Economic Evaluation of the Homeless Intermediate Care Pilot Project

Cedars Road Hostel, Clapham

January – December 2009

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Executive Summary

The Homeless Intermediate Care Pilot Project commenced at the St. Mungo's Cedars Road hostel in January 2009, and currently has funding to run until March 2011. An economic evaluation of the pilot project work in 2009 has been undertaken, and is reported here.

Thirty-four clients benefited from the project during the pilot project year. The morbidity burden of these clients was extremely high. For example 24% had a diagnosis of HIV, 34% had had past Hepatitis B, and 84% had active or had had past Hepatitis C. 83% were intravenous drug users, 74% alcohol dependent, and 88% had or had had mental health problems. A variety of very serious conditions were experienced by the clients. These included renal failure, osteomyelitis of the spine, acute bacterial endocarditis with septicemia, necrotizing fasciitis, jugular vein thrombosis, end-stage liver failure, MRSA infection (rather than colonization), acute syphilis, pulmonary TB, and Wernicke's encephalopathy.

The main purpose of the Homeless Intermediate Care service has been to reduce mortality and morbidity in clients residing in the hostel, whilst also reducing secondary care usage. In 2008 there were 7 deaths at Cedars, and the average age of death was 38 years old. During 2009, whilst the pilot project was running, there was only one death. During the year of the pilot project the number of hospital admissions was 77% lower than in 2008, the number of A&E attendances was 52% lower, and the number brought to A&E by ambulance was 67% lower. The number of repeat attendances was also lower. The length of admission increased, but this was not significant, and probably reflected a reduction in inappropriate and self-discharges.

One of the key targets of the project has been to ensure that clients are engaged / re-engaged with all the specialist services that they should be. Common new referrals for clients have been to liver services, HIV services, chest clinics, neurology, pain management, tissue viability, the mental health team, psychology, dentistry, social work, occupational therapy, physiotherapy, palliative care and counseling services. An average of 5.4 appointments was attended for each client whilst on the caseload. The DNA rate for all appointments by clients whilst the project was only 11.6%, and hospital DNAs were reduced by 22%.

An economic evaluation has been undertaken, and the pilot project was found to cost neutral overall, with better health outcomes. This is perceived to be a major achievement for a developing service, and a demonstration that the service should be recomissioned in order test whether the benefits can be replicated, and indeed extended.

Client responses to the project have been universally positive, and are presented in this report. Focus groups were undertaken with clients in order to shape the service for the future, and feedback was also sought from hostel staff.

The success of this project has been recognized nationally as an example of innovative practice in work with vulnerable groups (Department of Health, March 2010), and has been described in the Office of the Chief Analyst paper 'Healthcare for Single Homeless People' (Department of Health, March 2010). National recognition in two key papers is extremely pleasing. In addition the project has

recently been shortlisted for a Nursing Times 'Innovation in Practice' award (results are awaited), and was profiled in the Guardian newspaper Society section in December 2009.

It is felt that so far the project has been an outstanding success. This small team has demonstrated very early on that real differences can be made to health outcomes in this client group. It has attempted to address a human rights issue that has been overlooked, even though it has been on our doorstep. Overall it has provided equal access to intermediate care services for this disenfranchised community based on clinical need, and has truly demonstrated that 'Tackling inequalities is fundamental to all we do' (NHS Lambeth website, 2010).

We would like to thank all the Homeless Intermediate Care Project staff for their hard work and dedication in achieving this. Few teams have worked so hard to evidence base their work, and advocate for their client group they represent.

References:

Department of Health (22 March 2010) Inclusion Health: improving primary care for socially excluded people.

Gould, Mark (22 December 2009) The 'garden shed' where lives are being saved. Guardian newspaper.

Poteliakoff, Emmi (March 2010) Healthcare for single homeless people. Office of the Chief Analyst, Department of Health.

Chiara Hendry and Samantha Dorney – Smith

Joint Homeless Intermediate Care Project Leads

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Foreword

I commend Chiara and Sam for a gripping account of a tremendous project. Cedars Road hostel accommodates an extremely needy group of people with multiple and chronic health problems who, depressingly, don't show much desire to do anything about them.

So it is worth reprising some of the successes. The project has delivered an improved quality of care, and of life. What value does one attach to that? It has, I believe, to be viewed as compounding the financial savings of the project – these may seem modest in NHS terms, but they are real, and enhance the cost savings to social care. Certainly the moving case study of the man in his 20s illustrates very vividly the human and financial cost to an individual of falling away from the project.

We need a more sophisticated way of understanding and analyzing the benefits of a project like this. What price stability in people's lives? It is not valued, and it should be. How does one value patient feedback? Personalised care is the future, but how will it be recognized? I believe that a service which improves health outcomes; which reduces in-patient usage, A&E attendance, and DNA rates; which increases housing stability and the take-up of social care services; and which achieves such compelling satisfaction rates, has made the case for its extension. Indeed, what more does it have to do?

But it is not just about extension – we also need to develop it. This project is a partnership between St Mungo's and NHS Lambeth. You could, though, be forgiven for thinking after you read the report that it is just a medical project. It isn't, it is a health and social care project, and on the assumption that we succeed in extending the project, a priority for us will be to track its social care benefits. Here we can actually integrate health and social care, an elusive prize.

In the medium to longer term, we wish to see the truth of this project – that homelessness is also an expression of multiple and wide-ranging health problems – mean that healthcare is more fully integrated into rough sleeper projects. Actually, not to have planned healthcare provision is a false economy. This is not the only experiment in this area, as UCLH's "London Pathway" and its embryonic off-site intermediate care facility demonstrate.

It is right to look forward, but it is also imperative to recognize what has been achieved. We are enormously grateful to NHS Lambeth for its support, financial and practical, which has enabled the project to happen. We are proud to have been a key partner. I particularly want to thank Lisa, our Health Support worker, and Kendra, the nurse, whose tirelessness is reflected in this report. I also want to spare a word for Peter Cockersell, our Director of Health and Recovery, whose idea this project was. You will see somewhere in the report that this project only happened after seven years' of discussions – **seven years!** There is also a lesson here, and it is not one to be proud of – but Peter persevered, and garnered help from those who could make it happen. And finally, I would like to thank Sam Dorney-Smith, whose redoubtable energies have contributed in no small measure to the successes which we are celebrating today.

Charles Fraser CBE, Chief Executive, St Mungo's

Explanatory Note re Authorship

This final evaluation is a collaboration drawing together several pieces of work undertaken in the past year. The work includes the following key contributions:

Charles Fraser CBE (Chief Executive Officer, St. Mungo's) Foreword

Chiara Hendry (Service Lead, Three Boroughs Homeless and Blood Born Virus Health Care Teams) Joint Homeless Intermediate Care Project Lead, report author.

Samantha Dorney-Smith (Practice Development Nurse, Three Boroughs Homeless, Blood Born Virus and Refugee Health Teams) Joint Homeless Intermediate Care Project Lead, report editor. Running of one of the focus groups. Analysis of client satisfaction questionnaires.

Emmi Poteliakoff (Economic Advisor, Office of the Chief Analyst, Department of Health) Economic evaluation of secondary care usage.

Amy Scammell (Senior Research Fellow, Institute of Primary Care and Public Health, South Bank University) – Health Outcomes Data Analysis

Matthew Whiting (Research Fellow, Institute of Primary Care and Public Health, South Bank University) – Health Outcomes Data Analysis

Kendra Schneller (Intermediate Care Nurse) Collection and collation of all relevant client data, and time and motion data analysis. Also running of one of the focus groups.

Thanks

Thanks are extended to the Guys and St. Thomas' Charitable Foundation whose charitable grants funded preparatory work for this project, and the production of this evaluation.

Thanks are extended to all those who contributed to the Homeless Intermediate Care steering group (too many to mention!) throughout the seven years of discussions that brought this idea from inception to reality. (You know who you are!)

Considerable thanks are extended to all the clinical staff who have made this project a success - Nurses: Kendra Schneller, Audrey Ryan, Amy Hall, Health Support Worker: Lisa Burnard, GPs: Dr. Pam Ashton, Dr. Samista Kar, Dr Belinda Lewis-Jones.

Thanks are extended to John O' Grady and all the Cedars hostel team. None of the work of the project team would have been possible without the full support of the Cedars hostel key working staff, specialist workers, and management team.

Thanks are extended to the SLAM Substance Misuse Team and START Mental Health Team without whose support improved health outcomes for our clients would not have been possible.

Finally thanks are extended to our outside report contributors for helping to make this report such a success.

Introduction to the Organizations Involved

St. Mungo's

St. Mungo's is a charitable organization supporting homeless people, which started in 1969. The organization supports homeless people with complex mental health and addiction problems, current and ex offenders, former rough sleepers now in their own homes, and people who are begging. The organization also supports thousands of people 'at risk', who are known to be vulnerable to rough sleeping.

Specifically the organization provides housing that accommodates ex-street homeless clients. Within these hostel projects specialist workers, and trained keyworkers manage and support people with severe mental health problems, lifelong alcohol addictions, and very challenging behaviour, and/or a combination of these issues.

The Homeless Intermediate Care pilot project was conducted in one of the largest St. Mungo's hostels, Cedars Road, located in Clapham, South London, in partnership with the on-site support staff.

Three Boroughs Homeless Team

The Three Boroughs Homeless Team is a NHS funded primary care nurse-led team that runs open-access 'walk-in' health clinics in homeless hostels and day centres in Lambeth, Southwark and Lewisham. The Homeless Team commenced in its current form in 1992. Nurse Practitioners on the team independently treat minor illness and minor injuries without referral onwards to GPs or A&Es where this is unnecessary. They also provide a variety of other primary care nursing services in partnership with local GPs.

Nurses also do comprehensive health assessments on clients, and from this they identify clients in need of more complex case management for their chronic health needs. Case management clients have a variety of physical and mental health needs that are not being met elsewhere. However it was recognized early on the history of the service that 'case management' was often not enough to meet the needs of these clients.

The Homeless Team provides the existing primary health care services at Cedars Road, in partnership with the Courtyard Surgery in Clapham.

This pilot project was hosted within the existing nursing team (which currently comprises 8 nurses), and delivered in partnership with the Courtyard Surgery.

Guy's and St Thomas' Charitable Foundation

Guy's and St Thomas' Charity awards grants to facilitate improvements to health services in the London boroughs of Lambeth and Southwark. Grants fund a wide range of projects: from small schemes which improve the patients' environment, to major initiatives which involve the purchase of cutting-edge equipment to diagnose or treat illness.

Background

The Homeless Intermediate Care Pilot Project commenced on 8th January 2009 at St. Mungo's Cedars Road hostel in Clapham. The pilot phase of the project ran until 31st December 2009, and it is this phase of the project that is evaluated here. Funding was provided by NHS Lambeth and St Mungo's for the pilot, and has been extended. The current on-going project has funding to 31st March 2011.

The project team currently manages a caseload of 10 - 12 clients at Cedars hostel. These clients are those assessed to be most at risk of death or disability at any one time. The aim of the project is reduce mortality and morbidity in these chosen clients, whilst also reducing secondary care usage. The pilot project caseload was 6-10 patients, reflecting the ongoing research activity that was also taking place. All clients on the pilot had 'before and after' EQ-5D, SF12, SOCRATES, and nurse dependency scores undertaken as part of the research process. Detailed data regarding secondary care usage was obtained. Time and motion data was also collected by staff to assist in assessing future caseload size, and decide on the optimum skill mix for the continuing service, and also to assist in proposing models for use in other areas.

The 120 bed Cedars Road hostel was chosen because of the known high morbidity and mortality on site. In 2005, an analysis of clients residing at the hostel revealed that 93% had a substance misuse problem, 61% had a mental health problem, 56% clients had a physical health care need, and 15% of clients had had a recent hospital stay (St. Mungo's, 2005). More recently, in 2008, an analysis of client deaths at the hostel revealed that the average age for the 7 clients that died during the year was 38 years old.

The Homeless Intermediate Care Project is staffed by a full-time Band 7 nurse, full-time Health Support Worker both based on site at Cedars Road, and a visiting GP. The NHS funds the nurse, a 4.5 hour in-house GP session for the project (which is delivered once a week), and also funded half of the Health Support Worker post for the period of pilot project. St. Mungo's funded the other half of the Health Support Worker post during the pilot project phase, but now funds the whole post. Intermediate Care support is provided Monday – Friday 9 a.m. – 5 p.m. Clients are selected for the project at a weekly review meeting of project and hostel staff. The aim is to provide support for a period of 6-12 weeks, although there has been some flexibility in this timing.

This service runs alongside, and in addition to, the on-site health services already provided by the Three Boroughs Team and Courtyard surgery. Three nurse sessions, and one GP session are also provided within the hostel. These sessions have always provided for the essential primary health needs of the 120 clients, but have never allowed time for the complex case management often required, or more intensive support.

Client Health and Outcomes Data

(Data analysis provided by Amy Scammell and Matthew Whiting, London South Bank University)

Cohort Demographics

34 individual clients were admitted on to the project during the year. 65% were male, 35% were female. The average age of the clients was 38.9 years old, with the range being 25 to 60 years old.

The average stated number of year's homeless prior to admission on the project was 8.5 years.

27 clients described themselves as White British, 1 as White Irish, 5 as White Other, and 1 client as Indian.

48.6% did not have any current contact with any member of their family. 59.4% stated that they had children, although only 20.8% of these stated that they had contact with these children. [See Appendix 1 for detailed information regarding demographics]

Cohort Morbidity

Examples of specific serious life-threatening conditions suffered by clients that led to their admission to the project, or developed during their time on the Intermediate Care project as a complication of other conditions were:

- Renal failure
- Osteomyelitis of the spine
- Acute bacterial endocarditis with septicemia
- Necrotizing fasciitis
- Right jugular vein thrombosis
- End-stage liver failure
- MRSA infection (rather than colonization)
- Acute syphilis
- Pulmonary TB
- Wernicke's encephalopathy

The overall background morbidity of the client group is presented in the table overleaf. However the key points to note were that:

- 23.5% had HIV
- 84.4% had (including exposure to) Hepatitis C
- 74% reported alcoholism
- 83% reported significant drug use (e.g. crack, heroin)
- 87.5% had a current mental health problem
- 71.4% reported at least one suicide attempt in their life
- 10.7% were experiencing a current episode of syphilis
- 12.1% were experiencing a current episode of TB

COHORT MORBIDITY	
Condition	**%**
INFECTIONS	
HIV	**23.5%**
Hep A current	**-**
Hep A past	**37.5%**
Hep B active	**-**
Hep B past	**34.4%**
Hep C active	**53.3%**
Hep C past	**29.7%**
Hep C total	**84.4%**
Syphilis active	**10.7%**
Syphilis past	**10.3%**
TB past	**15.2%**
TB current	**12.1%**
MRSA past	**13.5%**
MRSA current	**3%**
MRSA total	**20.6%**
Head Lice	**32.4%**
ADDICTIONS	
IVDU current	**82.9%**
IVDU past	**-**
Alcoholism	**74.3%**
Alcoholism past	**-**
Tobacco smoker	**100%**

MENTAL HEALTH	
Mental health problem (SEMI and depression/anxiety) current	**87.5%**
Mental health problem (SEMI and depression/anxiety) past	**88.2%**
Documented past suicide attempt(s)	**71.4%**
CHRONIC CONDITIONS	
Asthma / COPD	**44.1%**
Cardiac condition (including endocarditis) / hypertension)	**25%**
Fits (epilepsy, and/or other, ever had)	**30.3%**
Liver Cirrhosis (ever had diagnosis)	**45.5%**
Memory problems (presumed neurological in cause)	**25%**
Anaemia (current)	**58.8%**
SKIN	
Skin (all persons with a skin problem)	**41.2%**
Leg ulcer	**11.8%**
Abscess	**33.3%**
Other wound	**23.5%**
OTHER	
Nutritional Problem (including malnutrition)	**51.5%**
Chronic pain issues	**37.5%**
Mobility issues	**27.3%**
Foot problems	**21.2%**
Eyesight problems	**18.2%**
Acute dental problems	**66.7%**

Number of Clinical Conditions per Client

The number of current and past condition problems logged for each client varied between 3 and 19. The average number of current and past condition problems logged for each client was 10.5 per client, which intuitively seems very high indeed.

Interventions

Interventions undertaken have been variable depending on client needs. The case studies provided give further examples. However 5 examples of clinical interventions have been:

- Administering Pabrinex injections at the hostel to treat Wernicke's encephalopathy
- Monitoring diuretic mediated fluid loss after cardiac failure
- Treating syphilis on-site
- Undertaking mental capacity assessments
- Making palliative care arrangements

5 examples of 'non clinical' interventions have been:

- Running case conferences
- Providing personal care for a young client with severe alcoholism
- Teaching key work staff around clinical issues
- Re-engaging clients with their families
- Maximizing benefits entitlements

Common clinical / non-clinical interventions	
Comprehensive health assessment	**96.3%**
Full set of bloods	**87.5%**
Medication review / medication compliance work	**84.4%**
Harm minimization advice	**100%**
Pre-detoxification work	**78.8%**
TB screening (via CXR and/or sputum)	**100%**
Smoking cessation advice	**100%**
Cervical screening (as % of the women)	**92.3%**
STI screening	**64.7%**
Wound dressing	**29.4%**
Benefits advice	**37.1%**
Domestic Violence advice/support	**17.2%**
Referral to physiotherapy / occupational therapy	**17.2%**
Liaison with palliative care services	**19%**

Referrals / Appointments

One of the main targets of the project has been to ensure that clients are engaged / re-engaged with all the specialist services that they should be accessing. This has involved many new referrals, and has enabled clients to attend appointments not previously attended through interventions such as a) day before reminders b) wake up calls c) transport provision (including taxis if necessary) d) escorting the client e) explaining the importance of each appointment f) support with time management / providing diaries and/or wall charts, and finally g) providing high level clinical advocacy to ensure that the appointments have been of benefit to the client.

A wide variety of appointments were booked and attended by intermediate care clients. Common referrals have been to liver services, HIV services, chest clinics, neurology, pain management, tissue viability, the START team (homeless mental health team for severe and enduring mental illness), psychology, dentistry, social work, occupational therapy, physiotherapy, palliative care and counselling services. 32 clients were included in the analysis of appointments. From the data listed these 32 clients attended 175 appointments. This excludes appointments that were non-health related (e.g. attend police station or benefits office), and any that were specifically listed as a DNA (Did not Attend). 23 appointments were listed as a DNA.

As such the recorded data indicates that 198 appointments were made for ICP clients, and the documented DNA rate was 11.6%. This DNA rate compares with national levels of 20-30%, and routinely 40- 50% DNA rates experienced for this client group. It should be noted that there is incomplete documentation in relation to appointments cancelled or rearranged by the ICP staff or clients, which prevents analysis of the regular communication required with out-patient appointment departments in order to achieve these rates.

Cohort Mortality

During the year of the pilot there has only been one death at Cedars Road. This was a sudden death of a client who had very recently been admitted to ICP (bronchial pneumonia, TB related, aged 45). This compares very favourably with the mortality rate of 7 deaths at Cedars Road in the previous year when the average age of death was 38 years old. However longitudinal work is required to test whether the project has really had any effect on mortality.

Indeed it should be noted that many of the clients on ICP were very unwell, and required palliative care input during their time on the project. We have been very grateful to Peter Kennedy (St. Mungo's Palliative Care Worker) for his work with our clients. One of the key aims of this project has been to achieve death with dignity where death has been unavoidable.

In 2010 two clients who were on the Intermediate Care caseload during the pilot project period have died, one in April 2010 (multi-organ failure, HIV related, aged 31), one in July 2010 (multi-organ, liver cirrhosis, age 43). We believe they received much better care as a result of being on the Intermediate Care project, and also lived longer as a result. They were both incredible characters, contributed to the evaluation of this project, and will be much missed by this team.

Research data – standardised measures

Choice of outcome measures

'Health status' is somewhat complicated to measure in this client group, although a wide variety of outcome measures do exist. In a systematic review undertaken to support this study two papers were found that discussed general issues concerning outcome measurement in this field. Hwang et al (2005) argued that 'once programs surpass a modest threshold of service intensity commonly used outcome measures may lack the sensitivity required to detect differences between treatment groups'. Vanderplasschen et al (2007) agreed, and suggest that 'multiple outcomes and process variables' should be used in order to compensate for this. Thus a variety of outcome measures were used in this study.

The following standardised questionnaires were used:

- SF-12 (a general health outcome measure)
- EQ5D (a general health outcome measure)
- SOCRATES8 (a measure of readiness to address addictive behaviour in alcohol and drug use)
- NDQ (a nursing dependency questionnaire)

The systematic review revealed that the first three measures were in common usage by researchers in this field. They were also easy to gain access to, get permission for their use, and were in common use in the UK. The Nurse Dependency Questionnaire was created in-house, and was adapted from an in-patient nurse dependency score. As such this has not been validated. Copies of the tools can be found in Appendix 2.

Data Collection / Quality / Analysis

Standardised questionnaires were undertaken when clients were admitted to and discharged from the Intermediate Care project. However it should be noted that many questionnaires were missing from the final data set. Staff often found it difficult to get clients to focus for long enough to answer all the questions for the four research tools when they were fit for discharge, and had already been discharged. In addition, some clients were in hospital, or had been evicted, or were moving on, at the point of discharge.

However the systematic review revealed that the average attrition rate in studies undertaken in this client group is high at 20.75%. Although not surprising, this obviously does have an effect on the validity and transferability of our findings. (However it is perhaps unlikely that lower attrition rates will be achieved with this client group.

It should be noted that some clients have been admitted to the project more than once (see section on Caseload Activity). In these cases, data was only included from the first episode.

All information was collected in hard copy or using an Excel workbook. The data were transferred into SPSS for analysis. Quality of life data were analysed using t-tests. Significance was assumed when $p<0.05$.

Results

SF- 12

From the SF-12 scores below we can say that the IC project has made a significant difference on the sub-score of general health. No other sub-scores were significant; nor were overall physical or emotional scores.

SF 12 paired samples t-test (n=14)

	Pre-Score	**Post-Score**	**t-value and p**
Physical Functioning	41.1	89.3	t = -1.5; p = 0.16
Role Physical	42.0	84.8	t = -1.3; p = 0.23
Bodily Pain	46.4	53.6	t = -0.5; p = 0.61
General Health*	12.5	23.2	t = -3.1; p = 0.01
Overall Physical	**35.5**	**62.7**	**t = -2.1; p = 0.05**
Social Functioning	37.5	48.2	t = -1.0; p = 0.34
Role Emotional	41.1	48.2	t = -0.8; p = 0.45
Vitality	41.1	33.9	t = +0.6; p = 0.56
Mental Health	38.4	50.9	t = -1.7; p = 0.12
Overall Emotional	**39.5**	**45.3**	**t = - 0.7; p = 0.50**

EQ5D

The IC project did not make a significant difference on the overall scores on the EQ5D scale. However, the self-rated score on the 'thermometer' is significant.

EQ5D paired samples t-test

	Pre-Score	**Post-Score**	**t-value and p**
EQ5D (n=13)	9.2	8.5	t = 1.44; p = 0.18
Thermometer (n=11)*	29.7	48.6	t = -2.9; p = 0.02

SOCRATES

The table below shows that the IC project has not made a significance difference on alcohol or drugs issues as measured by SOCRATES.

Socrates paired samples t-test

	Pre-Score	Post-Score	t-value and p
Socrates Drink (n=9)	**69.0**	**73.6**	**t = -1.05; p = 0.33**
Drink Recognition	26.3	28.1	t = -1.31; p = 0.22
Drink Ambivalence	14.9	12.9	t = 2.2; p = 0.06
Drink Steps	27.7	32.6	t = - 1.3; p = 0.23
Socrates Drugs (n=14)	**74.2**	**72.7**	**t = +0.44; p = 0.67**
Drugs Recognition	28.1	26.9	t = 0.74; p = 0.47
Drugs Ambivalence	14.2	13.6	t = 0.58; p = 0.57
Drugs Steps	31.9	32.3	t = -0.19; p = 0.85

Nursing Dependency Scale

The IC project has made a significant difference on the NDS, although there appears to be no significant correlation between the NDS and the number of days spent on the programme.

NDS paired samples t-test

	Pre-Score	**Post-Score**	**t-value and p**
NDS (n=13)*	8.9	7.5	t = 3.21; p = 0.01

Correlation between NDS and number of days in treatment

$X^2(12) = 0.51$; p = 0.08 (two tailed)

As the Nurse Dependency Score was not a standardised tool, an example of its usage is included here.

One client had an admission score of 14/20. This was made up in the following way:

- Personal care and hygiene 3 – needed help most days with washing and dressing due to mobility and pain problems
- Feeding and nutrition 3 - needed regular weight monitoring, encouragement with meals, and was on nutritional supplements due to clinical malnutrition
- Elimination 2 - occasional incontinence due to mobility/pain
- Mobility 3 - walked with crutches, was prone to falls
- Nursing attention 3 - was on daily opiod analgesia requiring collection, and required daily monitoring to prevent overdose, and monitor for side effects

This client currently has a Nurse Dependency Score 11/20. This is made up in the following way:

- Personal care and hygiene 2 – requires prompting, but is able to meet all own needs when prompted
- Feeding and nutrition 3 - still needs regular weight monitoring, and encouragement with meals (although is no longer on nutritional supplements)
- Elimination 1 - independent
- Mobility 3 – still walks with crutches, sometimes prone to falls
- Nursing attention 2 - is picking up own analgesia, but still requires regular nursing intervention around pain

Client Health and Outcomes Data Summary

- The IC project has supported 34 individuals with a wide range of complex and long term health conditions. The overall morbidity of the group of the group has been shown to be extremely high.

- Mortality at the hostel may have been reduced by the project, but longitudinal data is required to test this. This is discussed further in the economic evaluation.

- The IC project has a significant impact on the general health sub-score of the SF-12, the Nurse Dependency Score, and self-rated ‘thermometer’ of the EQ5D.

Economic Evaluation

Emmi Poteliakhoff (presented without edits)

Homeless intermediate care (the HICP) was piloted at Cedars road hostel in 2009, and the aim of this section has been to produce an economic evaluation of the pilot including an analysis of cost effectiveness. However, the data collected on the health gains from the pilot are not of sufficient quality to make any safe estimation of the gains in quality adjusted life years from the pilot. This is because the sample sizes and response rates from the health outcomes questionnaires were both very low, and because there is no reliable longitudinal data on the number of deaths within the hostel in the years preceding the project. The evidence in the previous section outlining the standardized measures suggests that the project did produce some health gains both in terms of better quality of life, and some reduction in mortality, however it is not possible to quantify these accurately. There is also the issue, discussed below, of a separate intervention which began at almost the same date as the HICP project. It is not clear how much of the health gains observed might be attributable to this pilot rather than the HICP project.

The economic evaluation of the report is therefore based on three elements. First, the likely change in NHS secondary care costs which might be attributed to the HICP project are estimated. Following this, the costs of the HICP project are given. Lastly, a summary table is given which includes the estimated monetized costs before and after the project was introduced, along with a description of the non-monetized costs and benefits which should also be considered. It should be noted that these figures are estimates based on the best available data covering the one year pilot and the preceding year. They cannot necessarily be taken as a guide to future costs and cost savings from this or any similar project. Three reasons stand out as to why this is the case:

- It is possible that the results observed were the result of a Hawthorne effect (where subjects change their behaviour because they are being studied).
- Related to this could be an effect where there is additional goodwill and hard work from the project staff in the pilot phase, which may not be sustained in future years.
- Also it seems that 2008 was a particularly bad year for the health of the residents of Cedars road, as evidenced by the high number of deaths. This could suggest that the effects attributed to the project could in fact be the result of ‘reversion to the mean’ where the hostel was reverting to previous trends, which it would have done to some degree without the project. A counterpoint to this could be the trend amongst other hostels in Lambeth which in the main had increasing inpatient and A&E utilisation from 2008 to 2009.

It is not possible to measure these potential effects but notice should be taken of them in deciding whether to use this information to base future decisions about similar projects.

Potential savings to the NHS over 2009 due to the HICP

Our approach to estimating the difference in costs to the NHS which might be attributable to the HICP, was first to measure differences in utilization of NHS secondary care by Cedars Road residents before and after the project was introduced. The observed change was expressed both in numbers of patients and in terms of the cost of care using PCT costings. Because this is a pilot and not a randomised trial, we then asked the question whether, and what proportion of this change, might be due to other factors not related to the HICP. Adjustments to the potential savings were made to reflect any other factors identified. The analysis of secondary care data also allowed us to draw some conclusions about changes to the rate of non-attendance at outpatient appointments over the period and on length of stay.

Analysis of data from NHS Lambeth on hospital utilisations by residents of 5 South London hostels

NHS Lambeth provided the project team with data on hospital utilisation by residents of 5 South London hostels including Cedars Road covering 2008 and 2009. This was analysed in order to examine changes to secondary care utilisation by residents at the Cedars Road hostel before and after the introduction of HICP pilot in January 2009. Secondary care utilisation for each hostel was analysed for two distinct periods. These were for pre the HICP intervention, 2008, and then the year of the pilot HICP intervention, 2009.

For this analysis and for the more detailed analysis specifically on the Cedars Road data, it was decided that it was best to look at data at the hostel level and not just for individual patients who were admitted to the HICP project. This is because there was not sufficient data on these individuals before going on the project, and because of small sample size. Also, the patients admitted to the HICP were drawn from the population of Cedars Road residents, selected as those with the highest health needs, and on the basis of willingness to engage. Because of this, the intervention could potentially affect any resident at Cedars Road who had severe health problems, and is conceptualised as an intervention for the whole hostel. This means that it is relevant to look at data for the whole hostel.

Analysis of residents of Cedars road is based on anonymised data received from NHS Lambeth on the 7th May 2010. Analysis of data for the other four hostels is based on anonymised data received from NHS Lambeth on the 13th October 2009. The datasets may not be a perfect representation of the secondary care utilisation and costs of care for residents of Cedars road and the other four hostels for a number of reasons. The main reasons are given below and the specific issue of uncosted episodes is examined in a separate section below.

- Patients resident at Cedars road but registered with a GP outside Lambeth will not be included. This is because the dataset only includes patients for whom Lambeth PCT is the PCT of responsibility. There is no reason to believe that the number of Cedars Road residents who are registered with a GP outside Lambeth would change considerably over the two years. If anything it is likely that more residents would be registered within Lambeth in 2009 because the HICP project encouraged GP registration with local GPs. This would increase

admissions for 2009, and decrease them for 2008 so would not invalidate the findings.

- The A&E data for 2008 and up to April 2009 are incomplete because, due to difficulties in providers supplying this data to the Secondary Uses Service (SUS), NHS Lambeth only has A&E data from Kings College Hospital going back to April 2009, and from Guys and St Thomas's Hospital from April 2008. This means that a higher proportion of the true A&E attendances were recorded for 2009 than for 2008, so again this does not invalidate the findings.
- Many episodes of inpatient care are not costed, and so the cost of these episodes is not included in the estimated costs. This is discussed below. It is unlikely that this issue could invalidate our findings because a higher proportion of episodes are uncosted in 2008, than in 2009.

Data on admissions for residents of Cedars Road Hostel

How are admissions and A&E attendances different in 2008 and 2009 for the Cedars road hostel?

The table below shows how monthly averages for the number of inpatient episodes, the number of A&E visits recorded, and the number of A&E visits recorded as transported by ambulance differ between the two years. The difference in the number of inpatient episodes was found to be it is statistically significantly different to zero at 5% level of significance[1].

St. Mungo's Cedars Road Hostel					
Number of inpatient episodes (no day)		Number of A&E visits recorded		Number of A&E visits transported by ambulance	
Monthly average 2008	Monthly average 2009	Monthly average 2008	Monthly average 2009	Monthly average 2008	Monthly average 2009
10.08	2.33	8.42	4.00	5.58	1.83

Note: Day cases are removed because one of the hostels has a large number of visits for a small number of patients for renal dialysis which can be misleading.

Were there any changes to Length of stay for residents of Cedars Road?

Average length of stay (LOS) for residents of Cedars Road, who had an inpatient stay in 2009 was longer than in 2008. The difference in LOS is small and was tested for statistical significance. The difference was found to be not statistically significantly different to zero at 5% level of significance.

[1] Statistical significance was tested as a difference in rate per day for each year. The rate for 2008 was 0.32, the rate for 2009 was 0.08.

	No of inpatients recorded	LOS average days
2008	121	5.7
2009	28	6.4

Were there any changes to Outpatient utilisation by residents of Cedars Road?

The data below shows that the total number of OP appointments for Cedars Road residents in the dataset, assigned by year of appointment date (and not referral date) was lower in 2009 than in 2008. The attendance rate was slightly higher and DNAs lower. The difference in DNAs is statistically significantly different to zero at 5% level of significance.

	2008	percent of total	2009	percent of total
Appointment cancelled by patient	3	0.80%	4	1.34%
Appointment cancelled or postponed by the Health Care Provider.	5	1.34%	7	2.35%
Did not attend - no advance warning given	152	40.75%	95	31.88%
Patient arrived on time or, if late, before the relevant health care professional was ready to see them	213	57.10%	192	64.43%
Total OP appointments	373		298	

What proportion of the episodes have been coded and costed, and does this change over time?

In the dataset a proportion of patients do not have full Health Resources Group (HRG) information, and/or have not been costed. The numbers of patients where this has happened, and the reasons for not costing are given below for patients resident at Cedars Road. During the period in 2009 after the HICP started, the percentage of patients who are not costed is lower than in 2008. This shows that the fall in total costs of inpatient admissions of Cedars Road patients is not due to a difference in the number of patients who could be costed.

	Before Intermediate care April - Dec 08	**Intermediate care period** Jan - mid Sept 09
Total inpatient admissions	70	24
Number costed	44	20
Number not costed	26	4
% not costed	37.14%	16.67%
Reasons for not costing		
Data invalid for grouping – U code	13	2
HRG v4 but no cost given	6	0
Mental Health code, not costed	2	1
No HRG v4 coded	5	1

Could the change in admissions and A&E visits be due to an external factor other than the HICP project?

The HICP was piloted at one hostel, and there was no randomisation of hostels, or of individuals at the start of the pilot. However, there are other reasonably similar hostels within Lambeth and data from these hostels can be used as a type of control. In doing this it must be borne in mind that Cedars Road was not randomly selected from the group so selection effects could be present.

Analysis of inpatient admissions and A&E attendance data was conducted for 4 other South London hostels for 2008, and the first 9 months 2009 in order to test whether a similar fall in admissions and attendances to that seen at Cedars Road was experienced elsewhere. The comparator hostels were selected by the steering committee on the basis that residents of these hostels would use similar hospitals and other health services to the residents on Cedars Road[2].

[2] A sixth hostel, St Mungo's Pagnell St was also selected and data requested from NHS Lambeth but there was only one admission over the 2 year period so this data was not used.

Hostel All data is from the October 2009 dataset apart from data for St Mungo's Cedars Road which is from the May 2010 dataset	Number of inpatient episodes (no day)		Number of A&E visits recorded	
	Monthly average 2008	Monthly average over first 8.5 months of 2009	Monthly average 2008	Monthly average over first 8.5 months of 2009
St. Mungo's Cedars Road Hostel	10.08	2.33 (full year data)	8.42	4.00 (full year data)
Thamesreach Graham House Hostel	5.17	6.12	0.42	0.78
St. Mungo's Grange Road Hostel	0.08	0.12	0.58	0.89
St. Mungo's Great Guildford Street Hostel	0.67	0.47	8.92	13.11
Thamesreach Stamford Street Hostel	1.58	1.76	2.92	3.67

In all of the other hostels in South London which are included in the analysis, the number of inpatient episodes and the number of A&E visits per month increases apart from in St Mungo's Great Guildford St where inpatient episodes fall, but A&E visits rise. The fact that the inpatient admissions and A&E attendances at these four hostels have not fallen in a similar manner to Cedars Road indicates that the change at Cedars Road cannot be attributed to an external factor such as a policy change at a local hospital or a change in practice elsewhere in the local health system. This is because such a factor would be likely to affect the residents of at least some of the other hostels in the area, which is shown not to be the case.

Other external factors particular to Cedars Road

It is still possible that the changes at Cedars Road could be due to some other external factor particular to Cedars Road, and not the HICP project. The presence of other projects at Cedars Road was examined by the steering committee. The only potential candidate identified which could have produced the change in admissions, was the introduction of Naloxone to the hostel in December 2008, just before the HICP pilot began. Naloxone is a drug used to counter the effects of opioid overdose. Following training sessions with staff and clients at the hostel, Naloxone kits were dispensed to clients and were held on reception by staff. Usage was recorded as far as possible between December 2008 and April 2010, and reported as 18 uses. Of the 18 reported cases, one patient was probably deceased before administration of the drug and 4 were taken to hospital. The others were mostly attended to by an ambulance crew, but were not taken to hospital. It can be estimated, then that a direct result of the Naloxone programme could have been to avoid approximately 13 hospitalisations over 16 months. This is equivalent to avoiding 0.8 admissions per month or just under 10 admissions per year.

The programme could also have had wider impacts, for example the training sessions could have changed resident's views about health, healthcare and drug taking resulting in different behaviour and health care utilisation but these cannot be measured. The contribution of the introduction of Naloxone to the reduction in deaths at the hostel in 2009 compared to 2008 is also unknown.

What is the difference in costs of hospital utilisation for Cedars road residents in 2009 compared to 2008 and what proportion of this difference might be attributable to the ICP?

Each of the inpatient episodes after April 2008 has been coded and costed by the PCT using HRG version 4. This allows an estimate of the monthly cost of inpatient episodes for hostel residents before and after the HICP was launched. These are given below for Cedars Road hostel, and give an idea of the possible magnitude of saving to the PCT which the HICP made. Although additional data are available for 2009, a restricted time period, April to December inclusive, is used for seasonal comparability (the monthly average for the whole year 2009 is lower, at £3,522).

St. Mungo's Cedars Road Hostel	Monthly average over 9 months in 2008 (April to December)	Monthly average over 9 months in 2009 (April to December)
Cost of inpatient episodes to PCT	£12,216	£3,957
	Monthly average over 12 months in 2008	Monthly average over 12 months in 2009
Cost of A&E visits at £87 per visit[3]	£733	£348
Cost of ambulance journeys at £188 per journey[4]	£1,050	£345
Total monthly average cost for 3 forms of care	£14,000	£4,650
Estimate of annual cost to PCT for 3 forms of care	£168,000	£55,800

It should be noted that these are estimates of savings to the PCT. PCTs pay hospitals per spell of care regardless of length of stay up to a trim point. The overall cost to the NHS may differ from the cost to the PCT because the cost to the hospital

[3] The unit cost for an A&E visit is taken from PSSRU Unit Costs of Health and Social Care 2009 and is the unweighted average of costs for admitted and non-admitted patients.

[4] The unit cost for an ambulance journey is taken from reference cost data which gives different costs depending on the type and severity of the medical problem. The unit cost used is the unweighted average cost for medical problems in the Amber category, £188.

of treating the patient may have been more or less than the amount which the PCT pays under reference costs.

Not all of the change in costs are attributable to the Homeless Intermediate Care Pilot because of the Naloxone pilot

It is likely that a proportion of the fall in admissions and costs was due to the introduction of Naloxone. As described above there is evidence that the availability of Naloxone is likely to have avoided approximately 10 hospital admissions over the year. The average cost per patient for a hospital admission in 2009 was about £1,500 per patient. Using these figures it can be estimated that the Naloxone pilot was probably responsible for about £15,000 of the savings in inpatient care.

Costs of the Project

The costs of the project to the NHS for the pilot year can be approximately summarised as:

	Costs
Band 7 nurse (not including maternity pay)	£43,452
Health Support Worker (50% of salary)	£18,000
GP session	£19,751
Direct project Management costs (approximated)	£5,097
Operational costs e.g. taxis, stocks etc	£2,901
TOTAL	£89,204

The costs of the project to St Mungo's for the pilot year can be approximately summarised as:

	Costs
Health Support Worker (50% of salary)	£18,000

It should noted that the service has been hosted by the existing Three Boroughs Homeless Team, and therefore benefits from the existing support services provided to that team. If this service had been a stand-alone service, there would have been many more support costs incurred.

In addition the cost of one overhead that was generated specifically by the project – an extra consulting room - was covered by St. Mungo's. There may have been other overheads or opportunity costs to St Mungo's, for example including the space used by the HICP within the hostel which could have been used for something else.

N.B. It should finally be noted that the grant money received by the Guys and St. Thomas' Charitable Foundation was used in 2010 to pay an agency nurse to cover the intermediate care nurse in order that she could be released from practice to prepare data for analysis. It was also used to pay for the South Bank University data analysis, and contribute towards the time taken out of management time to prepare this report. As such it does not feature in the overall costs of the project.

Summary of Economic Evaluation of the Cedars Road Homeless Intermediate Care Project for 2008 and 2009

This summary table below is based on the estimated costs borne to the NHS and to St Mungo's in the two years 2008 (no ICP) and 2009 (ICP pilot year). This information cannot be relied on as evidence that a future similar project would have the same costs for reasons described above. Further to this, the non monetised costs and benefits of the project in 2009 are listed. All monetised figures are given to the nearest £1,000.

2008 – No ICP		**2009 – ICP**	
NHS secondary care costs, Cedars Road Hostel Residents	£168,000	NHS secondary care costs, Cedars Road Hostel Residents including estimated shadow costs which are likely to have been incurred without Naloxone	£71,000
Cost of ICP	£0	Costs of ICP borne by NHS	£89,000
		Costs of ICP borne by St Mungo's	£18,000
Total NHS	£168,000	Total NHS	£160,000
Total NHS + St Mungo's	£168,000	Total NHS + St Mungo's	£178,000

Estimated Net cost to NHS of the pilot based on costs in the two years

= - £8,000 (a saving of £8,000)

Estimated overall net cost of the pilot

= £10,000 (a net cost overall of £10,000)

Non-monetised Costs (NMC)

- Cost to the 3 borough's team of hosting the ICP project (borne by the NHS)
- Costs to St Mungo's of providing a space for consultations within the hostel
- Other overheads to Cedar's Road hostel borne by St Mungo's including the opportunity cost of other rooms used by the project.

Non-monetised Benefits (NMB)

- Health gains to registered HICP patients
- Possible reduction in mortality among Cedars Road residents
- Health and wellbeing gains to non HICP registered Cedars road residents.
- Gains to non HICP staff at Cedars, e.g. relief of pressure on staff allowing them to focus better on their core duties.
- Gains to the NHS not calculated above, for example gains to A&E staff from having fewer patients from Cedars Road who may be more difficult and disruptive of the A&E department than an average patient, savings from reduction in rates of DNA among Cedars road residents.

Unknown

Changes to utilisation of other NHS and public services (for example social care, mental health, rehabilitation and criminal justice) over the period are not known. These may have increased or decreased.

Conclusion

The Intermediate Care Pilot was found to have a small net saving to the NHS, and a small net cost overall, not including the non-monetised costs and benefits listed above. The scheme would be cost effective overall if the non-monetised benefits (NMB) were deemed to be of greater value than the disbenefit from the non-monetised costs (NMC) to a magnitude of £10,000.

Put more clearly: if NMB – NMC > £10,000 then the scheme seems to be cost effective.

In thinking about the potential value of the non-monetised benefits (NMB) it should be noted that the NHS is routinely willing to spend £25,000 on an intervention or drug which is expected to produce an additional year spent in full health for one patient (1 Quality Adjusted Life Year or QALY).

Caseload Activity / Capacity

(Data provided by Kendra Schneller (Nurse) and Lisa Burnard (Health Worker))

Cedars Road accommodates 120 clients. During the time of the project 54 individual residents were considered for possible admission, 34 individuals were admitted onto HICP.

Of those numbers admitted 1 client was admitted on three occasions, and 5 were admitted on two occasions. As such there were 41 'episodes' of care. The aim was for clients to be taken onto the programme for a period of 6 – 12 weeks. In fact the average number of days on the programme was 75.6 days (about 10.5 weeks). The range was 7 to 178 days.

Time / Motion

The Intermediate Care Nurse and Health Support Worker (HSW) recorded detailed patient activity documents for each client, in order to identify how much time was spent by each professional with each client. Patient activity documents were completed for all residents admitted onto the project between Jan 2009 and October 2009, however due to the resultant volume of data a snapshot comparison of two clients was considered the most appropriate method of initial analysis.

The data from two typical clients was chosen. These clients both had full and detailed set of time / motion data. Client A spent a total of 10 weeks on the project, and Client B spent a total of 20 weeks on the project.

ACTIVITY	**CLIENT A**		**CLIENT B**	
	NURSE	**HSW**	**NURSE**	**HSW**
Face to face contact	26.25 hr	5.25 hr	63.75 hr	11 hr
Case Management	2.25 hr	0.5 hr	14.25 hr	5.25 hr
Escorting/Advocacy	4.25 hr	2.75 hr	6.5 hr	24.75 hr
Research data collection	1.25 hr	1.25 hr	2.25 hr	2.25 hr
Research data input/analysis	1.25 hr	2.75 hr	1.25 hr	2.5 hr
Project and/or other management time (divided equally between all clients on the caseload at that time)	9.05 hr	7.95 hr	3.0 hr	1.95 hr
TOTAL	44.3 hr	20.45 hr	91 hr	47.7 hr
AVERAGE WEEKLY TOTAL	**4.43 hr**	**2.05 hr**	**4.55 hr**	**2.39 hr**

Activity Definitions:

Face to face contact - any direct clinical intervention with the client (i.e. venepuncture, direct observation of therapy / medications, observations, dressings, social support, assisting with personal care, cleaning etc).

Case management – case meetings (client may have also been present), telephone calls, letter writing, and data entry.

Escorting / Advocacy - attending appointments with clients (hospital / benefits office / dentist etc), and also acting on behalf of the client elsewhere (e.g. representation to the police).

Research data collection – Time spent completing standardised questionnaires, and other data sheets used for evaluation of the project.

Research data input/analysis - Time spent in ongoing research data input and analysis.

Project management - included any general administrative duties (i.e. stock control, admission/discharge meeting, computer trouble shooting, supervision, training, team meetings, annual, sick and study leave), but also time spent in specific project management (i.e. promoting the project, networking, running the launch and mid-term report events, planning and operational meetings)

Nursing / Health Support Worker (HSW) Capacity

Using the examples above the average weekly time spent with a client by the nurse was 4.5 hours. The average time spent with the client by the health support worker was 2.2 hours. Based on a 37.5 hour week this indicates a caseload of 8.3 clients for the nurse, or 17.05 for the health support worker.

Nurse workload - 37.5 hours / 4.5 hours = 8.3 clients

Health Support Worker workload – 37.5 hours / 2.2 hours = 17.05 clients

In fact, the nurse was asked to take on 6 - 10 clients for the duration of the project, and all three nurses thought that this was manageable (as these figures suggest).

However if the Intermediate Care project continues the amount of time spent in project management will be reduced. Research data collection has also now stopped, and the amount of input and analysis time has gradually reduced.

As such we have re-calculated this capacity in order to suggest a potential nurse capacity (after removing the research data collection and analysis time, and some of the project management time for each client) for the ongoing caseload. We have removed two thirds of the project management time for Client A, and half the project management time for Client B. This is because Client A was admitted to the project in the very early stages of the project when it was still in preparatory phase, and thus much more time was needed organising, setting up, attending various meetings and networking.

ACTIVITY	CLIENT A		CLIENT B	
	NURSE	**HSW**	**NURSE**	**HSW**
Face to face contact	26.25 hr	5.25 hr	63.75 hr	11 hr
Case Management	2.25 hr	0.5 hr	14.25 hr	5.25 hr
Escorting/Advocacy	4.25 hr	2.75 hr	6.5 hr	24.75 hr
Research data collection	-	-	-	-
Research data input/analysis	-	-	-	-
Project and/or other management time (divided equally between all clients on the caseload)	3.01 hr	2.65 hr	1.5 hr	0.97 hr
TOTAL	35.76 hr	11.15 hr	86hr	41.97hr
AVERAGE WEEKLY TOTAL	**3.58 hr**	**1.12 hr**	**4.3 hr**	**2.1 hr**

If you now take an average of the two clients using the current model the average weekly time spent that the nurse would spend with a client is 3.94 hours. The average time that the health support worker would spend with the client would now be 1.61 hours. Again based on a 37.5 hour week, this indicates an average caseload of 9.51 clients for the nurse, or 23.3 for the health support worker.

Nurse workload - 37.5 hours / 3.94 hours = 9.51 clients

Health Support Worker workload – 37.5 hours / 1.61 hours = 23.3 clients

As such an ongoing caseload of 8 – 12 clients for the nurse seems workable (and all three nurses that have worked on the project think this is manageable – in fact, the two clients profiled had reasonably high dependency compared to the average).

On the surface of it appears the Health Support Worker could support 2 nurses, and this might be true. It is also possible that a Health Support Worker could be trained to become an NVQ qualified Health Care Assistant, undertaking e.g. dressings, observations, work with medications – and this would mean that the overall caseload for the nurse could be increased.

However a note of caution should be added here. It is known that the Health Support Worker (being a St. Mungo's worker) actually spends time with many clients not admitted onto the intermediate care project. This has helped 'spread the word' to clients, create good will towards the project, and educate the clients about the benefits of being on the project, as well as improve engagement for prospective clients. The time the Health Support Worker spent with other clients has not been accounted for here, but may be integral to the success of the project. It is also probable that the HSW engages with intermediate care clients themselves over a greater length of time, doing much of the preparatory and step-down work.

In addition it is important to value the provision of social care as a necessary specialism to this project in itself, and not to attempt to dilute the role. As such it may be appropriate to include a Health Care Assistant role on the project, in addition to maintaining the Health Support Worker role.

Caseload Activity / Capacity Summary

- The IC project delivered 41 episodes of care during the year with an average length of approximately 10.5 weeks.

- An ongoing nurse caseload of 8 – 12 clients is suggested.

- This capacity might be able to be increased if an NVQ qualified Health Care Assistant was included in the team.

Operational Management Considerations

During the pilot project a number of operational issues arose. Some of these have already been addressed, and others are in the process of being addressed.

Potential 'burn out'

The nursing post has an inherent high potential for burn-out. The main reasons for this are:

- Intensity of the work. This relates to the degree of relationship required to be built with very complex clients from difficult backgrounds, the amount of patience required to deal with the repeated relapses and chaotic behaviour that present, and the palliative care element of the role.
- Isolation from other nurses / workers in similar roles
- Conflicts experienced in the role. For example, the nurse has experienced high expectations coming from hostel keyworking staff, but it is fair to say that the reverse has also been true. There have also been issues with overlapping roles with in-house specialist workers, as well as with other NHS teams that have needed to be negotiated on an ongoing basis. Finally a high level of challenging other professionals and related advocacy work is also inherent within the role, particularly within secondary care environments, and this has proved to be quite draining.

All three nurses that have undertaken this role said that the role is probably not sustainable for any one nurse to perform long term without breaks, and that some kind of rotation or respite would be required in order for any individual planning to continue in the role on an ongoing basis. Research also points to high level of burn out in equivalent posts.

Unfortunately as the Nurse post is currently only a fixed term contract it has been hard to come up with a long term solution to this. We are hoping to provide respite for the current nurse from November 2010 (making her current stint in post approximately 8 months).

Weekly time management

During the pilot project, the nurse was based full-time at the hostel. However on account of the issues described above it has now been decided that the nurse should come to work in the wider Homeless Team office for at least one morning, and one afternoon a week. This is in addition to attending the Homeless Team meeting once a week.

All the nurses have agreed that the benefits of time spent in the office are a) providing time for ad hoc discussions with other staff (thus benefiting from their wide experience) b) providing time out from the stress of the environment c) facilitating greater integration into the main team d) providing time to complete reports etc without interruption. The nurse is available to provide advice on-call to the hostel during this time.

Clinical supervision arrangements

Unsurprisingly all the nurses have said that the clinical supervision needs of the post are high.

The Homeless Intermediate Care caseload is managed via a weekly Wednesday admission / discharge meeting. All clients are reviewed at this meeting. The Project Manager has always attempted to attend this meeting in order to provide clinical advice, direction and supervision. The Project Manager has not always been able to attend (probably about 50% have been attended overall), however it has been noted by the nurses that this input is invaluable when it has been there – largely because it has helped to focus the team on the clinical outcomes that the project aims to achieve.

The nurse also attends the monthly Group Supervision session provided to the wider Homeless Team. However in addition it is also felt that the nurse would benefit from a clinical supervision group with Community Matrons and/or nurses providing Hospital at Home type services. This is currently being investigated.

All the nurses have received more or less monthly 1:1 supervision. This is probably sufficient, but needs to be long enough to allow time for more than general management issues to be discussed.

Care planning

Care planning during the pilot period was achieved by the identification of 5 individualized client goals that were chosen at the end of the Comprehensive Health Assessment.

However on review it was felt that this was not always sufficient either to focus staff on all the potential interventions that could be undertaken, or to motivate clients to make full use of their time on the project. We now have a standardized care pathway plan, which identifies all the generic interventions that a client might expect to receive during their time on the project (see Appendix 3). There is space available for additional individualized goals. This care pathway document is filled in at the end of month one, ideally alongside and in full partnership with the client (although it is recognized that this is not always possible). A copy is given to the client, and the content is fully verbally explained if the client has not been involved in producing the document. A review is undertaken at the end of month two with the client (wherever possible), and there is space to document the summary of achievements at the final review at the end of month three.

The pathway document follows simple care planning guidelines in that it identifies goals, actions, time scales, and persons responsible for any planned actions. It is still a work in progress, and will be reviewed on a regular basis in partnership with the team and hostel manager.

Partnership with other services

The success of the project has required very close working relationships both with St Mungo's 'in- house' specialists, and SLAM addiction and mental health services.

The importance of involving all parties at the initial planning stage, and whilst delivering services, cannot be stressed enough. Additionally it is important to share successes in order to promote a sense of ownership from all sides. It is probably true that we have never got this completely right, and are striving to improve communication on our side all the time. Simply having enough time to meet with all the important relevant persons and facilitating meetings between all parties can be difficult.

Providing a shared Action Planning handover sheet to all in-house workers after the weekly review meeting has helped to ensure all potentially involved staff members are kept up-to-date. A quarterly stakeholder meeting has helped to bring wider issues to the table.

Health Support Worker

The nurse does not supervise the Health Worker, and the Health Worker is managed by a different organization (St. Mungo's). This has worked very well due to the personalities of the post holders; however there are potential possible pitfalls.

These have been largely overcome by:

- Homeless Team having input into the St. Mungo's Health Support Worker job description
- Homeless Team having representation on the St. Mungo's Health Support Worker interview panel
- Health Support Worker having an honorary contract with the NHS
- Regular update mini-meetings between the nurse and the Health Support Worker
- Recently initiating a once monthly review meeting at the beginning of the month with the project Manager, nurse, Health Support Worker and Health Support Worker's manager in order to ensure shared objectives.

The high supervision needs of the nurse post also relate to the Health Support Worker post. It is has been hard to find suitable supervision for this post, as it is unusual and developmental.

Skill Mix

The skill mix for this project worked very well. Again the personalities and capabilities of the staff were exceptional. However it is the breadth of issues routinely presented by this vulnerable population that creates the need for a highly skilled workforce that is able to build trusting relationships in extremely challenging situations.

Whilst the dependency levels as discussed earlier have suggested that there is potential capacity to develop the Health Support Worker, it must be stressed that there is a need for very high level engagement skills for staff working on this project, which may not always be present in staff working at lower grades.

Discharges from hospital

Attempted inappropriate and premature discharges, and poor communication from / with inpatient wards remain a persistent problem. Clients are often sent out of hospital with substantial medical needs.

However it is acknowledged that:

1. Ward staff probably perceive that a hostel bed represents a ‘safe place’ to discharge a client to – they may not be aware of the inherent dangers within hostels, or the limited support available within hostels. In many cases staff do assume that hostels are some kind of high-support facility – never having visited one.
2. Ward staff are very busy, although this obviously goes for all staff in frontline services, NHS or otherwise.
3. There is always high pressure on hospital beds.
4. Our clients can be difficult to work with.

The project staff have attempted to ‘in reach’ wherever possible, and educate staff about the dangers of inappropriate discharges in this client group. This remains a work in progress however. The team is also feeding into the current Department of Health work stream looking at hospital discharge problems for this client group.

Client Feedback

(Data analysed by Samantha Dorney-Smith and Chiara Hendry, Joint Project Leads)

Client feedback has been obtained mainly through a Patient Satisfaction survey and two specific Focus Groups. Client feedback has been integral to the ongoing evaluation and development of the project. Transcripts of the Focus Groups are available on request.

Patient Satisfaction Survey

Sixteen individuals completed patient satisfaction surveys. (Three individuals completed 2 surveys, but only one of their responses has been included here.) This represents 47% of the 34 individuals that were admitted. Although this appears low, it reflects staff discomfort with 'press ganging' clients into completing further paperwork, particularly after they had had to complete all the research questionnaires. It also may reflect literacy issues. (It is estimated that at least a third of the street homeless population are functionally illiterate.) Most of the research questionnaires were completed by the client with staff support, but obviously this was not possible with the client satisfaction questionnaires.

The ethnic breakdown of those providing responses was White British 11, White Irish 1, White Other 2, Indian 1.

Possible responses to the multiple choice questions were:

Very satisfied Satisfied Neutral Dissatisfied Very dissatisfied

Responses were:

Overall how satisfied were you with the service you received?

14/16 Very satisfied 1/16 satisfied (1/16 answer was omitted)

Overall how satisfied were you with the amount of attention you received from the nurse?

11/16 Very satisfied 5/16 satisfied

Overall how satisfied were you with the amount of attention you received from the doctor?

9/16 Very satisfied 7/16 satisfied

How satisfied were you that the nurse explained the reasons for your treatment in a way you could understand?

14/16 Very satisfied 2/16 satisfied

How satisfied were you that the doctor explained the reasons for your treatment in a way you could understand?

11/16 Very satisfied 5/16 satisfied

How satisfied were you that you were involved in decisions regarding your treatment?

12/16 Very satisfied 4/16 satisfied

Key comments made on the surveys were:

What did you most like about the service you received?

'How the nurses treated me. When you go to hospital they look down on you – not here, they treat you as an equal'

'K and L became like family'

'The time and effort the ICP staff spent with me, arranging appointments and escorting me'

'The daily contact and prompting to take medications. Escorts to appointments and reminders. And seeing the GP regular.'

'Things were explained very well'

'I was treated with everything. They done my hair, got some clothes'

Of those who made comments several made specific comments about the benefits of being escorted to appointments, and having an advocate with them.

What did you most dislike about the service you received?

Nearly all clients stated 'nothing'. The only specific comments received in this section were:

'Sometimes wanted to be left alone'

'The service coming to an end. Me being discharged.'

'Too short'

'Having to admit to myself that I needed the service'

Any other comments?

A variety of other comments were made. None were negative. Examples were:

'I don't know how I coped without the Intermediate Care project. Since being on it, I've not gone into hospital'

'You should keep the service as long as possible'

'I think I have benefited from the ICP, and my health has improved'

'I miss the attention!'

'Very good and needed service'

'I think the intermediate care service should continue as it beneficial to the residents of Cedars'

It was interesting to note that three clients made the following, similar comment:

'I am sorry I did not use the service fully when I was on the ICP'

'I could have benefited more from the service – my own fault'

'Very happy but do understand that the nurses can only do so much'

Summary

- Reponses were universally positive, although this should be noted with caution as only 47% clients responded.

- A key message appeared to be the degree of appreciation attached to having an escort and advocate at appointments.

- Possible areas for service development consideration based on the responses include a) the amount of time given by the Doctor, b) the amount of time clients are able to spend on the caseload as a whole, and c) how clients can best be helped to maximise benefit from the time they spend on the project.

Focus Group 1 - 2009

(Led by Samantha Dorney-Smith, Project Lead)

9 clients attended a 1 hour Focus Group on 18/09/09. 8 out of 9 clients had been patients on the Intermediate Care project. 1 had not.

The purpose of the group was to illicit views about the Intermediate Care project, and health services provided generally at Cedars. A £5 incentive was given for involvement, and refreshments were provided. All clients stayed the full hour. The questions asked are highlighted in bold. A full write up of the focus group is available on request – but key comments are presented here.

Do you think the Intermediate Care project should continue?

9/9 clients said the project should continue.

If so why?

'…people here find it hard to go to people to talk about their health. We need coaxing… because we are all messed up.'

'… it prompts you to do stuff if don't have the motivation to do it yourself'

'…people get sick and they don't realize how sick they are.'

'…it's reassuring when you coming out of hospital if there is somewhere there to help'

'…the team here has given as much as they possibly could have'

How do you think the Intermediate Care project has helped you / other clients?

'I can think of at least one person who wouldn't still be here without it, and I probably wouldn't be either'

How could we improve the Intermediate Care project?

a) **Hours**

'When I was ill at the weekend no-one was there'

b) Activities

'There's nothing to do here, my brain starts to burn…' Examples of desired activities were voluntary work, games, group work.

'Having something else to focus on every day would be useful [apart from drink and drugs]'

c) Improving Out-Patient appointment attendance

'Give warnings if clients miss appointments'

d) Mental Health input

'There needs to be more in-house mental health 1:1 sessions,... group work maybe too…'

e) Addictions support post detoxification

'It's so easy to be pulled back into bad habits…'

'You should not come back to Cedars after a detox.' When all participants were asked to comment on this surprisingly 8/9 agreed with this.

However when asked to think about this further…

'All hostels have drink and drugs, so there's no point in moving. But I would go [to a substance misuse free hostel] if there was one'

'I could live here and not drink, but I would need voluntary work / activities to start **straight** from my return from detox.'

'Follow up things [after detox] takes too long to organize'

Focus Group 2 - 2010

(Led by Kendra Schneller, Intermediate Care Nurse)

4 clients attended a 1 hour focus group on 25/02/ 2010. Of the 4 clients 1 had been admitted onto the Intermediate Care Project 3 times. 2 of the clients were current Intermediate Care admissions.

The purpose of this second group was to gain further views about the Intermediate Care service, with the intention of using the clients' experiences to improve the service already being provided. Again a £5 voucher was given as incentive for active participation. All clients stayed the full hour. Below is a summary of the key comments a full write-up is available on request.

What working hours/days would you like to see the staff of the Intermediate Care?

All clients were happy with the way project is currently provided but there was a consensus that some availability at weekends would be useful

'I'm happy with the way things are but it would be nice to have someone available at the weekends'

What would you suggest needs to be done to improve the service?

All participants were extremely happy with the current service. Suggested changes were an on-call service at weekend

'Doesn't need any improvement. Like I said, Saturdays and Sundays, like an on call emergency'

'Organised excellently, doesn't need any changes, well co-ordinated. If it did have an on call emergency then just a couple of hours, 2 hours'

'Emergency on call should be in person'

How long do you think the minimum / maximum number of weeks someone should be with the ICP?

In general 12 weeks was thought to be sufficient, but that there should be flexibility depending on an individuals level of need but if people did not engage or comply they should be taken off. Other suggestions included follow up post discharge

'If you haven't sorted your issues out in 12 weeks then you aint doing what you should be doing. You should come off but once a week you should see how they are doing'

'It depends on how sick you are. It depends; maybe have a follow on thing after you're off. You should watch and guage what people are doing, see if they are attending appointments, if not chuck 'em off.'

What would encourage you to engage (more) with the ICP? What do we need to do in order to recruit people for the ICP?

In general all participants felt that the current staff did a good job in engaging them.

'Not doing anything apart from what you're doing. Needs to be a friendly face. Should be a room where they know they can go to find you and they answer the door. Someone to come and knock on the door.'

'Yeah it puts people off if you knock and don't get an answer, maybe have a way of contacting by phone'

Once off the ICP did you think more, less or about the same about your health?

All attendees identified that they had not really considered their health prior to admission to ICP, and that their admission had changed this.

'Didn't think at all about health before. It made me feel so hurt when I was on. It was a total shock. I was scared. It was some of the hardest things to hear, when you have to tell yourself because of my behaviour I'm not well'

'It made me conscious of how bad my health was. It's been a wake up call, it made me think more about my health'

What do you understand by the term peer educator/supporter? Would you be interested in becoming a peer educator/supporter?

The group were evenly split with 2 attendees interested in the role, 1 in actively participating the other for the support it would provide and 2 attendees not interested at all.

'Yeah I'd be interested, I'd like to do that, I'd gladly do that'

'I'd be worried about confidentiality, although I think it's a good idea. I need someone to support me and help me'

Thinking about your overall experience with the service, did you feel involved with your treatment?

All felt involved in their treatment

'It was blinding, I felt involved, not on my own'

'I felt involved. It's nice to hear that people care and interview us about what we think. It shows you want to hear what we've got to say, our point of view'

Would you recommend the service to others?

All said they would be happy to recommend the service to others.

Summary of Focus Groups

Key points for development / consideration that came out of the two Focus Groups were:

- A possible need for on-call / weekend services
- The need for an activities worker to work closely with the Intermediate Care team.
- The need for further group work to discuss the types of mental health support that might be beneficial to clients.
- A discussion with Supporting People / housing and substance misuse commissioners around the types of accommodation available post detoxification.
- Consideration of the possible role of peer support / education within the Intermediate Care project.

Hostel Staff Feedback

(Data analysed by Samantha Dorney-Smith and Chiara Hendry, Joint Project Leads)

This has been a mixture of types of staff feedback. E-mail feedback was requested prior to the Mid-Point Report in August 2009, and the project was reviewed at a team meeting undertaken also in August 2009. In addition feedback was requested from staff in early 2010. What follows is a summary of all feedback received to date.

Generally the feedback has been consistently positive with constructive suggestions on where improvements could be made on regarding processes, and communication with hostel staff.

Specific positive feedback was given in relation to the flexibility of the service in admitting and engaging patients, but implementation of the 'step down' phase which allows handover to mainstream services was suggested.

Written feedback comments have included:

'Service is a credit to the characters involved in the delivery - always approachable, informative and knowledgable'

'ICP has had a huge positive impact in the hostel and ...a real difference has been made for participating clients'

'Most of our shared clients health have improved greatly as well as their engagement both within and external to the hostel'

'ICT filled a real gap in healthcare provision to our client group that could and should be rolled out through the homeless sector generally'

'The team has done and continues to do a marvelous job at Cedars… Most of them [the clients on the ICP] would probably not have survived by now.'

'Many of the clients are not taken seriously by hospitals… often discharged too early, or even reluctantly admitted… With the Intermediate Care team's intervention and liaisons with the hospitals - we have seen this negative attitude change for the better.'

Key advantages of the Intermediate Care team approach were perceived to be:

'workers from different fields and backgrounds have been able to work well together' to address any issues arising or solve any problems.

'weekly handovers and the flexibility around when and how to accept new patients and the step down process as opposed to an abrupt ending'.

'ICP staff are great at trying to engage clients who are initially unwilling to come on the project'

Areas for development were perceived to be:

‘Making better use of existing communication forums e.g. email, day book, handover, team meetings etc’

‘Getting everyone on board for exit strategies so that good work can be built on and consolidated’

17 key work staff and/or managers attended the team meeting held in August 2009 during which the project was discussed.

Verbal feedback regarding the advantages of the project included:

The ‘physical well-being of clients improves enormously’

That the project had enabled effective monitoring of sick clients – because ‘deteriorations often happen really quickly’, and keywork staff ‘don’t always pick this up’.

That the project had relieved pressure on staff - ‘Having the pressure taken off like when clients are being discharged prematurely’. Keywork staff described problems trying to block discharges they believed to be inappropriate in the past.

Staff now had an ‘increased awareness of the importance of DNAs’, and why they should be avoided. Staff said they would be much more careful to encourage clients to attend, or cancel / rearrange appointments prior to the appointment being missed in the future.

Staff were now better informed regarding how to ‘how to speak to LAS’. Staff described distressing situations where the need for an ambulance was being questioned over the phone, and they didn’t know how to respond to this.

Summary of Hostel Staff Feedback

- The project is believed to have improved the health and well being of all residents of Cedars.
- There have been knock-on benefits of the project to key work staff e.g. increased awareness of the importance of DNAs, knowing how to speak to the London Ambulance Service etc.
- ‘Step-down’ planning needs consideration.
- There is a constant need to review and monitor how communication can be improved between project staff, and the in-house services and staff.

Case Studies

Introduction

The following two cases demonstrate the complexities of the clients on our caseload, and the wide variety of interventions that are required to assist them. Major steps forward were achieved for both clients during their respective admissions, and these are outlined. However in both cases the end 'result' is not perhaps what we would have wished for, and demonstrates some of the frustrations faced by the team, and the fact that we have much further to go to truly meet the needs of these clients. This information is presented in an attempt to give a truly balanced view.

Male, 20s, 11 week admission

First ran away from care at age 9 due to 'abuse', and started drinking at 12. Disclosed previous male sex working (though later denied having ever had sex). Up until age 14 frequently ran away from, and was returned to care, but from 14 years old was street homeless. History of deliberate self harm, depression and of 'hearing voices'. Alcohol consumption of 20 cans cider/day (630 units per week), and prior history of illicit drug use. Was picked up by the street outreach team and referred into Cedars, after previous Homeless Team contact at a day centre.

On admission displayed very poor memory, and episodes of bizarre behaviour including reporting to have lived with a female television presenter (this remained consistent), and walking around with a rubbish bin on his head. It was difficult to ascertain whether these symptoms were due to his alcohol consumption or another underlying mental health or neurological cause. He was also doubly incontinent, and complained of frequent abdominal pain. On admission he was being picked up by the police or the London Ambulance Service on an almost daily basis, mostly due to collapse secondary to his alcohol consumption. He had had 11 hospital admissions in the year prior to his admission (but had never attended any follow-up), and around 50 A&E attendances.

Initial engagement was challenging. He stated he would not engage with staff, and did 'not care about his health, and just wanted to be left to die'. However after considerable relationship building work he did engage. Bloods were taken which showed mild liver pathology. Testing for blood borne viruses was undertaken, and showed past Hepatitis C. Various appointments were organised, and he was escorted to them by staff. (In fact he only saw the GP once - he only agreed to engage with the nurses, which is an important fact to note about the success of this project). Appointments included a memory clinic appointment to rule out early Korsakoffs, medical and surgical reviews for gastric problems, and a neurology review. Gastroenterology appointments for a barium swallow, and abdominal ultrasound were organised as a result of gastroenterologist review. Neurology review revealed that a previous CT head scan from A&E attendance had showed brain atrophy suspected to be secondary to alcohol dependence from a young age. However a further CT scan during a hospital admission whilst on the project showed no atrophy and was otherwise normal. The consultant decided that the incontinence was due to alcohol related withdrawal fitting. An EEG was ordered. Social work input was requested, and the social work substance misuse team organised to meet the client, however he was not in the hostel when they attended. The project team delivered a considerable amount of nursing care (for example assisting the client to

shower, change his bed etc) in the absence of outside social care support. The client refused thiamine and multi-vitamins throughout admission despite considerable encouragement, but was persuaded to eat whenever possible.

Once the organic causes of the client's behaviour were ruled out, various referrals were made to the mental health services. The client was informally assessed by the specialist homeless mental health team, but the assessment was hampered by a high level of intoxication and associated poor responses. Finally an assessment under the mental health act was facilitated and undertaken by the specialist mental health team, and the client was admitted to the local hospital under section 2 (taken by ambulance and police escort). He was admitted for detoxification to enable a full mental health assessment to be undertaken. After detoxification no formal Severe and Enduring Mental Illness diagnosis was given, and cognitive testing revealed no special needs. As such it was concluded that his mental health behaviours were entirely related to the levels of his intoxification. The client had his EEG whilst under section 2. Unfortunately the client was booked out of the hostel during his admission, and as a result was discharged from the project.

N.B. Following discharge from the in-patient unit, the client was moved into bedsit (temporary accommodation), where he did not cope well. He started to use alcohol again, and reported using illicit drugs. After abandoning the bedsit he briefly spent time on the streets again, before being re admitted back into a homeless rolling shelter. His alcohol intake then increased further. He then had several repeat attendances in A&E again, followed by a short prison stay where he was detoxed again, before being released to a 'wet' hostel' - where he unsurprisingly started drinking alcohol again within 24 hours. It should be noted that in-patient type rehabilitation places were offered to this client, but he refused due to his perceptions of what he thought he would be required to talk about (in relation to his past).

As such the key achievements of the team during the client's admission were:

- Engagement
- Comprehensive health assessment
- Appropriate specialist opinions (in an out-patient setting)
- Reduced secondary care usage
- Improved health
- Detoxification

The lessons that need to be learned from this case are how clients can be appropriately supported after their admission (particularly if they have to leave the hostel), and that appropriate rehabilitation placements, fully acceptable to these types of clients, also need to be sourced.

Female, 30s, 10 week admission

Left home at 16 following sexual abuse. As an adult spent time street homeless, in prison, and in homeless hostels. Diagnosed with both HIV and Hepatitis C, but was not engaging with treatment for either on admission. Had both drug and alcohol issues (groin injector of Heroin, and drinking 6 -7 cans of 9% cider a day), but was not engaging with treatment for either on admission.

On initial assessment said she felt ‘well’, and did not believe her health was in an issue. Took a month to engage fully with the intermediate care service. During the admission was referred and escorted to appointments in an HIV / Hepatitis C co-infection clinic, where she was recommenced on medications. Medications were given four times a day via a dossett box. Medications were prescribed to assist with nausea (which had been a key cause of previous disengagement with treatment). Treated with antibiotics for both a painful ulcer on her right ankle, and a dental abscess. Wound was assessed and treated. Commenced on an in-house methadone maintenance programme. Had a smear test, and was treated for two genitourinary infections (candida and bacterial vaginosis).

Once she was engaging well with the services, she was discharged back to self care. At this time she completed a successful two week in-patient detoxification for both drugs and alcohol, and spoke at the Mid-Point Review about her experiences of the service.

Follow up: The client later relapsed and four months later was re-admitted to the project following a 5 week stay in hospital for pancreatitis, and later pneumonia. On leaving the hospital she started to take drugs and alcohol again, and this time stated she had no desire to stop. She had several more admissions to hospital, but was often self-discharged. She stopped engaging, stopped taking all her medications, became encephalopathic, and jaundiced, and finally her mobility decreased to the point where she had to be seen by the team in her room. At this point the client was persuaded to return to hospital by which time she was already in multiple organ failure. She passed away 1 week later.

This brings into question the original length of admission, and whether step-down support is required - in this case to maintain the potential benefits of the original admission. Her second admission was focused on ‘never giving up’, and attempting to get her fully re-engaged, but also on providing palliative care support when this became the inevitable need.

As such the key achievements of the team during the client’s admission were:

- Re-engagement with appropriate services
- Improved health
- Detoxification

The lesson that needs to be learned from this case is also how clients can be appropriately supported after their admission. (However it should be noted that the end result in this case may have been unavoidable no matter what intervention was provided, and at least the client was given every possible chance to access health services.)

Discussion

Intermediate Care

What makes this project 'Intermediate Care'?

This document has referred to the unique Homeless Intermediate Care project as developed at Cedars road. The organizational structure of the pilot project model was informed by extensive preparatory work. 'The Road to Recovery: A Feasibility Study into Homeless Intermediate Care' (Lane, 2005), and 'How should Community Matrons approach the Demand Management of homeless clients. A Systematic Review' (Dorney-Smith, 2007) were both funded by the Guys and St. Thomas' Charitable Foundation (the first directly, and the second through the Primary Care Research Infrastructure Programme. (Both documents are available on request.)

The term 'Intermediate Care' is most routinely applied to Intermediate Care in-patient Units, which are similar to hospital wards in their environment, philosophy and organization. This pilot project model has obviously been quite different, particularly in terms of the environment. Although there were discussions around setting up a more formal 'ward' or 'sanctuary' unit within the hostel environment, this was not financially or practically viable at the time.

The term 'Intermediate Care' has been defined as a 'range of integrated services to promote faster recovery from illness, prevent unnecessary acute hospital admission, support timely discharge and maximise independent living' (NSF for Older People, DOH, June 2002). Using this definition it can be clearly identified that the model of Intermediate Care provided at Cedars Road Hostel fits this criteria.

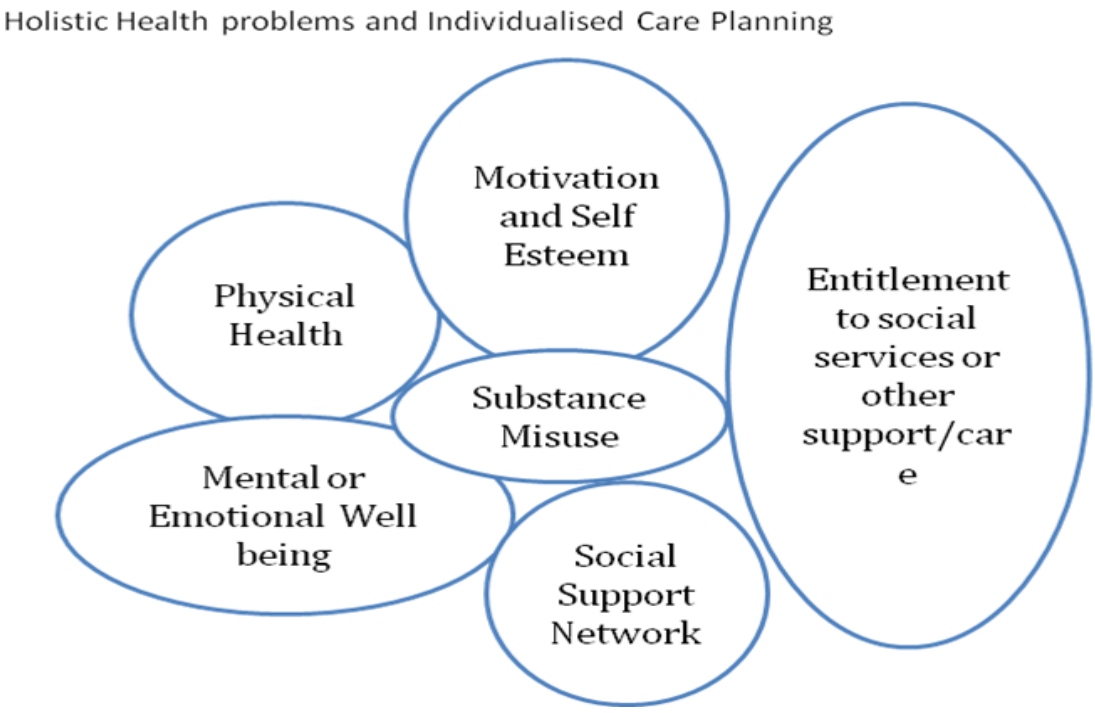
Within health and social care intermediate care is historically identified with in-patient services. Particularly associated with the care of older people in recent years, this has evolved to include Hospital at Home, the Virtual Ward and other innovative approaches to reduce secondary care usage. 'Intermediate Care services enable people to improve their independence and aim to provide a range of enabling, rehabilitative and treatment services in community and residential settings.' (Joint Improvement Team Scotland Website, 2010). This reinforces the position of this pilot and on-going project within Intermediate Care.

Model of Care Provision

It is confusing and ultimately misleading to associate this model of intermediate care with 'case management'. Whilst all patients within intermediate care are effectively case managed, and the staff in the team need to be skilled at managing a complex caseload over a length period, the care provision is much more intensive and includes integrated treatment and responsive management of frequently extremely unwell people with complex needs.

Holistic health care has been an overarching ambition for several years now, but frequently it is an ideal rather than an achievement; as most medicine, and by default nursing, rarely adjusts to the lifestyle and wishes of the individual. The model of care provided by the HICP and wider hostel team is a step closer to that ideal, and is providing high quality holistic care whilst demonstrating that holistic care can be provided in some of the most challenging circumstances (highly complex and unusual lifestyles).

As has been described earlier, the individuals who have accessed HICP have a variety of co-morbidities and social and psychological issues. In an attempt to describe the extent of the individualised care planning that is required, the following diagram charts these issues.



All areas are interlinked, but frequently physical health issues are given very low priority by service users, despite the impact these problems may have on all other aspects of the individual's life.

Advocacy / Escorting

One of the key features of this model of care has been the high use of advocacy and escorting. By escorting and attending various healthcare appointments there are multiple benefits:

1. The patient attends the appointment in a timely manner with a reduction in the costs of missed appointments.
2. There is someone there to provide support, reassurance, advice and then act as a 'memory'. This is particularly useful for any appointments with complex instructions/ requests, or when life changing information has been given. This is also of benefit for the specialist, as details of current medications and recent blood tests can also be provided by the escort.
3. There is someone there to act as an advocate for the patient, and negotiate times and frequency of appointments/ medication etc in an appropriate manner (frequently patients do not disclose why they cannot attend an appointment for fear of discrimination or judgmental responses). This can in turn help to break down the stigma associated with homelessness and substance misuse.
4. The professional escort acts as a quick communication between specialist and generalist care providers, and can request further information at the appointment. Routinely letters from specialist consultants to GP's communicating changes in treatment can take up to two weeks to be received by the GP.

Engagement

Another key feature of this model of care has been the high level of engagement work undertaken. This report has not fully assessed the strategies and skills being utilized by the project staff to engage this 'hard to reach group', but there is a clear recognition that the level of engagement work on this project has been extremely high. This may well benefit from further description in the future.

Treating co-morbidity

Client motivation

Client motivation is an integral issue that was raised in the Mid-Term Report, and is the most important factor required for effective client assessment and referral to substance misuse services, however unfortunately it is quite difficult to work on motivation and self esteem whilst someone is in very poor physical health. The starting point is about finding a way of getting clients to believe they have something to live for (which is why the building of relationships is so important in this case).

Substance Misuse

The issues discussed in the Mid Term report in relation to move-on options after detoxification for substance misuse clients have not been successfully eradicated. On the whole there is a system failure for homeless patients. Without alternative housing options available following detoxification and rehabilitation most substance misuse treatment packages will not succeed. This creates issues when attempting to motivate clients to be treated. High levels of concurrent morbidity and alcohol consumption result in most patients on the pilot being unsuitable for 'community detox', despite high levels of nursing and medical care – which is what most clients say they want.

There may not be any solutions readily available in the current treatment system available to meet the complex needs of this patient group. 'Substance misuse rehabilitation units are not the place for them' (Chandy, 2010). This is mainly because this group of clients does not cope well in this formal environment, and cannot face 'moving away' from the very fragile existing support network they perceive themselves to have. This is a very small, but costly group of patients and therefore the plans for them, similar to the intermediate care service provision, need to be very individualised and potentially innovative/specialized. Perhaps we have been looking for a single solution to substance misuse problems, when 'Substance Misuse is the cholera or TB of the 21st Century', (Kelleher, 2010), and needs the same multi-system approach.

However it should be noted that improvements in provision have been made where periods of stabilization have been planned prior to another treatment (for example palliative care hospice respite).

Mental Health

Access to mental health support or treatment were also identified in the Mid-Term Report as being problematic. Access to assessment and treatment for clients with Severe and Enduring Mental Health problems within mental health services is not currently an issue, as the START team (South Thames Assessment and Treatment Team for Homeless Mental Team, SLAM) are very responsive and supportive, and if an individual has a diagnosis of a severe and enduring mental illness there is currently adequate service provision. However in the current economic climate and with NHS restructuring the position of this team is not necessarily secure.

What continues to be an on-going problem though, is providing appropriate interventions for common milder mental health conditions. Whilst there are increasing services available via primary care for individuals who have been abstinent from drugs and alcohol (this can be for a minimum of 18 months), few services meet the needs of clients with ongoing substance misuse problems. Some local services do appear to be able to take referrals for common mental illness (anxiety and depression etc) without abstinence, but it is the experience of this teams, that blocks do eventually appear.

The hostel does provide in-house psychotherapy funded by St. Mungo's and some clients have accessed this successfully. However others are suspicious of using in-house services, and would prefer outside provision.

The wider Homeless Team is in the process of developing protocols and guidance in Mental Health that relate to the specific needs of the group, due to the high levels of mental illness presented by the population. It is hoped that our intermediate care clients will benefit from this.

Models for Dissemination

Introduction

Due to the early positive indications from the Mid-Term Report of the Homeless Intermediate Care Pilot Project (HICP) the team has been widely asked to document our learning for dissemination, for the benefit of other providers. One of the most common requests regards the precise recommended model of health care that should be provided for complex homeless clients as part of a variety of local and national interventions to address homeless healthcare and rough sleeping, particularly as the HICP has been used as an example of best practice by the Department of Health (March, 2010). However our exact model might not fit all situations. As such what has been attempted here, is to describe the current model effectively, but also to suggest a number of other potential models for dissemination. These models are also potential models for expansion of our existing service.

Process

The author performed semi-structured interviews with all HICP staff available during May and June 2010 (including nurses who had worked briefly on the HICP covering maternity leave), and a selection of identified key stakeholders.

Information gathered from these interviews was summarized to the management group, and a workshop was held on 26th May 2010 where potential models were reviewed, and a SWOT analysis was performed.

The resultant proposed models for the HICP are described below:

As it is (current provision at Cedar's Road Hostel)

- 1 FTE nurse Band 7
- 1 FTE Health Support worker
- 1 4.5 hour on-site GP session per week
- 10 Cedars patients who fit criteria for aprox 12 weeks (+/-)
- Serves only Cedars residents but largest hostel in Lambeth, so has highest level of need

ADVANTAGES / DISADVANTAGES:

- No equity of access within current model, as only serves the needs of one hostel, not the whole area. Concerns as it is unknown what the need is across the borough. (Data provided by EP could be used to initiate this)
- Need to strengthen the commercial side of the current model to make it robust. Difficulty in continuing client referrals without creating inequalities.
- Capacity of the wider hostel and ability to manage complex individuals, also cross Borough issues for clients sleeping rough.

Diluted/ Group model (across 2-3 hostels)

- Group local hostels to total residents of 100
- Each group has 1 FTE band 7 nurse
- GP provision solely within current contracts/LES or otherwise
- Maximum 10/12 patients across group
- 1 FTE Health Support worker in each hostel
- 1 FTE Nurse Band 7 – across 100 clients (approximately)
- Develop nurse role to Nurse Practitioner (prescriber and formal referral rights etc)
- Develop HSW role in-line with Health Care Assistant (including accessing HCA training via PCT)
- Develop peer educator/peer advocate programme for escorting, benefits etc

ADVANTAGES / DISADVANTAGES:

- Greater equity in Borough as nurses will access clients from other hostels
- However less GP access for each client
- Issues around confidentiality
- May be less efficient and reduced productivity (? Due to travel, less direct personal relationship with nurse)

Hub Model

- Based at one hostel, but accepts referrals directly to HICP from other hostels / sites across borough (or local area)
- Develop nurse and HSW (as 'Diluted/Group' model)
- Develop peer educator role (as 'Diluted/Group' model), but due to focus group feedback around concerns re confidentiality this role is more of a 'buddy'.
- Maintain same staffing as currently (nurse may have flexibility to either take on some generic homeless health work/ management of service currently provided by service manager)
- GP session still to be fully reviewed, looking at virtual ward, ICP at home etc
- Requires identifying a hostel in each borough that will host the ICP for the whole borough.
- Established liaison with secondary care needs to be maintained, and prevent confusion as only one source of referrals or discharge.
- Requires fuller analysis of the hostel & housing issues, with local hostels to ensure the clients that meet the HICP criteria are appropriately referred to the hostel hosting the service.
  Some clients from the hostel hosting the HICP can be transferred to other hostels as they would need less 'clinical interventions' e.g. Cedars (Lambeth), Great Guildford St (Southwark), Spring Gardens (Lewisham)

ADVANTAGES / DISADVANTAGES:

- Needs a clear criteria for referral i.e. flexibility to free space for other clients to attend (not just cedars clients)
- The flow of people i.e. the number of people to Cedars against the regular referral of people.
- Practical issues around referrals and with exchange of information between hostels.
- GP access should be just as currently provided and clinic times will have to increase.
- Cedars GP's should handle temporary (GP) registration of clients to improve handovers, medication history to help avoid duplication of records. But can take time to receive GP records.

Mix & Match/ Eclectic

- Combination of models already described and some others suggested elsewhere
- Liverpool (spot purchasing)
- Sanctuary
- Homeless ward round

ADVANTAGES / DISADVANTAGES:

- This could be useful for other services.

Local Recommendation

For the needs of the local area, the 'Hub' model is considered the most appropriate as there are high levels of social exclusion across the wider geographic area which result in highly complex homeless patients in a variety of settings (as can be seen from our secondary care usage data), all of whom ultimately require costly packages of health and social care. Referral pathways would need to be clarified with other hostels in the area, but ultimately service provision would attempt to meet those with the highest need across the health and social care geographical area, rather than only those accessing the one hostel. Although for a few clients there may be some disruption to their established housing arrangements, ideally this should be of a temporary nature, as would any other admission to an intermediate care ward, whilst maintaining and developing their independence within another environment. The team would be happy to provide a plan for how this might work in detail as required.

Whilst the 'Dilute / Group' model would allow for individuals to remain within their original hostel there would be issues in relation to patients not housed within the group, the GP provision would be potentially complex, and the costs for providing this service would be much greater (both in terms of the GP contracts, Health Support Worker posts and Band 7 nursing posts). As such this may not result in cost savings as this project has done. In fact GP session provision is still to be fully analyzed - to assess what constitutes the ideal session provision that enables the flexibility for this client group's lifestyle, but also ensures full use of all allocated resources.

Conclusion

From a statistical and financial perspective the HICP has been very successful. This has been demonstrated via a review of all the health outcomes data, and a positive economic evaluation of secondary care usage reductions, with an academic conclusion of likely cost neutrality. In addition client and staff feedback is extremely positive, and has helped to ensure that developments in the service have been patient led.

However the service has also provided a vital opportunity to address the highly complex needs of a small but extremely problematic group in a holistic way. The case studies have demonstrated some of the highly complex problems and needs that most of the individuals on HICP experience. It is important to acknowledge that current mainstream services do not meet these needs, and that input from specialist services like this HICP need to be maintained, in order to improve the quality of life and health outcomes of such individuals.

In addition the project has started to examine and address issues that are pertinent to the effective delivery of homeless health services everywhere. This should be seen as a very positive aspect of the project. Plans have been made for developments of the service for next year. The project team is striving to 'get it right' on every level.

Finally a definition of 'intermediate care' and a summary of suggested ways to implement the model elsewhere, has disseminated our learning to others in a constructive way.

Summary of Pilot Project Key Achievements

In summary the key achievements of this project have been:

- Better client health outcomes
- Considerably reduced secondary care usage
- Cost neutrality
- A full description of the cohort morbidity
- High client satisfaction
- Successful partnership working with the voluntary sector
- Documentation of experiential learning for the benefit of others
- Clear national recognition

Recommendations

Funding for the ongoing Homeless Intermediate Care service has been so far extended until March 2011. However results of the economic evaluation have not been available until now, and any funding decisions regarding funding from April 2011 onwards needs to be made now.

From the findings within this report it is recommended that the current model of Homeless Intermediate Care obtains continued funding, as it is improving these individuals' health outcomes, without additional cost to the NHS. This project should be seen as a flagship project for Lambeth Community Health considering its national recognition, and a key demonstration of its commitment to break down health inequalities.

In view of the success of the project the authors (and management team) have attempted to consider ways in which the local service can be expanded. As such further recommendations are:

- The service should be expanded so that more individuals can benefit
- The 'Hub' model described is the manner in which it should be expanded (further detail can be provided as necessary)
- Referral pathways need to be agreed to allow for referrals from across the Borough
- Other local boroughs (Southwark & Lewisham) should also consider this model for application, due to the high use of A&E and in-patient services in those boroughs (data can be provided)

It is also recommended that other geographic areas may want to consider piloting their own specialist intermediate care services for their homeless clients. It is not considered that every area in the country will require such input, but many urban areas with high levels of deprivation and social exclusion may also benefit from such provision.

Areas for Further Development

Areas for further development are:

Increasing integration with social care

It is the author's opinion that 'spot purchasing' funding arrangements need to be developed for the individuals on the HICP. As this is a small population it should be relatively straightforward, within current personalized care budgets, to develop integrated (health and social) care plans for those on HICP.

Increased partnership with housing

The team is currently working with Supporting People to look at how clients with complex health problems might be supported within move-on accommodation from hostels.

Improving communication with both in-house and statutory service partners

The project would like to achieve excellence in communication with all it's project partners.

Live Website

Such a website would disseminate ongoing learning, and promote networking in this type of service provision.

Placements for NHS staff

We think we could provide useful placements e.g. GPs, Community Matrons and GPs.

Hospital discharge work

The team will feed into the Department of Health work on improving hospital discharge practices for homeless people.

Peer Educator / Buddy Programme

Funding from the Homeless Health Iniative will ensure a series of workshops focusing on service user involvement will be undertaken over the next 3 months to lead on designing and developing the programme.

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Appendix 1

Detailed Demographics

Age by gender

	Male	**Female**	**Total**
21-29 years old	3	3	**6 (16.2%)**
30-39 years old	8	4	**12 (32.4%)**
40-49 years old	12	6	**18 (48.6%)**
50-59 years old	-	-	**-**
60-69 years old	1	0	**1 (2.7%)**
Total	**24 (64.9%)**	**13 (35.1%)**	**37 (100%)**

Mean age = 38.9 years (n=37)

SD = 7.5 years

Range = 25 to 60 years

Years homeless by gender

	Male	**Female**	**Total**
0 to 4 years homeless	6	5	**11 (39.3%)**
5 to 9 years homeless	1	3	**4 (14.3%)**
10 to 14 years homeless	4	3	**7 (25.0%)**
15 to 19 years homeless	1	-	**1 (3.6%)**
20 years or more homeless	5	-	**5 (17.9%)**
Total	**17 (60.7%)**	**11 (39.3%)**	**28 (100%)**

Mean years homeless = 8.5 years (n=28)

SD = 7.0 years

Range = 1 to 20 years

Number of Children (n=31)

No children	13 (40.6%)
State they have children but no number given	9 (31.0%)
1 child	3 (10.3%)
2 children	4 (13.8%)
4 children	2 (6.9%)
Contact with children	5
Contact with family	19 (51.4%)

Suicide

The majority of people who responded to the question about suicide had made at least one suicide attempt (n=20; 71.4%).

Suicide Attempts

No attempts	8 (28.6%)
1 attempt	13 (46.4%)
2 attempts	4 (14.3%)
3 attempts	2 (7.1%)
8 attempts	1 (3.6%)

Mean number of suicide attempts = 1.25 attempts

SD = 1.6 attempts

Appendix 2

Research tools - standardized questionnaires

EQ-5D

Please contact info@mungos.org for copies of these questionnaires.

Nurse Dependency Score

	1	2	3	4
Personal Care / Hygiene Bathing / hair washing / clean clothes	Independent, no supervision	Requires prompting to meet personal care needs, but is able to meet all needs when prompted.	Unable to meet all personal care needs, even when prompted. Difficulty meeting personal care needs due to neurological problems, substance misuse, mobility etc. Would benefit from social care package.	Unable to meet own personal care needs. Needs social case package. Would have these needs fully met if in hospital.
Feeding / Nutrition	Independent, no supervision	Inadequate / inappropriate diet requiring constant health education.	Weight loss / inability to eat requiring supplements, regular weight monitoring, and encouragement	Unable to eat and/or vomiting. Would benefit from being in hospital. Would be on IV fluids if admitted.
Elimination	Independent	Occasional incontinence but cleans self up. Constipation requiring medication.	Regular incontinence, needs pads etc.	Regular incontinence, does not clean self up. Needs social case package if available / would accept.
Mobility	Independent	Concerns re safety. Unsteady on feet, prone to falls.	Concerns re safety. Needs stick or crutches. Unsteady on feet, prone to falls.	Dependent for mobility. Should be being supported for mobility.
Nursing Attention	Minimal involvement Daily check and chat	Regular dressings 2-3 times weekly. Regular motivational work 2-3 times weekly. Needs prompting to take medication.	Specific daily observations e.g. peak flow, temperature, wound monitoring. Regular checks by hostel staff to see whether deteriorating. Large dressings. Extensive health education / counseling / harm reduction advice on a daily basis. Regular bloods required e.g. due to liver function or STI. Non-compliant with medication without a lot of encouragement.	Needs more than once daily observations. Needs daily bloods. Non-compliant with medication and life is at risk as a result. Should be admitted to hospital.

Appendix 3 – HICP Care Plan

	Already done prior to admission on IC? Y/N or NA	Not done prior to admission. Needed now? Y/N or NA	Who responsible? (Initials)	Date for review?	Date completed?	Comments
Comprehensive Health Assessment						
Blood test (full screen)						
Medication compliance work						
Wound dressing						
All relevant vaccinations – Hep A/B, pnemococcal, Revaxis booster (specify those needed in comments)						
TB screening (verbal screen + referral to/attendance at clinic and/or reported CXR)						
Cervical screening						
STI screening (Chlamydia / gonorrhoea urine or cervical swab + syphilis bloods)						
Mental health referral (clarify in comments)						
Pre-detox work (clarify 'aim' in comments)						
Vitamins (for alcohol misuse)						
Harm minimisation work						
Malnutrition work (BMI < 18.5)						
Smoking cessation work						
Asthma check						
Epilepsy check						
Hypertension / cardiac check						
Social services referral						
Physiotherapy referral						
OT referral						
Domestic Violence advice						

Benefits assistance / advice						
Incontinence nurse referral						
Palliative care referral						
Chiropody						
Other (please specifiy)....examples. a) Liver / neuro / vascular OPA attendance. b) meeting with own family c) clear up room d) make enquiries about voluntary work						

End of treatment summary:

MAIN ACHEIVEMENTS

1.

2.

3.

4.

5.

Further Information

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