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Following the publication of NHS Five Year Forward View, NHS England commissioned a series of Vanguard sites to test out new models of care that went across traditional organisational boundaries. A total of 50 sites were selected and were asked to focus on one of the following areas:

- Acute care collaborations
- Enhanced health in care homes
- Integrated primary and acute care systems
- Multispecialty community providers
- Urgent and emergency care

In late 2015, the vanguards were asked to identify topics on which they wanted evidence summaries to assist them with planned changes. Over 70 topics were identified. The Centre for Health Services Studies (CHSS) at the University of Kent and the South East Commissioning Support Unit (CSU) worked with a group of vanguards to undertake an exercise to determine how they could be combined and prioritised to create four detailed evidence summaries. These four evidence summaries will look at workforce in primary/community care, outcome based commissioning, risk stratification and care closer to home (CCTH); the focus of this particular piece of work.

It is worth noting that the economic impact of implementing the CCTH model is a prevalent theme within this paper. Matters of patient experience, safety, and quality of care although mentioned will be further expanded upon in the ensuing summaries.

The approach of this evidence summary involved a literature review that investigated the purpose of CCTH versus its function, which has already been well documented. The review utilised the following search engines:

- CINAHL
- Cochrane
- Kings Fund
- Medline
- NHS England
- Nuffield Trust
- PubMed
THE OUTCOME

Care Closer to Home is a promising model for today’s NHS. On the surface it does effectively reduce hospital admissions, which could equate to a reduction in health costs and improve patient outcomes. What is needed now, is a more methodical examination of the process to better understand how it could and should work. In addition to a more methodological approach is a realistic outlook; a necessity when dealing with a health care system that is in a constant state of flux. There are neither quick nor straightforward answers when evaluating the effectiveness of CCTH. This is a model of care that has many different pieces that need to work together in order for its impact on patients and the NHS to be fully realised.

Please note, both the Cochrane Database of Systematic Reviews (http://www.cochranelibrary.com/) and NICE (https://www.evidence.nhs.uk/Search?q=care+closer+to+home) are resources, which provide literature on CCTH in relation to specific cohorts and specific health conditions. For additional information from Cochrane and NICE please refer to the above web links and enter key terms (i.e. care closer to home) in their respective search engines.

THE LITERATURE

Whilst CCTH may appear to be new, this is a concept that has been discussed in the literature for some time (Munton et al. 2011). Accordingly, there has been a concerted effort to keep the content of this summary current given the ever-changing landscape of the health services in this country. For the purposes of this piece of work, only literature from 2008 onwards has been considered. In addition, the aim of this search was not to locate literature that would provide an explanation of CCTH as that has been well documented. Rather it is about answering the question of “why” this ideology. Despite the marked increase for this form of care to have a more prominent role in today’s NHS the resulting search found a limited scope in the literature.

In an attempt to keep this summary relevant to UK health services there was an intentional focus on UK literature however, non-UK literature was also included at a micro-level to ensure a comprehensive approach would be undertaken. The criteria used within the literature review included, but was not limited to, the terminology “care closer to home” and alternative versions such as “relocation of care,” “transitional care,” and “location” and “care.”

This literature search included the following databases and websites:

- CINAHL
- Cochrane
- Kings Fund
- Medline
- NHS England
- Nuffield Trust
- PubMed
Care closer to home (CCTH) as the name implies is a system of moving health related services out of hospitals and into the community (Monitor, 2015a). It is about improving the existing patient pathway in an attempt to provide better clinical care for patients and financially sustainable outcomes for health services (Bienkowska-Gibbs et al. 2015). For the purposes of this evidence summary, CCTH will be the overarching term used to describe a level of care that encompasses several related themes (Figure 1).

**FIGURE 1: CARE CLOSER TO HOME - HOW IT LOOKS**

As noted, in the previous section, the aim of this summary is not to further explicate the function of CCTH, but rather identify and examine its purpose. On the one hand it has been argued that the overriding benefits of the CCTH approach is to alleviate pressure on hospitals, offer better care to patients and be more cost effective (Monitor, 2015a). There is also a view that without the appropriate financial and infrastructural investment, CCTH models will have limited impact in the community and on improving the quality of care being delivered in the long-term (Bramwell, et al. 2014).

In order to understand its purpose, the aim of this summary will take on a predominantly UK focus based literature search given the unique make up of our health services. This search will attempt to address:

- Why we have care closer to home
- Key outcomes of care closer to home
- Delivering care closer to home
- The economic and social costs of care closer to home
- Research gaps in care closer to home
Care closer to home has been viewed as a panacea to address our acute healthcare pressures, particularly in more recent times as the NHS continues to be stretched to capacity. If admission rates are not controlled and the ageing population with its complex and chronic medical conditions continues to rise, the NHS would need approximately 22 additional hospitals to keep up with demand over the next six years (Smith et al. 2014). This option is not economically viable, particularly given today’s funding landscape (Smith et al. 2014), which is why alternatives such as CCTH are being pushed to the forefront of healthcare delivery. It is believed that the inception of such an integrated model of care will not only be cost effective but also provide better patient care (LGA, 2015). It has been found that patient health outcomes are improved when their care is delivered closer to home. Amongst other factors, hospital visits have been shown to increase patient stress levels and increase the likelihood of catching illnesses for those with compromised immune systems thus potentially leading to a lengthier stay and/or the increased likelihood of re-admission (CBI, 2012).

Ultimately improving patient choice, experience and the quality of care offered to patients and their families / carers are some of the key outcomes behind this approach. However, the principal rationale for implementing a CCTH approach is to avoid or at the very least significantly cut unplanned admissions to hospital whilst simultaneously reducing the associated healthcare costs (Shepperd, 2008). This is an ambitious directive given the evidence base appears mixed yet optimistically cautious that CCTH could in fact be the way forward.
As previously mentioned, the prevailing argument for CCTH is to reduce or completely eschew hospital admission resulting in a vast savings for our ailing health service (LGA, 2015). The question now is whether this argument holds true.

The Nuffield Trust has undertaken a number of evaluations over the years particularly in relation to community-based care. Their findings largely suggest that this form of care has not made an impact on decreasing hospital admission. In fact a 12% rise in emergency admissions was observed from 2004-2009, which cost the NHS over £13.5 billion a year (Bardsley et al. 2013). In spite of these figures, the case for CCTH should not be dismissed. While it is imperative that policy related to CCTH delivers on reducing costs and admissions these variables alone should not be observed as the only identifiers of success. Given the time constraints put on evaluations to arrive at a definitive conclusion on cost effectiveness it is understandable why more often than not results such as those derived from Nuffield Trust demonstrate a low yield on return. The process of CCTH as a whole needs to be scrutinized. It is not enough to just include factors related to finance. Factors associated with patient reported outcome measures (PROMS), staff perceptions and an examination of the overall coordination of care must all be considered if CCTH is going to be fully understood (Bardsley et al. 2013).

A comprehensive approach to integration involving all levels of a patients care team is more likely to provide better overall results. A study in America found that elderly patients and their caregivers who adopted a more pronounced role during the transition of care via a coaching intervention had lower rates of re-admission versus those that did not. The implementation of this intervention started whilst the patient was in hospital and continued for an additional 30 days after the patient left. This approach aptly demonstrated that with the right tools, the transition process could provide a smooth and coordinated level of care. As this was undertaken in America, the decrease in a readmission also equated to fewer financial costs for patients (Naylor and Keating, 2008). Similarly, a report assessing the 2013 Patient-Centered Medical Home (PCMH) Act in Montana (America); an Act providing an inclusive or “team-based health care approach” (Office of the Montana State Auditor Commissioner of Securities and Insurance, 2016) also produced promising results. Comprised of physicians, nurses, pharmacists etc. the team work as a collective alongside the patient to coordinate care. A move away from the standard fee for service archetype seen in America. The coordination of this care also expands to non-medical yet health related services such as providing community resources on health insurance (Office of the Montana State Auditor Commissioner of Securities and Insurance, 2016). While it is premature to derive any definitive conclusions, the PCMH approach has been shown in the short-term to improve patient care.
For instance, a 19 year old with depression, headaches, fatigue and a recent diagnosis of diabetes received the following care and treatment plan:

- A referral to a 3 month diabetes program
- Pharmacist consultation to manage medication
- Nutritional advice
- Regular contact with nurses who helped manage her condition via self-checks
- A social worker who assisted the patient with accessing appropriate health insurance

Such an integrated process allows for better communication amongst healthcare providers, clearer treatment plans and a smoother referral process thus allowing patients to receive joined up care rather than care delivered in disconnected parts. When participating practices were asked to highlight the benefits of PCMH in relation to diabetic care it was reported that patients were more informed, managed their condition better and had a better patient care experience than diabetic patients who were not part of the program. This is an incredibly positive outcome however, at the end of the day; healthcare providers are financially motivated when deciding on the best way to deliver care. In this scenario, cost benefits were not clearly evidenced as this model is still in its infancy and would need a long range evaluation to capture such data. It is also worth noting that the general premise of PCMH already exists here in the UK therefore, these results while exceptional should only be considered in relation to the context of this particular evaluation. The key learnings the NHS should then take from this example are the degree of coordination and communication undertaken to provide integrated care in this scenario.

CCTH is an umbrella term used to describe the various types of care models for delivering health services away from the hospital setting (Peckham et al. 2011). Comprised of several topics they form the basis of this evidence summary with the exception of admission avoidance/risk stratification, which is subject to a later review and therefore, not included in this piece.
Care Close to Home: An Evidence Summary

wellbeing is a necessity whilst also at times a hindrance as a lack of synchronicity amongst the various factions often leads to disjointed care (Monitor, 2015b)

NHS Scotland has led the way with their work on enhanced community support. A pilot project undertaken in the region on Tayside looked at how the coordination of care could be better managed in an attempt to ensure patients could stay at home for as long as practically possible. The pilot entitled Enhancing Care in the Community NHS Tayside Winter Project aimed to reduce hospitalisation in the winter with a coordinated early interventionist approach (NHS Tayside, 2014). A total of four practices that had an increased number of voluntary admissions were selected. There was a total population of 37,000 from these practices from which 9,000 were over the age of 65 and 4,286 were over the age of 75. The coordination of care as outlined in enhanced community support was all encompassing and involved the identification of elderly frail patients via community staff, out of hours, community alarm and paramedics. Once such patients were identified GP’s entered into the equation with a medical plan. Care continued to be monitored and then coordinated by a senior district nurse who undertook a geriatric assessment with the patient. This coincided with having access to pharmacist, physiotherapists, occupational therapists, and mental health workers, members from the voluntary sector and various other health and social care services. Often when such a vast and complicated team is in place communication between the various groups breaks down leading to a mismanagement of care. This was avoided in Tayside with weekly multidisciplinary team meetings and integrated communication services (NHS Tayside, 2014). There were clear channels of communication being implemented, which not only improved patient care but improved the rapport between this vast team. Overall there was a reduction in hospital stays and admissions in comparison to the previous year. A 12% decrease was noted amongst the four practices in the over 75s cohort for hospital admissions. In addition, both patients and members of the larger care team found this to be a positive alternative to managing care. In particular, staff gained a better understanding of other services such as the voluntary sector and how they could be better utilised in the home. From a cost benefit perspective, this pilot demonstrated that this complex level of care when done effectively can:

- Be undertaken outside the hospital
- Be more effective than hospital at home
- Reduce out of hours and A&E costs
- Be more cost effective than a hospital admission

As noted above, the Tayside project was deemed a success. It was not because it simply implemented a model of enhance community support but rather it was “how” they went about implementing this model. There was a great deal of investment and engagement that took place before and during this process. This played a pivotal role in the outcomes. Furthermore, it is important to understand that although this pilot evidenced a functioning multidisciplinary team with social and economic benefits, general practices ultimately still felt overwhelmed. Enhanced community support like any initiative will require a minimum level of financial investment and strong links with practices to ensure some level of viability (NHS Tayside, 2014). Even with those factors taken into consideration there is no guarantee it will alleviate pressure off of health services.
A characteristic of enhanced community support is the system of virtual wards. The aim of a virtual ward is to mimic the hospital in all aspects without the clinical setting as patients are instead care for at their place of residence (Lewis et al. 2013). The Nuffield Trust carried out an retrospective study of these wards that involved looking at the difference (if any) in receiving this care, the financial costs and the potential impact on health and social care services (Lewis et al. 2013). Using patient data, the usage rates of hospitals, practices and social care were investigated in Croydon, Devon and Wandsworth. Determining the monetary costs required a practical understanding of how these wards worked. It required looking at the administrative data and interviewing staff including finance officers in regards to the process of running a virtual ward. The results were mixed as the interpretation of virtual wards differed amongst the three areas. This variance made it difficult to evaluate and make any overarching conclusions. For instance, the cost of an intervention in Croydon and Devon was £3 per patient and £17 per patient in Wandsworth. A rather large discrepancy attributable to the fact that each locality had different interventions in place. Overall a decrease in voluntary hospital admissions was found, but there was no change observed in emergency hospital admissions. The complexity of a patient’s condition(s), a lack of strong communicative links and poor service engagement as aforementioned in the Tayside study played a crucial role in these disappointing findings.

For further information on enhanced community support and virtual wards please refer to:

**Enhanced Community Support**


3. Oliver, D. (2014) Don’t see older people as a ‘burden’ on the NHS. Available at: [http://www.hsj.co.uk/comment/dont-see-older-people-as-a-burden-on-the-nhs/5068503.article](http://www.hsj.co.uk/comment/dont-see-older-people-as-a-burden-on-the-nhs/5068503.article)


**Virtual Wards**

Hospitals at Home and Step-Down Care

Whereas enhanced community support is about keeping the individual at home for as long as possible in an effort to maintain an optimized level of care; this form of intermediate care works in the alternative. It is about enabling an early discharge from the hospital to the home. A form of transitional patient support, whereby the movement of care falls between the intensive and general care departments of an acute care setting (Ham et al. 2012). The aim of this model as is with the general CCTH ethos is to free up beds and reduce hospital costs with the additional bonus of improving patient outcomes. Different from some of the other models, which have lacked a rigorous investigation, intermediate care has been looked at extensively. In 2014, a fourth cycle of the national audit on intermediate care took place. The audit seeks to evaluate services in the community aimed at cutting down hospital and care home assistance by looking at crisis response, home based intermediate care, bed-based intermediate care and re-ablement services (Glendinning et al. 2010). This audit utilizes an expansive approach involving the participation of over 300 services and the response of over 12,000 patients, practitioners and commissioners via a service user and patient reported experience measure questionnaire. Additionally, this audit went one step further than its predecessors by taking into account the effect of one’s social wellbeing. Results from this particular variable found that nearly two thirds of patients reported a positive impact on their wellbeing as a result of intermediate care.

As noted with the other case studies in this summary, the financial cost benefit did not provide a clear argument in support or against CCTH. For example, overall costs for the services evaluated had gone up since the last audit, which given the rise in care costs is justifiable but a point of contention for a cash strapped NHS. In addition, the audit found a service such as re-ablement as being far costlier than home based care. This again illustrated that the exact cost benefits were difficult to collate and report due to variances in care. Models such as hospitals at home and step-down care do have a role to play in providing intermediate care that is closer to home under the right conditions.

These optimal conditions revolve around effective service engagement as noted previously and a level of financial investment, which will be discussed in more detail later in this review.
For additional resources regarding hospitals at home and step-down please see below:

Hospitals at Home


Step-Down Care


Telehealth as the name implies is a model of care hoping to curtail unnecessary hospital admissions by using electronic means to improve upon the coordination of care (Castle-Clarke et al. 2016) With the move towards having care closer to a patient's home, telehealth related technologies will need to become the norm; bridging that gap between patient and health and social care services (Figure 2: The World of Digital Health in Numbers).

Telehealth is a broader term used to represent a model of delivering care and as such different evaluations have focused on different aspects of it. For example, one pilot study in Kent provided patients who had chronic obstructive pulmonary disease (COPD) with home monitoring equipment. This resulted in a 50% reduction in hospital admissions (Kent County Council, Ref).

The Department of Health took a different approach with the creation of a programme entitled The Whole System Demonstrator (WSD). This programme investigated the impact of telehealth on over 6000 patients and over 200 GP practices in Cornwall, Kent and Newham and found a decline in the following:

- 15% in A&E visits
- 14% in bed delays
- 14% in emergency admissions
- 20% in elective admissions
- 45% in mortality rates

The initial findings from 2011 whilst encouraging, were provided with the caveat of if the care was “delivered properly” (Gov.UK, 2011). Unfortunately, subsequent reviews that followed, continued to report favourably towards telehealth but less so towards WSD’s initial findings (Newman et al. 2014). Another consequence of telehealth related research is the tendency to view and evaluate it as a “one size fits all” model when it is a well-documented fact that technologies not only differ from NHS trust to NHS trust, but from one health care setting to another (Steventon, 2012). This is a crucial factor that is often overlooked in the evaluation of this CCTH model. In a review by Flodgren et al (2015) the effectiveness of telemedicine on professional practice and patient outcomes was examined. The review involved patients with multiple conditions (i.e. cardiovascular disease, diabetes etc.) using either remote monitoring or video-conferencing or a combination of the two to assist with the management of their care. Results found that health outcomes via this method were parallel to telephone and in-person care. This outcome could have been more encouraging for proponents of telehealth if other aspects were equally scrutinized such as cost of delivery and patient conditions however, the evidence base on such variable still remains limited.

Telehealth is a necessary component to delivering effective CCTH, but as it is understood and interpreted in a multitude of ways evaluating its effectiveness continues to be difficult.

For additional resources on this topic please refer to:

**Telehealth**


The costs associated with implementing this type of care will effect whether or not CCTH becomes the norm and not the exception. From the perspective of budgetary constraints it is the financial costs in particular that will determine this outcome. Measuring the expenditures of providing this level of coordinated care has proven to be far more difficult versus the social costs. There are far more variables to consider with the former. The financial costs and variances associated with being admitted to hospital including the length of stay, staff costings and general expenditures in this care setting are not static (MONITOR, 2015c). The simple act of moving care away from the hospital setting will yield little financial impact (MONITOR, 2015a) alternatively; even a well-developed CCTH programme that considers these variables would be unlikely to see any cost benefits for at least five years (Monitor, 2015c). This does not mean that CCTH does not have a place within the NHS. In fact, the opposite is true. In the short-term, the coordination of a
patient’s pathway of care between the various departments in and outside the hospital setting will be a critical component to alleviating pressure and reducing future costs on hospitals (Smith et al. 2014). This is further reiterated in works assessing the financial effect of moving care away from acute settings and closer to home (Monitor, 2015c). Findings have illustrated that under the premise of a well-developed CCTH structure (i.e. a scheme built around its target population with the aim of delivering economical care) that financial benefits would in fact be plausible in the long run. Immediate savings would not be an outcome, but rather savings and capacity would begin to be identified at earliest five years on. There are a number of reasons for this, including the fact that it simply takes time and money to start any new process of care. In addition, a new structure of delivering care needs time in order to become an established and trusted source. More controversially, this research noted that current wards in the acute setting would need to close in order for financial benefits of CCTH to be fully realised (Monitor, 2015c).

Whilst the NHS must think in terms of numbers in relation to the feasibility of this approach another important factor is the impact it has on the patient. The quality benefits of CCTH have been undeniable. It has been found that patient experience is far more positive when the individual is treated closer to home (Monitor, 2015a). Mortality rates and rates of re-admission drop, particularly as the likelihood of catching a hospital borne infection decline, which over time would equate to economic benefits (Monitor, 2015b).

However, it is not as simple as moving a service from one location to another. Equally important and necessary is how the service will be delivered in the new setting. The key themes identified in the literature to ensure the long-term sustainability of CCTH have been:

- An inclusive approach amongst the various health and social care services to prevent the fragmentation of care
- A high level of engagement particularly through regular communications with members of a patient’s care team
- Financial investment; overheads including additional expenses through the implementation of this model (i.e. improving IT services, extra staff)
- Investment of time and investment in staff and resources

Investment into the above variables will be critical to the future proofing of this care model and subsequently seeing more tangible benefits.
The literature is plentiful when it comes to explaining the premise behind CCTH. The gap widens when attempting to locate research that evaluates models of CCTH in a more constructive and comprehensive manner. A recent Cochrane Review aimed at examining patient outcomes with multi-morbidity in primary care and community settings found very little in the evidence base to make a strong argument either way (Smith et al. 2016). The review included studies involving randomised controlled trials, non-randomised clinical trials, controlled before-after studies and interrupted time series analyses. It was not able to clearly demonstrate any benefit to patient outcomes and healthcare costs. Ultimately, the review concluded that more research in the area of multi-morbidity was needed before any conclusions could be accurately drawn. This again reiterates the need for more complex evaluations to take place if a stronger evidence base on CCTH models is going to exist.

Additionally, when it comes to examining the practicalities of implementing this model the literature again appears to be very limited. The intricacies involved with this format are often overlooked and replaced with a simplistic overview. For instance, financial costs are examined in terms of reducing patient admissions. The costs associated with the actuality of moving care out of the hospital and into the community have been overlooked (Bramwell et al. 2014). In a NHS with limited financial resources these types of costs must be considered in order to gain a better understanding of the system in its entirety. Future research evaluating a combination of CCTH elements such as how telehealth could inform hospitals at home would also be useful. CCTH is about integration yet the actual model itself has not been evaluated in the manner. Vigorous evaluations investigating and providing comprehensive cost analyses are limited at best (Bramwell et al. 2014). This reduces the compelling argument for CCTH, which does show reductions in areas such as hospital admissions but fails to provide the financial impact. As noted earlier, a more detail-oriented approach to evaluating CCTH is required. How will this care be moved into the community? What are the costs associated with this? What does coordinated care look like and what does it actually need from patients, hospitals and the services within the community to be effective? These questions need to be addressed.

In addition, there is further scope to examine the delivery of culturally appropriate care, the role of the caregiver and the role of health literacy as there was a clear lack of literature on these subjects in relation to delivering CCTH.

Further research in this area is needed as the current evidence base does suggest:

- Improved patient outcomes
- Improved coordinated care
- A decrease in mortality
- A decrease in re-admission
- A decrease in hospital borne illness
- Long-term financial benefits
CONCLUSION

Care closer to home is not a new model of care, but rather a model of care that has increased in popularity due to the increasing demands on the NHS. The existing system is no longer deemed feasible in the current socioeconomic climate and thus change is essential. This paradigm shows incredible promise, but it will take a significant period of time to see benefits financial or otherwise. The reported results are time limited and heavily dependent on the context in which CCTH has been delivered. As it stands, definitive conclusions on the sustainability of CCTH cannot be guaranteed. Conducting longitudinal research and/or following up on such short-term studies will ultimately provide more conclusive evidence on the effectiveness of CCTH. This of course is problematic when policy often demands quick results. However, the way forward will have to be much more methodical than has been currently demonstrated if CCTH is going to have place in the NHS. A long-term evaluation must be considered whereby CCTH is examined from pre to post implementation in order to ascertain a more comprehensive data set and a practical evidence base from which we can draw more tangible conclusions. Additionally, it must be remembered that CCTH is not a standardized type of care. It is a term used to describe a number of different methods for delivering care outside the hospital setting, and as such it must be designed and delivered to reflect the uniqueness of the care being offered (i.e. hospital at home vs. telehealth vs. enhanced community support).

The research in this field will also need to expand to show models of CCTH from implementation to outcome with all of the minute details in between as this has often been overlooked. Having care being delivered closer to home cannot be fully understood and effectively applied until it is evaluated as a whole rather than the sum of its parts.

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