

SYSTEM WIDE BUSINESS CASE				Fit for the Future Working together to keep people well	
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Business Case Title:		Case Management			
Organisation(s) submitting business case:		CPFT			
STP Work Stream / Directorate		PCIN			
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Senior Finance Manager Comments:		<i>This is to be completed by the Senior Finance representative responsible for reviewing bids prior to submission to the Exec Team / relevant committee for approval</i>			
Executive Team / Committee Meeting Comments:		<i>This is to be completed by the Exec Team / relevant committee reviewing the Business Case to capture the outcome of the review.</i>			

Guide to complete (and submit) your business case:

This document provides a template for all Business Cases. Please complete every section using the guidance as highlighted.

Be clear and concise.

Where relevant, try to articulate the case in terms of three core areas; Clinical effectiveness, Patient Experience and Safety.

Where necessary, involve specialists e.g. from finance, and proposed project work-streams to provide business case information including costs, risks, benefits and assumptions.

Include a paragraph in the Conclusion and Recommendations section explaining the decisions the committee are being asked to make.

Once completed, arrange for the business case to be reviewed by a peer and agreed by the Executive Sponsor before submission to the relevant board. Allow enough time for key people to review drafts, to support getting the business case right before it goes through the formal approval process.

Section Guidance is given in italics

[A] EXECUTIVE SUMMARY:

A1 – Purpose:

Managing people who are frail, who have complex needs and long term conditions is a growing and significant demand on primary care, acute hospitals and social care. It is one of the major challenges facing the health and social care economy over the next 5 years.

To help address this rising demand, the proposal is to implement a new model for case finding and case management across the Cambridgeshire and Peterborough health and social care system. It will identify the frailest and most complex elderly patients using a risk stratification tool, and will provide a consistent case management pathway with the aim of maximising independence and preventing avoidable unplanned care/ admissions. This approach was recommended as part of the strategy for integrated older people’s services (Uniting Care contract) and has remained a key priority for health and social care partners. Significant work has already taken place over the past year, with involvement of all key stakeholders to develop the model, focusing on four Trailblazer Neighbourhood Teams (NTs).

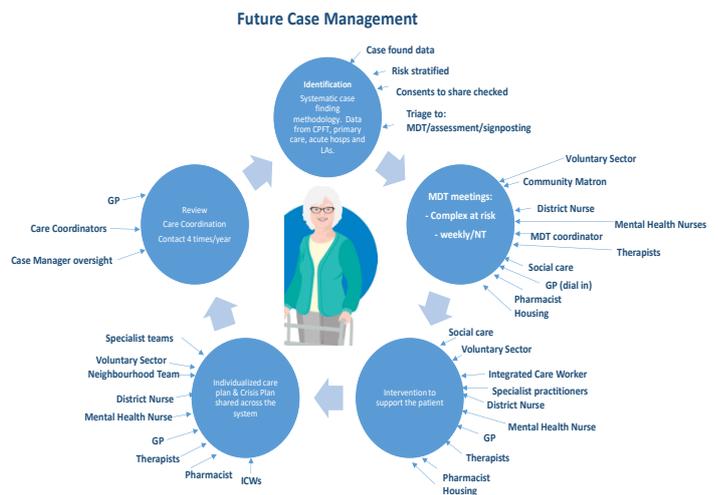
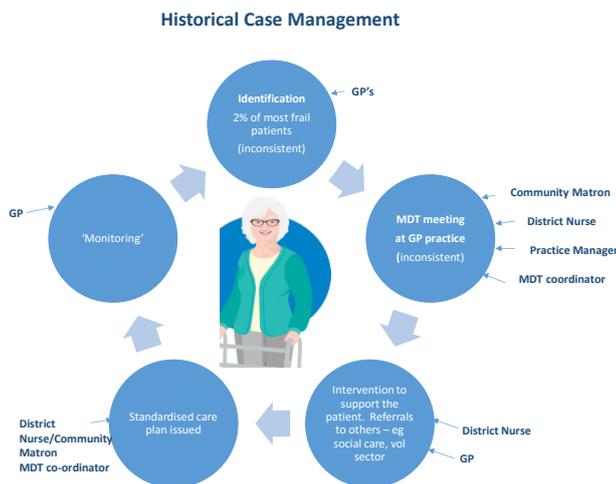
Current MDT management of complex patients takes place via a direct enhanced service. This is ending 31/3/17 and is being replaced by the requirement to identify the most frail patients using a case finding tool and to undertake an annual review. The approach described in this paper complements the key role of the GP in MDT management, by ensuring there is a consistent approach to case finding, input from other agencies, and dedicated support in the community.

The case management pathway includes an initial assessment, care planning and stabilisation phase. Where appropriate, an MDT meeting will be used to review the patient’s holistic needs and establish the input required from primary care, community services, social services and the voluntary sector. During the monitoring phase patients will be reviewed on a regular basis to identify a change in need. Every patient will have an up to date care plan and crisis plan to manage their long term health and social needs.

Comprehensive case finding and case management is critical to the system if we want to better manage the complex, frail and elderly population. When fully recruited this model will support the top 7.5% (11200 of over 65s) of older people who are most frail. This equates to an average of 800 patients per Neighbourhood Team (based on planned reduction of NTs from 16 to 14).

Diagram 1: Historical model (Appendix 1)

Diagram 2: Future model (Appendix 1)



A2 – Driver for Change:

Pressure on the system continues to grow, in particular acute hospital unplanned attendances and admissions. This requires key partners to work closer in a consistent and co-ordinated way as referenced in the STP.

The population of older people is rising rapidly and expected to grow by 34% for over 75s and 46% for over 85s by 2021.

Managing frailty is a huge challenge for health and social care. Where this can be achieved within a community setting there is both a patient and system benefit. It is well evidenced that hospital admissions within the elderly and frail lead to deconditioning, decreased cognitive function and decreased levels of independence which leads to needing greater levels of support.

Current MDT/case management models vary significantly across Cambridgeshire and Peterborough and do not sufficiently engage key partners, especially social care and the voluntary sector. This along with a lack of consistency in the case finding methodology will lead to future system pressures. Patients that are identified at an earlier point on a frailty pathway can be supported to self-manage their conditions with the minimum level of health and social care interventions and therefore reduce demand on statutory services.

The Trailblazer model:

- Brings together all MDT partners
- Identifies and ranks patients through a risk stratification tool to target the frailest people whilst also tackling those that are likely to become dependent of the services at a future date.
- Uses a consistent approach across all neighbourhoods and primary care (14 NTs, 105 practices, 2 local authorities and 2 overarching voluntary sector organisations)
- Makes the best use of the voluntary sector as a critical and expandable resource
- Integrates the key elements of an effective care and support system for frail people – i.e. primary care, case finding, case management, intermediate care, JET/urgent response services, reablement, specialist pathway teams

A3 – Alignment with Organisation or System Priorities:

Effective case finding and case management is a key enabler for the STP priority of **‘at home is best’**. Coordinated and effective management of people who are elderly, frail and have complex needs will promote independence and allow people to stay at home in a supported environment for longer. Supporting these people through a broader MDT model that include voluntary sector gives the system an integrated structure to make the best use of services and resources (STP priority: **‘we’re only sustainable together’**).

Specific STP references are:

- **10-point plan, point 1:** People powered health and well-being
- **10-point plan, point 2:** Neighbourhood care hubs
- **10-point plan, point 6:** Partnership working
- 100,000 people in Cambridgeshire and Peterborough with multiple long term conditions which lead to complex health needs
- People with long term conditions often experience a lack of coordination in the management of their condition. Too many people experience fragmented care
- Historic underfunding of the local health and social care system is reflected in the poor management of long term conditions
- We aim to deliver truly integrated health and social care
- We need to work more closely with district councils
- NTs, primary care and social care will work with the voluntary and community sector to identify those at risk or with deteriorating health

A4 – Brief Outline of Proposal:

This proposal seeks to implement a system wide case finding and risk stratification methodology to ensure that the top 7.5% frailest patients of the over 65 population of Cambridgeshire and Peterborough are identified and supported through an integrated case management approach. This will ensure that the correct people are identified no matter what GP practice they are aligned to.

The case management team embedded within each of the neighbourhood teams will support these patients to access the necessary assessment and interventions they need, working closely with primary care. For those patients who are most at risk with complex health and social care needs, an MDT approach that includes MDT co-ordinators, GPs, mental health specialists, social care, voluntary sector representatives, community nurses, community matrons and therapists will be used. The MDT will build an individualised care plan to implement the right interventions for each patient to be supported within their own home. In order for this approach to be successful, investment will be required to allow for VCS support, administration support and to build an MDT with appropriate breath of knowledge, skills and experience.

Where the case management capacity of NTs is expanded, patients can also be monitored to provide better outcomes for those people that reduces the burden and cost to the health and social care system over the next 5 years.

A typical case example that shows the case management model and how it links to other elements of the integrated STP model is:

Mrs Jones is 85, frail and lives alone. She has a number of health conditions including diabetes and hypertension that causes her to feel dizzy and fall which has led to 3 recent attendances at ED. Her husband died 5 months ago and since then she has felt low in mood and anxious about coping alone. She has become less socially active since her husband died.

An analysis of information from the acute hospital, primary care, CPFT and the Local Authority has indicated that Mrs Jones might be at risk of deterioration and avoidable admission. The team review her history and arrange an assessment by a band 6 community nurse. The nurse undertakes a comprehensive assessment that covers all areas of need for Mrs Jones including mental health, social care and her level of frailty.

Following this the nurse discusses Mrs Jones in the NT MDT meeting that includes mental health, community matrons, social care, primary care and the voluntary sector. Together they agree a plan that includes assessment by a MH nurse, review of her medication by her GP, a falls assessment by the NT OT, a visit by the voluntary sector co-ordinator and a regular check of her observations by a band 4 support worker.

The community nurse visits Mrs Jones again and provides her with a written copy of her care plan, that also includes who to contact in the event that she needs help urgently. Her first point of contact is her neighbour who has a key, but her "What if?" plan also includes her care co-ordinator (community nurse) and the JET team number.

Over time Mrs Jones feels better in herself. She has regular contact with a voluntary group and sees her band 4 support worker every month to check her observations and that all is well. However, one weekend she develops an infection, feels weak, unwell and takes to her bed. She calls the JET team who visit her. They arrange for anti-biotics and for intermediate care workers to call 3 times a day. The workers keep her hydrated, help her wash and ensure she takes her medications. Her community nurse calls to review her too. After 3-4 days she is feeling better and able to get up and do more for herself and only needs a call once a day from the intermediate care team. After 6 days she feels able to manage independently again.

This case example describes case management as one element of a model that integrates with primary care, intermediate care, voluntary sector, JET and other services.

A5 – Financial Impact and Outcomes:

The proposal aims to focus on the 7.5% most frail older people, case found through information sharing between CPFT, acute hospitals, local authorities and primary care practices. 7.5% of the total over-65 population (149000) equates to 11200. Risk stratification assumptions for the 11200 cohort are as follows:

Table 1

Highly Frail	20%	2238	Frail	60%	6714	Less Frail	20%	2238
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Table 2 describes the resources necessary to increase NT capacity to support the 7.5% of the most frail O-65 population i.e. 11,200 people. WTE values are calculated from the average time spent by each practitioner in delivering each of the 3 “levels” of frailty pathway. The workforce modelling has been completed for the patient pathway and does not include the tasks required to establish and manage the service across each NT (e.g. co-ordination of MDT meetings, GP engagement, operational management and clinical leadership.) The actual resources requested have been adjusted accordingly. Please see appendix 2 for more details on the workforce modelling.

Table 2

	Workforce modelling				Additional resources required operationally for the 4 NTs
	HF	F	LF	Total	Required
MDT co-ordinator B5					*
Comm Matron B7	11.90	3.41	0.00	15.31	14 (1 per NT)
Nurse/OT B6	11.90	18.28	2.13	32.31	32.5
Nurse/OT B5	0.00	18.28	2.13	20.41	20.5
HCA B4	14.21	16.79	0.71	32.59	33
B3 Admin	0.18	0.53	0.18	0.89	4** (1 per locality)

* MDT co-ordinators are currently established and within CPFT baseline funding

* Required to enable managers and clinicians to effectively operate the case management model

The financial impact of this business case has built primarily on evidence from the Trailblazer pilot and a meta-analysis study of 48 papers looking at reducing hospital admission for older people (Philp et al 2013).

The paper referred to 3 case management studies one of which showed that recruited patients displayed a 20.8% reduction in ED presentations, a 27.9% reduction in hospital admissions, and a 19.2% reduction in bed-days. In comparison, the patients who declined recruitment displayed a 5.2% increase in ED presentations, a 4.4% reduction in hospital admissions, and a 15.33 increase in in-patient bed-days over a similar timeframe. The other 2 studies showed no significant savings from case management as a stand alone additional service.

Evidence on the impact of case management is ‘promising but mixed’ (Purdy 2010). This is mainly because of the difficulty in attributing any tangible impact (e.g. reduction in hospital utilisation) to the case management intervention when there are multiple factors at play. Nonetheless, there is widespread recognition of the model’s validity. It is very similar to care co-ordination in mental health, which has successfully avoided admissions for the last two decades. Case management is also supported and recognised by both NHS England and the King’s Fund as a key method of improving care for complex and frail individuals and avoiding unnecessary admission.

Positive outcomes have been reported from emerging models of integrated MDT care for frail people, which have case finding and case management at their heart, as described in the 2016 RCGP report “Innovative approaches to integrated care for older people with frailty” and in the Nuffield Trust 2017 report “Shifting the balance of care”:

“... An evaluation of a number of large-scale integrated care pilots found that those that had case management at their heart reduce outpatient attendances and elective admissions by 22 per cent and 21 per cent respectively, and resulted in a significant 9 per cent reduction in overall secondary care costs in the six months following initiative (RAND, 2012). There is stronger evidence that case management improves satisfaction and quality of life (Hudon and others, 2016; Gravelle and others, 2007).

Case management is often one component of a wider initiative, which makes it difficult to attribute any impact. For case management to be effective, it relies upon other elements such as a functional multidisciplinary team and good data sharing. It is also important to have at its core a case manager who has an ability to negotiate and advocate on behalf of patients”. Imison et al. (2017)

A6 – Sponsorship:

The case management project from day one has engaged with key partners to ensure a system-wide model is developed and tested. Senior leads from PCC, CCC, CCG, primary care, CPFT and both voluntary sectors have consistently attended, supported, undertaken development work – to redesign a new model.

The project was initially reported to the Integrated Adult and Community Joint Working Group CCG led – that included leads from: CCG: CPFT: CCC: PCC. Currently the project reports to PCIN and a joint CPFT: PCC: CCC operational group.

The Case Management Project Group includes:

- Older People's GP Lead, CCG
- Peterborough Voluntary Community Services Lead
- Health and Wellbeing Network Lead
- Transformation Lead – Urgent Care, CCG
- MH Lead, CPFT (Chair)
- Head of Operations, CCC
- NT TMs
- NT MDT co-coordinators
- NT community matrons

A7 – Quality Outcomes:

Patient experience outcomes:

- Better patient involvement in decision making on interventions
- Named care co-ordinator and identified contact point for the patient to approach with queries or concerns
- Written care plan including crisis plan and agreed personal goals for patients
- Signposting and utilisation of the public health prevention services available to tackle any health issues related to diet, exercise, drinking, smoking and taking drugs
- Ensuring positive patient experience and enhancement of service provision from patient feedback

Clinical outcomes:

- Improvement in EQ-5D scores – a measure of general health and well-being, this covers the following 5 key domains:
 - Mobility
 - Self-care
 - Activities
 - Pain
 - Mood/anxiety

System outcomes:

- Decrease in healthcare utilisation after one year for case managed patients compared to 12 months prior to case management intervention:
 - Unplanned admissions to acute hospital
 - ED attendances
 - Emergency call outs
- Improved utilisation of Pharmacy and review of medication.

A8 – Recommendation:

This business case recommends the STP invests in providing case finding and case management via a comprehensive and coordinated MDT. The MDT will be part of the NTs and will involve the voluntary services and primary care.

Once fully established, the service will identify and support the 7.5% most frail patients of the over 65 population and improve their quality of life as evidenced by the EQ-5D measure. It will provide better outcomes for those people and reduce the burden and cost to the health and social care system over the next 5 years.

In year 2 the service aims to expand and provide case management to 15% of the most frail patients over 65.

[B] DRIVER(S) FOR CHANGE:

B1 – Risk or Opportunity:

This model provides opportunities for patients and the system

- Identify and better support more people who are frail
- Significantly impact on the health and social care system – in particular reduce acute hospital demand
- Implement an MDT approach that ensures system engagement
- Make fully use of the untapped assets within each NT/community
- Implement a consistent approach to case finding, case mgmt, measuring impact
- Develop the knowledge of frailty and how to assess and manage – across all partners, including use of the RFS
- Restructure S1 in CPFT to ensure consistency and improve the process of consent to share

Risks:

- Unable to resolve the challenge of primary care engagement
- Data sharing agreements (that allows case finding) not achieved
- Case found demand exceed system capacity

Mitigations:

Please see risk assessment below

B2 – Strategic Context:

Pressure on the system continues to grow, in particular acute hospital unplanned attendances and admissions. The populations for older people is rising rapidly and expected to grow by 34% for over 75s and 46% for over 85s by 2021.

Managing frailty is a huge challenge for health and social care. Where this can be achieved within a community setting there is both a patient and system benefit. It is well evidenced that hospital admissions within the elderly and frail lead to deconditioning, decreased cognitive function and decreased levels of independence which leads to needing greater levels of support.

Integration of services and blurring organisational boundaries is key to the success of the STP. This business case provides a multi-organisation, system wide solution to the pressure placed on the system by the increasing elderly and frail population

B3 – Risk Assessment (only applicable if responding to a risk as identified in B1):

Risk	Impact	Mitigating actions	Risk: Likelihood	Risk Impact	Score
Primary care engagement not achieved – because MDTs are NT rather than primary care hosted	MDT effectiveness compromised MDTs less efficient	1. Iterate the Trailblazer model – e.g. N City TB NT holding MDTs in practices on rotating basis or 6/52 to show value of broader MDT model. 2. Case finding data demonstrates need for broader MDT model	3	3	9
Data sharing agreements (that allows case finding) not achieved	MDTs not able to target key population Impact to system significantly less	1. Data sharing agreements being developed between CPFT (as data processor) and: Acute hospitals LAs Primary care practices 2. CPFT providing business information resource to process data 3. Data Sharing Board working towards system model for processing case found data	2	3	6
Case found demand exceeds system capacity – significant risk without investment	Case found people unable to access support they need. Impact on the system significantly compromised	Broader MDT approach – utilise all available resources Coordinated approach – reduces waste STP investment – the most impactful mitigating action	Without investment: 5 With investment: 2	4 4	20 8
Savings cannot be evidenced within 1 year	Continued funding at risk.	SMART outcomes measures identified, based on evidence of current hospital NEL activity.	3	3	9

[C] ALIGNMENT WITH ORGANISATION or SYSTEM PRIORITIES:

C1 - The proposed investment aligns to the following elements of the organisational or system priorities:

STP Strategic Objectives	Evidenced By:
1. At home is best	Case management aims to: - improve support to people at home - utilise neighbourhood care hubs
2 Sustainable together	- engages and utilises a broader range of partners

DJ OUTLINE PROPOSAL

D1 - The Preferred Option:

The preferred options is for a system wide, comprehensive case finding and case management service which will case manage **7.5% of the frailest and elderly over 65 population**. The model includes:

Case finding – using data/information sharing agreements between partners and criteria that identifies those people at risk today and our future at risk people. The methodology allows CPFT to process primary care, acute hospital, social care and CPFT data to case find and risk stratify patients.

Initial case finding criteria comprises:

- 3 or more unplanned admissions in the last 3 months
- 3 or more ED attendances in the last 3 months
- eFI>0.36
- FRS>3
- People with bereavement in past 12 months
- People O-65 who have been assessed as meeting national EC under the Care Act
- People with dementia dx
- JET referrals
- People with RFS>3

Patient list - NTs will be provided with a list of case found patients which will highlight new patients to the list and those who have a trigger for potential deterioration e.g. unplanned admission. Patients can also be referred directly for case management. New patients are triaged by the MDT coordinator and triage outcomes include: signposting, referral for MDT, allocation for assessment.

Case management – Each patient will have a named case manager from the most appropriate professional group. They are responsible for coordinating a single care plan and crisis plan which will be held within the NT, on S1 and accessible by all partners (including the voluntary and social care sector). Care plans will be accessible by EDs, 111 services and ambulance services – based on consent being in place.

MDT reviews – a system wide, structured, MDT will be established involving social care, VSC, NTs and primary care. Weekly meetings will discuss: new case found patients, patients who are an increasing concern and patients who have complex needs. Outcomes of MDTs will be recorded on and shared with relevant professionals

SystemOne – restructuring S1 in CPFT to better support the case management function. This includes restructuring MDT units to more clearly hold triage, active and review lists. To revise templates to improve care planning, consent recording etc and that ensures consistency across all 14 NTs. To ensure shared care planning, risk and assessment tools which support multi-disciplinary integrated working.

Frailty - developing system-wide knowledge of frailty, how to identify, how to respond and manage. Providing an online frailty training tool that is open to all partners to access.

D2 - 'Do Nothing' Option:

If no investment is achieved through STP:

1. The current case finding process will identify patients however they will not access the services they need in a coordinated and collaborative manner
2. The trailblazer model will continue in a limited way without dedicated resources to deliver at scale
3. Elderly, frail and complex patients will continue to access GPs, ambulance services and acute trusts for their health needs which for many could have been avoided
4. Risk that MDT working becomes more disparate and eventually breaks down

D3 - Alternative Option(s) Considered:

The proposed case management model has been developed in partnership with primary care, voluntary sector and local authority partners, taking into account lessons learned from the different MDT approaches across the county as well as examples of good practice from elsewhere. Different options were considered as the model evolved over time (e.g. case finding methodology, function of MD co-ordinator, setting and frequency of MDT meeting, voluntary sector role).

Below we describe an option for a reduced scale case management model (2.5% of over 65 population with frailty and complex needs)

Additional resources required for NTs to case manage the top third of the 7.5% (i.e. 2.5% most frail > 65s):

Staff group	Based on workforce modelling				Additional resources required operationally for the 14 NTs
	Highly Frail	Frail	Less Frail	Total	Required
MDT co-ordinator B5					**
Community Matron B7	11.90	0.76	0.00	12.66	14 (1 per NT)
Nurse/OT B6	11.90	4.06	0.00	15.96	16
Nurse/OT B5	0.00	4.06	0.00	4.06	3
HCA B4	14.21	3.73	0.00	17.94	18
B3 Admin	0.18	0.12	0.00	0.30	4 (1 per locality, for additional tasks required for operational management)

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	AfC Banding	WTE	Cost (£)
District Nurse	5	4.00	£141,500
District Nurse	6	16.00	£683,300
Community Matron	7	14.00	£649,000
Administrator	3	4.00	£91,900
Therapy Assistants	4	18.00	£499,100
Casefinding Analytics Post		1.00	£50,000
Recruitment Support		0.50	£15,351
Vol Sector MDT attendance			£31,200
Vol Sector Co-ordinator		1.00	£41,617
Total pay costs		58.50	£2,202,968
Travel expenses			£95,000
Mobile/VPN rental			£14,040
Stationery/office supplies			£15,000
MSE/Clinical supplies			£20,000
Staff uniforms			£8,500
Premises (assuming agile working)			£125,000
Total non pay costs			£277,540
Total direct cost			£2,480,508
Overheads @ 10%			£248,051
Total cost of service			£2,728,559

Set up costs	WTE	Cost (£)
Agile working equipment - Laptops/phone including		

Please see section E 1 below for details of how savings have been calculated. For this reduced cohort of patients the analysis is as follows;

The recurrent costs of the reduced model (2.5% case management) is £2,729k. To deliver a £1 for £1 return this level of investment would need to result in 1,522 avoided spells. To return a 1:1.3 return this would need to increase to 1979.

This funding would allow for 3,730 individuals to be case managed, which would mean that one admission would need to be avoided for 53% of this population. It would be more likely that as this cohort are the most frail, these individuals would have more than one admission per year, and because of this by keeping these individuals less frail this should avoid more than one admission per year.

[E] FINANCIAL IMPACT:

Please complete all sections other than E4 for the preferred option only

E1 – Investment Required for Proposed Option

	AfC Banding	WTE	Cost (£)
District Nurse	5	20.50	£729,700
District Nurse	6	32.50	£1,389,100
Community Matron	7	14.00	£649,000
Administrator	3	4.00	£91,900
Therapy Assistants	4	33.00	£915,900
Casefinding Analytics Post		1.00	£50,000
Vol Sector MDT attendance			£31,200
Vol Sector Co-ordinator		1.00	£41,617
Total pay costs		105.00	£3,775,600
Travel expenses			£215,000
Mobile/VPN rental			£25,200
Stationery/office supplies			£15,000
MSE/Clinical supplies			£20,000
Staff uniforms			£16,750
Premises (assuming agile working)			£125,000
Total non pay costs			£416,950
Total direct cost			£4,192,550
Overheads @ 10%			£419,255
Total cost of service			£4,611,805

Set up costs		WTE	Cost (£)
Agile working equipment - Laptops/phone including cost of configuration			£70,000
Office equipment, furniture & fittings			£23,500
Recruitment Support		1.00	£30,702
S1 Project Support 1yr FTC agency staff rates			£120,000
Total set up costs			£244,202

E2 – Savings Delivered in the Proposed Option:

CPFT currently have an active care episode with 5,600 patients who have a Rockwood Frailty Score of 5 or above, and are therefore assessed as no less than moderately frail. The true figure once all patients are assessed using this scale is likely to be much higher.

Emergency hospital admissions for patients registered in Cambridgeshire & Peterborough CCG area are currently running at an average of 96 per calendar day, or in excess of 35,000 per annum.

Additionally - Case found data on the 250 most frequently admitted patients to acute hospitals (CUH, HHCT and PSHFT) in 15/16 was provided to NTs to review and case manage where necessary. A summary of this data showed that whilst many patients were already known to CPFT, some were not. Those patients not known were reviewed (subject to necessary consent). As at month 7, QIPP savings of £47k were identified (target £40K) and a planned savings trajectory of £612k in 2016/17 and £1,717k in 2017/18. However, it is important to note this is data based on a relatively small number of patients and 1 month of impact data.

Case Management is a hard area to quantify savings for, with previously reviewed schemes having varying levels of success. Another issue is that currently due to the lack of data sharing agreements we do not have a full understanding as a system as to who would be classed as 'highly frail', 'frail' or 'less frail' to be able to quantify the likely savings, as case finding can not be carried out properly without this. Therefore the following section sets out a sensitivity analysis of how many admissions would need to be avoided to pay back the investment to provide the committee with a sense of the achievability of this.

The table below shows the CCG NEL spend for over 65 yrs old in the four local providers for M1-10 of FY16/17;

HRG4	HRG Desc	2016/17 Spells	2016/17 Cost	2016/17 XSBD	XSBD Tariff	XS Bed Day Price	Tariff Price
DZ11A	Lobar, Atypical or Viral Pneumonia with Major CC	1,298	£4,193,326	930	£187	£173,910	£4,019,416
EB01Z	Non-Interventional Acquired Cardiac Conditions	1,224	£838,918	632	£204	£128,928	£709,990
LA04D	Kidney or Urinary Tract Infections with length of stay 2 days or more with Major CC	838	£3,292,635	233	£200	£46,600	£3,246,035
EB03H	Heart Failure or Shock with CC	557	£1,745,698	115	£204	£23,460	£1,722,238
AA26A	Muscular, Balance, Cranial or Peripheral Nerve Disorders; Epilepsy; Head Injury with CC	557	£925,877	1052	£200	£210,400	£715,477
AA22A	Non-Transient Stroke or Cerebrovascular Accident, Nervous System Infections or Encephalopathy with CC	550	£1,865,779	1108	£200	£221,600	£1,644,179
EB10Z	Actual or Suspected Myocardial Infarction	490	£1,587,747	426	£204	£86,904	£1,500,843
WA22V	Other Specified Admissions and Counselling with Major CC	459	£1,551,255	1	£198	£198	£1,551,057
DZ22A	Unspecified Acute Lower Respiratory Infection with Major CC	429	£1,053,410	97	£187	£18,139	£1,035,271
EB08H	Syncope or Collapse with CC	391	£584,267	76	£204	£15,504	£568,763
DZ21H	Chronic Obstructive Pulmonary Disease or Bronchitis without NIV without Intubation with Major CC	387	£1,187,478	290	£187	£54,230	£1,133,248
WD11Z	All patients 70 years and older with a Mental Health Primary Diagnosis, treated by a Non-Specialist Mental Health Service Provider	380	£1,192,512	0	£0	£0	£1,192,512
EB07I	Arrhythmia or Conduction Disorders without CC	376	£301,689	81	£204	£16,524	£285,165
	TOTAL	7,935	£20,320,591	5,041		£996,397	£19,324,194

This gives an average spell of £2,561. However, if this was MRET adjusted a prudent cost would be £1,793 per spell.

The recurrent costs of the full model (7.5% case management) is £4,612k. To deliver a £1 for £1 return this level of investment would need to result in 2,572 avoided spells. To return a 1:1.3 return this would need to increase to 3,344

	2016/17 Spells	2016/17 Cost	2016/17 XSBD	XS Bed Spend	Tariff Price
Mt 1-10 Actual	25,971	£64,821,001	15,362	£3,013,717	£61,738,895
FOT	31,165	£77,785,201	18,434	£3,616,460	£74,086,674

To put this into context, the below table shows the total NEL admissions of over 65s from month 1-10 this year, and grossed up to full year;

	2016/17 Spells	2016/17 Cost	2016/17 XSBD	XS Bed Spend	Tariff Price
Mt 1-10 Actual	25,971	£64,821,001	15,362	£3,013,717	£61,738,895
FOT	31,165	£77,785,201	18,434	£3,616,460	£74,086,674

The percentage reduction of the two models is reflected below;

	Reduction in spells	% Reduction in spells	Number of Admissions avoided per NT per Month	Number of clinical staff to deliver this per NT (average)
£1 for £1 full model	2,572	8.25%	15.3	7
£1.30 for £1 full model	3,344	10.7%	19.9	7

However, this assumes that the whole saving needs to be delivered from admissions avoidance. There are a number of other savings that will be delivered by case management;

- Reduced GP attendances/OOH calls
- Ambulance Call outs
- Medicines savings
- Reduction in Nursing home places required (Kings Fund 2011)

Additionally, freeing up Acute beds gives the opportunity to repatriate elective income into the Trusts. This is predominantly for PSHFT and CUH, but for all providers a further saving will be the removal of excess bed days, and the fact that these cost more than the tariff paid for them.

Acute providers have quoted the missed opportunity of having to outsource elective activity rather than provide it in house at £500 per bed day. The CCG also outsourced £7.3m of activity to Independent Sector Providers in 16/17 (based on FOT). The average LOS for the top 10 NEL admissions is 8.5 and therefore each admission avoided would allow the Trusts to make £4,250 in additional margin from elective activity.

Therefore the saving per admissions is actually the average CCG tariff avoided £2,561 plus the additional margin to the provider per admission avoided of £4,250, so £6,811. This therefore makes the revised admissions required;

	Reduction in spells	% Reduction in spells	Number of Admissions avoided per NT per Month	Number of clinical staff available to deliver this per NT (average)
£1 for £1 full model	677	2.2%	4	7
£1.30 for £1 full model	880	2.8%	5.24	7

E3 – Source of Funding:

Funding is requested through the STP investment pot

E4 – Financial Model: See separate Excel spreadsheet – please complete for all options outlined in section D**E5 – Contractual Considerations:**

STP agreement to fund will be reflected in CPFT:CCG contract.
OJEU does not apply as this is an expansion of an existing service

E6 – Capital Risk (Capital Cases only):

N/A

[F] PATIENT EXPERIENCE:

In terms of the preferred option:

F1 – Impact on Patient Care:

Patient experience outcomes:

- Better patient involvement in decision making on interventions
- Named care co-ordinator and identified contact point for the patient to approach with queries or concerns
- Written care plan including crisis plan and agreed personal goals for patients
- Signposting and utilisation of the public health prevention services available to tackle any health issues related to diet, exercise, drinking, smoking and taking drugs
- Ensuring positive patient experience and enhancement of service provision from patient feedback

[G] OPERATIONAL IMPACT:

In terms of the preferred option:

G1 – Capacity: post change, during implementation; Other areas:

The new model of case management enables capacity for 6,000 – 7,000 patients per year to have an active period of case management and then go on to have care coordination as a monitoring tool.

The activity assumptions are detailed further in Appendix 2. Broadly, the case management pathway consists of 3 phases:

Pathway stage	Activities	Staff roles
Triage and referral management	Review of patient notes, liaison with agencies and patient, obtaining consent	Mainly MDT co-ordinator, admin
Active case management	Holistic assessment, frailty score, EQ-5D, development of care plan, liaison with agencies, discussion at MDT meeting, development of crisis plan, follow up visits, clinical record keeping	Mainly B5-7, depending on complexity
Review	Reassessment of needs, revision of plan, liaison with agencies	Mainly B4 with B6 undertaking annual reviews

Each NT requires a minimum level of resource for administration and operational management. MDT co-ordinators are already included in the CPFT baseline and are not included in this business case.

The Community Matrons will provide expert clinical assessment for the most complex of frail patients as well as advice and leadership within the NT on frailty and case management.

Additional capacity required to implement the case management model:

- Engagement of the voluntary sector in the MDT meetings and MDT care plans.
- SystemOne technical and training support to ensure that the configuration and templates on SystemOne support integrated working, in line with the new case management pathways.
- Analytics resource to support roll out and implementation of case finding tool

G2 – Support Services, Physical and Equipment Capacity, IT and IG Compliant:

By operating the described model, efficiencies will be realised. The MDT process in the TBs brings together a broader range of agencies than before. This reduces overlap and duplication. Work is underway to use a single care plan across agencies, for all staff to be able to identify frailty and undertake a generic assessment.

Additional staff will be NT based and equipped with agile devices that reduces the need to work from base. The project aims to enable all staff from which ever organisation to be able to access any base under any partner agency to touch down, liaise etc.

CPFTs work to expand agile working includes case management.

G3 – Impact Assessment:

A QIA will be completed, in accordance with CPFT requirements.

[H] WORKFORCE/HR:

H1 – Staffing Numbers:

	AfC Banding	WTE
District Nurse	5	20.50
District Nurse	6	32.50
Community Matron	7	14.00
Administrator	3	4.00
Therapy Assistants	4	33.00
Casefinding Analytics Post		1.00
Vol Sector Co-ordinator		1.00

H2 – Staff Consultation:

Formal staff consultation is not required.

H3 – Training:

The proposal includes the development of a Frailty/RFS training module. This is an online training tool for all partner agencies to access. E-learning frailty tool is currently being tested.

H4 – Recruitment Considerations:

Recruitment of most professions in Cambs and P'boro is challenging. CPFT are developing a STP recruitment strategy and trajectory that includes:

- Attracting clinical apprentices
- Developing associate practitioner posts
- Broadening the advertising and recruitment potential. CPFT have previously successfully run intense recruitment campaigns using a wide range of media than standard NHS Jobs or recruitment fairs.
- There is an opportunity for us to describe case management and associated posts as an element of a new and innovative system transformation.

H5 – Tenure:

All appointments will be substantive unless otherwise noted.

H6 – Job Plans:

Case management is an existing component of key NT staff job descriptions. Roles and responsibilities for different staff in relation to the new case management model have been developed and will be included in relevant JDs.

[I] IMPLEMENTATION:

I1 – Timescales:

The Case Management Project Group has plans to begin to roll-out across NTs from April//May 17. Delivery plans for the different Workstreams are already in place. The roll-out implementation plan will be reviewed and updated depending on the success of this bid.

I2 – Implementation Governance Arrangements:

Once implemented, the governance responsibility for the neighbourhood teams lies with CPFT.

During the development and implementation phase the project reports to the PCIN delivery group, which in turn reports to the CAG, FFPG and HCE. Additionally, the group reports to the joint CPFT: PCC: CCC operational group.

The Case Management Project Group includes:

- OP GP Lead, CCG
- Peterborough Voluntary Community Services Lead
- Health and Wellbeing Network Lead
- Transformation Lead – Urgent Care, CCG
- Mental Health Lead, CPFT (Chair)
- Head of Operations, CCC
- NT TMs
- NT MDT co-coordinators
- NT community matrons

I3 – Support Services Resources:

CPFT have provided project support:

- SystemOne technical support
- IG leadership for data sharing agreements
- Business information for case finding methodology
- L&D for Frailty/RFS development
- Project lead

CCG have provided:

- Clinical/primary care leadership
- IG support

CCC have provided

- IG support

CCG, CCC, HWN, CPFT and PCVS have provided senior leads to the project group

I4 – Post-Project Evaluation (PPE):

Key system outcomes are:

- Numbers of unplanned admissions for case found patients
- Numbers of ED attendances for case found patients
- Patient experience outcomes

Timescale for PPE: (Please tick one box below)

3 months

6 months

9 months

15 – Deliverables: KPIs/Outcomes and systems for measuring performance of the scheme:

KPIs/Outcomes	Target	Systems
Number of MDT care plans completed	6,000 – 7,000	SystemOne
% of case managed patients showing Improvement in EQ5-D scores	N/A	SystemOne
Reduction in non-elective admissions	880	TBC*

*The methodology for measuring avoidable admissions requires an STP-wide approach e.g. via a review panel, as recommended by the King's Fund.

[J] RISKS & OPPORTUNITIES:

J1 – Implementation Risks & Opportunities:

The success of the project is dependent on access to other community services, in particular the expanded JET and intermediate care, expanded Psychological Wellbeing Service and expanded voluntary sector capacity.

J2 – Post-Implementation Risks & Opportunities:

Post-implementation opportunity to refine case finding criteria that better supports the system
To research the effectiveness of a case management model that is implemented as part of a wider integrated model

[K] STAKEHOLDER ENGAGEMENT:

K1 –Stakeholders Engaged During Business Case Development:

There has been significant engagement from stakeholders over the past 12 months, as part of the case management working group, to develop the operational model, case finding tool and data sharing agreements. Voluntary sector, Local authorities and primary care have been involved alongside NT clinicians and trailblazer staff. See section 12 for more details.

[L] RECOMMENDATION:

The PCIN delivery group seeks approval to invest £4,856,007 to implement case funding and case management within the Cambridgeshire and Peterborough system.

[O] SIGN-OFF TEMPLATE
BUSINESS CASE SIGN-OFF

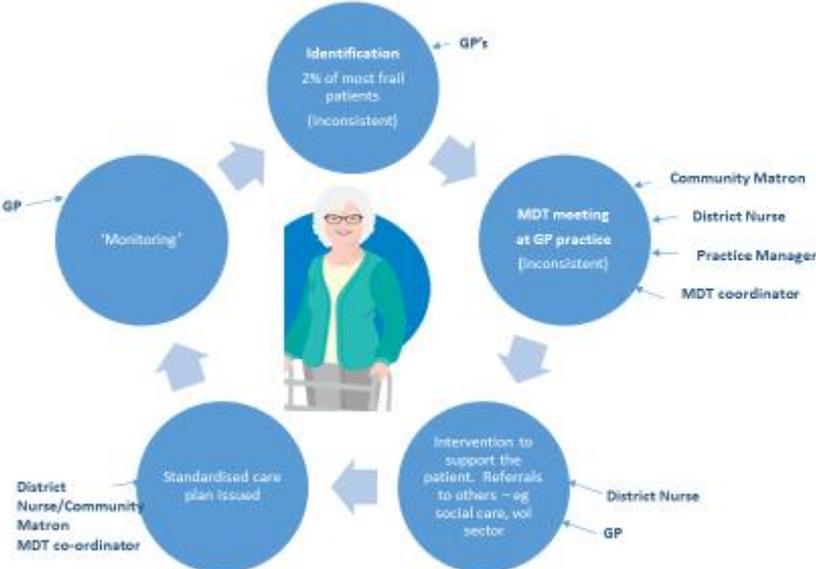
Business Case Title:

Author:

Date:

Function	Name	Title	Approved	Rejected	Approved "subject to"	Comments (please explain reasons for approval, rejection and "subject to")	Signature	Date
Business Case Lead	John Hawkins	Mental Health Lead						
Clinical Lead	Rhiannon Nally	Clinical Lead						
Executive/SRO Lead	Cath Mitchell	Director						
Finance	Louisa Ellington	Finance Lead						
HR/ Medical Staffing		HR/ Medical Staffing Lead						
Contracting		Contracting Lead						
Estates		Estates Lead						
IT		Head of IT						
Impact Assessment		Impact Assessment Lead						

Historical Case Management



Future Case Management



APPENDIX 2: Workforce modelling

2a: Highly Frail Pathway Assumptions

Total population 65+	149201
7.5% MDT coverage	11190

Pathway stages:	Triage and referral management
	Active case management
	Review

per NT (/14)

Highly frail	20%	2238	160
Frail	60%	6714	480
Less frail	20%	2238	160

Highly Frail pathway (estimated 12 month pathway with 6 weeks active case management)

What	Time estimate per patient	Who	Total hours
Triage and referral management	30 min, all patients	Mainly MDT co-ordinator, some admin	0.5
Clinical assessment	120 min, majority of patients	Mainly B7/6	2
Liaison follow up	60 min *2, majority of patients	Mainly B7/6	2
Stabilisation	60 min *2, majority of patients	B7/6 and B4	2
Follow up reviews (monthly)	60 min *9, majority of patients	Mainly B7/6	9
Additional support	60 min *9, majority of patients	Mainly B4	9
			24.5

2b: Frail Pathway Assumptions

Total population 65+	149201
7.5% MDT coverage	11190

Pathway stages:	Triage and referral management
	Active case management
	Review

per NT (/14)

Highly frail	20%	2238	160
Frail	60%	6714	480
Less frail	20%	2238	160

Frail pathway (estimated 12 month pathway with 5 weeks active case management)

What	Time estimate per patient	Who	Total hours
Triage and referral management	30 min, all patients	Mainly MDT co-ordinator, some admin	0.5
Clinical assessment	120 min, majority of patients	Mainly B5/6	2
Liaison follow up	60 min *2, majority of patients	Mainly B5/6	2
Stabilisation	60 min *2, majority of patients	B5/6 and B4	2
Follow up reviews	90 min *3, some patients	Mainly B4	4.5
One year follow up	120 min, all patients	Mainly B5/6	2
			13

2c: Less Frail Pathway Assumptions

Total population 65+	149201
7.5% MDT coverage	11190

Pathway stages:	Triage and referral management
	Active case management
	Review

per NT (/14)

Highly frail	20%	2238	160
Frail	60%	6714	480
Less frail	20%	2238	160

Less Frail pathway

What	Time estimate per patient	Who	Total hours
Triage and referral management	30 min, all patients	Mainly MDT co-ordinator, some admin	0.5
Clinical assessment	120 min, half of the patients	Mainly B5/6	2
Liaison follow up	60 min, majority of the patients	Mainly MDT co-ordinator, B5/6	1
Stabilisation	Not required		0
Follow up reviews (annually)	60 min, some patients	Mainly B4	1
			4.5

2d: Workforce modelling summary options

For 20/60/20 split and 7.5%

Based on workforce modelling

	HF	F	LF	Total
MDT co-ordinator B5	0.71	2.13	0.71	3.55
Comm Matron B7	11.90	3.41	0.00	15.31
Nurse/OT B6	11.90	18.28	2.13	32.31
Nurse/OT B5	0.00	18.28	2.13	20.41
HCA B4	14.21	16.79	0.71	32.59
B3 Admin	0.18	0.53	0.18	0.89
	38.90	59.41	5.86	105.06

For 7.5% most frail over 65s:

Total population 65+	149201
7.5% MDT coverage	11190

per NT
(/14)

Highly frail	20%	2238	160
Frail	60%	6714	480
Less frail	20%	2238	160

For top third of 7.5% (i.e. $0.33 \times 0.075 = 2.5\%$).

For 2.5% and 60/40/0 split

	HF	F	LF	Total
MDT co-ordinator B5	0.71	0.47	0.00	1.18
Comm Matron B7	11.90	0.76	0.00	12.66
Nurse/OT B6	11.90	4.06	0.00	15.96
Nurse/OT B5	0.00	4.06	0.00	4.06
HCA B4	14.21	3.73	0.00	17.94
B3 Admin	0.18	0.12	0.00	0.30
	38.90	13.20	0.00	52.10

For 2.5% most frail over 65s:

Total population 65+	149201
2.5% MDT coverage	3730

per NT
(/14)

Highly frail	60%	2238	160
Frail	40%	1492	107
Less frail	0%	0	0

NB:

- Over 65 population data based on CCG extract April 2016 for GP registered patients
- 20/60/20 Frailty split are estimates, consistent with CPFT patient profile (for patients who have a Rockwood Frailty Score)
- Modelling covers clinical roles in relation to patient pathway. Admin, leadership and operational management, co-ordination, case finding analytics and set up costs not included.
- Based on estimates and assumptions, not validated by data.

APPENDIX 3

Summary Options Table

	Option A Full model 7.5% of >65s	Option B Reduced model 2.5% of >65s
Case managed patients	11,,190	3,730
Additional staff WTE	105	58.50
Recurrent cost	£4,611,805	£2,728,559
Total NEL target for 1:1.3 ROI	880	521
Total savings target	£5,993,680	£3,547,127

APPENDIX 4

References

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- Purdy S (2010) *Avoiding hospital admissions: what does the research evidence say?* The King's Fund, December 2010

Appendix 5

Actual patient case study from Trailblazer NT

Mr X is a 66 year old gentleman.

Current Health needs – COPD managed with antibiotics and steroids. Lymphoedema with leg circumference of a metre each which leak constantly. Abdomen also leaks. Housebound and at high risk of pressure ulcers. Mr X is very low in mood and feels there isn't much point to life. He has been let down by healthcare professional and says "they cannot manage the level of need that he presents with".

Social History – Lives with son in privately rented accommodation. Unable to go upstairs and not allowed to attach any equipment to walls etc. due to the house being privately rented. Mr X has the use of a downstairs toilet which he struggles to get into due to size. Mr X sleeps in his chair which is a leather recliner which is collapsing under his weight. The chair is soaked due to leakage from abdomen and legs which is causing an infection control risk to his health. Mr X has to sleep upright due to his COPD as cannot breathe when lying down. Current recliner chair tips forward if legs are reclined due to weight. Not being able to elevate legs causes the lymphoedema to get worse. Mr X is unable to have a hospital bed as he cannot get in and out of the bed due to not being able to get his legs on and off. Mr X is socially isolated due to immobility. Unable to access relevant clinics as hospital transport cannot support his size and he cannot sit in waiting rooms at the hospital.

The District Nurses attend for daily dressings but are struggling with the weight of the legs when bandaging. They cannot provide adequate pressure relieving equipment as the chair doesn't support it. They cannot manage the leakage within the dressings and need the legs to be elevated to support improvement.

Matron and MDT co-ordinator – Co-ordinated all of the relevant clinicians and kept Mr X involved with his care. We sourced a bariatric chair that was able to meet his complex needs. It provided pressure relief, was able to tilt adequately to enable him to lie down at an angle to sleep and have legs elevated at same time. It was cleanable to reduce the risk of infection. It provided a good elevation of the legs so that the District Nurses weren't bending. It was electric so Mr X could use it independently and safely. We sourced the funding for the chair from a charity as we were not able to get one through our current equipment provisions. MDT co-ordinator ensured the servicing of the chair was provided and liaised with the legal team regarding responsibilities. MDT co-ordinator documented minutes of the meeting on SystmOne. Mr X was educated to recognise signs of deterioration and which relevant person to contact if he needed further support. We brought Mr X's case to MDT every week to move it along quickly.

District Nurses – work with Mr X to develop care plans for the leg dressings that Mr X could tolerate. Linked in with lymphoedema service for advice and explained the importance of a home visit from them. District nurses attend MDT meetings to share their good knowledge of Mr X with others.

Occupational Therapist - They carried out a risk assessment of the environment and established that without being able to make adaptations to the house, they would struggle to meet his needs. They gave advice and supported with the de-cluttering of the house to make the environment safer. They supported the District Nurses with carrying out moving and handling of the legs at dressing change to prevent unnecessary risk to backs etc. OT liaised with matron to research pieces of equipment that couldn't be sourced within current provisions. OT also formed part of MDT discussion at meetings.

Physiotherapy – Mr X was suffering with backache from the current chair and the pressure the weight of the legs and abdomen and physiotherapy provided support for exercises that were manageable which reduced the pain which subsequently meant reducing pain relief medications that were having other side effects such as constipation.. MDT input with current progress.

Social Services – Offered a care package to help with washing and dressing and housework and washing. Offered to support with rehousing urgently so Mr X could remain living independently with the adaptations he needed.

Mental Health – Offered CBT and counselling to help him cope with his current long term conditions.

Voluntary – Provided a befriending service to reduce the risk of social isolation. They helped him fill out all the forms required for rehousing and did a benefits check to make sure he was receiving his entitlements.

GP and nurse practitioner reviewed medication to reduce polypharmacy. They also rang in to MDT to discuss their input.

Outcome – Mr X has accessed GP and 999 much less since neighbourhood team input. He is feeling much better emotionally and physically. District Nurse visits have reduced substantially. Mr X now has a good support network in place and knows what his options are for the future. He now feels more in control of his health and wellbeing.