

SERVICE EVALUATION OF THE ENCOMPASS COMMUNITY HUB OPERATING CENTRES (CHOCS)

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Encompass Multi-speciality Community Provider (MCP) Vanguard

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Above all, we would like to express our sincere thanks to the service users and professionals who took the time to take part in the evaluation, giving Encompass evidence to illuminate on their successes and where they can strengthen endeavours for the future.

1. Executive Summary

Introduction and Research Questions

This report details the findings of a service evaluation of the Vanguard Encompass MCP (Multi-Specialty Community Provider) in East Kent. Encompass was awarded Vanguard status in 2015, through the first wave of Vanguards prompted by NHS England's 'Five Year Forward View' strategy. The evaluation was conducted from March 2017 to April 2018 by the Centre for Health Service Studies in partnership with Encompass, who provided and analysed the metric data.

The operational model developed and implemented by Encompass is Community Hub Operating Centres (CHOCs). CHOCs are holistic community based models of integrated service delivery aiming to improve user experience of co-ordinated care and self-management at home; contribute to a reduction in A&E demand and onward admission in the short term; and reduce pressure on acute services and long term care home placements in the longer term. Five CHOCs were initiated after an initial pilot period in 2016, which consist of clusters of GP practices serving a total practice population of 180,784 patients.

The evaluation focused on the CHOCs, and the evaluation questions were informed by the NHSE local evaluation document (NHS 2015):

- What impact are the CHOCs having on user outcomes and experience?
- What are the components of the care model delivery (or 'active/successful ingredients') that are really making a difference?
- What are the influencing contextual factors and how have they affected implementation and outcomes?
- What changes to the use of resources and activity in the local health system have taken place and to what costs?
- What could be improved, replicated and sustained?

Methods

The overall research design was drawn from implementation science, namely the Evidence Integration Triangle, which fosters stakeholder involvement, practical multi-method measurement and the rapid transfer of knowledge into practice. The initial two staged evaluation design focusing on four CHOCs was changed six months into the evaluation period due to slower than anticipated roll out and low patient recruitment. Two of the most mature CHOCs became the central focus of the evaluation.

Quantitative data included

- Demographic data from service users interviewed (n=13)
- The Interprofessional Collaboration Scale to staff before (n=24) and after (n=22) the evaluation period;
- Encompass metrics: CHOC service user profile (n=1,747), referrals, emergency admissions, bed days, length of stay on caseload, A&E attendances, staff type attending CHOCs, investment and cost savings,

Qualitative data included

- Interviews with service users (n=13) and a range of professionals and senior managers (n=22);
- Four consecutive observations of team meetings across three CHOCs;

- Field notes

Results and Recommendations

Results are presented within the research questions, where key messages from the data have been triangulated. The last research question includes recommendations going forward.

What impact are the CHOCs having on user outcomes and experience?

- A significant number of service users, **n=1747**, have received the **CHOC service** in the 18 month period of being operational.
- Despite some contextual anomalies within the key metrics which are accounted for (closure of one major hospital to emergency admissions), CHOC service impact across all GP practices has seen a **1.7% reduction in emergency admissions and 0.8% reduction in bed days** using national data compared to 2014/15 baseline data.
- A cohort of **100 CHOC service users** has seen a **22% reduction in emergency admissions** in the period post-intervention (April 2017 to March 2018), a **4% reduction in bed days** over the same period, and no detectable change in A&E attendances.
- Qualitative evidence was mixed but suggests that this service is **supporting older people** with multiple complex health conditions, with a **marked improvement** in how their care was being managed.
- Care was felt to be **more joined up** with an **improvement in communication and information** flow between themselves and professionals, and **access** to services had also **improved**. It was also observed during meetings that staff were able to secure a more prompt access to a wider range of services.
- However, there is room for improvement; the service **lacked consistency** at times and shared care plans were not evident.

What are the components of the care model delivery (or 'active/successful ingredients') that are really making a difference?

- **Regular face-to-face meetings** and **consistency** in terms of meeting location, time and attendance was vital. Observation of teams identified that the physical presence of team members enabled trust, collaboration and efficient, co-operative decision making.
- **High attendance, a good skill-mix and inter-organisational representation**, with buy-in from every organisation created active participation within the CHOCs.
- Cross-organisational **relationship and partnership building** within the CHOC meeting worked well, with a recognition of newly developed trust and confidence in colleagues and an **improvement in inter-professional working**.
- The strength and persistence of the **local leadership** at Encompass helped foster these partnerships, enabling the **expansion of the CHOC model** with the addition of other key services.
- **Administration support** was crucial, to co-ordinate incoming information from the various services at the multi-disciplinary meetings.
- Investment in IT systems has enabled **sharing of CHOC service user data** within the healthcare teams, but information sharing agreements remains an issue.

What are the influencing contextual factors and how have they affected implementation and outcomes?

- Encompass' strength has been to galvanise **different organisations and professionals** to come together.
- **Leadership** from within and outside of Encompass was pivotal, despite challenges surrounding rapid implementation.
- Local difficulties with **withdrawing trainee doctors** from one of the acute hospitals resulting in closure to emergency admissions created anomalies within the data.
- A perception was that CHOC implementation has created a **drain on resources** elsewhere in the system, due to the 'pooling' and recruitment of workforce and skills.
- CHOCs are centred around primary care and expansion would be dependent upon buy-in from GPs. **Business models** would need to be secure for this buy-in to be successful.
- Eligibility and **access to services outside the CHOC** (e.g. for a Local Authority-funded care package) affected CHOC working and often resulted in delays.
- An **unequal partnership** between some CHOC team members was observed and this created tensions at times, affecting holistic decision-making and participation.

What changes to the use of resources and activity in the local health system have taken place and to what costs?

- There has been a **reduction in emergency admissions and bed days** in both overall population data and local CHOC service user level data which has brought about **cost savings**.
- With an investment of £2.2 million in establishing the CHOC service (£1.4 million in staff and £133,000 in IT infrastructure), an overall return in investment has been seen in the CHOC service of 144%, subject to caveats.
- It was observed that **duplication of effort** is being avoided both within the CHOC and between CHOCs and other services, resulting in likely cost-savings.
- The **presence of key workers** from the health, social care and voluntary sector at MDT meetings creates a more effective and rapid decision-making forum and the speed at which resources can be mobilised.
- There was recognition that **investment in workforce skills and size** needs to take place to reflect a more sustainable model.

Recommendations: What can be improved, replicated and sustained?

What can be improved

- There is a need to create **more effective governance and IT solutions** for information sharing. This not only includes high level data sharing for impact and outcome measurement, but systems that permit the writing and sharing of care plans.
- Greater participation of **Mental Health professionals** is desirable given the high numbers of people with mental illness on the caseload.
- More **upskilling of staff** to further improve performance and skill-base would improve efficiency even more.
- Encompass could **strengthen evaluation** through collaboration with the Improvement Analytics Unit at the Health Foundation, to support counterfactual analysis. Efforts should continue to be made to access the Kent Integrated Dataset going forward.

What can be replicated and sustained

- **Partnership working** is a strong feature of the overall Encompass strategy and seemed instrumental in bringing about the buy-in from multiple agencies.
- Strong team **leadership** at an organisational level, and GP leadership within the CHOCs are important to drive change forward.
- **Administrative support** was seen to be vital in ensuring the smooth running of CHOCs.
- The presence of **key workers** from health, social care and voluntary sectors at the MDT meetings should remain.
- Developing more **wrap around services** has been an important outcome of CHOC activity. Such activities should be considered when replicating locally.
- To replicate and sustain models such as these need significant **investment** long term. This must include investment in workforce skills and size.

Evaluation Challenges

There were a number of evaluation challenges that resulted in adaptation of the methods. These included:

- Challenges with the balance of data
- Slower than anticipated CHOC roll out
- CHOC workforce engagement in the evaluation
- Governance and access to data
- Getting the counterfactual
- Getting 'rival' views
- Steering group membership sustainability

Conclusions

Despite the data anomalies and evaluation weaknesses, it can be argued that Encompass' CHOC model has made significant progress with implementation and there is emerging evidence of impact and effectiveness. The CHOCs are not without their areas for improvement, and evaluation evidence has started to give insight into how these processes and infrastructures could be improved.

Overall, three key strengths are evident. Firstly, partnership working and leadership enabled buy-in and progression; secondly, the focus on one model, and how multiple planned interventions were centred within this model to create a clear Vanguard identity and purpose; and thirdly, the manner by which the CHOC model has acted as a catalyst in generating a number of other services, affiliated to CHOC.

Although there has been a relatively short time for development and roll out, it has been enough to project lessons learnt and for knowledge transfer to influence areas seeking to replicate with similar models, which is fact happening within the local Sustainability and Transformation Partnership (STP) footprint. Since the evaluation was completed, the model has been embedded into the new commissioning landscape, is being rolled out across Kent and Medway as part of the STP strategy, and is being called 'Local Care'.

2. Introduction

2.1 Background and Rationale

The desire to provide health and social care in a more integrated manner has long been a feature of government policy with different operational responses through the decades (eg DHSS 1972, Health and Social Care Act 2012). The aims, however, have remained somewhat constant - to encourage increased implementation and improvement of integrated health and social care, promoting independence at home, and reducing unplanned hospital admission.

The most recent government impetus is through NHS England's 'Five Year Forward View' (NHS 2014) concerning the implementation of 'Vanguards'. In 2015, the first wave of 35 Vanguard sites became viable in England, focusing on New Care Models. These were different forms of new integrated care provision through multi-specialty community providers (MCPs), primary and acute care systems, urgent and emergency care networks, acute care collaborations and enhanced health in care homes. To support this, national bodies such as NHS Improvement have worked with providers and local health systems to help them set up and rapidly implement and improve new models of care.

Under the NHS Vanguard programme, there is a strong emphasis on monitoring of impact and outcomes; Vanguards were required to provide quarterly metrics (eg hospital admission, bed days) and undertake a broader local evaluation for which the NHS England New Care Models (Vanguards) team have provided guidance (NHS 2015).

One of 14 MCP Vanguard sites was awarded to Encompass MCP in Kent. Encompass MCP is made up of 14 general practices (GPs) across Canterbury and Coastal Clinical Commissioning Group (in Ash, Canterbury, Faversham, Sandwich and Whitstable), working in partnership to deliver new models of care locally.

This report details the findings of a service evaluation of Encompass Community Hub Operating Centres (CHOCs) conducted from March 2017 to April 2018. The evaluation was led by Professor Jenny Billings from the Centre for Health Services Studies at the University of Kent, Canterbury. Metrics and quantitative data analysis was led by Ian Roberts, Head of Performance and Information, Encompass MCP.

Chapter 2 of the report will give an introductory overview of Encompass MCP and the CHOC model, a short description of CHSS, and the research questions, Chapter 3 provides the methodology, while chapter 4 provides the results of firstly the metric analysis conducted by Encompass, followed by mixed methods findings provided by CHSS. Chapter 5 then triangulates the data to specifically address the research questions and give recommendations, chapter 6 gives an account of the evaluation challenges, and chapter 7 provides the conclusions.

2.2 Encompass

Encompass is a multi-specialty community vanguard comprising 14 GP practices working in close collaboration with health, social care and voluntary sector partners to deliver high quality, outcome focused, person centred, coordinated care that is easy to access, promotes wellness and enables people to live independently for as long as possible in their home setting.

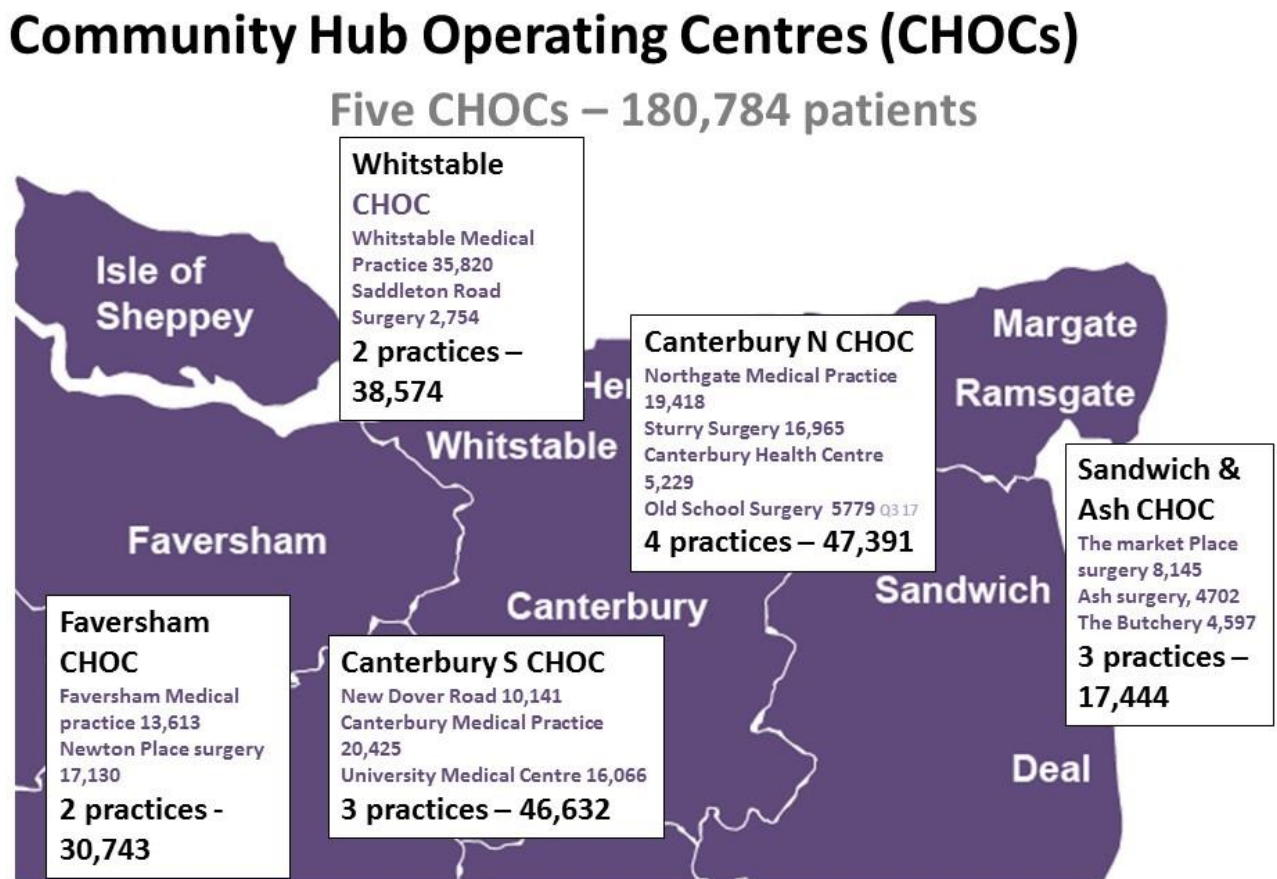
Encompass provides a range of health and care services (described in detail on the website www.encompass-mcp.co.uk/services) with the CHOCs performing a fundamental role in the way in which these integrated services are delivered in community settings, closer to people's homes.

2.3 What is a CHOC?

Encompass MCP have set up Community Hub Operating Centres (CHOCs) with the aim of supporting system sustainability through the creation of a holistic community based model of integrated service delivery. Five CHOCs were initiated after an initial pilot period in 2016, which consist of clusters of GP practices serving a total practice population of 180,784 patients. The CHOC sites are Canterbury (2 CHOCs called North and South), Faversham, Whitstable, and the around in Ash and Sandwich. During 2017, activity was expanded across all areas and service user throughout increased to scale. Figure 1 shows a map of the CHOCs within Encompass MCP and the total practice population served.

The model reaches across the health and social care landscape to deliver seamless care and support to local residents. CHOCs are being rolled out that represent a fully integrated health and social care team, offering hub-level services, inclusive of primary, community and social care provision.

Figure 1: Map of CHOCs within Encompass MCP



Operationally, CHOCs involve a weekly multi-disciplinary team (MDT) meeting to discuss complex service user cases through integrated case management. Integrated case management aims to build relationships between health and social care professionals, and helps improve health and wellbeing outcomes and enables MDT working. Figure 2 below shows the staff involved in CHOC integrated case management MDTs.

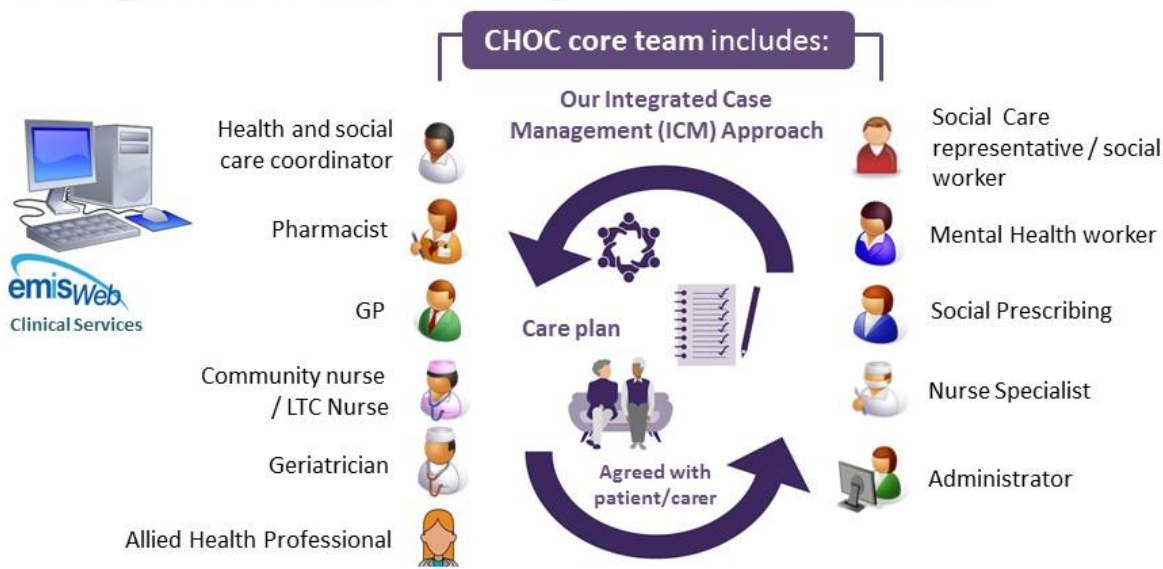
Service users are identified through a combination of risk stratification and clinical judgement. Eligible service users can be put forward for review at the CHOC MDT meeting by any health and care professional across the area. CHOC integrated case management is for individuals at high risk of

future emergency admission to hospital. The service is primarily focused on the 3% of the population with the highest risk stratification scoring or with severe frailty, with one or more of the following indicators:

- Complex co-morbidities
- Over 75s
- At risk of future admissions to A&E in the next six months
- Increasingly dependent on the health and care system
- The service user has underlying social and wellbeing needs not being addressed

Figure 2: CHOC integrated case management teams

Integrated Case Management workforce



Additional members which vary locally:



Aims of the CHOC service are:

- Improvement in user experience of co-ordinated care and self-management at home;
- Contribute to a reduction in A&E demand and onward admission in the short term;
- Reduce pressure on acute services and long term care home placements in the longer term.

Although there will be room for local variation in each CHOC, to enable services to be tailored to meet specific population needs, each CHOC will include as a core:

- Integrated nursing and social care services
- Health prevention and health promotion services

- Access to voluntary and community services via social prescribing

2.4 Centre for Health Services Studies, University of Kent

The Centre for Health Services Studies (CHSS) is a well-established and thriving international centre of excellence for health service research and research training. It is one of three major research units within the School of Social Policy, Sociology and Social Research. The centre has a wide range of research and disciplinary experience. It undertakes commissioned research and has a large portfolio of competitively funded studies. CHSS has specialist groups for its research including health psychology, integrated care, health economics, public health, clinical trials, and addictive behaviours.

2.5 Evaluation Questions

CHOC evaluation questions were informed by the NHSE local evaluation document (NHS 2015). The evaluation has focused on the following questions:

- What impact are the CHOCs having on user outcomes and experience? (eg health and wellness, seamless care, access to resources, self-management and independence at home);
- What are the components of the care model delivery (or 'active/successful ingredients') that are really making a difference? (eg associated with leadership, collaboration, continuity of care, nature of change, working environment, information sharing, workforce change);
- What are the influencing contextual factors and how have they affected implementation and outcomes? (e.g. history, culture, relationships, working arrangements, contracts, local and national policies)
- What changes to the use of resources and activity in the local health system have taken place and to what costs? (eg costs for specific new care model interventions, hospital use, intended and unintended costs)
- What could be improved, replicated and sustained?

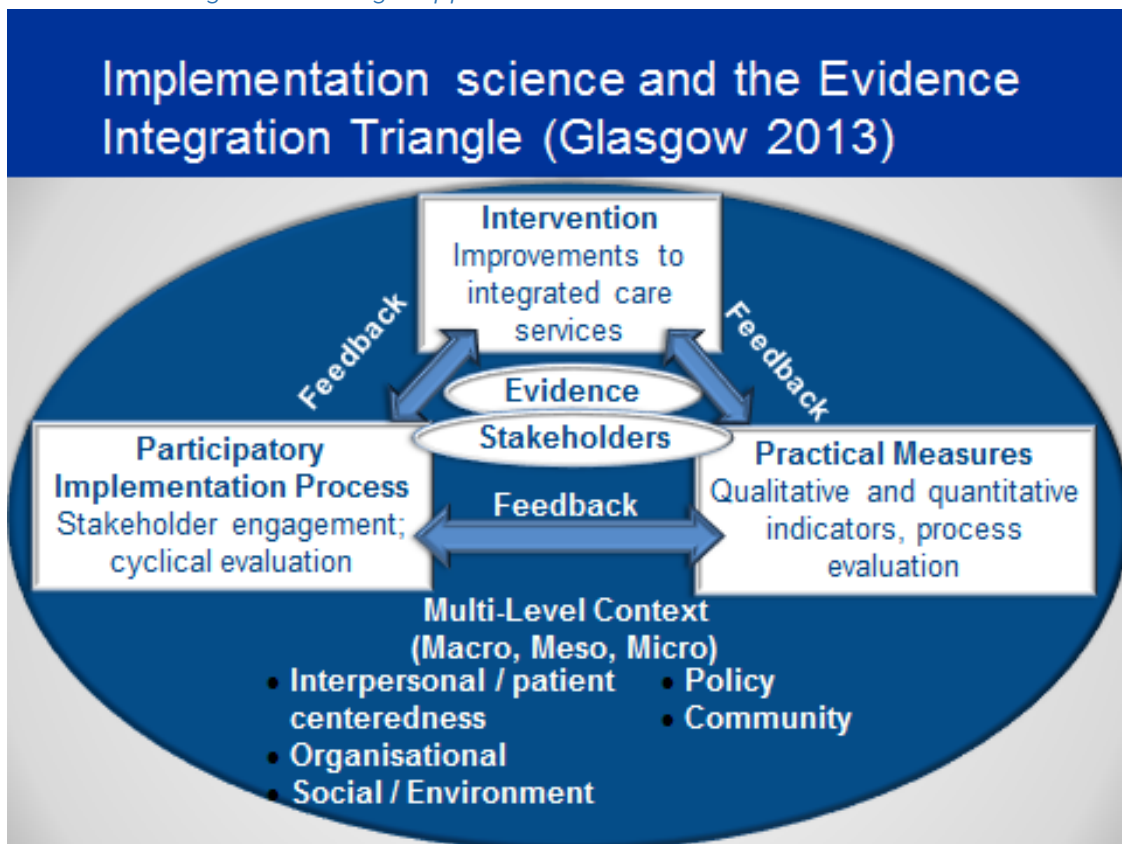
3. Methods

3.1 Methods Background

The overall research design was drawn from implementation science (Damschroder et al 2009), a robust approach that fosters stakeholder involvement, practical multi-method measurement and the rapid transfer of knowledge into practice.

There are different approaches within implementation science; the Evidence Integration Triangle approach was selected (Figure 3) for an evaluation of the CHOCs (Glasgow 2013). This approach involves a multi-agency steering group from the onset to support a mixed-method design and evaluation of the service through using evidence supplied by the research team. As the service is rolled out, agreed outcome measures and approaches can be used at baseline and subsequent data collection points. The research team brings evidence from these evaluations to the group at appropriate intervals, according to the pace of implementation. This enables the group to rapidly see what is working and what is not, so that successes can quickly be identified and built upon and failures rectified. This design permits flexibility of data collection, in that deficits in knowledge at any given point can be supplemented with new data generation. A key part of this approach is to examine the context to ascertain how this contributes towards implementation and outcomes, as well as determining how change is brought through implementation and the nature of this change from the perspective of people receiving care and the workforce.

Figure 3: Evidence Integration Triangle approach



Source: Glasgow R. What does it mean to be pragmatic? Pragmatic methods, measures and models to facilitate research translation. Health Education & Behavior 2013; 40(3) 257–265.

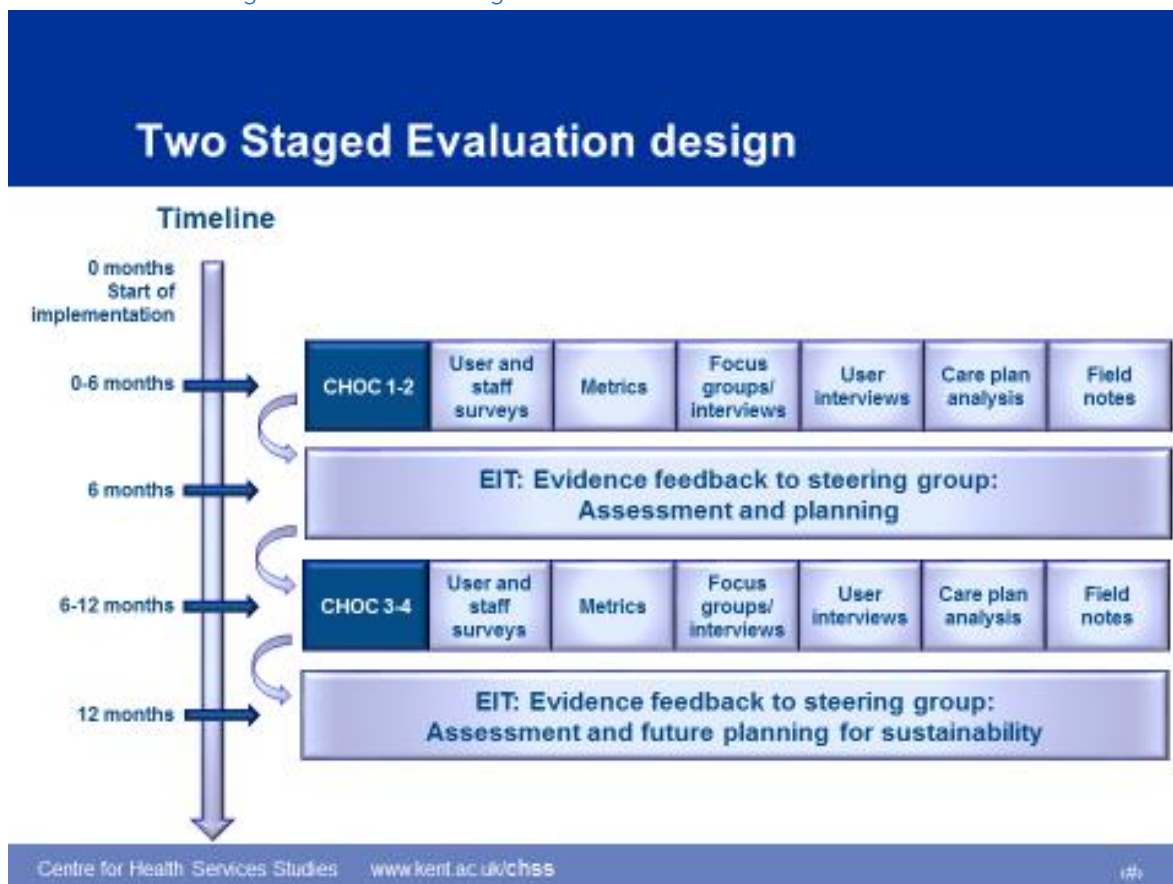
Historically, integrated care research has suffered from a poor evidence base as traditional cause and effect designs have failed to adequately consider the fluctuating context within which the services are implemented and rolled out. Outcome measures have also been employed that are insensitive to real changes that could be attributed to the integrated care intervention. Implementation science offers a different approach. Research designs recognize the inherent difficulties, promoting instead ‘organic’ methods that are able to determine what works for whom, in what circumstances, with what effects, and with what resources.

This suggested way forward connects clearly to the need for an all-important examination of context, identification of change regarding implementation and resource use, who and what is affected and how, effects on user outcomes and experiences, identification of ‘active ingredients’ for transfer and aspects that are making a difference according to our chosen outcomes. It is also an ideal approach for the developmental nature of the Encompass CHOCs, enabling an evaluation of the process of roll out as well as outcomes. In this way, transferable elements (‘active ingredients’) of the initiatives will quickly be made evident to support the development of the roll out.

3.2 Study Design in Two Stages

As the CHOCs were currently being rolled out and some sites still in development at the time of evaluation, a staged design was used. Figure 4 below illustrates the initial evaluation data collection measures and timeline. Two sites that were operational and building a client base in March 2017 were the focus of the first stage evaluation. All CHOC sites taking part in the evaluation have been given a site code in order to project anonymity of participants. The first stage evaluation took place over a six month period and findings reported to the steering group.

Figure 4: Initial two-staged evaluation design



After the initial evaluation period, the following challenges led to a redesign of the approach:

- Failure to meet target numbers for service user data due to issues with frailty, cognitive impairment and palliative care needs
- Failure to obtain two surveys for those service users recruited due to the time this took to complete. Therefore, the evaluation focused on using the P3CEQ questionnaire only (appendix 9.1).
- Difficulty with service user engagement and recruitment pathway through key CHOC staff
- Slow roll out of some CHOC teams
- No care plan data as an established care plan was not being shared at the time of data collection
- Staff engagement in attending focus groups was poor due to limited capacity
- Access to the Kent Integrated Dataset not possible to facilitate service user level data
- Attendance at the steering group was poor after the initial meeting

The above challenges led to insufficient data at the end of 6 months, therefore, the evaluation approach was adapted to ensure maximum data collection and sample adequacy. The CHOCs providing data for the evaluation are described in section 3.3.

3.3 Data collection

Data was collected from CHOCs that were fully developed and working to scale. Therefore, data sources for the evaluation were as below:

- Service user data were collected from 2 CHOCs throughout
- Staff and manager data were collected from three CHOCs (2 original CHOCs in stage 1 with another added after 6 months). To increase staff data available for the evaluation, we conducted individual interviews with as many staff as possible instead of focus groups.
- Observations of three consecutive multi-disciplinary meetings across three CHOCs were conducted to identify what elements of the process are leading to what outcomes for service users.
- Metrics data cover all 5 CHOCs within Encompass MCP

Combined data from the first stage and subsequent adapted data collection were pooled for analysis.

Table 1 provides an overview of the final evaluation measures aligned to the research questions. The Encompass Head of Performance and Information was responsible for the collection and analysis of the metric data. The University of Kent research team, led by Professor Billings were responsible for the collection and analysis of all other data.

A wider set of metrics had originally been proposed for the evaluation but these were reviewed and revised during the programme to reflect difficulties in data collection. It had been proposed that changes in the wider usage of health and social care services would be analysed through the linked care data held within the Kent Integrated Dataset (KID) but did not prove possible as detailed in 4.4. The metrics looking at changes in ambulance conveyance, GP appointments, prescription medications and total system costs were removed and the measure of length of stay was considered on reflection to be a duplication of the bed day usage metric.

Table 1: Data collection methods aligned to evaluation research questions

Research Question	Quantitative Surveys	Qualitative	Metrics (collected and analysed by Encompass)
1. What is the impact Encompass MCP is having on service user outcomes and experience?	P3CEQ (co-ordinated care);	Interviews with users	CHOC service user profile Referrals Length of stay on CHOC caseload Emergency admissions A&E attendances Bed days
2. What are the components of the care model delivery (or 'active/ successful ingredients') that are making a difference?	Interprofessional collaboration scale.	Interviews with professionals/managers Focused observations	
3. What are the influencing contextual factors and how have they affected implementation and outcomes?	Demographic metrics	Field notes; qualitative data from above. Focused observations	
4. What changes to the use of resources and activity in the local health system have taken place and to what costs?		(Collected with RQ2)	Investments and cost savings
5. What could be improved, replicated and sustained?	Obtained through an overarching analysis of quantitative, qualitative and cost data.		

3.3.1 Metrics data

As part of the development of the CHOCs, Encompass commissioned a dedicated clinical system (EMIS web) so that the MDTs could access, record and share service user information electronically. The procurement process, deployment and training of staff in usage and reporting took longer than anticipated which meant that the system was not fully operational and able to produce accurate data until October 2017. Therefore the analysis of length of stay on the caseload and referrals by registered practice (section 4.1) could only be based on a sample of service users entering the service from October 2017. The service was well established by this time however so the data should provide a good representation of how a mature CHOC functions. Basic demographic data (age and gender) was collected from the inception providing a complete population service user sample size.

The analysis of the impact on local healthcare services (section 4.3) was based on a sample of 100 service users that were seen in the CHOCs between October 2016 and March 2017, including the service users involved in the initial 'proof of concept' phase, due to the need to allow a sufficient period of time to elapse after the intervention for the effects to be assessed.

The sample sizes used for analyses are shown in table 2.

Table 2: Sample sizes used for analyses

Analysis	Section number	Figure number	Sample size	Sample date range
Length of stay on caseload	4.1	-	160	Oct 17 to Feb 18
Referrals by registered GP practice	4.1	6	237	Oct 17 to Feb 18
Referrals by age band and gender	4.2	7	361	Oct 16 to Mar 18
Multi-morbidity of service users	4.2	8	100	Oct 16 to Mar 17
Emergency admissions for CHOC service users	4.3	14	100	Oct 16 to Mar 17
Bed day usage for CHOC service users	4.3	15	100	Oct 16 to Mar 17
A&E attendances for CHOC service users	4.3	16	100	Oct 16 to Mar 17

Staff attendance at CHOC MDTs (section 4.3, figure 14) at three CHOCs (Whitstable, Canterbury North and Ash/Sandwich) over a 13 week period between September and December 2017 was calculated using the attendances recorded in the minutes of the meetings.

The savings used in the return on investment analysis (section 4.3, table 4) were based on the reduction in the number of emergency admissions described in section 4.4 (figure 10) multiplied by an average admission cost (derived from the prior admissions associated with the sample of 100 CHOC service users).

3.3.2 Service user data

All eligible services users were approached to take part in the evaluation from 2 CHOCs (assigned CHOC 1 and CHOC 2). Eligibility criteria for service user participation in the evaluation were:

- Adult living at home
- Cognitively able to take part
- Has received a defined intervention from two or more members of the CHOC team for a period of at least three-four weeks.

There was no age range cut off other than over 18, but CHOCs predominantly deal with older more frail users with multiple pathology. It was important for the evaluation that the user had been exposed to an intervention that involved different members of the multi-disciplinary team and intensive enough for the user to be able to inform on the variables of interest as set out in the research questions (eg health and wellness outcomes, self-management, seamless care).

Eligible service users were invited to take part by the CHOC team on discharge. Services users were contacted by telephone to inform them of the study. If the user was willing to take part, contact details were sent to the research team with their permission. A researcher then provided them with an information sheet by post and contacted the user by telephone to discuss participation and arrange a visit for consent and data collection.

Demographic data was collected on all participants. Further data was collected in two elements from service users: firstly, a validated surveys (PC3EQ, refer to Appendix 9.1) (Sugavanam et al 2016 in review, Claassons et al 2016) and, secondly an individual interview. The semi-structured interview schedule (Appendix 9.2) was guided by the research questions, gathering data on their experiences of receiving the CHOC service, whether it has brought about improvements or not compared to previous care, effects on health and well-being, perceptions of the care plan and co-ordination, and

general strengths and weaknesses of the service. Users could take part in both or one of these elements. A maximum sample size of 30 surveys per CHOC (60 across 2 CHOCs) and 10 interviews per CHOC (n=20 across 2 CHOCs) were based on CHOC service user throughput, and within the time frame of the evaluation.

The surveys and interviews were conducted either face-to-face or by telephone, according to preference and audio recorded with permission.

3.3.3 Staff Data

CHOC team members were invited to participate through the Interprofessional Collaboration Scale survey (Kenaszchuck et al 2010, appendix 9.3), and individual interviews. Semi-structured interviews explored team working and co-ordination, the nature of any changes as a result of the CHOC, strengths and weaknesses of CHOC implementation, roles and responsibilities, goals and objectives, effects on different users, 'active ingredients' and overcoming challenges (Appendix 9.4).

Teams involved in the different CHOCs will consist of approximately 13-15 multidisciplinary staff per CHOC (Figure 2). The teams consist of core members who generally work within one CHOC site (eg GPs, practice nurses) and some that work across the sites (eg district nurses, geriatrician, social worker, integrated care team, Age UK, Red Zebra), including staff who are covering for absence. There is not a stable and constant set of professionals unique to each CHOC, and the number of staff from each organisation that may work in the CHOCs, particularly in the 'other' category, will also vary according to demand as the CHOCs are rolled out.

CHOC multidisciplinary team members were recruited for survey completion and interviews using total population sampling (n=26-30 total across 2 CHOCs, CHOCs 1 and 2). A mixed professional team perspective per CHOC was sampled. Scores from the survey were compared against the same survey completed during the pilot CHOC period carried out in DATE.

Managers and commissioners were invited to participate in the evaluation through interviews (Appendix 9.5). Individual interviews were conducted with up to six managers, namely Encompass Project Managers, Vanguard leads, local senior managers in healthcare services (e.g. acute care) and Commissioners. All managers have been involved in the inception, development and roll out of all the CHOCs and therefore were ideally placed to explore more strategic and comparative perceptions of how the initiative was implemented, the nature of any change in practice, what particular actions are supporting what particular types of improvement in what areas, how and if outcomes were achieved, strengths and weaknesses, how and if success is achieved, transferability and sustainability issues, and how challenges were overcome.

For both professionals and managers, the interviews were conducted either as face-to-face or by telephone, according to preference, and audio recorded with permission.

3.3.4 Observation data

Due to lower service user data than expected, we conducted observations of the CHOC teams in action, with the aim of improving data collected about active ingredients, how decisions were made, and how members of the team collaborated to make sure actions work for people.

The Encompass project manager and lead GPs at each of three CHOCs agreed to the collection of this data and the research team completed relevant information governance paperwork. The

observation approach used was non-participative and semi-structured in nature, where the researchers' roles was as a 'fly on the wall', observing and recording verbal and non-verbal behaviour (Robson, 2002) using an observation schedule. No service user data was recorded. The schedule allowed hand recording of inputs, processes, outputs and outcomes (including health economics), and covered aspects such as leadership, decision-making, team participation, service user review, actions etc. The observation schedule, summarised below in Table 3 and in full in Appendix 9.6, was developed from an evidence-based guidance document developed and used by evaluators in Dudley Vanguard site. A study by Raine, *et al* (2014) on best practice in multi-disciplinary working was used to underpin this guidance, and subsequently the observation schedule for this evaluation.

Researchers attended three consecutive CHOC MDT meetings at each of three CHOCs (n=9). We followed guidelines from Robson (2002) for the behaviour (eg neutral clothing, minimal noise) of researchers during observations. Three consecutive attendances were recorded to assess continuity of care, care transitions as service users move through the system, how service users are reviewed, and how the teams collaborate over a short period of time. It was also important for observation bias; teams get used to being observed helping to minimise behaviour that is not normal to how the team work together (Robson, 2002).

Table 3: Summary of topic guide for observations

INPUTS	National policy directives	Mention of national policy directives or guidelines.
	Local Guidelines	Mention of local guidelines/rules/regulations.
	Resource issues	Mention of resource issues (e.g. staff, time, money). How do these factors affect decision making? Evidence of resources being pooled?
	Other services	Mention of other individuals/services/team within organisations that impact on options/decisions made.
	Context	Other broader contextual factors influencing decision making.
	Presenters	Who presents cases up for review? How? How are agenda items framed?
	Targeting of Service users	Who are they targeting? How? Any particular health conditions? Is there a formal approach (risk stratification)?
	Service user characteristics	Service user characteristics – any variation?
	Voluntary Sector Input	What input does the Voluntary Sector Organisation representative give (if they attended)?
	Missing info	Mention of missing information? How does this impact on decision making?
PROCESS	Leadership style	Is there a clear role or several competing leaders? Do they encourage involvement or limit contributions?
	Team dynamics	Does everyone contribute to discussions/actions and decision making? How?
	Overall Purpose	What appears to be the overall purpose of the MDT?
	Case Management & Review	How is the case management and service user review managed? What information is provided? Who provides the information? Who takes action?
	Performance Measures	What measures are they using to measure performance of the MDT?

	Mediators	Other mediators, processes influencing decision making.
OUTPUTS	Ongoing & new cases	How many cases are discussed in the meeting? Number of new cases/ongoing cases.
	Actions agreed on	What actions are agreed? Are actions from previous meetings reviewed?
	Decision making & recording patterns	Who records the decisions made? Is there a verbal summary and rationale? Is responsibility for implementation discussed? Any other outputs by the MDT
OUTCOMES	Outcomes/end result	Service user experience, service utilisation, clinical, service user-reported and wider outcomes
	Cost Savings	Evidence in the meeting of cost savings in terms of changes to staff input in service user care
	Identifying problems	Did they identify delays or doubling up of care, service user problems, other problems in care?
	Remedying problems	Did they remedy delays or doubling up of care, service user problems, other problems in care?

3.4 Data Analysis

Each data source was analysed according to its quantitative (numerical) or qualitative (thematic) requirements with the use of relevant software. Baselines and targets were defined for metrics using historic patterns of activity, and modelling of expected impacts and progress were assessed against these baselines and trajectories. An analysis of costs and benefits realisations formed the basis of the economic assessment. As it was not possible to conduct before and after surveys of service users as the interventions were generally not long enough, we made comparisons across the CHOC sites to see how outcomes varied and according to what variables, answering the question 'what works for whom, how and with what outcomes'.

Transcribed qualitative interview data, alongside field notes were contextually and thematically analysed, grouped into relevant themes to provide an explanatory account, and then inputted into Excel. This main approach for analysis drew on Flick's (1998) pragmatic notions of organising and thematically representing data through a pre-determined template, adapted in this case from the interview and focus group schedules and field notes. The Excel spread sheet was set up with the main questions, sub-questions and prompts as column headings, and raw coded data from each qualitative source was grouped into the relevant column. Any data not fitting was organised into an 'other' category for further thematic analysis. Regular assessment of the goodness of fit of data occurred within the team.

Observational data was recorded on structured schedules and analysed thematically within the main categories of 'inputs, processes, outputs and outcomes (including health economics)'. Comparisons were made between meetings, looking at how collaborations worked and served towards meeting service user needs over time and across CHOC sites, extracting both the commonalities and the differences between them. In particular, analysis focused on what constitutes 'successful ingredients' and examples from the analysis to illustrate this.

Once all data was analysed, an overarching analysis that triangulated data through blending and comparing the data sources within the research questions was conducted. A particular emphasis was

made to consider what 'active ingredients' work best within and across the different CHOCs, and what could be replicated and sustained.

3.5 Research Management and Governance

The project lead was Professor Jenny Billings, responsible for the execution and quality of the evaluation, and achieving deliverables on time. The research team at University of Kent included Sabrena Jaswal (Research Assistant), Dr Rasa Mikelyte (Research Assistant) and Dr Melanie Rees-Roberts (Research Manager). Metrics data was collected and analysed by Mr Ian Roberts, Encompass MCP Head of Performance and Information.

To support the evaluation, an Evaluation Steering Group was convened to meet quarterly. The role of the steering group was to support CHSS and Encompass MCP to implement and deliver the evaluation strand within the Encompass MCP Strategy for Research and Evaluation, and to monitor and advise on processes and approaches to evaluation, outcome measurement and roll out. The steering group members also included healthcare professionals across care sectors and two service users who supported the development of the evaluation and instruments from a lay perspective. A member of the NHS new care models team was invited to the steering group meetings. After 2 quorate meetings, attendance of the steering group became challenging. Therefore, further meetings consisted of the evaluation and Encompass management team only.

Service evaluation does not require NHS ethical approval, provided participants do not lack capacity to consent. The evaluation was reviewed by the University of Kent SRC ethics committee (ref#: 0183) and granted approval on 04/05/2017. An amendment to reflect the change in study design was submitted and approved before being implemented. In the execution of this evaluation, ethical principles of informed consent, beneficence, confidentiality and 'do no harm' were be strictly adhered to, as with aspects relating to data confidentiality storage and transfer.

All service users, staff and managers gave informed consent prior to any data being collected for the evaluation. Participants were informed of their right to withdraw at any time without giving a reason and that will not affect any current or future care where applicable

A unique code was assigned to each participant and used to pseudonomise all data to ensure anonymity. The individual CHOCs were also coded to lessen the possibility of the identification of professional teams. Once the unique code has been assigned to the documents, personal information that may enable the participant to be identified were removed from the research data.

4. Results

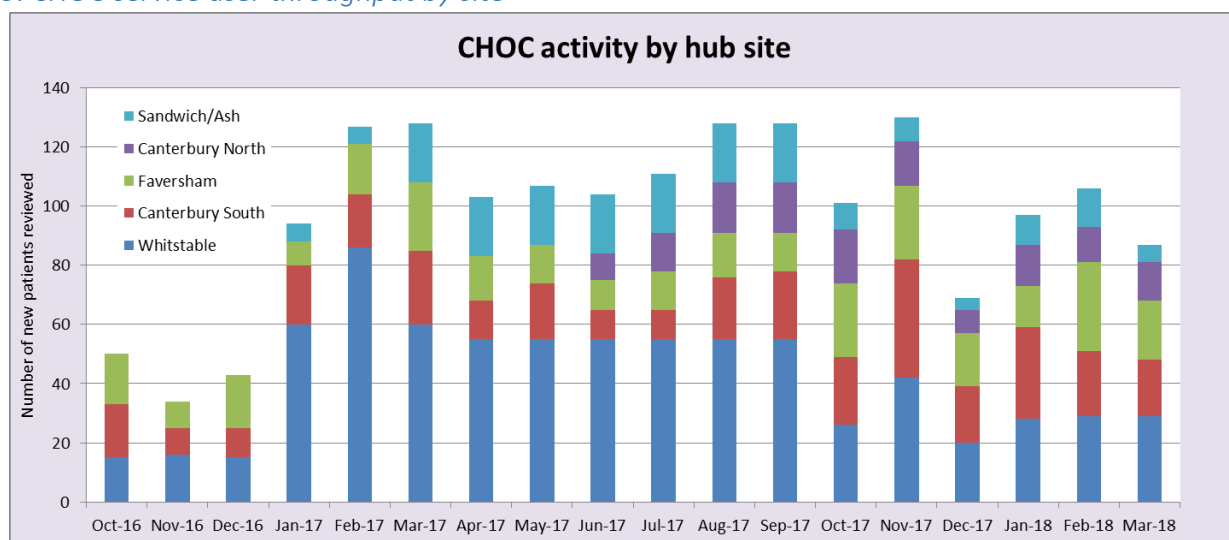
Data collected for the evaluation was pooled and analysed. The results of this evaluation have been presented below to show the metrics data collected across all 5 CHOCs showing CHOC activity, service user profile and demographics, staffing and investments in the CHOCs, and finally data to support the impact on local healthcare services. This is followed by mixed methods data collected from CHOC service users to show their perspective of receiving the service. Data from staff and managers is then presented to show the collaborative working of the CHOCs and the challenges and successes of setting up multi-disciplinary CHOC teams. Finally, the data from observations of three consecutive CHOC meetings at three CHOCs highlights the key ingredients of the CHOC service model. Health economic data was extracted where evident, mostly in qualitative interviews and observations undertaken. This is highlighted in the relevant sections above.

A discussion of the interpretation of these results to answer the research and wider questions can be found in sections 5 and 6.

4.1 CHOC activity

After the 'proof of concept' phase in October to December 2016 covering Canterbury South, Whitstable and Faversham CHOCs, activity was rapidly scaled up during January 2017, when the Sandwich/Ash site also went live. The final site (Canterbury North) launched in June 2017 at which point all practice members of the Vanguard had access to a local CHOC service. The numbers of new service users seen at each of the CHOC sites since the inception of the service are shown in Figure 5. The total throughput over the 18-month period (from the CHOC pilot in October 2016 until the end of the Vanguard programme in March 2018) was 1,747 service users. There was an average number of service users per CHOC per month (calculated over the most recent six month period to March 2018) of 29 service users at Whitstable, 26 at Canterbury South, 22 at Faversham, 13 at Canterbury North and 8 at sandwich/Ash.

Figure 5: CHOC service user throughput by site

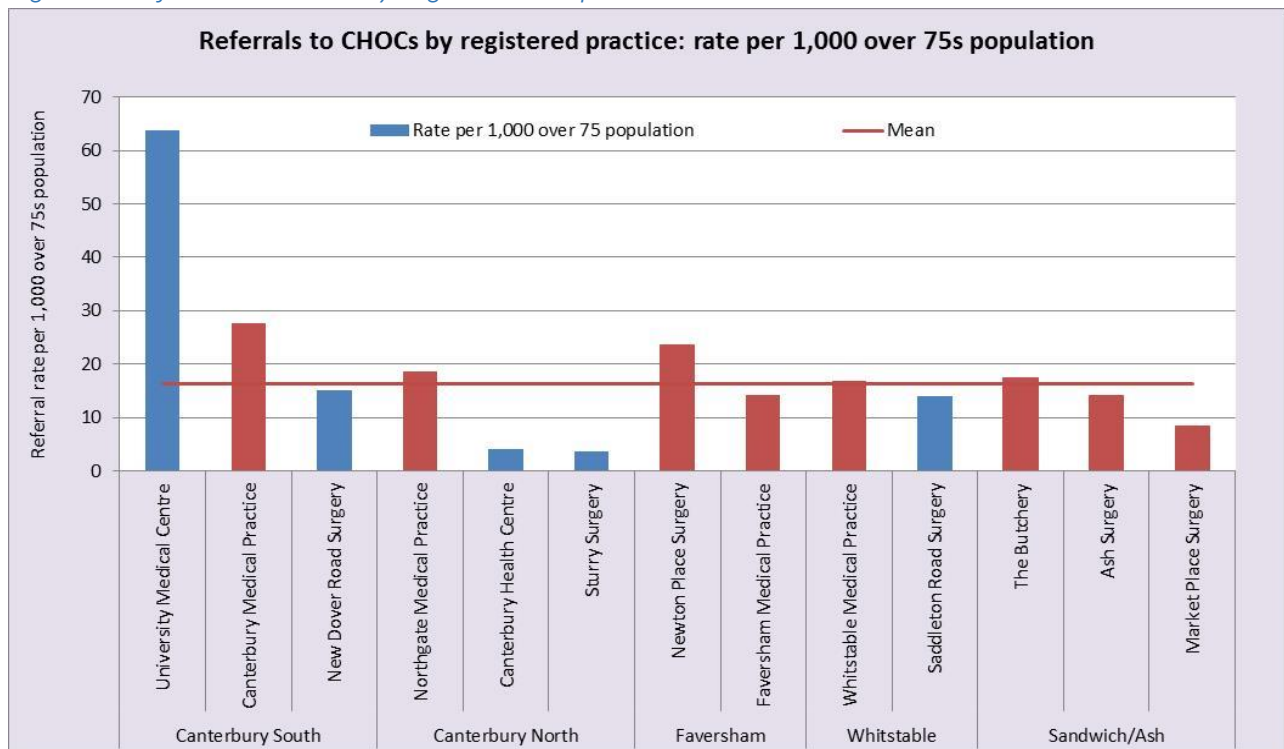


The assumption used when planning the service implementation was that service users would on average spend four weeks on the CHOC caseload. Analysis showed that the actual length of stay on

the caseload was 3.9 weeks, though there was some variation between sites, with Whitstable having the lowest stay (3.7 weeks) and Canterbury South having the highest (4.4 weeks).

It is possible for any member of the multidisciplinary team to refer a service user into the CHOC but the majority are referred by their GP. The referrals (including referrals from all sources) into the CHOCs by registered GP practice are shown in Figure 6. This has been presented as a rate per 1,000 over 75s registered population to enable a fair comparison between practices of different sizes. The over 75s population was used as a denominator as this reflects the demographic being referred into the CHOCs (as described further in section 4.2). The referral rate for the University Medical Practice is skewed due to there being six referrals to the CHOCs from the very small over 75s population (108 people). Referrals generally appear to be highest from those practices that host the MDT meetings (indicated as red bars).

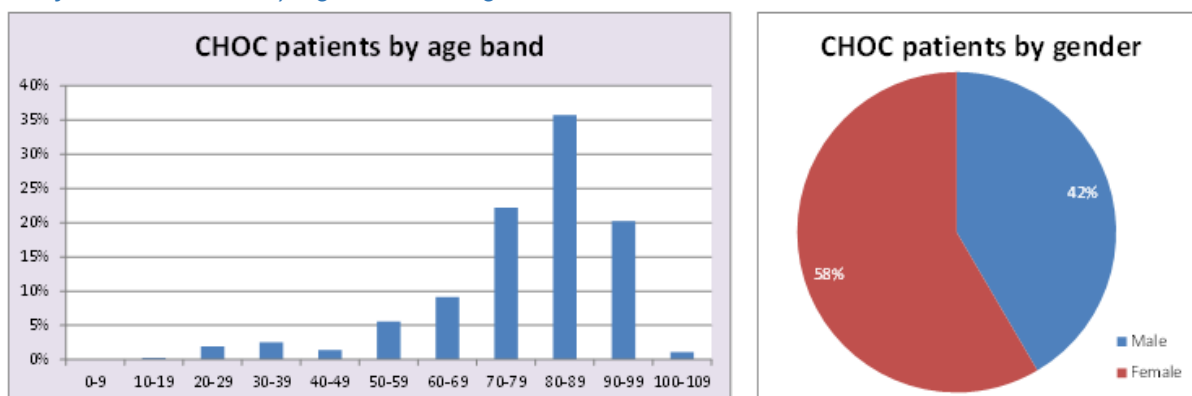
Figure 6: Referrals to CHOC by registered GP practice



4.2 CHOC service user profile

An analysis of the entire CHOC population (n=1747) shows that the vast majority (88%) of CHOC service users were aged 60 or over, with 78% aged between 70 and 99. Females being referred to the CHOC service represented just over half (58%) of the total caseload. The gender split of CHOC service users was very similar to the composition of this catchment population (56% of people aged 70-99 in the Encompass area are female) and the people who were interviewed. The age and gender of service users seen at the CHOCs is shown in Figure 7.

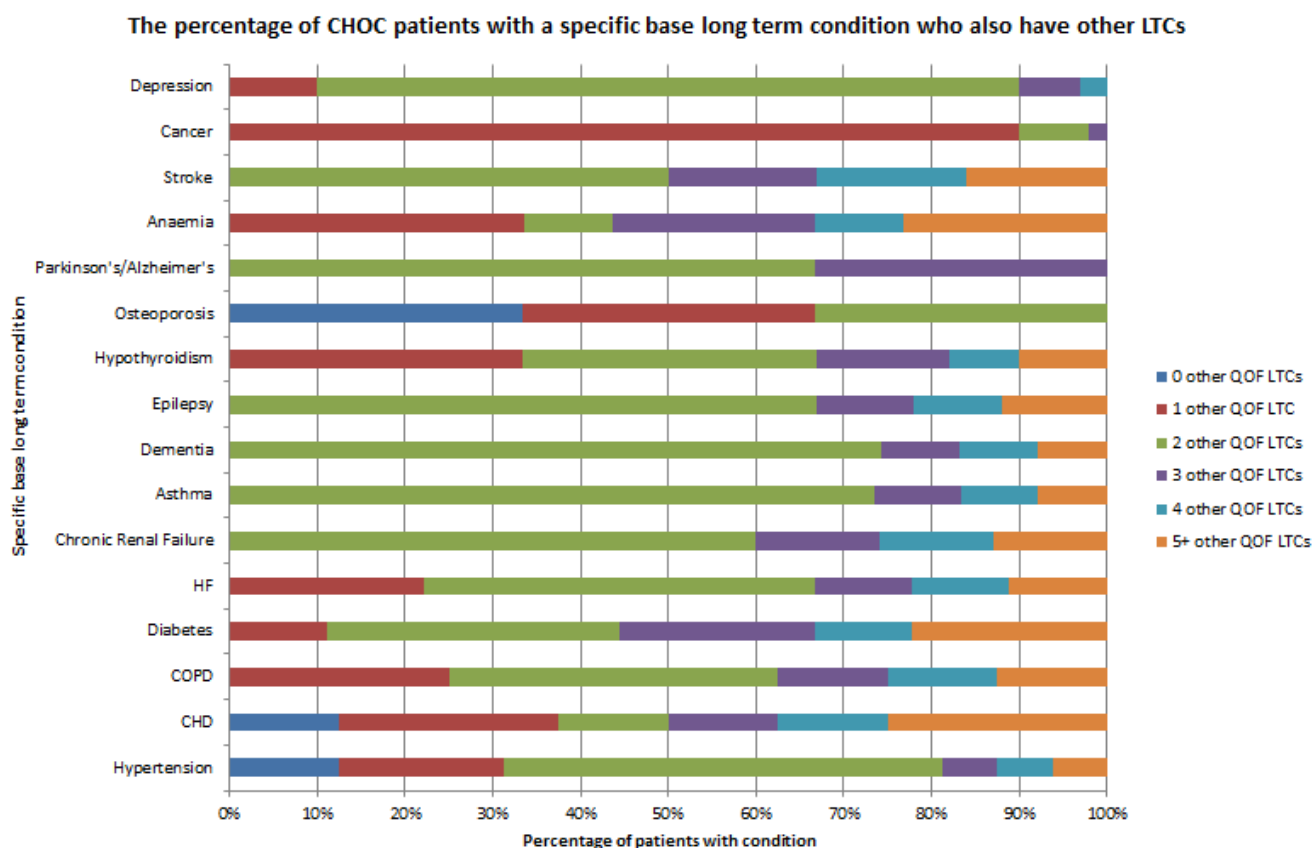
Figure 7: Referrals to CHOC by age band and gender

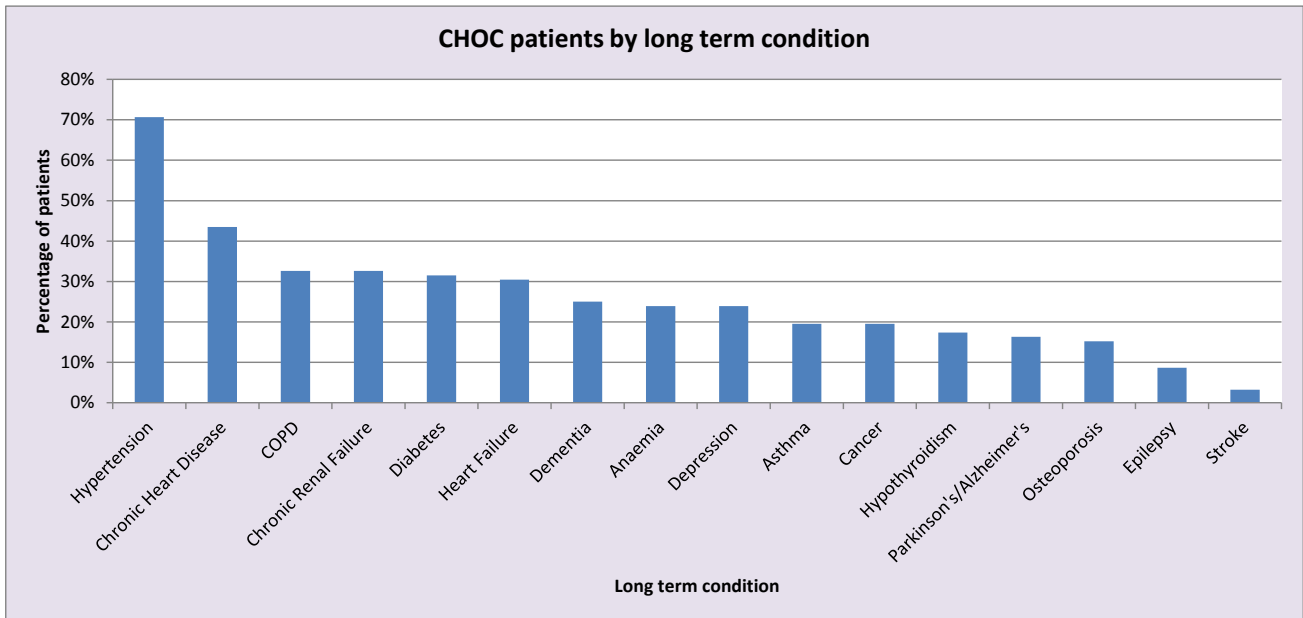
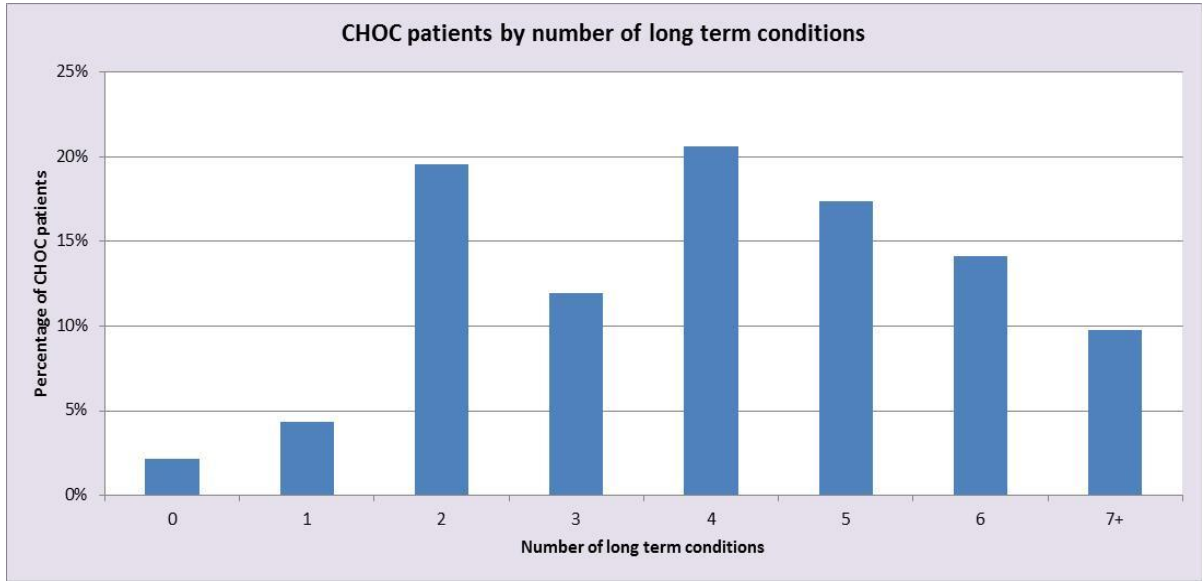


It was difficult to quantify the presenting complaint for referrals to the CHOCs as most service users were referred due to the particular complexity of their health and/or social care needs. The majority were elderly, with moderate or severe frailty and with a range of long-term conditions, but recurrent themes included heart conditions, renal conditions, respiratory conditions, stroke, osteoporosis and dementia. There were also some referrals of working age adults with social issues including alcohol and drug misuse.

An analysis of the multi-morbidity of those seen within the CHOCs is shown in Figure 8. In the vast majority of cases, service users who had a long term condition (LTC) also had at least one, and often several, other LTCs.

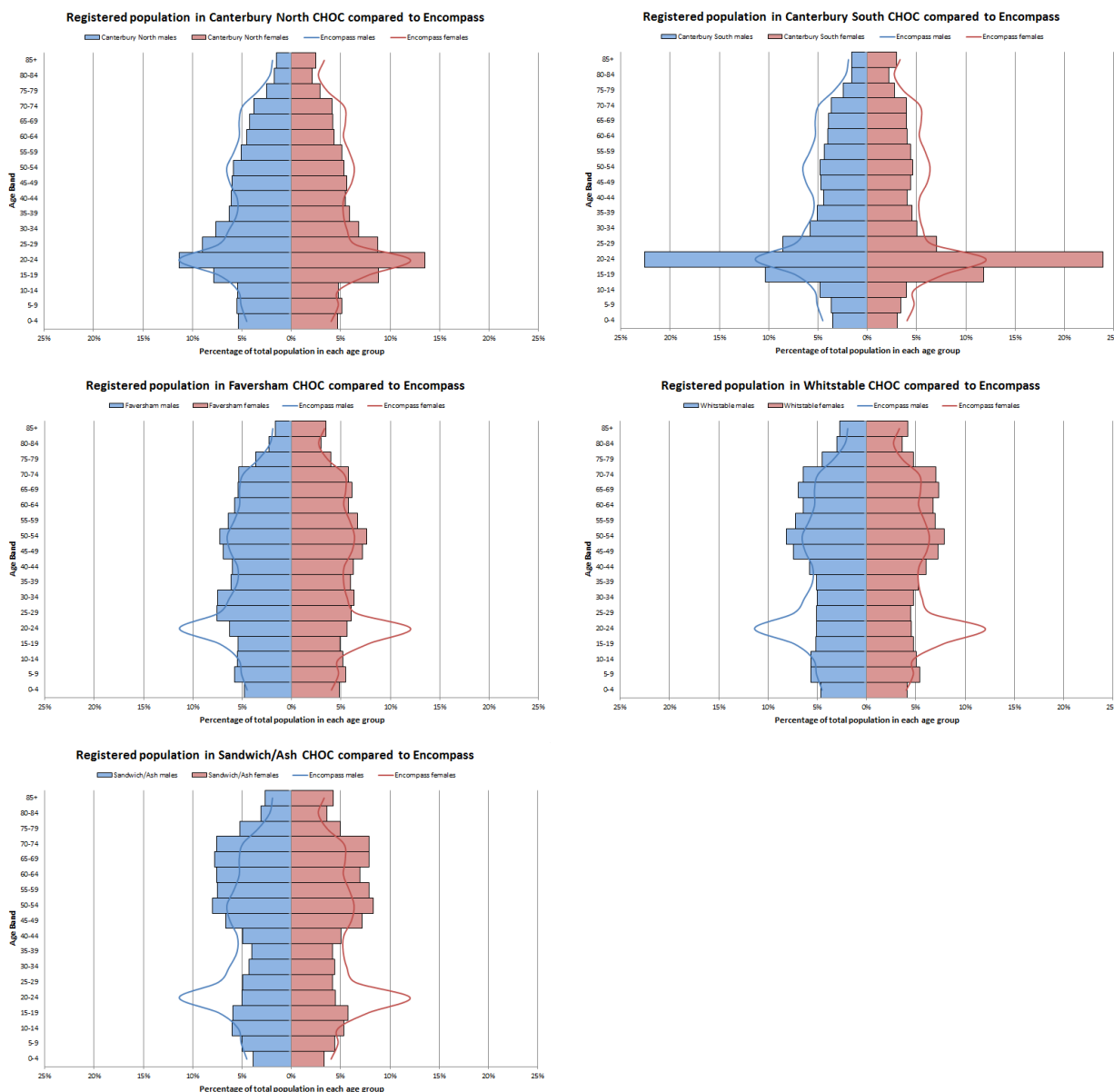
Figure 8: Multi-morbidity of service users seen within the CHOCs





The overall demographic profiles for the CHOC areas are shown in Figure 9. The Canterbury CHOC catchments have a younger population demographic mostly due to the large student population and Sandwich/Ash has the oldest population demographic overall.

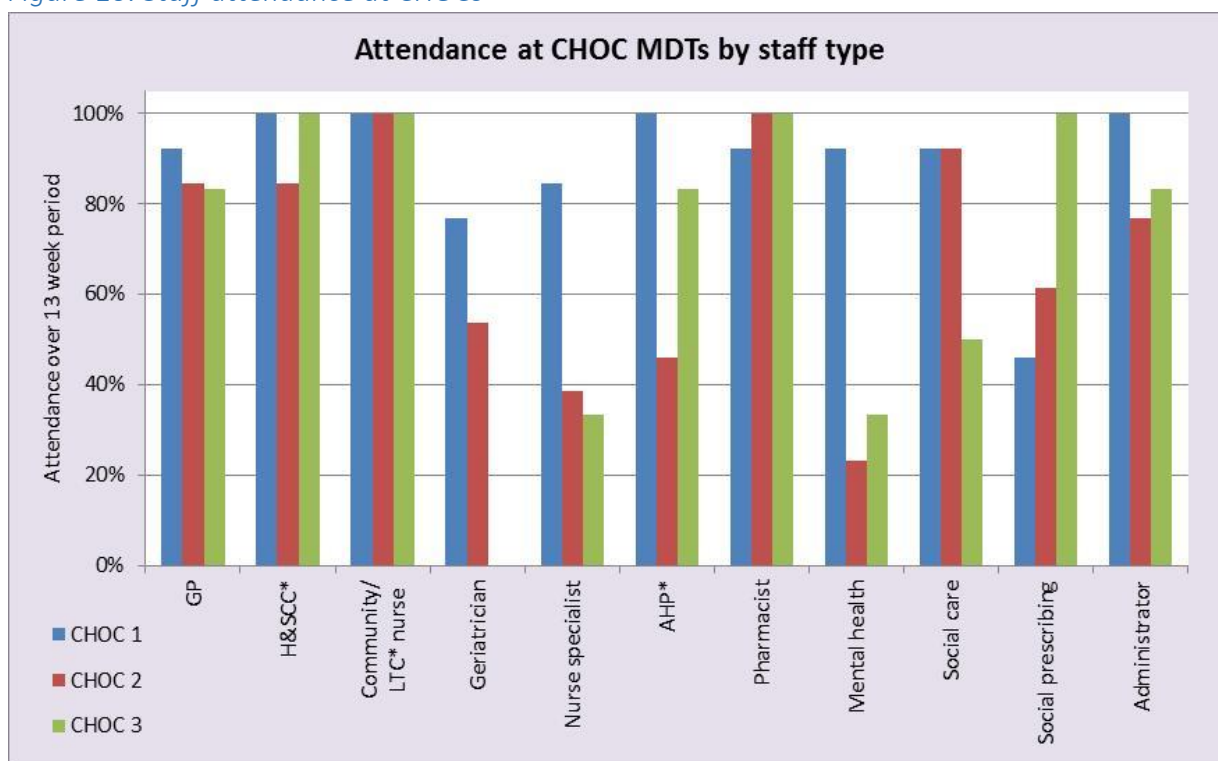
Figure 9: Demographic profiles for the CHOC areas



4.3 CHOC staffing, infrastructure and investment

Staff attendance at CHOC MDTs was recorded over a 13-week period across three of the CHOCs (Whitstable, Canterbury North and Ash/Sandwich) and analysed by staff type. The attendance across the core staff groups is demonstrated in Figure 14. Attendance was very high for GPs, Health and Social Care Co-ordinators (H&SCC), Community/nursing staff, pharmacists and administrators across all 3 CHOCs where data were collected. Staff attendance was particularly consistent across core staff members at Whitstable CHOC. Lower attendance was observed across CHOCs in certain core staff groups, including geriatricians, Nurse Specialists, Allied Health Professionals (AHPs), Mental Health and Social prescribing attendees. Delays with Encompass being able to successfully recruit to an additional geriatrician post meant that attendance was lower than expected at two CHOCs and one CHOC was not attended during this period.

Figure 10: Staff attendance at CHOCs



*H&SCC = Health and social care coordinator
 *LTC = Long term conditions
 *AHP = Allied health professional

The Encompass programme was a three year development, with CHOCs being implemented during the second year. Over the three year period Encompass invested over £1.4 million in clinical staff time to support the Integrated Case Management model of care. Many other staff provided additional support as part of changing the way that they work.

Encompass also invested £133,000 in improvements in IT and infrastructure to support the CHOC model of care in the following ways:

- Purchase of EMIS Clinical Web Services software at the five CHOC sites to manage service user caseload and improve record and care plan sharing
- Development of business intelligence software to improve reporting and analysis
- Commissioning the development of a Systems Dynamics model to assess future demand, capacity and workforce requirements
- Development of SHREWD to show system performance and pressures in real time
- Development of WaitLess to improve service users flows into A&E / MIUs and reduce waiting times
- Implementing software to improve the management of wound care

The total investment in CHOC development was £2.230m. The total level of savings which are expected to be achieved (based on the forecast outturn from the end of quarter 3 position) is £3.201m, which gives a positive variance of £0.971m and an overall return on investment of 144%. However this analysis has not been adjusted to take into account the impact of the service change described in section 4.4 so the savings and return on investment will be overstated.

Table 4: Investments, savings and return on investments for the Encompass Vanguard CHOC service

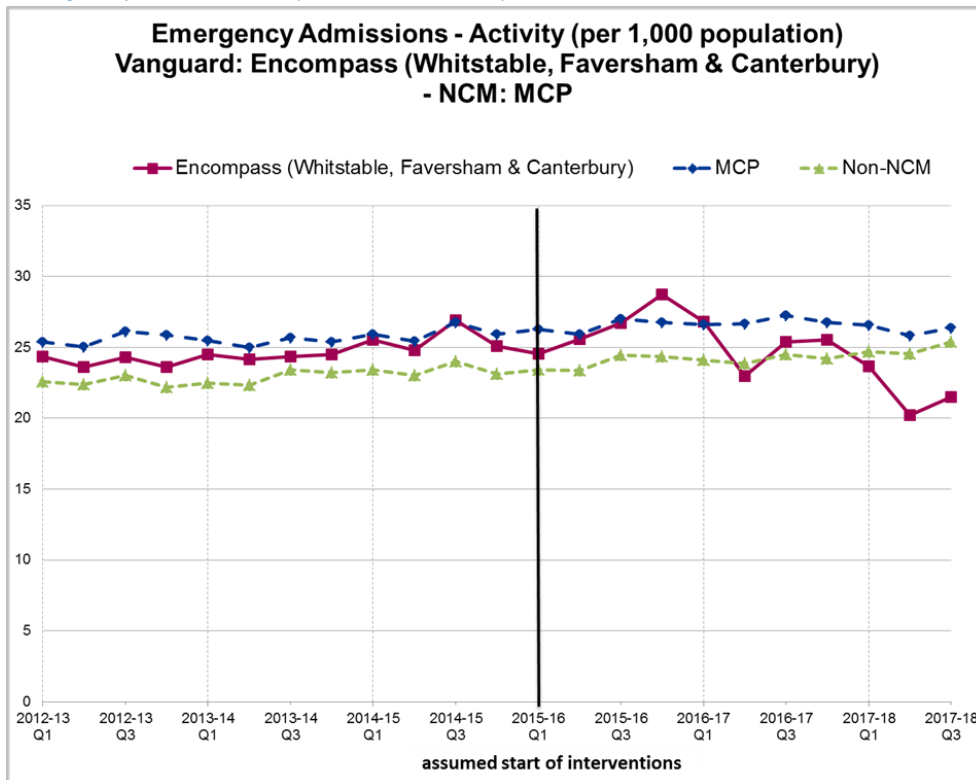
	2015/16	2016/17	2017/18	Total
Investment	£0	£1,003,000	£1,227,000	£2,230,000
Savings	£0	£646,000	£ 2,554,615	£ 3,200,615
Variance	£0	-£357,000	£ 1,327,615	£ 970,615
% Return on investment				144%

4.4 CHOC impact on local healthcare services

The NHS England evaluation strategy for new care model vanguards described two core metrics against which all vanguards would be assessed for impact (NHS 2016): emergency admissions and total bed days. The data source for both metrics was the secondary user service (SUS) and performance was expressed as a rate per 1,000 registered population. Performance was measured against a baseline period prior to the beginning of the interventions (2014/15). The evaluation strategy stated that the new care models programme would produce quarterly dashboards to report on the core metrics.

At the end of the new care models programme, the 2017/18 Q3 dashboard (January to March 2018) produced in March 2018 (NHS 2018) identified an 11.3% reduction in emergency admissions and a 0.8% reduction in bed days for Encompass MCP compared to the baseline period in 2014/15.

Figure 11: Emergency admissions (NHS dashboard)



The comparison of the level of recent emergency admissions against the 2014/15 baseline makes the assumption that any change will be attributable to the Encompass interventions. However, there was a significant change in service delivery at the Kent and Canterbury hospital (KCH) in June 2017. This affected the level of emergency admissions at this hospital site which is the main site used by Encompass service users in the baseline period (62% of the total emergency admissions for this population in 2014/15).

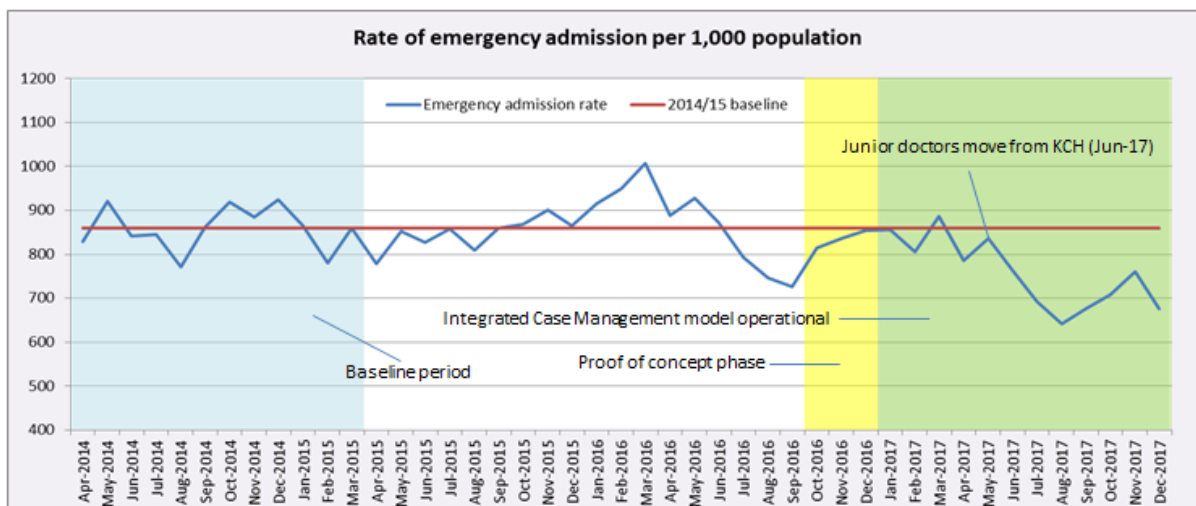
In March 2017, Health Education England recommended that 42 out of a total of 76 trainee doctors at KCH should be transferred to other sites within the hospital trust's estate (William Harvey Hospital at Ashford and Queen Elizabeth the Queen Mother Hospital at Margate) due to a lack of consultant staff to provide suitable supervision. The trainee doctors transferred on 19 June 2017 and to ensure the continuation of safe care for service users it was deemed necessary for the acute medical services at Canterbury to move to Ashford and Margate. The rate of emergency admissions for the Encompass area with this key change and the stages of CHOC development highlighted is shown in figure 11.

The hospital trust have reported a decrease in emergency admissions as a direct result of this service change, including admissions from practices outside of the Encompass catchment. It has been suggested that service users with relatively minor conditions have been unwilling to travel the extra distance to be seen.

The Encompass team has worked very closely with colleagues within the hospital trust when analysing the metrics and has developed a shared understanding of the impact of the CHOCs. This impact has been jointly agreed and signed off by the trust and Encompass and has been used to develop implementation plans for the roll out of the CHOC model across the Kent and Medway area.

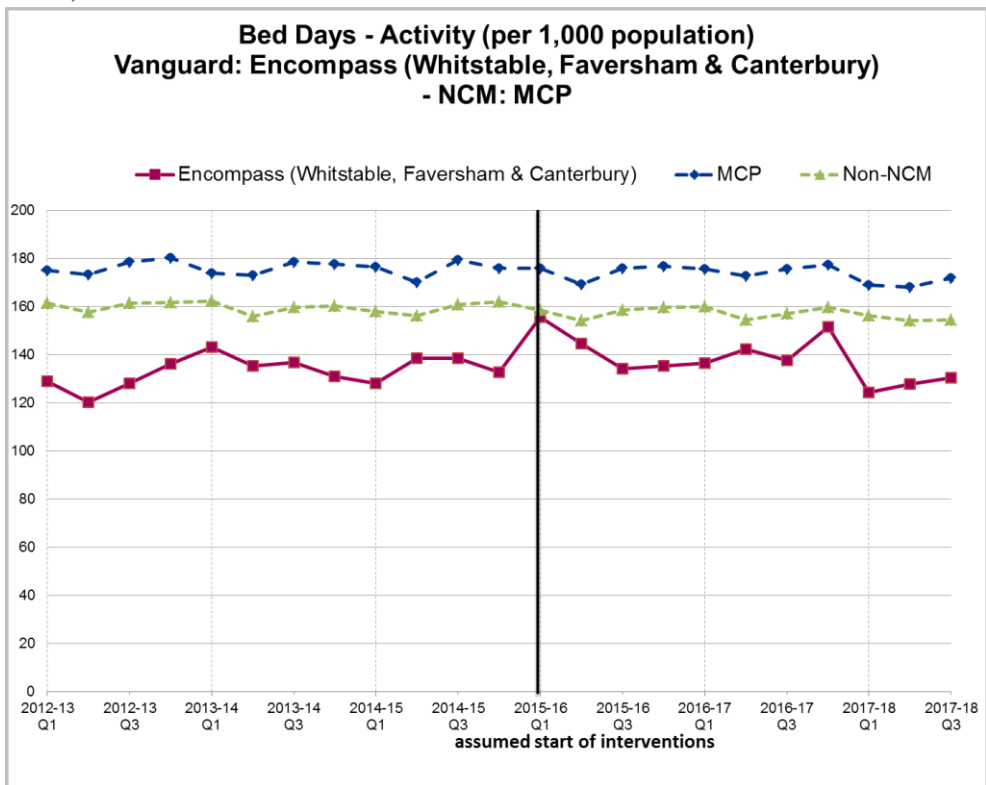
The trends in emergency admissions and bed days presented in the interim report (7.3% reduction in emergency admissions and 23% reduction in bed days) have therefore been revised in light of the service change and to reflect the joint analysis undertaken by Encompass and the local hospital trust and are now considered to a more accurate reflection of the changes in patient activity and flow in relation to the impact of the implementation of the CHOC model of care.

Figure 12: Emergency admissions (local analysis)



The Encompass MCP comprises all of the Canterbury & Coastal CCG population with the exception of Herne Bay GP practices. The absence of CHOC interventions in Herne Bay, allows for assumptions to be made about the impact of CHOC services outside of the local emergency services reconfiguration at KCH described above. Emergency admissions from the Herne Bay area decreased by 9.6% across the junior doctor relocation period. This suggests that 6.1% of the 11.3% reduction in emergency admissions for the Encompass area could have been related to the junior doctor's move, with the remaining 1.7% being attributable to the CHOC service alone.

Figure 13: Bed days



The 2017/18 Q3 (January to March 2018) dashboard identified a 0.8% reduction in bed days for Encompass compared to the 2014/15 baseline period. However, the bed day usage for the most recent nine months is 8.4% lower than the average for the previous two years, though the junior doctor's move is also likely to have impacted in this area. The CHOC service was not expected to have a significant impact on bed days as it did not involve direct actions to expedite service user discharge from hospital.

It had been envisaged that local CHOC service user specific quantitative data would be used to analyse changes in the wider usage of health and social care through the linked care data held within the Kent Integrated Dataset (KID). Unfortunately, this did not prove to be possible in the timescale of the new care models programme. As part of the development of the CHOCs, Encompass commissioned a dedicated clinical system (EMIS web) so that the MDTs could record service user information electronically. It had not be foreseen that it would not be possible to extract data from this system into the KID as community EMIS modules, unlike GP EMIS systems, are not covered within the GP Systems of Choice (a contractual framework under which IT systems and services are supplied to GP practices and associated organisations in England).

Despite not being able to utilise linked data from the KID, service user-level data has been tracked and analysed (with appropriate consent) for 30 service users that participated in the ‘proof of concept’ phase between October and December 2016 and a further 70 service users that were seen within the CHOCs between January and March 2017. Selecting this sample has provided longer term data to analyse the level of emergency admissions for this cohort of 100 service users compared to the 2014/15 baseline data for the same cohort (Figure 14). Analysis of this cohort has also demonstrated a reduction in emergency admissions and bed days for service users that have received the CHOC model of care.

Figure 14: Emergency admissions for CHOC service users

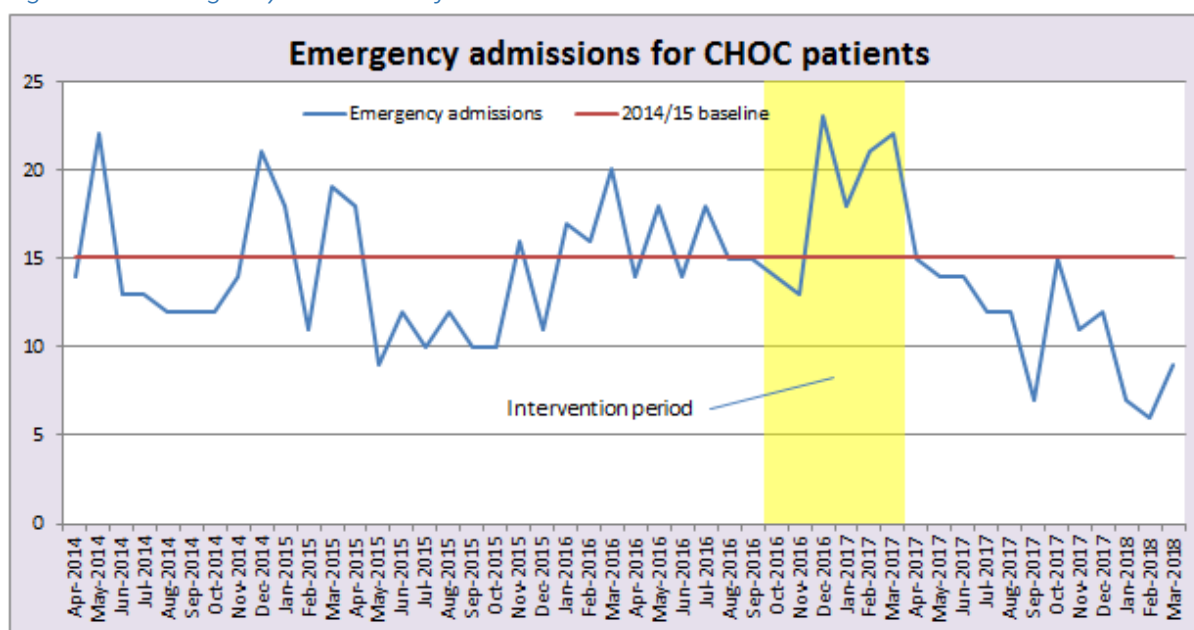


Table 5 shows a comparison in acute hospital usage for CHOC service users for the 2014/15 baseline period (April 2014 to March 2015, selected as a baseline to be consistent with the national analysis) and the 12 month period for which data was available post intervention (April 2017 to March 2018). The sample of 100 service users received an intervention during the period between October 2016 and March 2017.

Table 5: Acute hospital usage by CHOC service users pre and post intervention

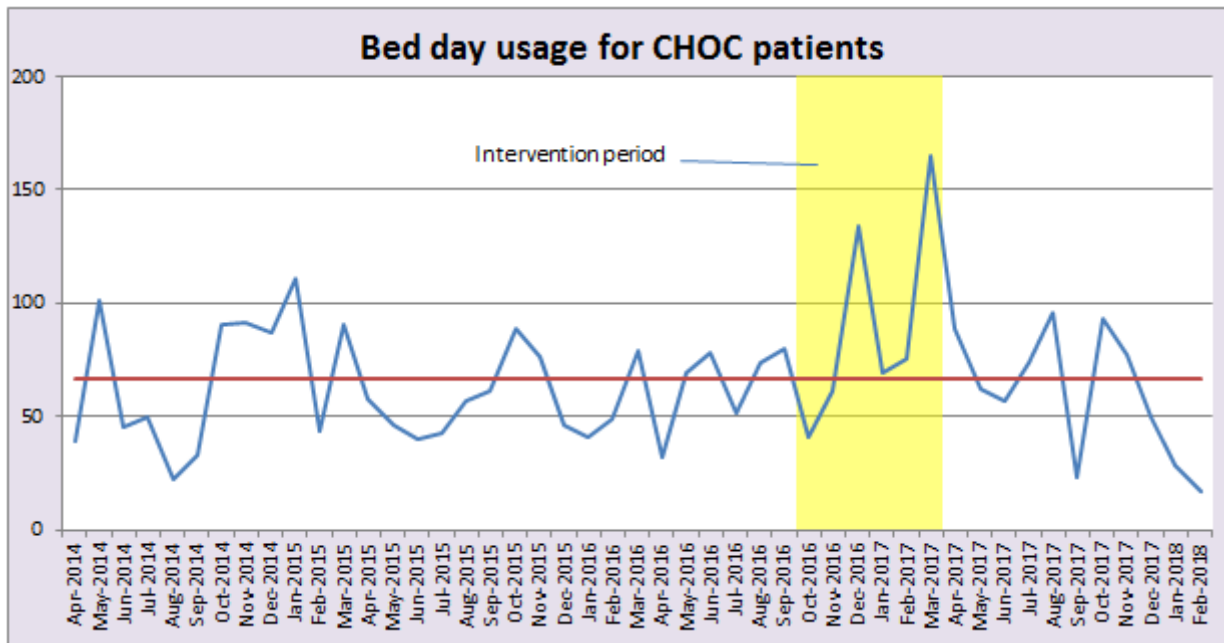
	Average per month in baseline period	Average per month post intervention	Variance
Emergency admissions	14.5	11.2	-23%
Bed day usage	62.4	60.0	-3.8%
A&E attendances	17.3	17.5	1.4%

There was a reduction in emergency admissions for this sample of 100 service users of 23% in the post-intervention period compared to the 2014/15 baseline. The reduction for this specific cohort of CHOC service users would be expected to be greater than the reduction for the overall population (figure 10) as these service users are more likely to have a history of acute hospital usage.

The level of bed day usage for the same sample of 100 service users compared to the baseline rate is shown in figure 15. There was a 4% decrease in the bed day usage in the post-intervention period

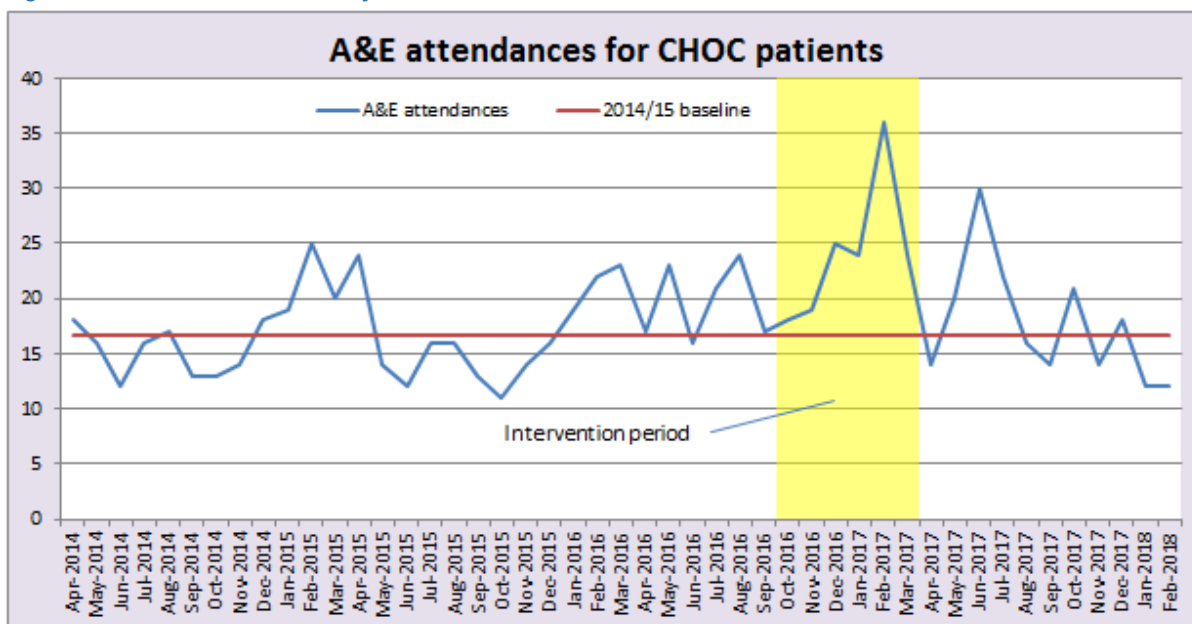
compared to the 2014/15 baseline. It would appear that the reduction in emergency admissions mainly relates to short stay service users and so has only reduced the bed day usage by a smaller proportion. This is a similar pattern to the overall population (figure 12) and is also likely to reflect the CHOC service not involving direct actions to expedite service user discharge from hospital.

Figure 15: Bed day usage for CHOC service users



The level of A&E attendances for the same sample of 100 service users compared to the baseline rate is shown in figure 16. There was little change (1% increase) in the A&E attendances in the post-intervention period compared to the 2014/15 baseline. It may be the case that it is not possible to identify a reduction at this time, due to the high level of monthly variation in the numbers of A&E attendances and the relatively short period of time for which data is available post intervention.

Figure 16: A&E attendances for CHOC service users



Summary

These results have shown that:

- A significant number of service users, n=1747, have received the CHOC service in the 18 month period of being operational.
- The average number of service users seen by a CHOC was 20 (minimum 8, maximum 29 across 5 CHOCs)
- Referrals have been mostly from GP practices with the largest number coming from practices hosting CHOC meetings.
- 88% of the CHOC population of service users were over 60 and had multiple long term health conditions
- The demographic profile of CHOC service users (mainly male/female data) was the same as the general local population for the CHOCs
- Significant investments have been made in staffing and IT to enable CHOC services to be delivered (£1.4 million and £133,00 respectively)
- Calculated returns on the investments made of 144%, subject to the caveats described in 4.3
- Staff attendance at CHOC meetings has been high, although some core staff groups attendance is more variable within and across CHOCs
- CHOC service impact has seen a 1.7% reduction in emergency admissions and 0.8% reduction in bed days using national data (Q3 2017/18 compared to 2014/15 baseline data and removing assumed contribution of junior doctor secondary care move described in 4.4)
- Compared to the 2014/15 baseline data, a cohort of 100 CHOC service users (data from Oct 2016 to Mar 2017) has seen a:
 - 22% reduction in emergency admissions in the period post-intervention (April 2017 to March 2018)
 - 4% reduction in bed days over the same period
 - No detectable change in A&E attendances over this period

4.4 Service user perspective of CHOC services

Eligible CHOC service users from two CHOCs (Canterbury South and Canterbury North) were approached between May 2017 and March 2018 to participate in the evaluation. The research team received the contact details for 29 service users, of which N= 13 individuals (including one adult child in lieu of the service user) took part. Participant data collection took place within one week of discharge from the CHOC intervention. The combined survey and interview took approximately one hour whilst the interview on its own took approximately 40 minutes.

The target sample size for service user surveys (n=60, 30 per CHOC) and service user interviews (n=20, 10 per CHOC) was not reached. This was the main challenge to the evaluation and prompted additional data collection through CHOC observations. The main difficulties with service user recruitment were:

- Many of the service users on the CHOCs did not meet the evaluation's eligibility criteria as they were deemed not cognitively able to take part
- Time pressures for staff identifying and referring service users to the research team.

Of the 13 service users that provided data for the evaluation all took part in the in depth interview, and 7 also chose to complete the P3CEQ questionnaire (54% response rate). A full analysis of the PC3EQ questionnaire was not feasible due to the small sample. However, the overall scores of the

completed PC3EQs were calculated out of a maximum score of 33 whereby a higher tally is equated with a better experience of person-centred care (Appendix 9.1). The scores of service users ranged from 20-28 with one outlier of 10

Service users provided demographic information and analysis showed that those taking part were mostly female (69%), over 70 years old (77%) and with at least one long term condition (92%). This data reflected the overall CHOC population described above. Over half (54%) of service users taking part in the evaluation lived with a spouse or family member, whilst 31% lived alone and 15% in sheltered accommodation.

4.4.1 Service user experience with receiving the service

The aim here was to understand the impact the CHOCs were having on user outcomes and experiences. Is the delivery of care more seamless? Does the service user have access to resources they may not have had previously? Is the service user better able to manage their care and therefore, be more independent at home?

Overall, a more attentive delivery of care was being offered than had been previously experienced by service users.

More and more people phoning up and coming out to check up on this and check up on that and I thought that golly, my surgery, they've changed, they're getting all these people coming to see me. And I was very impressed (SU10)

Their pleasantness and their efficiency, and their ability to deal with the situation straight away (SU 4)

You used to have to repeat the information to different people all the time, now one person does it all, he relays the messages forward. (SU 6)

However, there was also a sense that the care team was often rushed in their visits and although the service users empathised with the workers there was frustration.

The only trouble is the doctors...I just give up with them, you know. They always seem to be in a hurry to get back to their surgery because they've got service users waiting. (SU1)

Delays to services, particularly from occupational health also seemed to effect service user care.

They're too busy and then you go on a waiting list and you wait and wait and wait. (SU4)

4.4.2 Effects on health and wellbeing

With this theme the research team was trying to ascertain whether the service user had noted any improvement in their health and wellness as a result of the CHOC intervention. Responses to this seemed mixed. Better communication was noted and one service user found that the presence of the CHOCs allowed their care to be better managed from home.

At the moment I feel better in myself mentally...I've realised I've got some support coming. (SU 12)

On the other hand it was also noted that the service "lacked consistency" and that personal contact was "impaired" as some service users did not see health and social care staff on a regular basis thus hindering a potential rapport building.

One thing that is apparent immediately is that it is an agency service. The care element is an agency service and as such is everlastingly changing on a daily basis. (SU5)

Additionally, some of the service users were not able to compare and contrast an improvement in their health and wellbeing from before this service's presence as they only went onto the CHOC scheme once they became seriously ill.

As soon as they were really poorly, they went straight into the scheme so I've got nothing to compare it with. (SU 13)

I didn't have a team six months ago...I was totally on my own virtually like with just my family around me...I went back in (hospital) four times in less than four months. (SU 1)

The use of the voluntary sector was also highlighted as having a positive impact.

I think [GP] and Red Zebra [third sector social prescribing service], they're being really good, do you know what I mean? They have been brilliant, they've done more for me than anybody. (SU 8)

4.4.3 Care plan and coordination

In the original study design, a total of 10 care plans from interviewed participants would be analysed per CHOC (n=20). This analysis was not possible as only one of the N=13 individuals who were interviewed had this document in place and were aware of it and its purpose. This particular service user when asked about their care plan stated:

I've never seen it...it's in a cupboard upstairs and the nurses just deal with it. (SU9)

In one instance, the researcher asked a service user unaware of their care plan if such a document would have been useful. The service user responded that it would have helped with knowing how some of their ailments were progressing. As it stood, care team members came in and treated the service user, but little was offered in terms of an update as the service user had a long term condition and was seen regularly.

I think personally it's quite a nice boost when they say that things are going well, it would be nice if they was to come in and say, "Oh, you know, this is good," or, "This needs to be worked on." (SU3)

Summary

The interviews and questionnaires allowed the research team to gain a first-hand account of the CHOC process from the perspective of the service users. Whilst a limited sample, the scores from the PC3EQ did demonstrate that the majority of the service users completing the questionnaire experienced better person-centred care.

Interviews illustrated a mix of opinions, which accurately reflected the differing needs of this population (e.g. being placed on the CHOC briefly due to a temporary condition vs. being placed on the CHOC for an extended period of time due to a long-term condition involving various health and social care services). As a result, some service users felt a marked improvement in how their care was being managed whereas others felt this system of care needed further improvements. The main messages from the themes explored through the interviews with service users found:

- *Experience with receiving the service-* Overall care was felt to be more joined up and an improvement in the way information was being communicated between themselves and professionals was noticed.
- *Effects on health and well-being-* Service users reported an improvement in the access to health, social and voluntary services and resources.

- *Care Plan & Coordination*- Staff regularly mentioned the use of care plans at CHOC meetings however, its prominence was not reflected in the service user interviews. In fact, the majority of the service users were oblivious to the term “care plan” and its function.

4.5 Staff perspective of CHOC services

Staff and managers were approached by the research team to take part in individual interviews, in order to share their direct and/or indirect experience of the CHOC service. A total of 22 staff and managers, which included 4 GPs, 3 Nurses and/or Allied Health Professionals, 4 Social Care representatives, 9 CHOC/Non-CHOC Managers and 2 other CHOC related positions participated from an initial target of 26 staff and 6 managers or commissioners.

4.5.1 Staff experience of the implementation of the CHOC

The process of arranging all of the necessary components for a CHOC to take place in the first instance was identified as a source of frustration.

It's been difficult getting the right room, getting the IT right, getting the Wi-Fi access, getting the right people, getting the right service users even. It's all been challenging. (SM15)

How you can be integrated and not be able to share that information was challenging to begin with...it's better and developing and with the integration of EMIS and the MIG we've been able to move that forward. (SM 6)

Despite such teething issues, the majority of staff and managers reported a positive experience with implementing the service

Great to have this face-to-face contact point with everyone together so you can actually decide amongst you, okay, who's the best person, the most appropriate person to deal with this issue with this service user? (SM9)

As a group we all have a very clear and shared objective...the group is very cohesive and works well together. I think that's the key part. (SM 4)

You have a bit more confidence in your care plans because you know it's had that MDT approach, so you know all basis have been covered. (SM 1)

Initially, a private consulting firm assisted with the implementation of the CHOC during its pilot phase, which occurred prior to this evaluation. Their approach of talking at health, social care and voluntary agencies for prolonged periods of time created an atmosphere of dissatisfaction and exacerbated issues related to buy-in particularly given the minimal return of investment for staff who were already at capacity with their workloads.

Upon the formal implementation of the CHOC, it was also felt, upon reflection, that a more thoroughly developed strategy would have allowed for a better understanding of the process and therefore wider support from the various agencies.

A properly thought out comms and engagement strategy so that we really had everyone on board with the “why?” because actually starting to implement the “how?” and the “what?” before people understand why they're doing it, is very difficult. (SM18)

It was also recognised that the process of having an MDT meeting was not new, but what set the CHOCs MDT approach apart from other similar set-ups was the level of integration from the various avenues of the health, social and voluntary sector.

It's got buy-in from so many different parties and that's really where this kind of wins over other MDTs that I've attended. (SM 7)

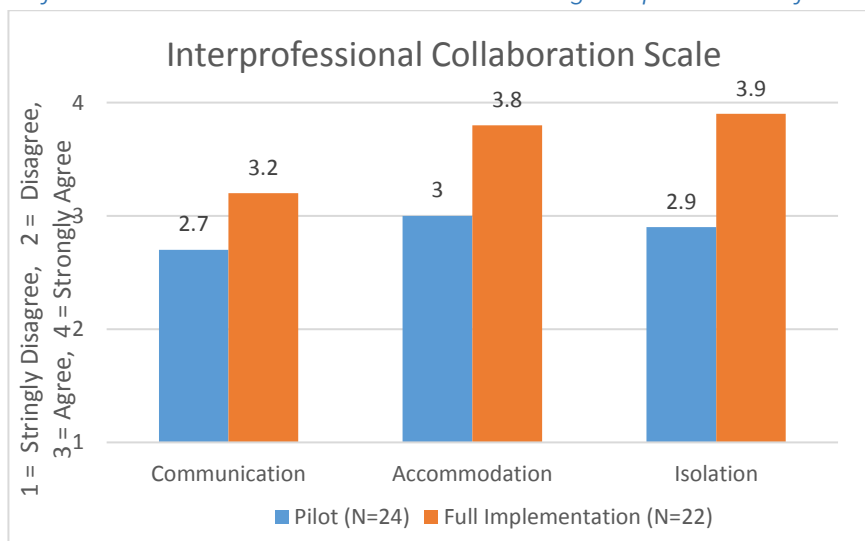
I mean the thing that got us together in the first place was them signing up to the vision of community integrated health care as being a better way forward between community health and social care. (SM 18)

4.5.2 Coordination and impact of CHOC services on service users

The inter-professional collaboration scale (appendix 9.3) was administered to staff working within the CHOCs at two time points - the pilot stage in September 2016 (T1), and again in January 2018 (T2) - to compare a change in collaborative perceptions. The scale is a self-report tool and was designed to collect perceptions of inter-professional collaboration among three different groups: nurses, doctors, and allied health professionals. Communication between the parties, isolation in working, and accommodation of different viewpoints and opinions are measured in a 13-item survey. A total of 24 professionals in 2 CHOCs completed the scale at T1, and 22 professionals attending 3 CHOC localities completed it at T2. A small number of individuals who attended more than one CHOC, were encouraged to evaluate their overall experience across the different CHOCs and filled in the scale only once.

The findings demonstrated a marked improvement from pilot to implementation stage on all three domains (communication, accommodation and isolation; see Figure 15), with the smallest growth observed in communication. Nearly all of the respondents at full implementation reported not feeling isolated at all (an average of 3.9, where the maximum possible score is 4). Respondents also strongly agreed that their perspectives were accommodated well within each meeting. However, respondents did not feel that communication was as effective as could be. This finding was also reflected in results from focused observations (section 4.6).

Figure 17. Inter-Professional Collaboration Scale scores during the pilot and at full implementation.



During in depth interviews, it was largely noted that a collaborative, multi-disciplinary approach in deciding actions and speed of interventions were regarded as particularly beneficial for service user experience.

...an overall responsibility for a service user's holistic wellbeing which wasn't there before, which wasn't owned by any organisation (SM16)

As was noted in the service user interviews, the presence of the voluntary sector (Red Zebra) was incredibly beneficial. The use of such agencies were found to be particularly pronounced in CHOCs that struck a more balanced health and social care approach to their meetings.

The Red Zebra team are often picking up little gaps where social services can't really help or have been very slow to. (SM 13).

Red Zebra, they put in from a social prescribing point of view and it just seems to work really well together whereas the others (the other CHOCs) don't feel quite so connected. (SM 5)

the voluntary sector... there was no relationship in the past really apart from maybe one or two like Age UK but I was stunned to find out that there are over 350 voluntary agencies on our patch [...] to have a single point of access is great. (SM 18)

Staff and managers largely agreed that at its foundation, the CHOC was a collaborative approach to service user care. While this was the prevailing view, it was also noted that:

...practices are quite a long way behind in their thinking around collaborative working so for me there is quite a distinct difference between cooperation and collaboration and I think this is a cooperative model. (SM 14)

4.5.3 Sustainability of CHOC services

Whilst interviewees overwhelmingly indicated their desire for the CHOCs to continue there was also concern how that could feasibly occur. For instance, sufficient funding in order to offset the role of the administrator was brought up. Additionally, concerns about the availability and skill-mix of the workforce as well as the approach to workforce were raised. There was uncertainty with whether the CHOCs were and/or should be taking people from existing roles, potentially depleting certain workforces, or if they were and/or should be training new people to fill any potential gaps within their services.

I'm not aware that the Vanguard model that they have actually really grown their own internal workforce, it's more for instance they brought in paramedics that had a significant impact on other areas (SM 14)

Clinical leadership and the need for senior management to recognise the benefits of having their teams actively engage with and regularly attend the CHOC meetings was seen as crucial.

Clinical leadership as being absolutely vital in terms of the successes achieved so far and I think it does need this from the other organisations. That senior management and that kind of clear commitment that this is the way we're gonna go forward, but accepting there will be a degree of double running and I think that's still the challenge for us going forward. (SM 19)

The individuals involved can see the value...it needs support from the Managers to be able to fund people's position. (SM 1)

Future proofing the longevity of the CHOCs also seemed dependant on the type of business case it brought forward to general practices.

each practice is a small business, they want to ensure their profitability hits a certain target and if they can see that working on this model is advantageous and not a threat, then there's more likelihood for it to continue but if they think that their personal finances are going to be compromised, I think it becomes quite a risk in the system. (SM14)

Encompass has its own ideas around Accountable Care Partnership and we'll probably press on with that in the hope that we lead an example for rest of East Kent to follow and West Kent to follow later. (SM 18)

Questions on sustainability also involved querying staff and managers on the cost effectiveness of the CHOCs. Staff/Managers indicated that they themselves could not provide numerical evidence of cost benefit, but did believe it was occurring in some capacity.

I think preventing people from reaching the bottom is obviously gonna save money so if we can get people a care package in place before they actually need hospitalisation, if we can get a care package in to prevent self-neglect we're obviously saving. (SM 5)

I think it's more focused care... what we've done is maybe prevent other services having to go in, we will never say we'll stop a service going in if we thought it wasn't warranted but I think what it's stopped is probably duplication of referrals. (SM 6)

4.5.4 Professionals working across CHOCs

This last theme looked to explore the implications of bringing different organisation and professional backgrounds together to deliver more integrated care. The MDT approach was seen as a core aspect of the CHOCs success as it improved interprofessional working both in and outside of the primary CHOC membership.

It's helped beyond the CHOC in understanding who is out there, what other services are there, particularly the voluntary services (SM4)

The staff experience is such that they now feel part of a community team because they are all working on the same footprint now whereas they were on different footprints before, and they meet regularly once a week and they communicate by email and phone between times, and they are starting to trust each other (SM 22)

The relationships between the providers has gone from non-existent and full of animosity to respectful, open, honest, supportive (SM 15)

Summary

The staff interviews and interprofessional collaboration scale stressed the positive impact the CHOC meetings have had on those who have attended whilst also highlighting some areas that needed to be further addressed. The primary messages from the themes explored through the interviews and the interprofessional collaboration scale are summarised below:

- *Experience with the implementation of the CHOC:* Overall the CHOCs have been viewed positively with the most common criticism related to information sharing. Additionally, issues around acceptance/buy-in of the CHOC process in the early stages of its implementation could have been helped along by a more thoroughly developed communications and engagement strategy.
- *Coordination and impact on service users:* It was noted that the collaborative, multi-disciplinary approach of the CHOCs and the resulting speed at which interventions could now be delivered benefitted the overall service user experience.
- *Sustainability:* While interviewees wished for the CHOCs to continue, they also expressed concern and feasibility about sufficient funding to continue, as well as availability and skill-mix of the workforce. Other issues concerned the importance of multi-level leadership, the

potential resource drain that may be occurring outside of the CHOC model, and the fact that buy-in and spread could depend upon GP practice confidence in cost security.

- *Professionals working across CHOCs*: Bringing different organisations and professional backgrounds into a singular meeting was seen as a core aspect of the CHOCs overall success as it improved inter-professional working both within the and beyond the CHOC membership.

4.6 Observational analysis of CHOC meetings

Two research assistants (co-authors of the current report) carried out focused observations of twelve CHOC meetings. Four consecutive meetings were observed across 3 CHOC (Canterbury South, Canterbury North and Whitstable). Consecutive meetings were chosen to record progression of cases on a week-by-week basis. However, the purpose of the meetings was not to collect service user-specific information, but rather to observe the meeting inputs, process, outputs and outcomes. Appendix 9.6 outlines the areas and specific questions the observations focused on, including over 40 specific questions. The two observers were non-participatory members of the meeting and whenever possible sat physically away from the main meeting group.

The aims of the observations were to identify what elements of the process were leading to which outcomes for service users, as well as what are the components of the care model delivery (“active ingredients”) that are really making a difference?

4.6.1 Inputs into the CHOC service

System and Organisation factors

The observed meetings were embedded within and responsive to **national policy directives and guidelines**. Across the three localities, Safeguarding of Vulnerable Groups Act (2006) and Mental Capacity Act (2005) were mentioned frequently and had a substantial impact on CHOC work. Among other national directives mentioned were Deprivation of Liberty Safeguards (DoLS), Fitness to Drive, and Lasting Power of Attorney.

Local policies and guidelines were of lesser prominence in CHOC meetings and rarely overly discussed. Some meetings saw no local policies mentioned at all. The exceptions were around the local:

- Palliative Care Policy;
- Self-Neglect Policy and Procedures;
- Assessments and investigations needed before a decision could be made (e.g. diagnostic pathway for dementia, where blood tests are required before dementia assessment can be conducted and a diagnosis can be made).

A prominent aspect of local ‘rules’ discussed in the meetings was also the referral process or requirements to other agencies. Nonetheless, a lot of information about local guidelines appeared to be implicitly understood by many team members (e.g. some attendees at the CHOC 1 laughed at the mention of the Self-Neglect policy).

Resource issues were prominent among the discussed system and organisation factors within the CHOCs.

- Staff availability within and outside the CHOC was often discussed, along with workloads and connected to delays in service user visits.

- Staff workloads also affected resources. In CHOC 3 Mental Health representatives attended regularly, but due to workloads they could only attend fortnightly.
- Oversubscription and waiting lists for voluntary services, especially Red Zebra were also prominently mentioned as a substantial issue impacting on the type of assistance CHOC can provide and the speed with which they can be responsive.

In terms of **other individuals and services** within and outside the CHOC, some were mentioned particularly frequently.

- The Kent Enablement at Home Service (KEAH; Kent County Council), which provides up to 3 weeks enablement at home for people who are returning home from a hospital or residential setting was prominently mentioned.
 - At times it was indicated that prompt KEAH involvement was crucial for positive service user outcomes.
- Other services discussed in relation to CHOC working and referrals (both out and into the CHOC) included:
 - the Intermediate Care Team (part of KCHFT),
 - Rapid Response teams, Continuing Healthcare Team,
 - South East Coast Ambulance Service,
 - Crossroads Care Kent (especially for arranging respite placements),
 - several local care homes, and
 - bed availability in Acute Hospitals and local hospices

When the aforementioned services could not take on a service user or handed them back to the GP, this was a considerable source of frustration and a sense of defeat within the services. *Absence of Mental Health Services* within the CHOC in the majority of localities and majority of meetings was often noted as an issue affecting options and decision making, and Red Zebra (a social prescribing organisation) was also mentioned when absent. In addition to this, meetings without pharmacists' representation also saw the lack of these professionals often noted as impeding both feedback on actions to date and on giving them further action. This was true for individual attendance overall, especially when the person in question was the only representative of their profession or even organisation.

Broader contextual factors also had an impact on CHOC operations and were discussed in the meetings.

- *Time* dedicated to the CHOC meetings affected how much time could be dedicated to discuss each case. Due to this, the oldest cases that were on the CHOC for longest (and due to this also at the bottom of the list to be discussed) got significantly less time in the meetings, while new cases, that the meeting started with, received considerably more time.
- *Geographical distance* to travel to service users, service users' own ability to travel to appointments due to issues such as reduced mobility
- Other *services being at or over capacity* with long waiting lists
- *Care home treatment* of service users (e.g. unlawful deprivation of liberties)
- *IT infrastructure* (discussed in more detail in the Process section).
- *Time of year*: the approach of the Christmas holiday period resulted in CHOC attendees actively planning for staff and service shortages over the period and discussed what some of the service users may need over the period to prevent deterioration and avoidable admission.

- The most prominent contextual factor, consistently found across all CHOC localities was *service user characteristics* around willingness to accept care and family member's cooperation with health and social care staff.
 - Where service users (and/or family members) were not willing/able to accept assistance or investigation offered by the CHOC, available alternatives appeared limited and closure of cases was a common outcome.
- *Directives to avoid acute hospital admissions* also seemed to have an impact on the CHOC process, but this was more implicit and difficult to capture with observational methods.

Team and Task

Overall, the CHOC meetings were well attended with a **good mix of professions and organisations**.

- Nearly all of the 12 observed meetings had GP, geriatrician, social care, specialist nurse, and Occupational Therapist (OT) representation, with around half of the meetings attended by voluntary sector representatives (either Red Zebra social prescribing or Age UK).
- However, only a minority of individuals attended all 4 meetings in their locality and some (e.g. pharmacists and geriatricians) visited several CHOCs every week.
- Routine absentees were common in each locality and included individuals from intermediate care teams and cardiac teams, but the most notable frequent absence was that of Mental Health professionals.
- In one of the localities, Mental Health professionals were not even on the list of potential attendees.

In terms of **sharing information prior to the meeting**, the process appeared to be standardised across all observed CHOCs:

- CHOC admin would populate agenda and minutes from last meeting, which would contain main information about service users currently on the caseload and most of the new referrals to be considered.
 - There were cases, however, where a referred (e.g. a non-CHOC GP) would come to a meeting with their own referral information which was not yet added to the main document.
- The agenda was made available at the start of each meeting and included main data primarily from EMIS (not so much other systems), including names, main demographics and a short summary of clinical notes.
- Minutes from previous meetings along with determined action were also included in the agenda distributed to each meeting attendee, but was rarely referred to during the meeting itself.
- Referrals, GP emails and the Situation – Background – Assessment – Recommendation (SBAR) form compiled by the referrer was also included on some occasions.
- Cases were usually presented either by the chair of the meeting or by the professional who knew the service user / was an action holder for actions assigned in the previous week.
 - The chair tended to rotate from person to person, with anyone being able to chair in some CHOCs, but stayed fairly constant and held by GPs in others.

Case ownership was also not straightforward:

- *New cases* appeared to be 'owned' by the referrer if they are present in the meeting, or by the person presenting (often a GP).
- *Old cases* were often 'owned' by the action holder, who fed back and updated the team. However, the overall ownership of any of these cases was left with their assigned GP – this was more evident in some localities (e.g. CHOC 3) than others (e.g. CHOC 1) in terms of observed process, but equally true for all locations based on organisational procedure.

The target caseload of each CHOC is the 6% of most complex cases in the GP caseload. To a large extent, this is true for the cases actually held by the CHOC, where multi-morbidity is common.

- Some cases, especially in CHOC 3 area, were fairly simple, but required prompt input from professionals (e.g. pharmacist led medication review) to prevent avoidable deterioration.
- The remainder of the cases were complex, but not necessarily in terms of medical conditions.
 - The caseload was characterised by a majority of older adults, many over the age of 90, dementia was a common experience of CHOC service users along with suspected cognitive impairment.
 - Many of the individuals on the caseload have (both currently and historically) refused health and social care services offered, or their family members may have complicated or prevented access. Notably, however, while frustrated by 'non-compliant' and self-neglecting service users and attempting to address this by sending more 'authoritative' CHOC members or those outside the CHOC who succeeded in encouraging compliance before, CHOC members did not question if support offered/available to the service users was not the right kind of support or *why* (beyond the assumed non-compliant personalities) the support had been refused.

Overall, therefore, the **caseload was characterised** more socially, rather than medically complex cases.

The **voluntary sector** were present in many of the observed meetings:

- Spontaneous input into team discussions from the voluntary sector were rare and on two occasions it was observed that contributions or questions from the voluntary sector were dismissed or ignored.
- Voluntary sector individuals (representatives from Red Zebra and Age UK) were often given actions or asked what they could do.
- If they had seen the service user prior to meeting, they may have been asked to feed back, too, but were rarely involved as decision makers and were not encouraged to actively take part.
 - The Dementia Services Link Worker was observed to have a particularly prominent role in one of the observations, but in meetings where a geriatrician was present, their contributions were considerably fewer.

Apart from the notable absence of Mental Health professionals, well-attended CHOC meetings had the right skill mix to make and enact decisions.

4.6.2 Processes of the CHOC service

Leadership and Team Dynamic

Clear leaders (usually 1-2 per meeting) were present in most of the observed meetings and remained constant; they dominated discussions and led decision-making:

- While the role of the meeting chair rotated among all attendees, the *de facto* leadership was much more constant during the meetings, with some professionals leading the decision making.
 - Overall, this role was held by GPs or geriatricians; individuals with the highest status within their organisations, and, as medical doctors, representatives of the medical model.
- Other professionals, especially if they were not medical staff (e.g. nurses) spoke less.
 - While they were likely to feed back on action taken since last meeting and be assigned new actions, they were rarely driving the decision process of what actions was needed. It was not uncommon for some professionals (e.g. OTs) to not speak at all during the meeting.
 - Voluntary sector and social care professionals were particularly on the periphery with some instances of observed where the leader and/or other CHOC members dismissed their opinion or did not answer their queries.
- When the aforementioned *de facto* leaders were absent from a meeting, the participation and action making was more equitable, but less efficient/quick.

How the aforementioned leaders dealt with **involvement from others** varied somewhat from leader to leader:

- Some encouraged involvement from other attendees and sought to confirm agreement from the team, but did so in a structured way; rather than opening the forum for any emerging ideas, they would invite opinions from specific individuals.
- On other occasions, limiting contributions from others was observed, whereby the leader would not respond to a comment or question from another member; while uncommon, these occurrences mostly revolved around non-medical professionals.
- Notably, while leaders would seek team agreement on proposed/decided action, the *closing of cases* from the CHOCs rarely received the same attention.
 - Often, the leaders of the meeting would read out the name and say 'close' with no space to question the decision or invitation to do so.
 - Closing of cases, therefore, was disproportionately decided by a single individual within the CHOC meeting. In other words, actions were decided more collaboratively than closing of cases, which often appeared to depend on the leader's opinion alone.

In addition, some localities appeared more hierarchical than others, and overall, smaller meetings allowed for more equitable participation from non-leaders. However, it is impossible to say based on observational data alone which factors (e.g. team size versus leader personality) influenced leadership processes and to what degree.

Non-leader contributions also showed some patterns across the CHOC localities:

- Overall, non-medical professionals (e.g. OTs), as well as voluntary sector representatives spoke relatively little and had few inputs into decision-making.
- While medical in discipline, paramedics appeared to be on the periphery of the CHOC meeting process, also speaking little during the meetings and likely to leave early.

Purpose and Performance

The **overall purpose** of the CHOC meetings was rarely overtly communicated and difficult to observe directly. The aim to close cases was notable during the meetings, with multiple meetings across all localities involving cases where the meeting leaders suggested closing the case now, and then reminding/telling the other attendees the case could be re-opened in the future should this be needed. Purpose of the CHOC meetings was also extrapolated from team discussions on what they wished to avoid for service users on the caseload. In this sense, the overall purpose of CHOC input was to avoid preventable crises, support service users in a timely fashion and avoid unnecessary double-up with other services and/or organisations. Coordinating multi-professional input and pooling resources was also observed. Importantly, it was difficult to ascertain if the primary purpose was to alleviate pressure on services (by avoiding double-up) or to improve service user care, particularly if these two goals were at odds with one another. This aspect of the CHOC process therefore requires further investigation.

In terms of performance of the CHOC meetings, the **case management** and **service user review** was standardised in all CHOC localities:

- Each case currently on the CHOC caseload would be discussed on weekly basis. New cases were discussed at the beginning of the meeting and given the most time.
 - As previously mentioned, the older the case, the further down it was on the list, which usually meant less time spent on older cases.
- The chair of the meeting would present each case and summarise it.
- Other professionals would add information either from their work with the service user and/or from service user record systems available to them.
- If a member of the CHOC team had an action assigned to them regarding a service user on the caseload, they were likely to be asked for verbal feedback, even if this information was available within service user records.
- At the beginning of each meeting, CHOC administrators distributed the agenda, which contained names of current and new service users along with a summary of clinical information from EMIS (service user record system).
 - On a couple of occasions, new referrals had not yet been entered on the agenda, in which case the referred themselves or a GP representing the referral would read out the information about the service user.
- Administrators would also take minutes, record assigned action and add it to the agenda for the next CHOC meeting. However, it was common for the attendees to add hand-written notes to their copies of the agenda, especially if they had been assigned actions (e.g. visits for assessment or treatment).

A number of **issues** in relation to **service user reviews/case management** were also noted:

- *Staff availability and resources* were frequently discussed as an issue. This related both to CHOC attendance (e.g. a pharmacist would have to leave one CHOC locality meeting early to get to another CHOC locality on time) and ability to see service users in a timely fashion.
 - Where a member of the CHOC team was absent, yet held actions from the previous meeting, this had a noticeable impact on case management; an update was often not available from other sources (i.e. other professionals or via access to service user records where the aforementioned individual would have written progress notes).

- *IT and data sharing issues* also affected case management. On a couple of occasions, incorrect details were present on the system, however, the most common IT issue was not being able to see the multitude of service user/service user records at the same time.
 - The latter resulted in two cases where the teams could not discern from the notes if the service users have been discharged from hospital and one case of conflicting notes about whether the service user was still alive.
 - Overall, only some of the CHOC members having access to only one record system each created considerable barriers.
- The size of the caseload was also an issue for some of the CHOC meetings, where the meeting would go over allocated time with the last few cases discussed particularly quickly.
- Lastly, service users refusing to accept input from CHOC members was discussed as a common issue.

How the CHOC teams were **measuring performance** of the meetings was difficult to observe directly, as performance management was not standardised or overtly discussed. However, some informal, *ad hoc* performance management discussions were present. For example, in a case of a service user dying, the team questioned if they 'did okay' and enabled a 'good death'.

- *Preventing crisis and deterioration and avoiding hospital admission* were also discussed for a couple of service users in each meeting.
- However, the overall goal of the CHOC appeared to be *timely* (if not speedy) *input from relevant health and social care professionals* to avoid doubling up of input where possible and then closing the case.

It is important to note, that there was no clear push to close cases *per se*, but closing a case was described as success by some and a smaller caseload of the CHOCs in some of the observed meetings was also regarded as positive by the team members. Overall, however, the focus was on performing (i.e. appropriate and timely action) rather than managing performance.

Finally, in terms of the CHOC process the observations also focused on **other mediators** influencing decision making.

- An outstanding mediator within the CHOC meetings was *attendance*.
 - This was particularly prominent for routine attendees. If people routinely attending the CHOC (and thus likely action holders) were not present, this often meant no feedback on the previous action was provided and no new actions could be taken by that individual.
 - When the professional in question was the only representative of either their profession, their organisation or both.
 - If other attendees from the same organisation were present, they were sometimes able to access progress notes on organisation service user record systems, but this was often time-consuming even if possible.
 - Assigning new action to the aforementioned absentees was also difficult, with no attempts to hand over action over the phone or email, or via other attendees who work closely with the absent professional. Therefore, being physically present during a meeting was a crucial mediator for case progress.
- Among other mediators affecting CHOC processes were *actions of other agencies or organisations outside the CHOC*:

- If another service provider refused a referral or discharged the service user, this impacted on CHOC input.
- In these cases, CHOC members acted as advocates for the service user, navigating the complex health and social care systems, ensuring they received the services they were entitled to or finding an alternative whenever possible.
- In a similar way *family dynamic* and the aforementioned *reluctance* by the service user *to accept offered input* had a negative effect on the CHOC process.
 - In a couple of cases it was noted that a family member prevented CHOC professionals access to the premises where the service user resided.
 - However, active 'hindering' of CHOC input was uncommon.
 - In the majority of cases where service user's family had an impact on the CHOC process this was due to divergent viewpoints or lack of family agreement on the best cause of action.

4.6.3 Outputs

'Actioning' and Decision Making

Outputs of the CHOC meetings were also evaluated in the focused observations, but often proved somewhat opaque and difficult to discern from what was directly observed. When analysing observations, however, attention was paid to avoid inferring outputs that could not be observed directly.

The **number of cases** discussed per each meeting fluctuated between 7 and 25, with differences not only across localities, but within each locality from meeting to meeting. Overall, the majority of meetings had 15-20 cases discussed. On average:

- CHOC 1 had a slightly higher caseload than other localities
- One of the observed meetings in the CHOC 3 had an unusually small caseload of 7 service users (which the CHOC members conceptualised as the CHOC process working particularly well).
- In all of the observed meetings, however, most of the caseload was of exiting cases, with up to 5 new service users discussed in each meeting. Each meeting also saw around a third of the existing cases being closed.

The type of **action agreed** varied from service user to service user, but did not show discernible differences across localities. The most common actions decided in the CHOC meetings were *visits by a nominated member of the CHOC to assess the service user, treat them, or both*. Referral to services outside the CHOC fairly common and in some cases 'closing' was the action taken. Notably, there was one case where the agreed action was to 'push' for an admission to hospital without A&E input; in this case the team felt the admission was appropriate and that not taking this action would result in a 'preventable death'.

Assigned **actions** from previous week were **reviewed** at each meeting and prompted discussions of further actions based on the review, but in some cases the professional feedback not having had enough time to address the given action and/or visit the service user. In these cases, the action would get deferred to the next week, without discussion of avoiding delay in the future. Staff capacity and resource issues that led to delays were often conceptualised as irremediable.

Care plans were rarely mentioned during case review. When it did enter discussion, the conversation revolved around care plans within electronic service user records that members of the CHOC could not access or see. The infrequent mention of the CHOC professionals producing a care plan did, however, include discussions of needing the service user to sign the care plan; this was sometimes deemed hard to achieve if the service user was not receptive to the offered input.

CHOC administrators **recorded** what **action** was agreed in relation to each service user, but other attendees would also take informal notes, especially if the action was assigned to them. The records were factual in nature and rarely included the rationale for the action, even if it was discussed in the meeting itself. Implementation of action was rarely discussed, and only present for the 'hard to engage' service users (i.e. it was more concentrated around how to persuade the service user to accept input, rather than the exact nature of the input itself). The precise nature of assessments or treatment was not discussed overtly and instead seen as within the expertise of the professional.

Responsibility for the action was implicitly left with the action holder, who was expected to feed back the following week and/or make electronic records. Responsibility for the service user, however, appeared to remain with the GP, although there were some indices that CHOC attendees felt joint or shared responsibility for the service users, often referring to actions of 'we' or 'us', as well as occasional seeking of agreement for assigned action with phrases such as "is everyone okay with that"?

Service user moving through the caseload, with a speedy assessment from CHOC members and/or referrals to other services was the norm, with the closing of the case and discharge from CHOC caseload as the intended final output.

4.6.4 Outcomes

Service user, Clinical and Wider outcomes

Potential outcomes were often hard to observe, as they were rarely overtly discussed within the CHOC meetings. Similarly to outputs, a standardised set of desired outcomes was not present or appropriate for the nature of the meeting.

While in many cases **service user experience** was not discussed. For example, CHOC members did not discuss or question increased service user satisfaction with the CHOC, their GP practice or any other services within the CHOC. Service users being physically/medically well were also not discussed. Instead, the meeting attendees spoke of service users 'being able to manage/cope' with their difficulties and/or illnesses and not deteriorating where this could be prevented. Instead of medical health (which often appeared unattainable given case specifics), there were some discussion of social needs for interaction and connectedness. Voluntary sector organisations were particularly useful in these discussions by not only accepting the service users onto their caseload, but signposting to other volunteer-based services. The speed of accessing the services (as well as the speed of a service user moving through the CHOC) was often discussed.

Service utilisation, especially in terms of decrease in demand on acute services was also not discussed within the meeting. In one case, however, the CHOC members facilitated a hospital admission to avoid a "preventable death". Reducing double-up within the CHOC was an occasionally discussed aspect of service utilisation, but also infrequently mentioned. The

impression of the CHOC members was that CHOC service users utilised more services than service users not on the CHOC, but that greater current utilisation of services may relieve input at a later date, where crises and deterioration have been prevented.

Clinical outcomes were rarely discussed. If health status was discussed (e.g. blood test results, blood pressure, heart rates), it was usually mentioned as a problem or something CHOC members should react to / action to address. Self-management of wounds, incontinence self-care, and family carers performing manual handling tasks were also discussed in terms of relieving service utilisation.

Service user reported outcomes such as quality of life, were also infrequently discussed. When self-management was mentioned, it was usually in a way of no longer being able to manage one's own care and self-neglect. In addition to this, the worsening situation was often seen as irremediable (i.e. where techniques to enhance self-management would not have worked) and instead revolved around service provision. In a couple of instances where self-management was discussed as something that can be bolstered and encouraged, it was predominantly by means of equipment (e.g. Zimmer frames preventing falls or automatic medication dispensers preventing dispensing errors). However, it was unclear if the goal of the equipment being put in place was service user quality of life or decreasing demand on services.

Wider outcomes outside of the CHOC were also mentioned. Ability or inability to refer to services outside the CHOC was discussed. For example, voluntary services being over-prescribed and experiencing long waiting lists were mentioned on several occasions not only as something impacting on the CHOC process, but also as an outcome of the CHOCs (i.e. the volume of referrals from CHOCs).

Health Economics Outcomes

Health economic outcomes were often more visible than service user outcomes during the meetings. In relation to health economics, the purpose of the CHOCs appeared to be more about achieving the same service user outcomes with less service input. As can be seen above, positive service user outcomes and effective help for the service users was integral to the CHOC process, but intertwined with benefits for service providers from being at the CHOC. No clear occasions where service user benefits were at odd with benefits for the service providers; therefore, it was hard to discern which the primary intended outcome was.

Costs savings were integral to the CHOC process, especially in terms of avoiding service double-up.

- Firstly, double-up was avoided by the CHOC process itself, as attendees were aware of other services' input in the service user's case. CHOC auctioning was also aimed at relieving double-up where this was possible.
 - For example, in one of the meetings an OT had volunteered to perform an additional assessment during the visit, so it would save a GP visit. On another occasion a conversation about input from pharmacists resulting in fewer future referrals for other services was also discussed.
- Also, if the service user was already receiving support from other agencies or if the CHOC had arranged new support (e.g. a care package), then the case was likely not taken or closed for the CHOC.

- Lastly, having senior medical practitioners within the CHOC allowed more questioning of assessment pathways (for example not needing additional bloodwork if other information had already been collected). The ability to receive advice from medical doctors was particularly useful for nurse input, resulting in cost savings.

It was also observed that CHOC teams were particularly adept at **identifying delays**:

- Weekly review of service user cases meant that both delays in CHOC member actions and delays/lack of input from services outside the CHOC were promptly noticed.
- Remedying the delays were rarely straightforward or quick.
 - Service eligibility, service waiting times, as well as CHOC member capacity meant that the delay was usually identified and discussed, but not addressed. Notably, the aforementioned difficulty in handing action to members absent from the CHOC were not sufficiently addressed.
 - While the CHOC had minimal influence on eligibility to / delivery of other services, CHOC members could influence delays within the CHOC membership.
 - However, outside of the CHOC meetings, communication between CHOC members was suboptimal. If a CHOC member was absent from a meeting, they were often not handed action for a specific service user until the next meeting, resulting in a week's delay.
 - Limited attempts were made to get hold of the aforementioned professional as soon as possible and ensuring action is taken before the upcoming meeting.

Similar patterns were true for **identification and resolution of problems in care**; while problems were promptly identified, they were rarely remedied or resolved quickly:

- Availability or eligibility of services (e.g. a Local Authority-funded care package) was usually the reason behind inability to address problems in care.
- Within the capacity of the CHOC, however, team members were very proactive and oriented towards **quick and appropriate solution to service user problems**; if the team could not action on assessment or treatment (new or continued), the service user was usually discharged from the CHOC caseload instead of remaining on the caseload with no active input.
- In the same way as with remedying delays, capacity issues impeded this and handing over action on cases between CHOC members was not fully utilised.
 - For example, instances were observed where the team needed information from an absent CHOC member, but efforts were made in the meeting to obtain the information in other ways, so the absentee would not require contacting outside the CHOC. This, of course, could be seen as efficiency in itself, but avoidance of CHOC negotiations taking place outside of the formal meetings is noteworthy.

In terms of **specific problems with treatment or care** it is important to note that CHOC processed and service user/case characteristics intersected in producing these issues. Along with the aforementioned capacity for timely assessment or treatment was service user reluctance to accept care offered and difficult interactions with family members that negatively impacted on treatment/care. For example, a couple of instances across different CHOCs were noted where a family member would prevent CHOC professional access to the service user or pose a physical threat to a professional. This finding particularly highlighted the complexity of CHOC caseloads, where current health economies (eligibility, access to services)

intersected with medical, psychological and social case characteristics in determining CHOC outcomes. .

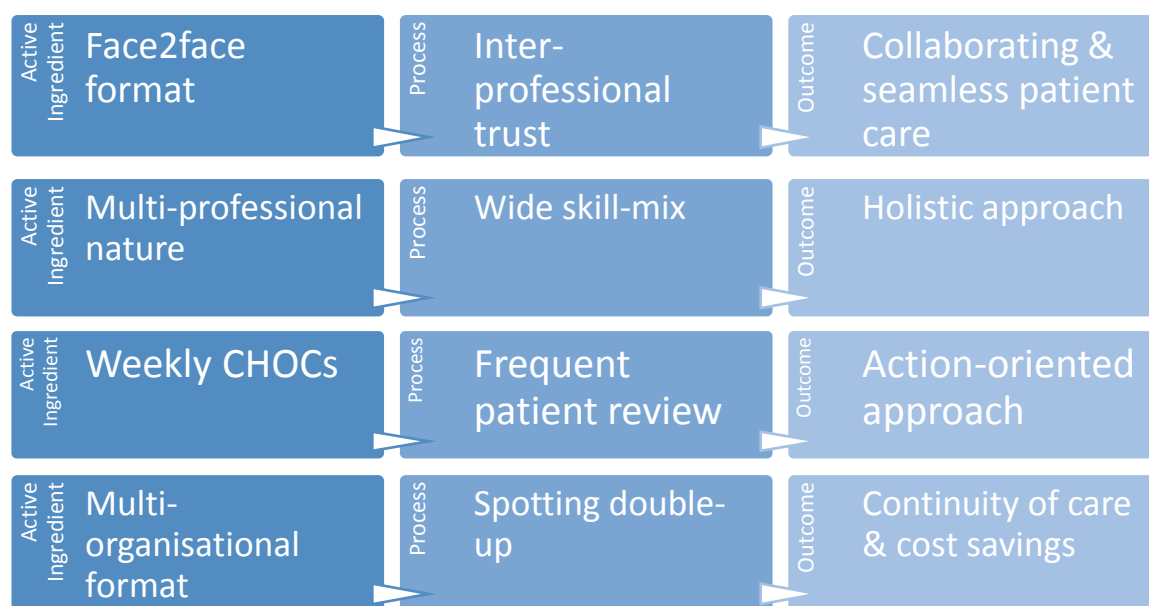
Overall, while CHOC outcomes were rarely straightforward to observe within the CHOC meetings, clear trends emerged on service utilisation outcomes, preventing avoidable service user deterioration and a bi-directional relationship between the CHOC and local health economies.

Summary

The observations enabled the research team to capture the inputs, processes, outputs and outcomes of the multi-disciplinary CHOC meetings. As could be expected, processes were easier to observe and extract, while service user and wider outcomes were somewhat opaque, given that direct service user contact took place outside of the CHOC meetings. Nonetheless, a number of important messages arose from the observations:

- *System and organisational factors* – national policy directives were highly prominent during the meetings, CHOCs prepared and planned ahead for resource issues, and involvement of other organisations and informal carers impacted CHOC processes
- *Team and task* – CHOCs showed a good skill mix, but notably lacked mental health service representation, caseload was characterised with older adults with multi-morbidity, information sharing worked well overall, but was considerably affected by variable access to systems
- *Leadership and team dynamic* – ‘de facto’ leaders emerged despite a rotating role of the chair, which led to a dominance of the medical model
- *Purpose and performance* – overall CHOC purpose was to pool resources and distribute actions avoiding double-up, caseload was reviewed frequently and CHOCs were action-oriented
- *Actioning and decision making* – most actions were assessments and/or treatment of service users by CHOC team members, decision making was somewhat uneven and concentrated around medical doctors, each meeting had new cases added and old ones closed
- *Service user, clinical and wider outcomes* - avoiding preventable deterioration was the main outcome along with reducing duplication in service provision; service user and clinical outcomes often not prominent
- *Health economics* – delays and other issues with service provision and service user care were identified promptly, but hard to remedy due to resource issues; service user eligibility and staff capacity affected speed and nature of response.

Figure 18. Active ingredients, processes and outcomes: observation data



4.7 Further service developments and pilots resulting from the CHOCs

The implementation of the CHOCs into the local healthcare setting has led to a number of further service developments bringing added value to the Vanguard programme and to the local healthcare services. These developments include:

Mental Health:

- A GP at one of the CHOCs is now reviewing over 65's with mental health concerns instead of waiting for the Acute Care Team to review the service users first.
- Police are inputting to work with vulnerable adults and MH teams

Collaborating with non-NHS providers and agencies:

- Care homes are being invited to the CHOC MDT's to access support for service users they are most concerned about.
- Access to care Home Dashboards to help with education and reduced GP/Nurse/Paramedic input
- CHOC staff are accessing local care homes to create anticipatory plans for their service users to empower staff and ensure the service user's wishes are heard.
- Kent Fire and Rescue are visiting service users with concerns around hoarding, falls, dementia, poor access to residence, adequate fire safety/alarm equipment etc.
- Macmillan – links to named staff to support service users
- Joint visiting between Geriatricians and integrated team
- Integrated wound matrix software links with IT EMIS system – to assist with co-ordinated service user care
- Children's links being established
- South East Coast Ambulance Service links around early identification of frequent callers to refer into the CHOC MDT
- Dementia Link Worker

Reducing pressure on acute services:

- In-reaching into the hospital to facilitate discharges and prevent delayed transfers of care.
- Catheter care pathways are CHOC based to prevent A&E attendance and admissions.
- Linkages with local ambulance services around early identification of frequent callers who have been identified through the CHOC are occurring.
- Attendance at the Acute hospitals to identify CHOC service users
- CHOC Champions within the Acute setting

Prevention

- Community wardens are being invited to CHOC MDTs (where appropriate) to assist the community health trainers.
- A Dementia link worker has been established
- Children's links are being established.
- Social prescribing looking at Homelessness
- Health Trainers in all CHOCs

Other

- Care Quality Commission – looking at how to assess GP working at scale and integrated working around the CHOC model – Encompass MCP is a test site

5. Addressing the Research Questions and Recommendations

This following section attempts to triangulate and commentate on the evidence from each data source in order to address the research questions (section 2.5). The last research question ‘what should be improved, replicated and sustained’ should be seen as recommendations going forward.

5.1 What impact are the CHOCs having on user outcomes and experience?

A significant number of service users, **n=1747**, have received the **CHOC service** in the 18 month period of being operational. Despite some contextual anomalies within the key metrics which are accounted for (closure of one major hospital to emergency admissions), CHOC service impact across all GP practices has seen a **1.7% reduction in emergency admissions and 0.8% reduction in bed days** using national data compared to 2014/15 baseline data. With respect to CHOC service user level data, (patients from the early stages of implementation tracked longitudinally Oct 2016 to Mar 2017), a cohort of **100 CHOC service users** has seen a **22% reduction in emergency admissions** in the period post-intervention (April 2017 to March 2018), a **4% reduction in bed days** over the same period, and no detectable change in A&E attendances.

Other qualitative evidence suggests that this service is **supporting older people with multiple complex health conditions**, with room for improvement. From a user perspective, views on the impact of CHOCs on their health and wellbeing varied considerably from a service that was seen as responsive and helpful in **ensuring self-management**, to a service that **lacked consistency** at times. Depending on their use of the CHOC (a brief intervention period as opposed to an extended period), and health and social care needs, some service users felt a **marked improvement in how their care was being managed** whereas others less so, and there were no clear differentiating characteristics between these two opinions.

With our target group of frail older people with multiple conditions, clear and sustained health improvement is often not possible. With respect to the focus of care, teams were observed focusing more on the **prevention of deterioration**, rather than improving health and wellness, due to the progressively declining physical and mental health of service users. Self-management and independence of individuals was encouraged at team meetings, usually in terms of equipment that could be provided rather than something to be actively promoted. It was more often referred to as a loss of ability and independence.

In general and from a user perspective, care was felt to be **more joined up** with an **improvement in communication and information** flow between themselves and professionals, but **shared care plans were not a feature** of this. Service users also remarked that **access** to health and social care, voluntary services and other resources had also **improved**, and it was observed at team meetings that staff were able to secure a more prompt access to a wider range of services which supported user perceptions.

5.2 What are the components of the care model delivery (or ‘active/successful ingredients’) that are really making a difference?

A number of positive components were identified that could be described as ‘active ingredients’ promoting integrated care working, and are common to many other process evaluations of integrated care. Firstly, the importance of **regular face-to-face meetings** was apparent and getting the space to do this. The perception was that **consistency** in terms of meeting location, time and attendance was vital, and needed to become entrenched into schedules to avoid it being seen as an option. Indeed, CHOC meetings showed **high attendance, a good skill-mix and inter-organisational representation**, and professional views confirmed that there was buy-in from every organisation to ensure continued and active participation within the CHOCs and this was felt to be a factor in success.

Cross-organisational **relationship and partnership building** within the CHOC meeting format also worked well, with a recognition of newly developed trust and confidence in colleagues from partner organisations. As observed at the meetings, this was particularly important for services such as voluntary sector involvement, having a dedicated geriatrician, and inviting fire and rescue services where needs were identified, all seen as beneficial to the overall CHOC success. Indeed, it was observed that absence from the meeting often resulted in delays of action assigned to the absent professional.

Central to this was the strength and persistence of the **local leadership** at Encompass, which was instrumental in forging these partnerships, and also enabled the expansion of the CHOC model involvement with the addition of several other services.

In addition to this and evidenced throughout the data, was the finding that **administration support** is crucial, particularly as it is the administrator who collates and coordinates all of the incoming information from the various services at the multi-disciplinary meetings.

The team collaboration survey indicated that professionals feel **part of a collaborative** and that their opinions are being accommodated within the CHOC, but effective communication could be further enhanced. Inter-professional working has generally improved since the pilot time. Observation of teams identified that the physical presence of team members enabled trust, collaboration and efficient, co-operative decision making, and weekly meetings enabled the team to be action oriented which ensured frequent case review.

Investment in IT systems has enabled **sharing of CHOC service user data** within the healthcare teams, however information sharing agreements remains an issue. But outside of electronic records, it was observed that professionals being able to **exchange information face-to-face** about the service user with one another results in pooling of information and a fuller picture of the situation to inform decision-making.

5.3 What are the influencing contextual factors and how have they affected implementation and outcomes?

Within the data, it was clear that an aspect of Encompass’ success within and beyond the CHOC membership has been to galvanise **different organisations and professionals** to come together at the meso (stakeholder and partnership groups) and micro levels (CHOC team meetings) into a singular entity, delivering a single model. **Leadership** from within and outside of Encompass

seemed pivotal to this outcome. This is despite the fact that challenges were voiced concerning **rapid implementation**. For example, an underdeveloped communications and engagement strategy, in combination with the need to implement almost immediately with little or no time to disseminate further information, manifested as slow buy-in from some key stakeholders and slower roll out than anticipated and desired by the New Care Models Team.

With other context issues, the local difficulties with **withdrawing trainee doctors** from one of the acute hospitals resulting in closure to emergency admissions did create anomalies within the data, inflating the investment potentially, and the reduction of the main reporting metrics of emergency admissions and bed days. Reasons for this are largely speculative; local people requiring help may have been unwilling to travel the distance to other hospitals as their accessibility is not easy; there may have been a concentrated effort in discharging patients in preparation for the loss of staff resulting in a more pronounced bed day reduction. Whatever reason, future trends will be interesting to monitor to see how fluctuations evolve.

Other contextual concerns centred loosely around 'unintended consequences'. Although based upon informant perceptions and not measurement, there was a feeling that CHOC implementation has created a **drain on resources** elsewhere in the system, due to the 'pooling' and recruitment of workforce and skills. Further to this, another concern was related to scaling up and spreading. CHOCs are centred around primary care and expansion would be dependent upon buy-in from GPs. **Business models** would need to be secure for this buy-in to be successful.

There were a number of contextual issues that appeared to impact on team working. Eligibility and **access to services outside the CHOC** (e.g. for a Local Authority-funded care package) affected CHOC working and often resulted in delays. At meetings, it was noticed that leadership came from the GP including decision-making, so a dominance of the medical model was present, and subsequent deference to GPs regarding decisions about care. Input from other professionals was taken into consideration, but there existed an **unequal partnership** between team members and this created tensions at times with holistic decision-making and participation. However GP leadership was clearly effective in this context and no doubt contributed towards positive outcomes.

5.4 What changes to the use of resources and activity in the local health system have taken place and to what costs?

With respect to activity and despite contextual anomalies, there has been a **reduction in emergency admissions and bed days** in both overall population data and local CHOC service user level data which has brought about **cost savings**. With an investment of £2.2 million in establishing the CHOC service (£1.4 million in staff and £133,000 in IT infrastructure), an overall return in investment has been seen in the CHOC service of 144%, subject to caveats described in 4.3. These are positive outcomes for the service.

There are clear themes within other data sources that can provide insight into how implementation processes are using resources more effectively, and could be contributing towards these outcomes. It was observed that **duplication of effort** and service double-up are being avoided both within the CHOC and between CHOCs and other services, resulting in likely cost-savings. The **presence of key workers** from the health, social care and voluntary sector at MDT meetings creates a more effective and rapid decision-making forum. Such team formations appear to create

more available options towards an intervention and the speed at which such resources can be accessed has improved considerably. Additionally, a more **proactive use of the voluntary sector** has addressed gaps left by other sectors, therefore minimising unnecessary delays to service user needs.

However despite this, there was recognition that **investment in workforce skills and size** needs to take place to reflect a more sustainable model.

5.5 Recommendations: What can be improved, replicated and sustained?

What can be improved

IT and information sharing: There is a need to create more effective governance and IT solutions for information sharing. Fundamental to good joined-up working are sound and reliable IT and information sharing interfaces between organisations. This not only includes high level data sharing for impact and outcome measurement, but systems that permit the writing and sharing of care plans, as this was a feature of CHOC that was underdeveloped.

Team processes: Greater participation of Mental Health professionals is desirable given the high numbers of people with mental illness on the caseload. CHOC meetings could be enhanced by ensuring that if regular attendees are absent, they can be replaced by colleagues to ensure actions are not delayed. More equitable participation in decision-making across attendees from different professions and organisations may be beneficial. More upskilling of staff to further improve performance and skill-base would improve efficiency even more. Monitoring of staff workloads may mitigate against action delays, as speedier investigation of service users and implementation of action would occur if the overall workload is more manageable.

Strengthening evaluation: Section 6 highlights the evaluation challenges. In order to isolate more robust impacts, quasi experimental designs or pragmatic trials focusing on cause and effect could be considered, although difficulties with recruitment and cost would persist. Encompass could avail themselves of the NCM team's investment in the Improvement Analytics Unit at the Health Foundation, who have been supporting counterfactual analysis for other Vanguard, once the CHOCs have reached data sufficiency. Efforts should continue to be made to access the Kent Integrated Dataset going forward, as it is a valuable resource.

Further evaluation should investigate the impact the additional services (4.7) have on the CHOC service. External evaluation for on-going monitoring is not always needed, so aside from the analysis of metrics, other in-house skills for process and outcome evaluation should be identified.

What can be replicated and sustained

Partnership working: This is a strong feature of the overall Encompass strategy and seemed instrumental in bringing about the buy-in from multiple agencies, necessary for positive CHOC outcomes.

Leadership: Strong team leadership at an organisational level, and GP leadership within the CHOCs are important to drive change forward.

Team processes: Administrative support was seen to be vital in ensuring the smooth running of CHOCs, alongside having consistent weekly face-to-face meeting locations, times and attendees. The presence of key workers from health, social care and voluntary sectors at the MDT meetings should remain.

Generation of additional services: Responding to service user needs and developing more wrap around services has been an important outcome of CHOC activity. Resources permitting, such activities should be considered when replicating locally.

Investment: To replicate and sustain models such as these need significant investment long term. Securing the future of CHOC investment will be key going forward. This must include investment in workforce skills and size. Alignment with Kent and Medway STP strategy will provide an opportunity.

6. Evaluation Challenges and Limitations

There were a number of challenges faced that have limited the scale of this evaluation. This is mainly due to data availability. Progress has been monitored throughout and the study design reviewed and updated to mitigate service user and metrics data inadequacy where possible, and this is a strength of using the implementation research approach, which permits flexibility of design. The main challenges are set out below. The majority of these were identified as high risk to evaluation completion in the risk register completed at the beginning of the study (see appendix 9.7)

- **Challenges with the balance of data.** A major challenge concerned the recruitment of service users taking part in the evaluation, which did not reach target levels and resulted in a data imbalance between service user and professional sources. This was mainly due to difficulties in identifying and referring eligible service users to the research team and many service users lacking the capacity to take part, which excluded them from the study. Other service users fulfilling the inclusion criteria were also too frail, hence the original design that included surveys had to be reassessed. More emphasis was placed on gathering qualitative data and excluding surveys, due to fatigue and the small numbers. In addition, to counteract the low amount of service user data, more service provider and commissioner sources were collected, including observation of teams, to bolster data. This does not compensate for a lack of the service user perspective, however, but gave invaluable insights into the processes leading to outcomes.
- **Slower than anticipated CHOC roll out** – The original intention was to include four CHOCs in the evaluation in two waves. However the setting up, organisation and implementation periods took longer than anticipated, resulting in slow throughput of service users. This contributed towards the small service user numbers. In addition, the desire to generate rapid feedback in accordance with the Evidence Integrated Triangle was compromised due to the slow release of data and evidence accumulation. This did not hamper general feedback from the sites about progress collated by the project officer, which in turn was used to support roll out of other CHOCs. In addition, our interim report of findings in December 2017 was timely in that it provided lessons learned to feed into developments for this year.
- **CHOC Workforce Engagement** – With significant time and work pressures brought about by the CHOC, it was difficult to engage local healthcare staff to support the research by identifying service users to take part in the evaluation, and to be interviewed themselves. This was despite huge efforts made by the project lead. Recruitment pathways were carefully developed with administration staff attending the CHOC meetings. However, this often did not facilitate the identification of suitable recruits as the continuity of administrators was not always optimal, and suitable recruits fulfilling the inclusion criteria were not always easily identifiable. With respect to recruiting staff themselves as participants, more successful efforts were made to engage them using accessible methods such as individual telephone interviews, which resulted in higher levels of participation.
- **Governance and access to data** – As is common across multi-agency integrated care initiatives, there were challenges with the sharing of service user information and IT amongst multiple agencies. It was intended that the evaluation would benefit from access to the Kent Integrated Dataset (KID) to enable access to linked service user level data to analyse the impact of the CHOCs. However, there was a specific barrier which prevented data from the CHOCs being included within the linked service user level KID dataset so that the wider impact on health and social care could be analysed. To include CHOC level service user data where

possible, a smaller sample of data collected from CHOC service users from 2016/17 was used to track the long term impact of CHOC activity on local secondary care services.

- **Getting the counterfactual** – It was not possible to design and execute a rigorous study in order to determine cause and effect, as most areas are conducting some form of integrated care as 'routine care' and controlling for extraneous factors would be challenging. In addition, ethics approval and the resources needed to undertake such a study were not within the financial and timescale remit of this evaluation. However, four practices within one CCG locality were not part of the Vanguard, and this did facilitate some interpretation and impact of trends in key metrics. Going forward however, Encompass may benefit from involvement with the Improvement Analytics Unit at the Health Foundation going forward.
- **Care plans** – Due to the absence of care plans with the service users, this analysis could not be undertaken. One clear shared care plan was not yet in place within CHOCs, largely due to governance issues and problems with data sharing and incompatible software.
- **Getting 'rival' views** – When it came to the professional perspectives, with a few exceptions, the evaluation tended to focus on obtaining the views of professionals working within or strongly associated with the Vanguard. To avoid the potential of data to be overly bias, considerable efforts were taken to invite potential informants not working in the Vanguard, such as neighbouring managers, STP leads and GPs. Anecdotally, there were concerns that successes within the Vanguard may have had negative consequences in other parts of the system, and this was voiced to some extent in our data. However, efforts to enlarge on, formalise these viewpoints more, and include them in the evaluation, were not taken up. Despite this, the data do touch on opposing views, and we were able to extrapolate areas for improvement.
- **Steering group membership sustainability** - Issues occurred with engagement and attendance at evaluation steering group meetings due to time pressures of invited members. This meant that the co-productive element of the evaluation was not as broadly inclusive as was intended. Meetings continued throughout the evaluation period however, but with key representatives of Encompass rather than the wider membership originally recruited. These meetings were crucial in supporting the recruitment process and general evaluation engagement.

7. Conclusions

Despite the data anomalies and evaluation weaknesses, it can be argued that Encompass' CHOC model has made significant progress with implementation and there is emerging evidence of impact and effectiveness. With respect to the overarching CHOC objectives, the findings are in alignment with the desire to improve user experiences of co-ordinated care and contribute to a reduction in acute secondary care use. It is however too early to establish a connection with a reduction of pressure on long term care home placement.

Implementing a complex multi-faceted service in the current welfare climate is not an easy task. Although there has been a relatively short time for development and roll out, it has been enough to project lessons learnt and for knowledge transfer to influence areas seeking to replicate with similar models. This is through a combination of the 'evidence umbrella' of key metric data and the more micro-level thematic prominence of voiced and observed processes and perceived outcomes. Obtaining the counterfactual is however elusive in this field of study, but could be considered as the CHOC implementation pace gathers more momentum and data flow permits, in order to be assured of the strength of evidence. In the same vein, the strive to access KID data should continue, central to estimating clear costs and use of resources. It must also be noted that the CHOCs are not without their areas for improvement, and particularly the process evidence has given insight into how these processes and infrastructures could be improved.

The extent to which the evaluation was able to support decision-making in a robust fashion was largely thwarted by the difficulties described. Evidence transfer did not work as intended through the Evidence Integration Triangle; roll out in 2017 was largely based on experiential data through feedback, with some local metrics providing overarching intelligence of progress. However interim findings were provided in December 2017 and disseminated to stakeholders by Encompass research partners and the research team through an interim report. As roll out was slow, messages from the evidence were able to feed into implementation and will now have a place if models are expanded.

Overall, it could be argued that three key strengths of the CHOC model have emerged in realising a positive CHOC roll out. The first has undoubtedly been its partnership working. Second was the focus on one model, and how multiple planned interventions at the start of implementation were centred within this model to create a clear Vanguard identity and purpose. Thus being a discreet model with significant partnership buy-in, it seemingly became more possible to isolate the resources needed, and develop a phased roll out across the patch replicating and transferring knowledge.

Thirdly, a further significant but perhaps unexpected outcome has been the manner by which the CHOC model has acted as a catalyst in generating a number of other services, affiliated to CHOC deliver as outlined in 4.7. This perhaps testifies to the strength of the local buy-in to the model and how the leadership team was instrumental in making this happen. It remains to be seen if such an expansion can be replicated elsewhere; further research would be beneficial in isolating these specific 'active ingredients'.

Finally, the CHOCs have benefitted from central government investment through the Five Year Forward View imperative to establish themselves and become firmly 'glued' to the local service delivery infrastructures. Without this investment, such an initiative may not have happened in quite the same way. Replication and sustainability in the long term will depend upon local economy investment which is under pressure with its competing priorities, and as noted in this evaluation, GP

confidence in cost security. Agencies responsible for health and social care do not have a rich history of long term investment in new integrated care initiatives, and difficulties generating unequivocal evidence of effectiveness has had a part to play.

However, the changing organisational configurations happening in Kent and Medway do give hope. Since the evaluation was completed, the model has been embedded into the new commissioning landscape, is being rolled out across Kent and Medway as part of the STP strategy, and is being called 'Local Care'. The CHOCs have now been renamed as 'Local Care Hubs' and this terminology is being adopted across Kent and Medway. There may be local variations on the models but they will have the same ethos. System transformation strategies with their emphasis on integrated care are clearly capitalising on what the Encompass has to offer and opportunities for spread and scaling up are evident. Local Care Hubs will be established in all remaining caseloads across all hubs and will be phased up to full operating capacity over a three year period (to March 2021). Even within the Encompass hubs this equates to a trebling of throughput which will be an impressive legacy.

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9. Appendices

9.1 PC3EQ questionnaire, Version PTPV3.18

This questionnaire is about your experience and understanding of the care you have received from your Health and Social Care team *[name of initiative]* in the past few weeks.

For the next questions, 'Care' could be any treatment or support you received in relation to your health and wellbeing.

In the last few weeks, who did you receive care from? [Please tick all that apply to you]

GP	<input type="checkbox"/>	Nurse (community, practice)	<input type="checkbox"/>
Social Services	<input type="checkbox"/>	Mental Health Services	<input type="checkbox"/>
Hospital as an in-service user (i.e. admitted overnight)	<input type="checkbox"/>	Hospital as an out-service user (i.e. day visit)	<input type="checkbox"/>
Allied Health Services (e.g. Physiotherapy)	<input type="checkbox"/>	Agency Support Services (e.g. Care services)	<input type="checkbox"/>
Voluntary services (e.g. Age UK)	<input type="checkbox"/>	Others – please specify	<input type="checkbox"/>

For the questions that follow, please provide a response based on your overall experience if you have received care from more than one service.

Please use the comments section of each question to describe any stand out experiences in relation to the question.

1. Did you discuss what was most important for YOU in managing your own health and wellbeing?

[0]	Not at all	<input type="checkbox"/>	Comments:
[1]	To some extent	<input type="checkbox"/>	
[2]	More often than not	<input type="checkbox"/>	
[3]	Always	<input type="checkbox"/>	

2. Were you involved as much as you wanted to be in decisions about your care?

[0]	Not at all	<input type="checkbox"/>	Comments:
[1]	To some extent	<input type="checkbox"/>	
[2]	More often than not	<input type="checkbox"/>	
[3]	Always	<input type="checkbox"/>	

3. Were you considered as a 'whole person' rather than just a disease/condition in relation to your care?

[0]	Not at all		Comments:
[1]	To some extent		
[2]	More often than not		
[3]	Always		

4. Did your care team involve your family/friends/carers as much as you wanted them to be in decisions about your care?

[0]	Not at all		Comments:
[1]	To some extent		
[2]	More often than not		
[3]	Always		
[3]	I did not want my family/friends/carers involved		
[3]	My family/friends/carers did not want/were not able to be involved		
[3]	I have no family/friends/carers		

5. Were there times when you had to repeat information that should have been in your care records?

[3]	Not at all		Comments:
[2]	To some extent		
[1]	More often than not		
[0]	Always		

6. To what extent is your care joined up in a way that is working for you?

[0]	Not at all		Comments:
[1]	To some extent		
[2]	More often than not		
[3]	Always		

7. Do you have a single professional (or several professionals) who takes responsibility for coordinating your care across the services that you use?

[3]	Yes		Comments:
[0]	No		
[0]	Don't know		

8a. Do you have a care plan (or a single plan of care) that takes into account all your health and wellbeing needs?

[3]	Yes <i>Please answer questions 8b, 8c and 8d</i>		Comments:
[0]	No <i>Go to question 9</i>		
[0]	Don't know <i>Go to question 9</i>		

8b. Is this care plan (or plan of care) available to you?

[3]	Yes		Comments:
[0]	No		
[0]	Don't know		

8c. To what extent have you found your care plan (or plan of care)

USEFUL FOR YOU to manage your health and wellbeing?

[0]	Not at all		Comments:
[1]	To some extent		
[2]	More often than not		
[3]	Always		
[0]	Don't know		

8d. To what extent do all the professionals involved in your care appear to be following the same care plan (or plan of care)?

[0]	Not at all		Comments:
[1]	To some extent		
[2]	More often than not		
[3]	Always		
[0]	Don't know		

9. Have you had enough support from your care team to help YOU to manage your own health and wellbeing?

[0]	I have had no support		Comments:
[1]	I sometimes have enough support		
[2]	I often have enough support		
[3]	I always have enough support		

10. To what extent do you receive useful information at the time you need it to help you manage your health and wellbeing?

[0]	I do not receive any information		Comments:
[1]	I sometimes receive enough information		
[2]	I often receive enough information		
[3]	I always receive enough information		
[2]	I receive too much information		

11. How confident are you that you can manage your own health and wellbeing?

[0]	Not at all confident		Comments:
[1]	Not too confident		
[2]	Somewhat confident		
[3]	Very confident		

How could your care be improved?

What would support you to feel more confident to help manage or maintain your health and wellbeing

Any other comments:

Thank you very much for completing this questionnaire.

Scoring Methodology for the P3CEQ

Numbers within the square brackets [] represent the scores for each question.

Question 8 score is calculated by averaging the individuals score from 8a, 8b, 8c, and 8d.

Higher scores represent better experiences of person-centred care and are out of a maximum of 33. Minimum score is 0.

Subscales examining different factors associated with person centred care exist within the measure.

All questions load on Person Centred Care.

Questions 4, 5, 6, 7, 8 load on to co-ordination of care.

Within coordination - question 8a, 8b, 8c, 8d specifically load on care planning.

Questions 9, 10, 11 load on self-management.

9.2. Service User interview questions

1. Experience with receiving the service

The aim of these questions is to get your feedback on what does and does not work with the way your care has recently been given to you.

I. Please give us your thoughts on:

- a) *Your overall impressions and experiences of receiving the service*
- b) *What went well and what still needs improving?*
- c) *Thinking about any care you received six months ago, have you noticed any difference in the way your care needs are now being met?*
- d) *If there are changes, are they better or worse? Please give me an example.*

2. Effects on health and well-being

These next questions ask about whether the care you have received has made a difference to your health and well-being.

- I. Thinking about your general health and well-being:
 - a) *Do you feel your health and well-being has improved, stayed the same or got worse?*
 - b) *In what way has it improved, stayed the same or got worse, and why do you think this has happened?*
 - c) *How do you feel about looking after yourself and being independent? Did the care you received make a difference? In what way?*

- II. Have you been offered any home safety improvements or been given any equipment to help you? If yes, what were you offered and did it help you or not?

3. Care plans & Coordination

Now I would like you to think about your care plan and how the staff work together to give you the care you need:

- I. Thinking about your care plan:
 - a) *Were the goals that were written in your care plan the most important goals for you? If not, what were the most important goals?*
 - b) *How useful or not have you found your care plan? Please give an example.*
 - c) *Have you ever shared it with a member of staff coming to visit you? If so, can you explain how this happened?*
 - d) *What do you think of the list of activities in your care plan that will help stop you from going into hospital? Has anyone used this list, if so, who? Did it work to stop an admission to hospital, or not?*

- II. Thinking about the recent care you received
 - a) *Do you feel the workers met your needs? If yes, in what way? If no, please explain why.*
 - b) *Has your care improved, stayed the same or been worse?*
 - c) *Has the time in which the care team (your GP and other health care professionals) responded to your needs improved (for example, needing equipment, physio, or other referrals)?*

- III. How do all the different workers treating and caring for you work together?
 - a) *How would you describe the way that they work together?*
 - b) *Do you think that the workers share information with each other about you and your care plan, or do you find yourself having to repeat your story?*
 - c) *Is the information you get from workers consistent?*

d) *Do workers know all the important information about you that keeps you as independent as possible at home?*

IV. Do you know who to contact (and how to contact them) if you need to ask questions about your condition(s) or care?

a) *Can you go to this person with questions at any time?*

b) *If you want to contact a worker, how easy or difficult is it?*

c) *How well do you feel this person understands you and your needs?*

d) *Has it been easier or more difficult to get information and advice about other support, services and benefits?*

Final question: Is there anything else you would like to add?

Thank you for your time

9.3 Interprofessional Collaboration Scale questionnaire

	<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Agree</i>	<i>Strongly Agree</i>	
1. The team has a good understanding about their respective responsibilities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	IPC-C
2. Team members are usually willing to take into account the convenience of individuals when planning their work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	IPC-A

3.	I feel that service user treatment and care are not adequately discussed between and among team members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	IPC-C
4.	Individuals on the team share similar ideas about how to treat service users.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	IPC-A
5.	Team members are willing to discuss individuals' issues.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	IPC-A
6.	Team members cooperate with the way care is organized.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	IPC-A
7.	Team members would be willing to cooperate with new, agreed upon practices.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	IPC-A
8.	Individuals are not usually asked for their opinions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	IPC-I
9.	Team members anticipate when they will need others' help.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	IPC-C
10.	Important information is always passed between and among team members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	IPC-C
11.	Disagreements within the team often remain unresolved.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	IPC-C
12.	Some individuals think their work is more important than the work of others on the team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	IPC-I
13.	Some individuals would not be willing to discuss new practices with other team members.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	IPC-I

IPC-C (Communication), IPC-A (Accommodation), IPC-I (Isolation)

9.4. Healthcare Professional interview guide

1. Experience with the implementation of the CHOC

II. Since the CHOC has been put in place, give us your thoughts on:

- e) Your general experience of rolling out the CHOC – what has been easy and what has been challenging?
- f) Which aspects of the CHOCs were, in your opinion, implemented successfully? What facilitated this success?
- g) Which aspects of the CHOCs were, in your opinion, less successfully implemented? What particular things got in the way?

- h) Are there any changes to the way that service user care needs are now being met and looked at? What are your views about these changes?

2. Coordination and Impacts on Service users

- V. In your opinion, has the CHOC had any effect on the way you now work together in a coordinated way?
 - e) What has or has not changed?
 - f) How would you describe the way you now work together? (*clear roles and responsibilities; shared goals*)
 - g) What are your perceptions of how information is now shared? (*data sharing agreements*)
 - h) What are your views on how the CHOC has impacted on service users receiving care? (*outcomes – health and wellness, self-management, positive experience, seamless care*)

3. Sustainability

- I. In your opinion, what is needed to ensure the CHOC continues to move forward?
 - a) What are the 'active ingredients' that could be passed on to other areas to help them succeed?
 - b) Are there any stumbling blocks that still need to be overcome? (*politics, workforce changes, working environment, culture, relationships, resources*).

4. Professionals working across CHOCs

- I. Are you able to draw some conclusions about what works better in different CHOCs and why? (*co-ordination, leadership, engagement, information sharing, care planning, culture, relationships*).

Final question: Is there anything else you would like to add?

Thank you for your time

9.5. Encompass Manager interview guide

1. Experience with the implementation of the CHOC

- III. Since the CHOC has been put in place, give us your thoughts on:
 - i) Your general experience of managing and leading the CHOCs – what has been easy and what has been challenging?
 - j) Which aspects of the CHOCs were, in your opinion, implemented successfully? What facilitated this success?
 - k) Which aspects of the CHOCs were, in your opinion, less successfully implemented? What particular things got in the way?

- l) Are there any changes to the way that service user care needs are now being met and looked at? What are your views about these changes?

2. Coordination and Impacts on Service users

- VI. In your opinion, has the CHOC had any effect on the way professionals now work together in a coordinated way?
 - i) What has or has not changed?
 - j) How would you describe the way professionals now work together? (*clear roles and responsibilities; shared goals*)
 - k) What are your perceptions of how information is now shared? (*data sharing agreements*)
 - l) Are you able to draw some conclusions about what works better in different CHOCs and why? (*leadership, engagement, information sharing, care planning, culture, relationships*)
 - m) What are your views on how the CHOC has impacted on service users receiving care? (*outcomes – health and wellness, self-management, positive experience, seamless care*)

3. Sustainability

- II. In your opinion, what is needed to ensure the CHOC continues to move forward?
 - a) What are the 'active ingredients' that could be passed on to other areas to help them succeed?
 - b) Are there any stumbling blocks that still need to be overcome? (*politics, workforce changes, working environment, culture, relationships, resources*)

Final question: Is there anything else you would like to add?

Thank you for your time.

9.6: Focused observation topic guide

Name of GP Practice	
Date and time	
Meeting host	
Observer	
Observation Number	
List of Attendees/absentees + profession & employer	
	Observer

Room layout	<i>Draw the layout of the room and the position / seating arrangements of the attendees</i>
--------------------	---



INPUTS	National policy directives	
	Local Guidelines	
	Resource issues	
	Other services	
	Context	
	Presenters	
	Targeting of Service users	
	Service user characteristics	
	Voluntary Sector Input	
	Missing info	
PROCESS	Leadership style & team dynamics	
	Contributions	
	Overall Purpose	
	Case Management & Service user Review	
	Performance Measures	
	Mediators	
OUTPUTS	Number of cases: ongoing & new	
	Actions agreed on	
	Decision making & recording patterns	

OUTCOMES	Outcomes/end result	
	Service user experience	
	Service utilisation	
	Clinical outcomes	
INPUTS	National policy directives	
	Local Guidelines	
	Resource issues	
	Other services	
	Context	
	Presenters	
	Targeting of Service users	
	Service user characteristics	
	Voluntary Sector Input	
	Missing info	
PROCESS	Leadership style & team dynamics	
	Contributions	
	Overall Purpose	
	Case Management & Service user Review	
	Performance Measures	

*Remember to record **non-verbal communications & relationships***

	Mediators	
OUTPUTS	Number of cases: ongoing & new	
	Actions agreed on	
	Decision making & recording patterns	
OUTCOMES	Outcomes/end result	
	Service user experience	
	Service utilisation	
	Clinical outcomes	
INPUTS	National policy directives	
	Local Guidelines	
	Resource issues	
	Other services	
	Context	
	Presenters	
	Targeting of Service users	
	Service user characteristics	
	Voluntary Sector Input	
	Missing info	
PROCESSES	Leadership style & team dynamics	
	Contributions	

*Remember to record **non-verbal communications & relationships***

	Overall Purpose	
	Case Management & Service user Review	
	Performance Measures	
	Mediators	
OUTPUTS	Number of cases: ongoing & new	
	Actions agreed on	
	Decision making & recording patterns	
OUTCOMES	Outcomes/end result	
	Service user experience	
	Service utilisation	
	Clinical outcomes	
		<i>Remember to record non-verbal communications & relationships</i>
INPUTS	National policy directives	
	Local Guidelines	
	Resource issues	
	Other services	
	Context	
	Presenters	
	Targeting of Service users	

	Service user characteristics	
	Voluntary Sector Input	
	Missing info	
PROCESS	Leadership style & team dynamics	
	Contributions	
	Overall Purpose	
	Case Management & Service user Review	
	Performance Measures	
	Mediators	
OUTPUTS	Number of cases: ongoing & new	
	Actions agreed on	
	Decision making & recording patterns	
OUTCOMES	Outcomes/end result	
	Service user experience	
	Service utilisation	
	Clinical outcomes	
IN	National policy directives	

*Remember to record **non-verbal communications & relationships***

	Local Guidelines	
	Resource issues	
	Other services	
	Context	
	Presenters	
	Targeting of Service users	
	Service user characteristics	
	Voluntary Sector Input	
	Missing info	
PROCESS	Leadership style & team dynamics	
	Contributions	
	Overall Purpose	
	Case Management & Service user Review	
	Performance Measures	
	Mediators	
OUTPUTS	Number of cases: ongoing & new	
	Actions agreed on	
	Decision making & recording patterns	
OUTCOMES	Outcomes/end result	

Service user experience		<i>Remember to record non-verbal communications & relationships</i>
Service utilisation		
Clinical outcomes		

SYSTEM / ORGANISATIONAL FACTORS

Mention of national policy directives or guidelines .	
Mention of local guidelines/rules/regulations .	
Mention of resource issues (e.g. staff, time, money). How do these factors affect decision making? Evidence of resources being pooled?	
Mention of other individuals/services/team within organisations that impact on options/decisions made.	
Other broader contextual factors influencing decision making.	

TEAM & TASK

Who attended the meeting? Who didn't attend? Why? Is there repeated absentees ? <i>Describe:</i>	
What information is shared in advance ? How does this influence the decision making?	
Who presents cases up for review? How? Use of structured proforma? How are agenda items framed for decisions to be made? Do they use service user records (if so, how)?	
Information about the targeting of service users – who are they targeting? How? Any particular health conditions? Is there a formal approach (risk stratification)?	

<p>Service user characteristics – any variation?</p>	
<p>What input does the Voluntary Sector Organisation representative give (if they attended)?</p>	
<p>Mention of missing information? (test results, attendees) How does this impact on decision making?</p>	
<p>Are the right people there to deal with the service users and make decisions? E.g. mental health</p>	
<p>PROCESS</p>	
<p>Leadership style and team dynamic:</p>	
<p>1. Is there a clear role or several competing leaders? Does the leader dominate discussion or decision making, or take a back seat?</p>	
<p>Do they encourage involvement or limit contributions (e.g. because of time)? Do they check that team members have understood issues or proceed at their own pace?</p>	
<p>Does everyone contribute to discussions/actions and decision making? How?</p>	
<p>What appears to be the overall purpose of the MDT?</p>	
<p>How is the case management and service user review managed? What information is provided? Who provides the information? Who takes action?</p>	

What issues arise in relation to service user reviews/case management ? Why?	
What measures are they using to measure performance of the MDT?	
Other mediators , processes influencing decision making.	
OUTPUTS	
How many cases do they discuss in the meeting? Are they new cases/ongoing cases/ a mixture?	
Actions agreed on/reported/taken:	
2. Things to look out for: Mention of care plans/coordination of care plans – what is being produced? How is it produced? By whom?	
Are actions from previous meetings reviewed? Feedback from previous actions	
Who records the decisions made? Is there a verbal summary and rationale? Is responsibility for implementation discussed?	
Any other outputs by the MDT	
OUTCOMES	
What are the outcomes/achievements/end result of the MDT? What outcomes are they focusing on?	

3.	Potential outcomes: Service user Experience – increased satisfaction with services/service users receive care closer to home.	
	Utilisation – decrease in demand on acute services/hospital admissions	
	Clinical outcomes – improvements in health rates (e.g. rates of people with hypertension)	
	Service user reported outcomes – self-management/quality of life	
	Wider outcomes – impact on other services (social services, care services, voluntary services).	
HEALTH ECONOMICS		
	Evidence in the meeting of cost savings in terms of changes to staff input in service user care e.g. ‘I didn’t have to go on this occasion because ...’	
	Did they identify and remedy any delays or doubling up of care	
	Did they identify problems in care and resolve these quickly	
	Was there effort to sort out service user problems quickly and appropriately	
	Specific problems with treatment or care	
OTHER COMMENTS		



9.7: Evaluation risk register

Risk February 2017	Likelihood 4 = Certain 3 = Probable 2 = Possible 1 = Unlikely	Impact 4 = Major 3 = Serious 2 = Significant 1 = Minor	Risk score (L*I) 8-6 = high (red) 4-6 = medium (amber) 2-4 = low (green)	Mitigation plans
Failure to secure adequate patient sample sizes	2	4	6	<ul style="list-style-type: none"> Set recruitment targets Regular 2-weekly recruitment review Implement rapid plans for increasing recruitment
Ability and willingness of staff to participate in the evaluation – staff unwilling	3	4	7	<ul style="list-style-type: none"> Create links with senior managers to facilitate recruitment Roadshow to introduce evaluation to staff prior to recruitment Regular staff updates on project progress
Slower than anticipated implementation and roll out of CHOCs so that data may not be sufficient to fully address the research questions	1	2	3	<ul style="list-style-type: none"> Regular contact with Encompass CHOC managers to ensure early warning
Failure or withdrawal of CHOC sites	1	2	3	<ul style="list-style-type: none"> Regular contact with Encompass CHOC managers to ensure early warning
Accessibility of metrics, and difficulty attributing them to the population in receipt of CHOC interventions	1	2	3	<ul style="list-style-type: none"> Metrics presentation to next RESG Regular contact and review with Ian Roberts to censure issues identified early Support from the Kent Integrated dataset
Inability to determine population wide impacts	1	2	3	<ul style="list-style-type: none"> Metrics presentation to next RESG Regular contact and review with Ian Roberts to censure issues identified early Support from the Kent Integrated dataset
Failure to secure funding for the evaluation from April 2017	1	4	4	<ul style="list-style-type: none"> Complete budget negotiation and agreement by April 2017