

Project Title

**Evaluation of Phase 2 of the early discharge project of the 'ASSIST'
team at Mansfield District Council.**

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Project Objective

To provide a longer term independent appraisal of the business case for the continuation of the ASSIST early discharge scheme in Mansfield.

1. Introduction.

Mansfield and Ashfield CCG, Newark and Sherwood CCG and Mansfield District Council collectively commissioned NBS to provide an independent appraisal of the business case for the continuation of the 'ASSIST' early discharge collaborative project in Mansfield. (ASSIST is the acronym for the Advocacy, Sustainment, Supporting Independence and Safeguarding Team at Mansfield District Council).

The evaluation period was from July 2015 to the end of April 2016. This follows an earlier initial evaluation of the establishment of the early discharge project by NBS completed in June 2015.

This initial evaluation indicated that since its establishment in October 2014, the scheme had been providing significant returns on the various partners' investment, but was based upon partial information and a number of 'working' assumptions adopted by the evaluation team that needed to be tested more robustly.

The ASSIST team are engaged in providing a variety of services and other activities both for the council, and for other stakeholders, but for the purpose of this report we will refer to the early discharge project at the Kings Mill Hospital in Mansfield as the ASSIST project¹.

2. Background

Mansfield is the largest urban area in Nottinghamshire, outside Nottingham City with a population of approximately 105,000 and is one of the most deprived local authority areas in England and Wales. The health of people in Mansfield is worse than the English average, and the life expectancy for both men and women is lower than the English average. Those aged 65+ represent the second largest age group (17.7% of the population) and in the recent estimates indicate 59% of the 65+ in Mansfield had a limiting long-term illness. This level is the highest in the County and significantly higher than the regional and national average.

The discharge project is a scheme established to support the early discharge and immediate residential care of patients from the Kings Mill Hospital in Mansfield and receives clients from health, housing and social care partners in central Nottinghamshire as well as occasional ad-hoc referrals. Although initially focussed on Mansfield DC administrative area it also co-operates with and co-ordinated some of the equivalent services in the administrative area of Ashfield DC. The immediate catchment area of Kings Mill Hospital includes the administrative area of Mansfield DC, Ashfield DC and Newark and Sherwood District Council.

The pilot project was formally established in October 2014 and the team is based within the Communities Directorate at Mansfield District Council under the Deputy Chief Executive and Director of Communities: Hayley Barsby.

The ASSIST team has been working directly with Sherwood Forest Hospitals National Health Service Foundation Trust (SFHNHST), the Adult Social Care and Health team at Nottinghamshire CC, and the Mansfield and Ashfield and Newark and Sherwood NHS Clinical Commissioning teams, well as wider stakeholders and collaborators from the public, private and third sectors in the Mansfield and Ashfield administrative areas.

The first phase evaluation looked at the costs and benefits of the initial establishment of the scheme, and the hospital based interventions by the team, in the period from September 2014 to April 2015. Although this appraisal showed significant excess benefits over costs in the start-up period, in reality robust data on which to make the first reports calculations and recommendations was limited and partial.

The commissioners therefore requested a more detailed review that included data from improved and more robust data and recording systems, the use of the most appropriate updated NHS tariffs and a longer evaluation period that allowed an appreciation of any seasonal variations in demand or supply for services.

The aims, intended activities and funding for the project as anticipated by the two CCGs, were identified as:-

- Prevent avoidable homelessness,
- Support tenants to remain adequately housed,
- Reduce or prevent avoidable or elongated admissions to Hospital or residential care
- Expedite discharges from the Kings Mill Hospital (both Emergency Department (ED) and ward discharges), and from residential care and in Mansfield.

The project is intended to help with delayed discharges from the Kings Mill hospital. These could potentially be reduced if, post-release, suitable housing accommodation and/or arrangements were in place in advance of the patient discharge date.

This national issue, is often colloquially referred to as bed blocking. It is a significant and increasing problem for individual hospitals and for the NHS as a whole. It directly affects both the efficiency and effectiveness of patient clinical treatment, and the cost effectiveness and financial sustainability of the NHS.

In May 2016, the National Audit Office published its latest report on this issue entitled 'Discharging older patients from hospital'. This indicated that the number of days in hospitals when beds are occupied by patients, who should have been discharged, has increased by 31% over the last two years to 1.15 million days. This does not include patients receiving non-acute treatment. The NAO report suggests that the figure could be as high as 2.7 million days, if non-acute treatment delays are included.

The Mansfield scheme, speeds up discharge through the early identification and assessment of patients potentially needing housing services, who have presented for treatment at Kings Mill Hospital through either ED or through elective care on a specialist or generalist ward.

On establishing a future potential need for a housing service, the full range of housing services and advice that the housing authority can provide, are expedited to facilitate early discharge and the freeing up of bed spaces at the hospital. This ensures unnecessary stays within Kings Mill Hospital for patients are reduced, and ward capacity is increased for patients waiting and needing to be treated.

Housing services includes, but is not limited to, re-housing of clients in more appropriate accommodation, or major or minor adaptations to the patients' current accommodation (or proposed accommodation), or advice guidance on benefits and other services.

3. The specification for the service evaluation.

As with Phase 1 of the project, the commissioners require a formal evaluation of the pilot scheme to record and demonstrate activity and outcomes, and to assess actual and potential savings.

An opinion was also requested as to whether development and/or continuation of the scheme is considered to be justified in Mansfield and whether it is applicable, scalable or portable to other locations.

There are also demonstrable savings and benefits that flow from the scheme for local social services provision, for housing service provision and for wider welfare benefits allocation and distribution. These benefits were not assessed in the first evaluation of Phase 1 and do not form part of the specification for this evaluation.

Over the last year, considerable publicity and attention has been attracted by the scheme. It has featured at a series of national and regional conferences. It has also been shortlisted and commended at a number of national and regional awards ceremonies. The favourable publicity generated has not only enhanced the reputation of the commissioners and deliverers of the scheme, but has also encouraged a number of areas in the country to try and establish similar schemes for their areas.

For example, the evaluation team are aware of a similar scheme in Oldham and, more locally, a scheme, based on similar objectives within Nottingham. This latter is between Nottingham CityCare Partnership and Nottingham City Homes.

The recent announcement of the merger of the NUHT and SFHNHSFT makes the evaluation of the ASSIST scheme particularly pertinent and timely.

A team comprising Mr Peter Murphy and Dr Donald Harradine from Nottingham Business School has carried out the evaluation, of Phase 2, with the assistance of Mr Ryan Cope from Mansfield and Ashfield CCG on contractual and financial matters.

The evaluation has been designed as a cost benefit analysis that essentially assesses the financial returns on investment. As such it is intended to be consistent in terms of scope and methodology with the evaluation of Phase 1.

It would have been possible to provide either an appraisal based upon a financial model essentially calculating the financial returns on investment, or one based upon a calculation of the social returns on investment, although the latter is more resource intensive. Because of the significant returns on investment calculated for Phase 1 of the scheme and the need to expedite decisions on whether investment in the project should be maintained; a simple financial appraisal was commissioned.

Although the evaluation team accept that an assessment based of the social returns on investment for a scheme like 'ASSIST' would have been considered more appropriate by some commissioners, this report is based upon a financial calculation of costs and benefits (with some acknowledged assumptions about impacts).

It would not have been possible, given the inherent time, information and resource constraints, to complete a coherent and realistic assessment of the full social returns on investment although the commissioners might want to consider this in the future.

4. The methodology and methods adopted for the evaluation.

This section identifies the methods used for both the initial study and how it was developed during the second phase to identify the potential financial consequences of the Mansfield DC hospital discharge scheme that has been operational at the King's Mill site of the SFHNHSFT. The research strategy had five distinct phases.

- a) Firstly, there was the initial fact finding phase. This involved examining the parameters of the scheme via interviews and meetings with senior staff at Mansfield DC.
- b) The second stage of the project was the determining the mechanics of the system so that an appropriate appraisal could be identified and designed. The methods involved in this stage included shadowing of the Homeless Prevention Officer, whilst undertaking her duties at the King's Mill site. This illuminated the issues and the methodologies she used to achieve solutions for patients who needed housing assistance and who fell within the parameters of the scheme. During the course of this phase contact was made with various stakeholders and opportunities were taken for interviews to take place.
- c) During the third stage further interviews and focus groups were undertaken with staff involved in the project from Mansfield DC. In total 16 members of staff from Mansfield DC and 12 from King's Mill Hospital took part in the study. Although the qualitative benefits are not the focus of the study it was necessary to verify this aspect and corroborate the case studies produced by Mansfield DC staff to ensure validity of the interventions made.

The study participants included:

- managers from the two main stakeholder organisations;
 - those involved in delivering the scheme;
 - health and social care professionals; and
 - finance staff from both organisations.
- d) The fourth stage of the research involved the examination of records of interventions made. This examination was undertaken by staff from Mansfield DC and the research team. Judgements were made based upon evidence of the effectiveness of interventions as to the potential benefits to the discharge process. All interventions were examined from the start of the scheme until mid-May 2015 (the conclusion of the study), and, the two most representative and appropriate months (March and April, 2015) were scrutinised in detail. These months were those where, it was determined from data gathered in the earlier phases of the research, the scheme was working effectively and was after the initial set-up period of the scheme. These particular months were also those which had the most detailed and reliable data.
 - e) The fifth stage of the project was that of this evaluation report. Data recording and reliability was improved following lessons learned in the initial pilot and the period for

examination was established as running from July 2015 to April 2016. The aim was to provide a more meaningful data set to be representative of the activity of the scheme than that provided in the initial evaluation. A Monitoring Group was established, chaired by a representative of the Clinical Commissioning Group and comprised: representatives from the hospital site; officers from MDC; officers from Nottinghamshire Adult Social Care; and academic support from Nottingham Business School. The objective of the group was to review the activity of the scheme and agree protocols for agreeing and determining the savings in terms of bed days achieved by the scheme. The group successfully agreed upon the savings used in the financial calculations identified at Appendix 1.

The financial calculations are based upon the current CCG charge rates as appropriate for the cases in the study. These calculations have been undertaken by representative of the CCG and agreed by members of the Nottingham Business School Evaluation Team.

The costs of the scheme to Mansfield DC have been provided and ratified by members of the Council's finance function, which are, of course, subject to appropriate internal and external auditing.

All savings and costs have been calculated on the most prudent options, therefore, all savings are believed, by the investigators to be 'conservative'. There are likely to be further savings at SFHNHSFT owing to staff time being saved by the activities of this intervention, however, these have not been quantified during this study. As mentioned, in section 3 all none NHS benefits have also been excluded from the evaluation.

There are a small number of illustrative case studies provided in Appendix 2 to this report. These were actual cases assessed during the evaluation and are provided to illustrate the nature of the clients and the range of cases dealt with. Not all of these cases resulted in direct savings to the NHS or calculated as part of the evaluation.

5. Project Appraisal

The key findings from the evaluation are as follows:

- a) There was clear evidence from observation and interviews that the scheme benefits the efficiency of hospital discharge and reduces the burden on hospital and social services staff. The availability of the service, the staffs' understanding of housing issues and the ability to action solutions and mitigations clearly assists in expediting the discharge process.
- b) The current scheme savings in terms of bed days amount to approximately £1,142,550, for the pilot period. This is the saving to the NHS system as a whole. This is likely to rise on a full year basis to £1,371,060.
- c) The current annualised costs of running the scheme at the current level of activity is £340,000 per year for Mansfield District Council.
- d) The costs of providing the service are relatively fixed, therefore there is a high level of gearing in terms of net savings if there is a potential increase in activity. These costs may achieve a step change at some point, however, there is not sufficient data to determine at what level of activity this will occur.

- e) Many of the interventions are relatively low in terms of marginal cost, but significant in the ability to enable a hospital discharge. At this stage the long-term mix of cases is not able to be determined. This is relevant to a long-term investment decision; however, the margins are such the main findings from this study are not undermined.
- f) The research identified that the time taken to rehouse clients from outside of the Mansfield District was consistently in excess of the time taken to rehouse clients within the District.

6. Comments

The NAO report and the continuing changes in wider economic and social circumstances, including the ageing population, the public expenditure restrictions and the restricted supply of affordable housing, suggest that the demand for the service will continue, and in all likelihood increase, in the short medium and foreseeable long terms.

The real and annualised savings (at £1,142,550, and £1,371,060 respectively) calculated for this report, are in excess of the anticipated savings in our previous report. This might have been expected, as the previous report was demonstrably and deliberately, based upon assumptions and tariffs that were at the most cautious end of the potential spectrum, wherever assumptions or judgements were required. For this report, fewer assumptions and judgements have been required, but for those that have been required we have again adopted a cautious rather than an ambitious approach.

The annual cost to Mansfield DC from running the service was £340,000. This is generally consistent with the cost estimates given in the previous report.

The ASSIST team have advised us of a number of areas, both systemic and ad hoc, where economies efficiencies or effectiveness could be improved although the level of cost is unlikely to significantly reduce. Examples included computer and systems access, as well as the generic challenges of medication and transport.

The return on investment calculated for this study is approximately 400%. This is clearly significant but must be weighed against other expenditure priorities and the rates of return on alternative investments.

The finding that the time taken to rehouse clients from outside of the Mansfield District was consistently in excess of the time taken within the District, might also have been expected from our comments in section 5 of our initial report. This identified a number of factors, critical to the potential success of the scheme in Mansfield, that are not universally available in all housing authorities.

The optimal effectiveness of the scheme is heavily dependent upon the mutually respectful, reciprocal and mature working relationships developed and maintained at both individual and organisational levels between all the principal public services commissioners and providers contributing. This has been critical to its development and success of the scheme to-date.

In the previous report, we identified critical success factors, both in terms of physical and human assets, that are available to the team in Mansfield. These can help identify where other areas may have the potential to create or develop a similar scheme. One area of particular interest, not least because of the creation of the new Hospitals Trust, is the City of Nottingham. The aims and objectives of the parallel project in Nottingham, while not identical to those of ASSIST, clearly align in that they addressed inappropriately housed citizens

who's health and wellbeing is being adversely affected by their housing circumstances, and as a consequence reduce admissions and re-admissions to hospital and care institutions. We believe that the ASSIST project should continue to liaise and share learning with the team in the city, which we believe would be mutually beneficial to both projects.

Appendix 1

Savings identified
from the Pilot
1

System Saving based on reduced acute bed days

July 2015 to April
2016

Locality	Admissions	Number of Bed Days Saved	Avg Cost of Bed Day in Trust	Bed Day Savings July 15 - Apr 16	Full Year Effect	
Ashfield North	229	1113	£225	£250,425	£300,510	
Ashfield South	142	641	£225	£144,225	£173,070	
Mansfield North	319	1120	£225	£252,000	£302,400	
Mansfield South	309	1249	£225	£281,025	£337,230	
Newark & Sherwood North	60	342	£225	£76,950	£92,340	
Newark & Sherwood West	48	335	£225	£75,375	£90,450	
Newark & Trent	20	278	£225	£62,550	£75,060	
Grand Total	1127	5078	£225	£1,142,550	£1,371,060	System Saving

- 4.5 Avg bed days saved per admission
- £936 Avg bed days cost saving per admission

Commissioner Saving from reduced Excess Bed Days

**July 2015 to April
2016**

Locality	Admissions	Reduced number of Excess Bed Days	Reduced Spend on Excess Bed Days	Excess Bed Day Saving July 15 - Apr 16	Full Year Effect
Ashfield North	16	121	£24,247	£24,247	£29,096
Ashfield South	12	30	£4,173	£4,173	£5,008
Mansfield North	27	168	£27,642	£27,642	£33,170
Mansfield South	25	117	£11,592	£11,592	£13,910
Newark & Sherwood	6	7	£762	£762	£914

North						
Newark & Sherwood West	5	70	£13,840	£13,840	£16,608	
Newark & Trent	3	63	£5,550	£5,550	£6,660	
Grand Total	94	576	£87,806	£87,806	£105,367	Excess bed day saving

Appendix 2. Illustrative Case Studies

Case Study - Mr A

Mr A is a 57 year old male and was in hospital when initially seen by ASSIST Hospital Discharge Team (AHDT). He had not been taking his medication for depression and diabetes for many months and had been living on his settee. He was admitted to hospital for surgery to amputate part of his foot.



He owned his property but it was under a repossession order and in a very poor state of repair. AHDT liaised with Mr A and his son to register him on 'Homefinder' and ensure medical assessment forms were completed. Mr A was able to secure suitable ground floor sheltered accommodation ready for discharge from hospital. However, he had no furniture that could be transferred to his new accommodation. ASSIST staff submitted a furniture project referral and obtained the necessary furniture to enable a safe discharge. Mr A was also provided with emergency clothing and a food parcel until he could access his money.

Case Study - Miss B

A referral to the Assist team was made to supply and fit a lifeline, key safe, grab rails and a monitored smoke alarm and support with light domestic tasks and shopping after a fall at home which caused head injuries.

An assessment also concluded that Miss B required encouragement to complete daily tasks and rehabilitation due to the injury she had sustained to her head. Safe and well checks were also required three times a week to ensure that Miss B was coping at home. A referral was made to the furniture project for a new sofa as the leather sofa she had was no longer suitable due to her slipping off it. A fabric one was ordered.

At the very start of the 4 weeks support the staff identified tasks Miss B she was unable to do this due to her impairment, however as the weeks went by Miss B gained back her strength and stamina and was able to complete the tasks herself or with the guidance from staff that visited.

Case Study - Mr C

Mr C is a frail elderly gentleman 78 years of age who has no family and was living alone in his own home which had recently been broken into. Working in the garden he fell from a ladder and was admitted to hospital.

His property lacked basic facilities. There was no central heating just coal fires and no hot water to the accommodation. The toilet facilities were at the bottom of the garden and there were no facilities inside the property. The roof was leaking and daylight could be seen through the tiles. The joists to the first floor were rotten, there were no floorboards, and the lath and plaster ceilings had all come down. The electrics were in contact with water. Mr C was confined to the downstairs rooms of the accommodation

Once Mr C was medically fit for discharge there was a concern about him returning to accommodation that appeared to be unfit for habitation.

He was very reluctant to look at other types of housing but eventually agreed to go into a respite unit. Whilst in the respite unit Mr C looked at an alternative to returning home whilst work and renovation was undertaken to his home. He was registered on Homefinder and given priority for re-housing. When a suitable property became available, Mr C accepted the accommodation which was near to his home and he could oversee any works being done.

Case Study - Mr D

Mr D is a veteran suffering with Post Traumatic Stress Disorder which has brought on a severe dependency on alcohol and was a frequent admission to hospital. He was admitted to hospital following a fall resulting in a double haematoma.

Whilst in hospital, Mr D was unable to get access to alcohol. During his stay, he was assessed by the CRI team. They determined that on discharge he would need intensive support and intervention from them to ensure that he remained alcohol free. Mr D's property underwent a deep clean whilst he was in hospital as it was not safe or fit for him to return to. ASSIST contacted the British Legion and were able to secure funding to provide furniture, and white goods, fit carpets and pay off some of his debts.

On his discharge from hospital, the team liaised with the DWP to ensure that his benefits were in payment and that he was receiving the correct amount. ASSIST also helped him to claim Housing Benefit and a backdate of Housing Benefit to clear his arrears. They helped Mr D to go through his finances and devise a workable budget. He was assisted to set up payment plans for his heating and water and the Housing Officer arranged for his heating payments to be taken directly from his benefit. Mr D attended an assessment for rehab and he went into rehab in April 2016.

Case study - Mrs E

Mrs E was admitted to hospital after a fall. She was initially referred for support with domestic tasks and shopping.

Support included help with the filling and transport of coal scuttles daily as both Mr and Mrs E were unable to, due to mobility issues. A handyman also fitted grab rails at the back door.

During the weeks of support it became obvious that Mr and Mrs E would not be able to perform the task of filling and transporting the coal scuttles once support had finished. They discussed the benefits of installing a gas boiler. The following day an Inspector from the repairs team visited to assess converting them to gas and a subsequent date was set to undertake the work a few weeks later. Mr and Mrs E used ASSIST Enhanced to help with the coal scuttles until the work began.

During time of support a referral was made to CISWO as Mr E was an ex miner. CISWO responded quickly, and supported both Mr and Mrs E with a grant for a new electric fire to replace the old coal fire. Mr E had an assessment for welfare benefit (as he had been diagnosed with cancer) to determine if he was accessing all his entitlements.

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