilot period, which was extended for a further five months while future funding for the project was confirmed. The project has now received funding to secure its running for a further year (Year 2). The project leads were able to make a convincing business case for the project's continuation, based on the evidence from the interim evaluation of the pilot period. Funding was secured from Nottingham City CCG, to fully fund the project for a further year and expand of the project team. For Year 2, the team includes three Housing Health Coordinators (2.5 FTE) and an administration support officer.

The project has also widened its criteria for cases in Year 2. There are now three pathways into the project:

- **H2H Supported Housing – NCH or other RSL**. Clients who meet the criteria for supported housing, including properties managed by NCH (largely Independent Living communities, for those aged over 60) or other RSLs in the city (criteria dependent on each scheme). For those occupying high-demand beds (DTOC) or in the community (early intervention)
- **H2H Medical Referrals - Essential wheelchair users.** Clients of any age who are essential wheelchair users, occupying high demand bed space. Rehoused into suitably adapted accommodation in NCH or other RSL stock.
- **H2H Social Recommendations – Mental Health.** Single applicants of any age who are occupying high demand beds in a Mental Health unit/facility. Rehoused into suitable single-person accommodation within NCH or RSL stock.

Further potential developments under consideration include:

- NCH will continue to lead the action from the Nottingham and Nottinghamshire STP to develop a common hospital discharge scheme across the footprint, exploring the potential to further expand a hospital discharge scheme across the south area of the STP footprint, based on the H2H model. NCH will continue to link into the A&E Delivery Board to ensure the work we do compliments the 'Discharge to Assess' process being developed by the board.
- The H2H team are considering the option for one of the HHCs to be permanently based within one of the local hospitals, to improve the links and relationships with discharge teams and other NHS staff.

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