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Improving Community Healthcare: A Qualitative Evaluation of the Neighborhood Team Model in West Essex

Yuhao (Eric) Qian

Abstract

A qualitative study was conducted to evaluate the Neighborhood Team Project. West Essex Clinical Commissioning Group (CCG) initiated neighborhood teams in the West Essex area in October 2015; a neighborhood contains all levels of health care and social care providers but on a smaller scale. The Neighborhood Team model allows providers to deliver efficient patient-centred care. For the past six months, West Essex CCG encountered challenges in deploying the model to 7 neighborhood areas. To evaluate the progress of this on-going project, 24 people were interviewed with a survey. Samples are from West Essex CCG, GP practice, the Voluntary Sector, Social Care and Princess Alexandra Hospital (PAH). 10 major themes and 30 sub-themes were identified; over 30 practical suggestions were found through interview transcripts.

Specific Aims & Hypotheses

To evaluate the progress of the Neighborhood Model in West Essex, England, an initiative is integrating health and social care based on population risk stratification. The original hypothesis was that the healthcare system in the West Essex area is fragmented; the fragmentation poses challenges to the implementation of the project.

Background & Rationale:

Medical decisions are not made solely by physicians but involve multiple nurses, administrative personnel, patients and their families. When a case becomes complicated, the decision will be made among a radiologist, a pharmacist, and numbers of other professionals. However, in many cases, having multiple decision makers would not be better than a unified decision making process (Elhauge 2010). This so-called healthcare fragmentation, or lack of care coordination, poses challenges to the National Health Service (NHS), for example, increasing healthcare expenditures and inefficiency of care. At a community level, the care coordination issue becomes more unmanageable because the

information sharing barrier is greater among providers. Providers and primary care do not share the same incentive for care coordination.

The impacts of healthcare fragmentation could be categorized as lower quality of care and inefficacy of care. As a result, people are receiving disconnected health care, especially for those who have age-related chronic and complex medical conditions. Goodwin revealed that people with complex health conditions are receiving very fragmented service (Goodwin, Sonola et al. 2013). A randomized trial revealed that senior people, who receive integrated care and case management, had improved physical function and less decline of cognitive status (Bernabei, Landi et al. 1998). The disconnection between primary care and secondary care is a major form of fragmentation in the NHS.

The NHS has a longstanding ambition to promote the usage of primary care services; shifting care from secondary providers not only reduces the financial burden on NHS but also prevents the at-risk population from becoming high-risk (Edwards 2014). The NHS has multiple programs to integrate care of primary care and secondary care: for example, reducing care complexity, horizontal care integration, creating a single system with one budget (Thistlethwaite 2011), building multidisciplinary care teams (MDTs), providing services that offer an alternative to hospitals. Through these programs, The King's Fund has found that integration of care could be more beneficial at a neighborhood level, which aligns stakeholders more easily (Goodwin, Sonola et al. 2013).

Wigan Borough Clinical Commissioning Group (CCG) initiated the Integrated Neighhorhood Teams (INT) project, which involves General Practitioners (GPs) to identify the high-risk population(Edwards 2014). Each neighborhood consists of primary care, such as GP practices, community matrons, district nurses, social care and mental health services. This team provides the patient-centered care using a care plan. The project reduces Acute & Emergency attendances have reduced by 33 per cent and unplanned admissions by 37 per cent (Edwards 2014).

According to Ouwens review, the integrated care programs have a positive impact on

chronically ill patients (Ouwens, Wollersheim et al. 2005). The priority would be one of three chronic diseases: cardiovascular, diabetes and musculoskeletal system (MSK) related diseases. All three diseases are believed to be manageable within the community level care. A randomized controlled trial revealed that the 10-year absolute risk of developing cardiovascular diseases was reduced by 1.75% with a more collaborative primary care, and total cholesterol level was significantly reduced as well (El Fakiri, Bruijnzeels et al. 2008). Besides improving the quality of care, integration of care has a financial impact. Families who access more primary care had fewer hospitalizations, operations and patient visits (Jones 1992). Another study showed that using a case management system for a senior population reduced total health care expenditures in hospitals by 13.6% (Eggert, Zimmer et al. 1991).

In an attempt to provide improved preventative community care and to address the rising rate of non-elective and A&E visits, the West Essex CCG is piloting a change to organizational and professional working relationships among health and social care providers, creating "neighborhood teams." Neighborhood teams integrate health and social care within defined populations. Within West Essex (Epping, Uttlesford, and Harlow), the population of 295,000 has been segmented into seven neighborhoods based on demographics and geography. (Loughton, Epping & Ongar, Buckhurst Hill & Chigwell, Waltham Abbey, North Uttlesford, South Uttlesford, and Harlow).

To test the ability of neighborhoods to operate effectively and the ability of separate organizations to work together in an integrated way, the West Essex CCG used the "100-Day Challenges Methodology" Starting the trail at Harlow neighbourhood. During the period of 100 days, the neighborhood team convened, including hospital staff and senior health and social care leaders. The team was able, in many instances, to demonstrate significant reductions in A&E attendances. West Essex is currently in the early stages of scaling up the neighborhood implementation, where the teams are being created across t as seven separate teams. However, the lack of defined structure and coordination take up has limited the extent to which neighborhood teams are able to change care. Six month since the initiation, no practical care had been delivered to the target population.

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Incorporating the results found from the 100-day challenge, there are multiple means by which neighborhood teams can organize to deliver care. As a result, there is a need to establish a structural framework by which neighborhood teams will deliver care.

Methodology

Study design

A customized survey was designed to determine current progress, challenges, expectations and understanding of the Neighborhood Model (see Appendix). We asked non-directive and open-ended questions to urge informants to "complain" and suggest as it related to the development of the Neighborhood Model. Each informant was given a single interview. Each interview ranged from 20 to 45 minutes and was conducted between July and August 2016.

The survey included a cover letter introducing the interviewers, the purpose of the study, and the format of the survey study. The survey packet also included background material explaining the concept of "neighborhood teams," the breakdown of the West Essex population into regional teams, and examples of potential implementation and coordination of care using neighborhood teams. The inclusion of background materials was intended to standardize the level of reference and knowledge regarding neighborhood teams and their implementation.

Sample and Setting

The survey sample was obtained within the West Essex CCG's employees and contractors. In total 24 informants were interviewed; informants were purposively selected from the West Essex community that had a stake in the implementation of neighborhood teams. Interviewees are all directors, managers, neighborhood leaders or higher in their organizations. The informants consist of 7 from West Essex CCG, 6 from GP practices, 4 from Princess Alexandra Hospital (PAH), 3 from the Mental Health Unit, 2 from Voluntary sector, and 2 from Social sector.

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The Interview Process

Interviews were booked in advance through interviewee's personal assistant. Each interview began with an approval for recording the session. Each interviewee was given an introduction to the Neighborhood Model. Then 11 open-ended questions were asked for each informant. Interviewees were prompted to think about these open questions; some information could be given to the interviewee but not enough to bias or mislead the interviewee's opinion.

Data Analysis

Audio files were transferred into transcript by IBM audio-to-text. Meaningful and suggestive responses were extracted in a spreadsheet then coded by a code book (see Appendix) manually. The codes were customized to the responses; the codes cover a majority of the responses. Non-code responses were categorized as *other.* Subsequently, the spreadsheets were reviewed and both major themes and sub-themes were identified and summarized.

Results

Theme and sub-theme terms clarification

- *Patient information sharing* – IT system issue, Electronic Health Record (EHR) sharing
- *Professional communication* – updated communication, communication accuracy, misunderstanding and unclear professional terms or jargon
- *Collaboration* – respect, take responsibility, open to change attitude, benign and organic relationship, a shared goal
- *Patient Education* – the level of patients' knowledge about how to consume healthcare services properly
- *Professional education* – the level of professionals' knowledge about how to deliver healthcare services properly
- *Neighborhood team concept education* – the level of key stakeholders' understanding of the neighborhood team project

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- *Demographic variation* – age, race, gender, health condition, size of population in 7 neigborhoods
- *Delivery of care variation* – healthcare quality, capacity inequality among 7 neighorhoods
- *Financial incentives* – financial reward is the incentive to participate in the neighorhood team project
- *Quality of care incentive* – looking for better quality of care is the incentive to participate in the neighorhood team project
- *Workload incentive* – the existing/future workload is the incentive NOT to participate in the neighorhood team project
- *Behavior change* – being against behavior change is the incentive NOT to participate in the neighorhood team project
- *Clinical Priority* - the priority of the organization (where the interviewee works) to deal with certain diseases such as MSK, cardiovascular and diabetes
- *Service reorganization* - the priority of the organization (where the interviewee works) to relocate the financial/labor resource
- *Model 1/2* – Choice of model 1 or 2
- *Role of coordinator* – In model 2, what responsibilities should the neighborhood care coordinator have?
- *Size of neighborhood* – uncertainty about a workable size of the neighborhood
- *Primary/self-referral access* – the two ways patients access care in each neighorhood team
- *Risk segmentation* – what's the target population that the neighorhood team project should focus on? High-risk, rising risk/at risk, healthy or all the population
- *Fragmentation* – the reason the overall health system does not work well
- *Politics* – the reason the overall health system does not work well is some of the healthcare policies/law and politics
- Financial - the reason the overall health system does not work well is lack of financial support

- *Capacity* - the reason the overall health system does not work well is the lack of medical professionals and hospitals, etc.

Table 1 shows the frequency of each theme and sub-theme mentioned during the interviews. Issues including collaboration, patient information sharing, role of a coordinator, system fragmentation and capacity were mentioned more than the rest. The collaboration issue was mentioned the most. Frequencies of model 1 and 2 are because interviewees were asked to choose two proposed model; the answer is dichotomy. Two numbers did not sum to 24 because some interviewees thought neither model works. Also, for the risk segmentation theme, interviewees were asked to choose which population (high risk, rising risk/at risk, healthy or all) should be targeted. Numbers did not sum to 24 because some interviewees thought more than one population should be targeted at the same time.

Table 2 shows the response rate for each sub-theme. There are in total 22 transcripts from 24 interviewees because one transcript is missing and two South Essex Partnership University NHS Foundation Trust (SEPT) interviewees attended together. Table 2 and Table 1 reveal similar results; issues including patient information, collaboration, and system fragmentation/capacity are all mentioned by over 70% of the interviewees. In addition, issues like project education, role of coordinator, rising-risk population, professional communication and behavior change were mentioned in high frequencies.

Table 3 breaks down Table 2 in detail; the response rate by organization was shown. The column reveals the frequency of topics by each organization and the row shows the detailed response rate of each sub-theme. For example, the provider (hospitals and GP practice) have similar response rates in all sub-themes. Both of them consider communication, collaboration and definition of care coordinator are critical issues, and they both think the project should address at-risk populations rather than others. Clinical Commissioning Group especially considers size of the neighborhood to be an important issue because they mentioned it more than the rest.

Table 4 is a summary of the question *'what is missing, or what support do you need the most?'* Care Home is missing because of unavailability of cares home managers. The GP practices suggest that hospital and social care services are missing in their network. Voluntary sector needs all other organization's help. Also, nearly all organizations think social care service is missing. Lastly, voluntary sector providers need help from other voluntary sector providers, which is a unique observation.

Table 5 assessed whether there is discrepancy among different organizations. GPs and PAH are categorized as provider; Voluntary Sector, Community Services and Mental Health Unit as community service. The variance tells whether three types of organizations have divergent. The results show that providers thought the real target should be on rising risk/at risk population, whereas fewer professionals from CCG and Community Service agreed. Community Services professionals did not mention Patient Education issue, whereas the other two thought so. Workload and capacity issue was not motioned among community services. The reason might be the underutilization of Community Services.

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Table 1 Frequencies of major themes and sub-themes

Theme	Frequency
Communication	
Patient information sharing	61[1]
Professional communication	59
Collaboration	124
Education	
Patient	9
Professional	11
Neighborhood team concept education	39
Variation	
Demographic	11
Delivery of care	10
Incentives	
Financial	15
Quality of care	41
Workload	44
Behaviour change	40
Priorities	
Clinical	24
Service reorganization	26
Model	
Model 1	5
Model 2	14
Role of coordinator	60
Size of Neighborhood	9
Primary care access	12
Self-referral access	7
Both	9
Risk Segmentation	
High risk	8
Rising risk/At risk	17
Healthy	6
All of the levels	5
System Issue	
Fragmentation/Inefficiency	84
Politics	28
Financial	19
Capacity	68
Suggestions	325
Other	86

[1] IT-system theme is categorized in patient information sharing; IT-system was mentioned 14 times.

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Table 2 Response rate by sub-themes

Theme	Frequency (n=22)	Percentage %
Communication		
Patient information sharing	21	95.5
Professional communication	19	86.4
Collaboration	21	95.5
Education		
Patient	7	31.8
Professional	8	36.4
Neighborhood team concept education	16	72.7
Variation		
Population	8	36.4
Delivery of care	7	31.8
Incentives		
Financial	12	54.5
Quality of care	11	50.0
Workload	10	44.5
Behavior change	16	72.7
Priorities		
Clinical	12	54.5
Service reorganization	14	63.6
Model		
Model 1	4	18.2
Model 2	14	63.6
Role of coordinator	18	81.8
Size of Neighborhood	5	22.7
Primary care access	5	22.7
Self-referral access	7	31.8
Both	4	18.2
Risk Segmentation		
High risk	6	18.2
Rising risk/At risk	14	54.5
Healthy	4	18.2
All of the levels	4	27.3
System Issue		
Fragmentation/Inefficiency	19	86.4
Politics	13	59.1
Financial	13	59.1
Capacity	16	72.7

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Table 3 Response rate by organizations and sub-themes

Theme	AH (n=4	Vest Esse CG (n=8	GP Practice (n=4)	Mental ealth Uni (n=3)	Voluntary Sector (n=3)	Social Sector (n=2)
ɔmmunication	-	-	-	-	-	-
Patient information sharing	4	7	4	2	2	2
Professional communication	2	2	1	1	0	0
ɔllaboration	4	7	4	2	2	2
lucation	-	-	-	-	-	-
Patient	1	4	2	0	0	0
Professional	2	3	1	0	1	1
Neighborhood team concept education	4	4	3	1	2	2
ıriation	-	-	-	-	-	-
Population	2	2	1	2	0	1
Delivery of care	1	3	1	1	1	0
centives	-	-	-	-	-	-
Financial	3	4	2	1	1	1
Quality of care	2	4	3	2	0	0
Workload	2	5	2	1	0	0
Behaviour change	4	5	3	2	1	1
iorities	-	-	-	-	-	-
Clinical	3	5	2	2	0	0
Service reorganization	0	6	3	2	2	1
odel	-	-	-	-	-	-
Model 1	1	2	1	0	0	0
Model 2	3	4	3	2	1	1
Role of coordinator	4	7	3	1	2	1
Size of Neighborhood	0	2	1	1	1	0
Primary care access	0	3	1	1	0	0
Self-referral access	1	1	0	2	0	0
Both	1	1	0	2	0	0
sk Segmentation	-	-	-	-	-	-
High risk	2	3	1	0	0	0
Rising risk/At risk	4	4	4	1	0	1
Healthy	1	2	0	1	0	0
All of the levels	2	1	1	0	0	0
stem Issue	-	-	-	-	-	-
Fragmentation/Inefficiency	4	7	3	2	2	1
Politics	3	4	2	0	2	2
Financial	2	5	3	1	1	1
Capacity	3	7	3	0	2	1

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Table 4 Responses segmented by provider, West Essex, Community Service

Theme	Provider (n=8)	West Essex(n=8)	Community Service (n=7)	Variance
Patient information sharing	8	7	6	1.00
Professional communication	3	2	1	1.00
Collaboration	8	7	6	1.00
Patient	3	4	0	4.33
Professional	3	3	2	0.33
Neighbourhood team concept education	7	4	5	2.33
Population	3	2	3	0.33
Delivery of care	2	3	2	0.33
Financial	5	4	3	1.00
Quality of care	5	4	2	2.33
Workload	4	5	1	4.33
Behaviour change	7	5	4	2.33
Clinical	5	5	2	3.00
Service reorganization	3	6	5	2.33
Model 1	2	2	0	1.33
Model 2	6	4	4	1.33
Role of coordinator	7	7	4	3.00
Size of Neighbourhood	1	2	2	0.33
Primary care access	1	3	1	1.33
Self-referral access	1	1	2	0.33
Both	1	1	2	0.33
High risk	3	3	0	3.00
Rising risk/At risk	8	4	2	9.33
Healthy	1	2	1	0.33
All of the levels	3	1	0	2.33
Fragmentation/Inefficiency	7	7	5	1.33
Politics	5	4	4	0.33
Financial	5	5	3	1.33
Capacity	6	7	3	4.33

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Table 5 'What is missing, or what support do you need the most?'

Need Support/Communication	GP practice	Voluntary Sector	Hospital (PAH)	CCG	SEPT (Mental Health)	Care Home	Social Care
GP practice	-	••	••	•	-	-	-
Voluntary sector	-	•	•	-	-	-	-
Hospital (PAH)	•••	•	-	-	-	-	-
CCG	•	-	-	-	-	-	-
SEPT (Mental Health)	-	••	-	-	-	-	-
Care Home	-	•	•	-	-	-	•
Social Care	•••	•	•	•	•	-	-

Refer to top row first and then look down the column, for example, GP (first row) need the support most from Hospital & Social Care (Column)
The dots indicate the frequency of needed support an organization mentioned during interviews, for example, almost all interviewees (GP) mentioned social care is missing

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Discussion

Many studies have addressed the potential benefits of moving toward community healthcare within the NHS, but our study is one of the first that explores the neighborhood team model. Similar to the responses of our participants, these studies have found that moving care from hospitals toward the community has the potential to reduce duplication, reduce physician workload, reduce the activity and cost within A&E, and to increase the quality of care. In many of the interviews, participants worried about the difficulty of implementation given the current system's fragmentation and inefficiency. However, because community healthcare resembles in many ways the neighborhood model, teams should consult past attempts at implementation to better establish realistic expectations, inform patients and team members, and to set forth a plan of action.

Higher frequency responses do not completely align with the severity of the subject matter, whether it be a problem, concern, or goal. Instead, the frequency data provides direction for policy makers and neighborhood teams. By interviewing professionals involved in a variety of health sectors that make up neighborhood teams, we were able to gather information to assess the sentiments surrounding the early stages of development of neighborhood teams. Participants in the study identified many potential benefits of working in neighborhoods. These included: better quality of care, reduction in A&E admissions, reduction in workload, increased job satisfaction, and increased collaboration and information sharing within the community, among other benefits. However, we heard many concerns about the organization of neighborhood teams, the timeline of implementation, potential confusion among patients and team members, a lack of information sharing about neighborhood teams, and incentives for involvement. Generally, participants acknowledged the potential positive impact of neighborhood teams and emphasized the necessity for change within the current system to ensure sustainability. Participants saw neighborhoods as a means to providing much needed communication and collaboration among healthcare sectors. In addition, perhaps because an operable IT system (information sharing system) has yet to be established in many areas of West Essex, participants looked favourably upon the neighborhoods to galvanize the development of an efficient IT system. Conversely, we heard fewer than expected concerns regarding the

variation in patient populations and delivery of care between neighborhood teams, perhaps because there has been little to no communication between the teams.

Key considerations arising from the interviews

1. People do not share the same understanding of neighborhood teams

Participants from each health or social care sector had slightly different yet noticeable differences in opinion about the neighborhood model. For instance, participants from hospitals were pessimistic about the neighborhood teams. Perhaps because the hospitals were interested in relieving the urgent care centre and meeting the 4-hour waiting standard, while the implementation of neighborhood teams would expectedly take a long time for benefits to manifest.

Conversely, participants from the social care sector were optimistic, suggesting that the implementation would go smoothly and the program was going very well. Future studies should investigate the variation in responses based on healthcare sector. Through the interview, we felt the County Council staffs were most educated about the neighborhood project. This might be the reason they think things are on track. County Council might be a good educator which can consolidate the neighborhood concept and ensure people understand the model.

2. Lack of practical case/example of how the neighborhood team works

During the interview, we showed an abstract, conceptual introduction to interviewees. Although all the people said they understood the model, we believe the best way is to provide real examples on how people plan to work collaboratively, for instance, through case discussion. West Essex CCG needs localized examples based on its capacity

3. Missing Care Home interviewees

We had difficulty in obtaining interviewees from Care Homes. We tried to contact Care Home staff, but the feedback is that our interview overlapped with many on-going projects.

Interestingly, we regard this lack of participation as a barrier for the project. An organic relationship between CCG and Care Homes would largely facilitate and engage these critical players; one of the keys is to find the go-to person who could manage a good relationship.

4. The role of a coordinator

Participants were presented with two access models. More than half of the participants chose the model with a coordinator. However, based on the specific responses, participants preferred a combination of both models, where the coordinator would be added to a model similar to that of the current system. Participants suggested that a new model would cause confusion and reluctance to participate. The coordinator in the model would provide communication where it is most needed.

The coordinator and Multi-Discipline Team (MDT) approach might work well: the coordinators function in the centre of MDTs.

5. Misunderstanding of the voluntary sector

Voluntary sector brought two ideas that were especially important.

1) Contracts with voluntary sector do not work

West Essex CCG contracts the voluntary sector for doing work, which puts limits and restrictions on their capability to change. A voluntary sector organization has different work practices and recruitment procedures, so it is difficult for them to deliver constant support because volunteers are not employees.

2) Overuse and underuse problems

Volunteers are underused for their capabilities; there are a lot of low level medical services which could be delivered by voluntary sector.

"But in another way, it's overused, because the plan the NHS or social care does not want to do, always finish up in this sector is wrong, because there needs a debate whether it is the place to go"– The Voluntary Sector interviewee

The overuse and underuse issues indicate that the voluntary sector is used improperly. Other neighborhood team members should be aware of what services the voluntary sector could offer.

6. What is the real target?

Currently the neighborhood teams focus on the highest risk population. Meanwhile more than half of interviewees suggested the lowest risk/healthiest population should be the focus. Neighborhood teams could integrate care to prevent the at-risk population from deteriorating into high risk.

A follow-up question is whether we have capacity to take care of the lowest risk/healthiest population, which is a much larger population? We suggest one of the aims for this implementation stage is to understand what the population capacity is for neighborhood teams to help.

Limitations

One limitation is the sample size. Given the relatively sample size, we could not generate statistically analysis. However, the qualitative analysis provides insights based the transcript. Care Home interviews were missing from the results. Care Home is an important stakeholder in the neighbourhood team because its unique function for older people, which is primarily the target population. The interviews were conducted among senior managers and executives. The front-line practitioners' prospective were not considered in this study. The policymakers' opinions might be part of the story; the real challenge might come from the people who practically implement the project.

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Appendix 1 Suggestion Table

Theme	Suggestions
Communication	• Standardized communication, avoid duplicated contacts • Make sure people have a go-to person to contact • Joint patient care record and IT system
Collaboration	• Get right people on the table, make sure voice equally heard • Build relationship/trust in organic way • Encourage people take ownership/responsibility; can-to mind-set rather than set clear boundary • A shared goal • Know the available service and capacity
Education	• Keep the expectation identical and clear cross the senior and ground level e.g. time, benefits and etc. • Be realistic about the project and capacity • Speak understandable language; keep participants at the same page
Model	• Decide the patient role in the model • Need a central managerial part • Coordinator - responsibility, skill, working hours, co-location • Find a good size for neighbourhood; Harlow is too big • Personnel consistency • Flexibility - model and peoples' ability to adapt to changes in system) • Have a full-time project manager who drives and follows people
Risk Segmentation	• Cannot ignore top-risk; prevent rising-risk to high risk • All level approach because this is a behaviour change
System Issue	• Overarching infrastructure support rather than isolate neighbourhood team • Empower junior level people to make decision • Long-term funding support • Remove potential perverse incentive policy • Prioritize initiatives
Other/Innovative	• Encouragement to give trail; stop endless discussion • Bring school to sign-up in this system (SEPT) • Promote job satisfaction is a good incentive • Neighbourhood is not another small hospital
Next Step	• Identify the area that can make a different • Learn from what works • Get hands on and start • Focus on smaller projects and show a good way forward

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Appendix 2 Terms for clarification

Name	Definition
Clinical Commission Group	NHS bodies responsible for the planning and commissioning of health care services for their local area.
National Health Service	The National Health Service (NHS) is the publicly funded national healthcare system for England and one of the four National Health Services of the United Kingdom
General Practice	GPs usually work in practices as part of a team, which includes nurses, healthcare assistants, practice managers, receptionists and other staff. Practices also work closely with other healthcare professionals, such as health visitors, midwives, mental health services and social care services.
Voluntary Sector	Volunteer organizations, such as Rainbow Services in Harlow
Social Sector	West Essex County Counsel provide social care services including *looking after someone, staying safe, going out, working and learning , protecting vulnerable children and etc.* to West Essex local residences