Evaluation of Sutton Homes of Care Vanguard

End of Year report

20 July 2017

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1. Executive summary

1.1 Since March 2015 the Sutton Homes of Care Vanguard has been part of NHS England's (NHSE's) New Care Models (NCM) programme. The NCM programme aims to improve: the quality of care for patients; the health and wellbeing of patients; and the efficiency of the healthcare system during a time of increasing demands. NHSE invited organisations to apply to become Vanguards and awarded funding to fifty sites to develop new care models to test new ways of working that could be extended to the rest of the NHS.

1.2 From 2014 Sutton CCG had worked with local partners to improve the quality of care for care home residents. The Sutton Homes of Care Vanguard intended to build on what had been achieved and substantially increase the scope and impact. The theory of how change would be generated comprised three elements:

- better integration between healthcare organisations and care homes would ensure residents received more timely, appropriate care from well-informed staff in the care home, with some support from other health and social care services, reducing the use of unplanned, emergency care
- upskilling and motivating the care home workforce would enable care home staff to actively monitor their residents' health and wellbeing and know when and how to take appropriate action as well as raising staff job satisfaction and reducing turnover
- sharing data and use of data in planning would ensure services were more aligned to the population's needs and proactive in identifying and tackling issues.

1.3 Since the Vanguard award, there is evidence that there has been some systemic change for care home residents of Sutton: 999 calls, A&E attendances, non-elective admissions and the length of stay in hospital have fallen. Crucially, there is some reason to believe that the Vanguard has played a part in delivering this change. Both the quantitative and qualitative evidence support this conclusion. The nuances of this overall positive impact are important: change has largely occurred in nursing homes rather than residential homes and attribution to the Vanguard is evident only for nursing homes. The focus to date has been on nursing homes rather than residential homes, although residential homes have been involved in many interventions, in line with the Vanguard's 'open to all' policy. As the Vanguard shifts its attention to residential homes, it will be expected that change and attribution can be demonstrated for residential homes as well.

1.4 Every Vanguard is expected to deliver a more efficient healthcare system, and ideally to demonstrate how savings can be made. Overall the Vanguard saved £466,282 in 2016/17, a little less than the initial projected savings of £485,165. However, the Vanguard spent £1.05m in the same period of 2016/17. Achievement of net savings will depend on maintaining or continuing to reduce activity levels such as non-elective admissions without such high levels of programme funding. Our economic analysis indicates that interventions trialled to date that reduce NEL admissions have been most effective in generating savings because admissions are more expensive than other outcomes such as A&E attendances and have been successfully decreased.

1.5 The combination of Vanguard initiatives is changing the system in Sutton towards one that should be able to improve quality of care. It has a formal mechanism for rapid identification of issues, a set of activities to address these issues, and a store of social capital to ensure people who are genuinely interested, have the time and are willing to find and apply solutions together.

1.6 However, the scale of the challenge needs to be remembered. The health and social care system across the country faces an increasingly challenging population of care home residents with more complex needs, financial strain under a national policy of austerity, tightened care home finances and the ongoing issue of recruitment and retention of care staff. Other factors also influence the extent to which initiatives can make a difference, including care home leadership and management, and IT. In these circumstances, which are mainly outside of local control, the current direction of travel in Sutton is encouraging.

1.7 The experience of Sutton indicates that the key ingredients for progress include a history of innovation, an enthusiastic and dedicated set of core individuals, with supportive managers, based in the key organisations (CCG, hospital, community services, ambulance service and LA), and additional funding at the right time. These factors seemed to come together at the opportune moment for Sutton. These conditions may not be replicable quickly, and in some areas easily, in terms of setting up a programme mimicking Sutton's key features. Nevertheless there are important lessons for areas wishing to understand how to begin generating change.

2. Introduction

2.1 This report presents the evaluation of the Sutton Homes of Care Vanguard (the Vanguard) from the award of Vanguard status in March 2015 through its first eighteen months of operation from September 2016 to March 2017. The report sets out what the Vanguard aimed to achieve, what it has done to date and what has changed for Sutton's care homes. It also considers what may be responsible for these changes.

2.2 SQW Ltd and the Social Care Institute for Excellence (SCIE) were directly commissioned to deliver this evaluation by Sutton CCG as the lead agency for the Vanguard. However, the report is also intended for NHS England (NHSE) as the commissioner of the Vanguard programme and its external evaluation.

Introduction to the Sutton Homes of Care Vanguard

2.3 The Five Year Forward View (FYFV) was published in October 2014. It laid out the challenges facing the NHS in England, particularly the need to reduce variation in the quality of care, improve prevention, and deliver a more personalised and integrated service at a time when demands on the health service were increasing. It stated an ambition to improve: the quality of care for patients; the health and wellbeing of patients; and the efficiency of the healthcare system.

2.4 The New Care Models programme was a crucial element of the Five Year Forward View and NHSE's approach to tackling some of these challenges:

> *"Different local health communities will … be supported by the NHS's national leadership to choose from amongst a small number of radical new care delivery options, and then given the resources and support to implement them where that makes sense." [Five Year Forward View, p4]*

2.5 The Vanguard programme was a key strand of the New Care Models programme. In January 2015 NHSE invited organisations to apply to become Vanguards. Fifty Vanguards were selected and offered central NHSE funding to develop new care models to test new ways of working that could be extended to the rest of the NHS. There were five types of Vanguard:

- Multi-speciality community providers (MCPs)
- Integrated primary and acute care systems(PACs)
- Acute care collaborations (ACCs)
- Urgent and emergency care Vanguards (UECs)
- Enhanced health in care homes Vanguards (EHCH),

The Sutton Homes of Care Vanguard was one of the six enhanced health in care home (ECHC) Vanguards.

2.6 The Vanguards are subject to three types of evaluation: monitoring of national and local metrics; an independent national evaluation; and a local evaluation. This report constitutes part of the local evaluation, which continues into 2017/18.

2.7 Sutton CCG applied for the opportunity to become an EHCH Vanguard because it recognised the need to improve the quality and consistency of care for residents in Sutton care homes and because it had already begun to tackle some of the challenges it had identified. It was a criterion of the Vanguard award that sites had already taken initial steps towards developing a new model of care. While acknowledging the factors affecting the care home sector, including an ageing population with more complex health and social care needs, the social care funding crisis, and specific scandals such as Winterbourne View, Sutton CCG and its partners believed they could make significant improvements for their care home residents through a package of interventions.

2.8 The genesis of the work that evolved into the Sutton Homes of Care Vanguard was agreement by individuals in five organisations (the CCG (then Sutton and Merton), community services, the local hospital trust, the London Ambulance Service (LAS) and the London Borough of Sutton (LBS)) that the number of safeguarding incidents at local care homes needed to be actively tackled rather than dealt with reactively. Three critical problems were identified:

- a lack of sharing of intelligence relating to care homes so frequent small concerns were unlikely to be addressed until a major incident
- the absence of trust between care homes and other organisations, which allowed problems to develop and reduced opportunities for developing and implementing solutions
- the isolation of care homes from the wider health and social care landscape, meaning care home residents did not always have the same access to services as people living at home and care home staff did not have access to the same support as other health and social care professionals.

2.9 From spring 2014, three key interventions were introduced to tackle these issues:

- the Joint Intelligence Group allowed organisations, beginning with the CCG, community services, the local hospital trust, LAS, LBS and CQC to share intelligence and identify care homes showing warning signs such as a higher than average number of falls
- the Care Home Forum, which brought care home staff, largely managers, to meetings with the CCG, community services, the local hospital trust, LAS and LBS in order to share concerns and develop shared solutions
- the link nurse was a community nurse who spent time going into care homes and supporting them with particular issues, often related to the training of care home staff.

2.10 When Sutton CCG applied to be an EHCH Vanguard, it wanted to build on what had been achieved and substantially increase the scope and impact. The central aim continued to be providing all care home residents with safe, high quality, person-centred care. The Value Proposition set out in detail the objectives, inputs, activities and anticipated outcomes and

impacts. The Sutton model was based on around twenty interventions (see Annex B: for a full list) provided under three pillars:

- Integrated Care – which was about shaping services and the workforce to better meet residents' health and wellbeing needs
- Care Staff Education and Development – which focused on investment in developing the skills of the care home workforce, ensuring they worked to the national nursing values of Care, Compassion, Competence, Communication, Courage and Commitment
- Quality Assurance and Safety Pillar – which aimed to facilitate effective intelligence sharing.

2.11 Some of the key outcomes that the Vanguard hoped to achieve through this model included improving health and wellbeing outcomes for residents, which may show up in an increased number of residents dying in their preferred place of death (PPOD), reduced ambulance conveyances, fewer A&E attendances and non-elective admissions (NEL), as well as improved satisfaction for staff and reduced staff turnover. Progress against these outcome metrics is considered later in the report.

2.12 Sutton CCG is the lead organisation for the Vanguard but the Vanguard is governed by a Steering Group on which the following organisations are represented: Sutton Community Health Services (provided by The Royal Marsden NHS Foundation Trust), Epsom and St Helier University Hospitals NHS Trust, London Borough of Sutton, London Ambulance Service, South West London and St George's Mental Health NHS Trust, Care Quality Commission, Age UK Sutton, Alzheimer's Society Sutton, Health Watch, Sutton Sector for the Voluntary Sector, NICE and St Raphael's Hospice. There is also representation from managers from a nursing home and a residential home, and a resident/relative representative. The Steering Group is responsible to the Sutton Integration and Transformation Board and NHSE's New Care Models team as well as through the Sutton CCG Quality Committee to the Sutton CCG Governing Body.

2.13 In total, Sutton requested £1.8m from NHSE for the year 2016/17[1]. The Vanguard was awarded £555,000, which was in line with a trend across all Vanguards for NHSE to grant only a proportion of the requested funding. An additional £70,000 was awarded for local external evaluation and reporting. The NHSE funding, along with local contributions from the CCG and partners amounting to £490,000, was intended to cover all care homes within Sutton. NHSE awarded £250,000 later in the year to facilitate the spread of the Vanguard.

2.14 The number of care homes in Sutton is not static, with a small number of homes opening and closing during the Vanguard. As of January 2017, Sutton CCG had 81 care homes (covering about 1,300 beds). This comprised 18 nursing homes (with 610 beds), 11 residential homes (with 289 beds) and 52 mental health and learning disability homes (with 397 beds). Additionally, there are five homes that are within the London Borough of Sutton but have GPs from outside Sutton CCG[2]. These homes have been invited to participate in many of the

[1] A smaller amount of funding was provided in 2015/16 to enable development of the Value Proposition.
[2] 4 nursing homes (103 beds), 1 residential homes (unknown number of beds).

Vanguard interventions but they do not currently receive interventions provided by Sutton Community Health Services, which includes the link nurses and the Supportive Care Home nurses, and the care home pharmacist. The Vanguard estimates that about 75% of the residents who are 65 years old and above fund their own care home place in Sutton.

2.15 The fluctuating care home population, in terms of care homes opening and closing, residents entering homes, residents dying, and staff turnover, presents some challenges for both the Vanguard itself, in delivering interventions, and the evaluation, in measuring change. This is discussed in more detail in Chapter 3.

Introduction to the evaluation

2.16 This evaluation began in August 2016 following a competitive tendering process during June and July 2016. It is essentially summative, that is the focus has been to identify evidence of the outcomes and impact of the interventions, although the evaluation team has also provided advice and support to the Vanguard evaluation lead when requested. Although the primary focus has been on the outcomes of work undertaken in Sutton, through a careful assessment of the conditions under which outcomes have (or have not) been achieved, it is hoped that lessons can be applied to other areas seeking to improve the quality of care for their care home residents.

2.17 The evaluation specification set out seven questions, which this report seeks to answer:

1. What is the context into which Sutton's model has been implemented?
2. What key changes has the Sutton model made and who is being affected by them? How have these changes been implemented?
3. What is the change in resource use and cost for the specific interventions in the new care model? How is the vanguard performing against its expectations and how can the care model be improved?
4. What impact is the vanguard having on:
    - residents' outcomes and experiences?
    - residents' families and carers experiences?
    - the competence and confidence of care staff and managers in the care homes?
    - the workforce commissioned to support the care staff and managers in the care homes?
    - the way in which resources are used across the local health and social care system?

    The overall impact should be compared against a counterfactual in which the vanguard interventions have not been delivered.
5. Which components of the care model are really making a difference? In particular, which key components of the model are making the biggest difference, and which of all the components are interdependent and independent?

6. What are the 'active ingredients' of the care model? Which aspects, if replicated elsewhere, can be expected to give similar results, and what contextual factors are prerequisites for success?

7. What are the unintended costs and consequences (positive or negative) associated with the new model of care on the local health and social care system, and in general?

Structure of report

2.18 This report answers the evaluation questions in the following four chapters:

- Chapter 3 describes the evaluation method
- Chapter 4 outlines the key interventions and their outputs
- Chapter 5 explores the main outcomes and impacts measured to date
- Chapter 6 examines the impact on the system, conditions generating or impeding success and sustainability of the model.

3. Evaluation method

Overall approach

3.1 SQW and SCIE proposed a mixed methods approach to the evaluation of the Vanguard to provide the required evidence on outcomes and impact as well as an understanding of the context in which change was successful. The complexity of the delivery of the interventions, namely multiple interventions applied at different times in different ways and degrees to different care homes, meant that qualitative evidence was vital to the interpretation of quantitative evidence.

3.2 The core elements of the evaluation approach included:

- A thorough scoping stage to ensure the research approach was properly suited to the nature of the Vanguard and its interventions
- The use of co-production to ensure the resident/family/friend view was represented
- Local engagement to sense-check decisions and gain support for the fieldwork tasks
- A focus on context and mechanisms to understand what worked for whom, under what circumstances and to what extent, and why.

3.3 The key research tasks undertaken are listed in Table C-1 in Annex C:.

Understanding how the Vanguard was delivered

3.4 The evaluation has been shaped to deal with the particular challenges arising from the nature of the Vanguard and its approach to delivery. As referenced in Chapter 2, the care home population is not constant, neither in terms of homes nor in terms of residents. Prior to the Vanguard award in March 2015 and during the period of Vanguard operation, care homes opened, closed and residents moved in, out and died. The fluctuations at the level of the resident in terms of occupied beds are not centrally monitored and thus are beyond the scope of the evaluation. However, the Vanguard has provided information on which care homes should be considered in and out of scope at particular times and this has been taken into account in the impact analysis.

3.5 The Vanguard took an inclusive approach to delivery, inviting all Sutton (CCG and LA) care homes to participate in open interventions such as the care home forums and the resources. However, in the first year of operation, from autumn 2015 when the first Vanguard interventions got underway, nursing homes were the stated focus of the Vanguard. Subsequently, from around autumn 2016, attention shifted to residential homes.

3.6 This open approach has been in accordance with the principle of the Vanguard to work *with* care homes rather than *do* interventions to them. However, it meant that the uptake of interventions was mixed, with some care homes taking advantage of everything available at the earliest opportunity to the maximum degree, and others coming on board later, selecting only some interventions and not participating as fully as other homes. This presents a complex picture of interventions delivered at different times, to different care homes to different

degrees. Further, a minority of interventions were restricted in their application. The Health and Wellbeing Rounds in Nursing Homes applied only to six nursing homes and the Care Home Support team (link nurses, Supportive Care Home Team nurses and care home pharmacist) were not immediately available to all care homes.

3.7 The scoping stage of the evaluation involved mapping the interaction of care homes with the Vanguard as accurately as possible, although in some cases it was not possible to establish precise dates of the uptake of an intervention or the degree to which it was applied. For example, the resources were made available to all care homes at the same time through a care home forum. Attending care homes took away the resources but whether they immediately began using them, and the extent to which they encouraged their staff to use them, is impossible to know. The mapping task was recognised as an ongoing element of monitoring and evaluating the Vanguard and actions were taken to improve understanding of intervention uptake. For example, an exercise was undertaken in which Vanguard staff went to care homes and asked them about their use of the educational resources, as well as noting where posters were displayed within a home. Nevertheless, the complexity remained and, in conjunction with the availability of data, influenced the approach to the analysis in general and the assessment of a counterfactual.

Counterfactual and comparison

3.8 This evaluation did not include an assessment of a counterfactual for a number of reasons. It was understood that there was no non-intervention group of care homes within Sutton itself (due to the delivery approach), and to source a counterfactual beyond the locality was beyond the resources of the evaluation. It would also have been difficult to find a counterfactual that resembled Sutton in all important respects such as care home population and the nature of the sector (Sutton has a preponderance of smaller, independent care homes). However, in order to facilitate some type of comparison, the evaluation categorised care homes according to the interventions they received during the programme. The performance of different categories was then compared to enable some judgement about the extent to which outcomes were the result of Vanguard activities rather than other factors.

3.9 Initially a clustering approach was taken, whereby care homes were grouped according to their type (nursing, residential or mental health and learning disability care home) and the number of interventions they had received. The intention was to assess the degree to which differences in outcomes between the clusters were attributable to the specific package of interventions they had received. The clusters were used in the analysis of key impact metrics in the Interim Report[3] to examine, for example, if care homes involved in more interventions experienced a greater reduction in A&E attendances. However, the analysis was inconclusive and revealed that the clustering approach could not explain any variation in outcomes between care homes.

[3] Evaluation of Sutton Vanguard Interim Report_final, dated 24 January 2017

3.10 This report uses a weighting approach. Each intervention was assigned a number of points based on the likelihood of it contributing to a change in outcomes. The points for all the interventions for each care home were then added together to give a final score (see Annex E: for all care home scores). Outcome data have been compared for care homes according to their score to ascertain if care homes with a higher score (that is care homes that have received more interventions, particularly more interventions considered more likely to generate change) have experienced greater improvements in outcomes. The analysis is presented in Chapter 5.

Data

Monitoring data

3.11 As noted above, the availability of monitoring data has influenced the analysis undertaken by the evaluation by restricting the level of granularity at which interventions can be assessed. This is perhaps most problematic for an assessment of the link nurse intervention. As the two original link nurses were bank staff, they did not have access to the RiO system (an electronic patient record system) and therefore recorded their notes on paper. This means their records were largely inaccessible to the evaluation. The new link nurses will have access to RiO so this should not present a problem for subsequent monitoring. It has also been a problem for assessment of the Hospital Transfer Pathway ("Red Bag" initiative). A system of tracking care home residents transferred to Epsom hospital or St Helier hospital with a Red Bag and relevant paperwork was set up but the data did not match the admissions data also provided by the hospital trust. This tracking dataset stopped being collected in September 2016 and a subsequent system put in place does not yet appear to have produced reliable, detailed data.

3.12 The approach to the counterfactual was also affected by the availability of monitoring data. The clustering and weighting approaches were devised on the basis of the Vanguard identifying which care homes had received which interventions at what point in time (the mapping exercise described above). For some interventions, this was straightforward: for example, records were kept of who attended which care home forums. Some interventions were more complicated to define, such as the educational resources. Available information made it difficult to conduct a fair assessment of how much care homes had used resources over what period. The highest weighted intervention, the Health and Wellbeing Rounds in Nursing Homes, has a high degree of certainty around its delivery, as does the care home pharmacist's medication review, the third highest weighted intervention. However, for the link nurses, which is the second highest weighted intervention, the data are more uncertain: the only data taken into account shows which years the care homes received a visit from a link nurse, not the number of visits, the duration of the visits, or what occurred during the visit. The consequence is a degree of uncertainty as to the accuracy of the 'scoring' of care homes.

Outcomes data

3.13 Sutton has been able to obtain some useful outcomes data, often through the efforts of partners. This is testament to the relationships built over recent years and the shared commitment to using data to improve the quality of care in Sutton's care homes, manifested in the Joint Intelligence Group. The local hospital trust, Epsom and St Helier, has provided data going back to April 2013 on all A&E attendances and NEL admissions for care home residents.

LAS has provided data on incidents and conveyances for care home residents in Sutton for the same period. However, there are discrepancies between the LAS data on conveyances and the hospital data on A&E attendances, which shows that these datasets are not without their issues.

3.14 One particular problem is the consistent identification of care homes. Care homes do not have a unique reference number and it is possible that they might share a postcode not only with another care home, but also with local houses in which older people live independently. Care homes also close down and re-open under different names. It is not always certain therefore that care homes and their residents are correctly identified in all datasets, despite efforts to clean data. When using quite small datasets, this is more likely to expose the analysis to outliers or anomalies.

3.15 Other data that the evaluation team anticipated being able to use have not been available. The AQP data, which contains self-reported data for nursing homes on a number of interesting metrics such as UTIs and falls, was only available in analysable form up until July 2016. Beyond that date, the data were only available in pdf. format for individual care homes. Given the evaluation resources, this effectively meant it was not possible to analyse the data[4]. Further, it was anticipated that there would be longitudinal data on turnover in the care home workforce available. However, the publicly available data only provide a snapshot of turnover at the specific time the data are accessed. The Vanguard has informed us that the gaps in these datasets are in the process of being resolved.

Resident experience

3.16 The evaluation had one significant omission: it did not collect meaningful data on resident experience. At the outset, it was anticipated that direct measurement of resident experience through the use of a validated tool (ASCOT CH-3) for all six of the care home Vanguards would be organised separately from the local evaluation but available for the evaluation to draw upon. Unfortunately this did not happen and as such the report does not have this evidence base available.

3.17 As a proxy for resident experience, we held discussions with residents' family and friends and ran an online survey, but we recognise that this does not fully compensate for the deficiency. Preferred place of death (PPOD) is another proxy for resident experience, as it identifies whether resident opinions regarding their care have been taken into account. However, only a small number of residents have died within the period in scope so it is difficult to identify a trend and thus use it as evidence of improvements in resident experience.

Co-production

3.18 The evaluation undertook to use co-production to guide the research and test the findings. Initially a virtual co-production panel was set up by SCIE using their own co-production

[4] AQP data became available in analysable form on 23 March 2017.

network. Three panel members, one of whom was a resident of Sutton, were identified during the scoping stage and were able to contribute to the design of the research tools and finalising the evaluation approach. Subsequently another panel member was recruited, who was a resident of Sutton with a parent in a Sutton care home. Towards the end of the evaluation a meeting was held to consider the initial findings of the study and make recommendations on what to consider in respect of the final report. This was attended by the panel members, a further two residents of Sutton, whose parent is in a local care home, and two representatives from Healthwatch who are on the Vanguard steering group.

4. Vanguard interventions

Overview

4.1 The Sutton Homes of Care Vanguard was based on a theory of change that reasoned a rapidly ageing population would place enormous pressure on the health and social care system. Three changes were expected to reduce this pressure:

- better integration between healthcare organisations and care homes could ensure residents received more timely, appropriate care from well-informed staff in the care home, with some support from other health and social care services, reducing the use of unplanned, emergency care, particularly the ambulance service and A&E
- upskilling and motivating the care home workforce could enable and encourage care home staff to actively monitor their residents' health and wellbeing and know when and how to take appropriate action as well as raising staff job satisfaction and reducing turnover
- improving data-collection, sharing data and use of data in planning could ensure services were more aligned to the population's needs and proactive in identifying and tackling issues.

4.2 These rationales underpinned the three pillars of the Vanguard, beneath which specific interventions were arranged. The key interventions in scope for the purposes of the evaluation are shown in Table 4-1).

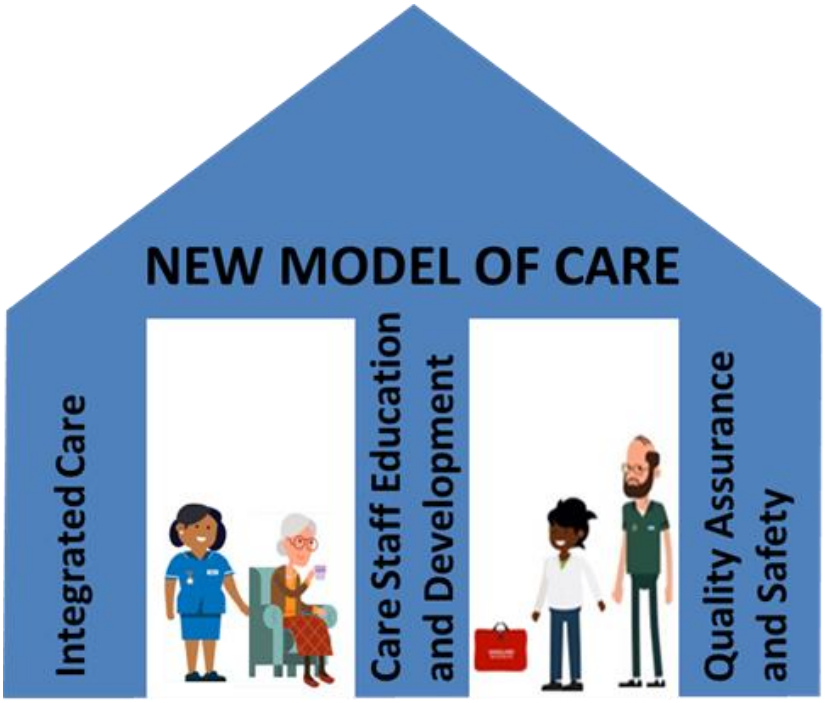
Table 4-1: Sutton Homes of Care Vanguard's Key Interventions

Integrated Care	Care Home Staff Training and Development	Quality Assurance and Safety
Health and Wellbeing Rounds in Nursing Homes	Training packages	Joint Intelligence Group
Care Home Support Team (including link nurses, Supportive Care Home team nurses, pharmacist)	Resource packages (including posters and reference cards)	Quality Dashboard
Hospital Transfer Pathway (Red Bag)	Care Home Forums	Engagement channels with Residents, Families, Friends and Carers – Cake, Cuppa, Chat

Source: Sutton Homes of Care

4.3 Some interventions such as the Health and Wellbeing Rounds in Residential Homes and the dementia support workers are deemed to be out of the scope of this evaluation because they started too late to make an impact on the outcome data.

Figure 4-1: Three pillars of Sutton Homes of Care



Source: Sutton Homes of Care

4.4 The table below (Table 4-2) provides a timeline of the introduction of the key Vanguard interventions, as well as relevant interventions pre-dating the Vanguard.

Table 4-2: Timeline of introduction of Vanguard interventions

Launch date	Product/Event
October 2013	Supportive Care Home Team (end of life care nurses) began in all nursing homes
April 2014	First Care Home Forum run by the CCG
May 2014	Joint Intelligence Group (JIG) begins monthly meetings
July 2014	Link Nurses begin in selected homes as part of CQUIN in Sutton and Merton
November 2014	Concerned About A Resident (CAAR) poster made available to all homes
March 2015	Vanguard status awarded
September 2015	Care Home Pharmacist starts in nursing homes
October 2015	First Cake Cuppa Chat
October 2015	Supportive Care Home Team (end of life care nurses) in pilot residential homes
November 2015	Health and Wellbeing Rounds (HWBR) in six nursing homes
November 2015	Hospital Transfer Pathway (Red Bag) for all nursing and residential homes
January 2016	E-learning modules available
March 2016	Reference cards available
May 2016	Quality Dashboard established for the JIG
August 2016	Supportive Care Home Team in all residential homes

Launch date	Product/Event
August 2016	Dementia Support Workers begin information sessions in targeted nursing and residential homes
November 2016	HWBR for four residential homes
January 2017	Care Home Pharmacist starts in residential homes

Source: SQW

Analysis by intervention

4.5 The table below (Table 4-3) presents the key features of each intervention. It describes the origin and context, the problem and rationale, the aim, its target, the required inputs, the activity that occurred and the resulting outputs.

Table 4-3: Analysis of interventions by Sutton Homes of Care Vanguard

Name	Origin and context	Problem and rationale	Aim	Target	Inputs	Activity	Outputs
Health and Wellbeing Rounds in Nursing Homes	Proposed for inclusion by NHSE based on evidence of what works from elsewhere	Care home residents often receive a reactive primary care service. Regular GP rounds could prevent poor health.	To regularly review residents to prevent avoidable health problems.	Residents of six nursing homes	Six link GPs (one per home) and twelve supporting care coordinators who are specifically trained nursing home nurses (two in each home to cover leave)	Link GPs undertook weekly ward rounds, working with a care coordinator from November 2015 to July 2016	2,529 reviews in total over nine months. An average of 15 reviews per bed. 151 community service referrals.
Care Home Support Team – link nurses	The link nurses were started as part of a CQUIN under Sutton and Merton CCG in July 2014.	Residential home staff typically receive statutory training only. Nursing home nurses can struggle to maintain their skills due to lack of opportunity for training.	Bespoke training from a link nurse can address specific issues causing particular problems in certain homes through upskilling care home staff	Care home staff in nursing and residential homes	1.5 FTE community nurses. (Until 2016 only 0.5 FTE link nurses covered Sutton. The other 1.0 covered Merton.)	The link nurses were guided by information from the JIG and their own knowledge of the care homes to deliver their support.	37 care homes received visits from the link nurses 29% of respondents to the care home staff survey said they or a colleague had received training from a link nurse.

Name	Origin and context	Problem and rationale	Aim	Target	Inputs	Activity	Outputs
Care Home Support Team – the Supportive Care Home team, also known as End of Life Care nurses	Supportive Care Home team nurses were originally introduced in the autumn of 2013 under Sutton and Merton CCG. The Vanguard started using Supportive Care Home nurses in August 2015.	Care home staff are not confident in supporting residents to die at the care home.	With support, care home staff could help residents to die in the care home where that was their preferred place of death (PPOD)	Care home staff in nursing and residential homes	Aug 2015 to April 2016, 2.5 FTE nurses: 1.5 for nursing homes, 1 for residential homes (1 FTE paid for by Vanguard) 2016/17, 4 FTE nurses: 2 for nursing homes, 1 for residential homes, 1 for MH&LD homes (2.5 FTE paid for by Vanguard)	Ward rounds to care homes, education and training for care home staff. Minimum of monthly liaison with residents' GPs.	45 (which includes 12 MH&LD homes) care homes received visits from the Supportive Care Home team nurses. 296 nursing and 190 residential care home staff attended formal training sessions from January to December 2016. 47% of respondents to the care home staff survey said they or a colleague had received training from a Supportive Care Home team nurse.
Care Home Support Team – pharmacist	Pharmacy interventions in care homes are gaining wider support	Care home residents are often prescribed medications but rarely taken off them or offered more appropriate alternatives. Inappropriate medications can cause problems such as falls and swallowing difficulties.	A care home pharmacist can ensure residents are taking appropriate medications in the most appropriate way, working alongside the resident's GP.	Residents of nursing homes	1 FTE care home pharmacist	Introduced in September 2015.	Up to December 2016 visited 16 care homes. Undertook 92 visits and 482 reviews. 887 interventions made including the stoppage of 314 medications.

Name	Origin and context	Problem and rationale	Aim	Target	Inputs	Activity	Outputs
Hospital Transfer Pathway (Red Bag)	Arose from a care home forum where care home managers and hospital staff recognised the problems of sharing information relating to residents	Care home residents may not be able to communicate well when they go into hospital meaning hospital staff chase care home staff for information, potentially slowing down diagnosis and treatment.	Establishment of a way of sharing key information about a care home resident will make transition from care home to ambulance to hospital more efficient.	Care home residents, mainly in nursing and residential homes, care home staff, ambulance staff and hospital staff	97 red bags have been distributed to 30 nursing and residential care homes. One home has nine bags, two homes have four, one has two and the rest have three	Design of Red Bag. Completion of relevant paperwork by care home staff. Training of relevant staff.	21 care homes have used the Red Bag when sending a resident to hospital. 53% of respondents to the care home staff survey reported they have ensured a resident going to hospital has their Red Bag with them
Training packages	Partners recognise that care home staff require support to handle some common problems	Care home staff typically struggle to access training. But lack of healthcare skills can mean some residents do not always receive good quality care.	Upskill care home staff in key areas to reduce health crises.	Care home staff, mainly in nursing and residential homes	Staff time to design training packages	E-training sessions available for care home staff on three topics.	31 care homes had at least one member of staff undertaking one training module

Name	Origin and context	Problem and rationale	Aim	Target	Inputs	Activity	Outputs
Resource packages	Some resources designed for care homes in 2014. Recognised that care home staff need better access to information	Care home staff often have limited information on available health, social and community services they can access for their residents. They have limited training opportunities.	Upskill care home staff by providing access to information so they can provide and access better care for their residents.	Care home staff, mainly in nursing and residential homes	Staff time to design resources, printing costs	A3 and A5 posters, reference cards on topics such as dehydration, falls, available services (CAAR).	29 care homes reported displaying one or more of the resources. 69% of respondents to the care home staff survey said their care home displayed the CAAR poster and 47% said it displayed the Priorities for Care of the Dying Person poster. 45% said they are provided with pocket or reference cards.
Care Home Forums	Partners recognised that care homes are not treated as part of the health and social care community	Care homes are isolated from other health and social care organisations meaning problems are not jointly identified and shared	Engage with care home managers to better understand their concerns, challenges and assets.	Care home managers and staff from all types of care homes	Staff time to organise and run events, and to write-up post forum newsletter, plus resources for refreshments	The first health-focused forum was held in June 2014. Subsequently held bi-monthly.	42 care homes have attended at least one forum.
Joint Intelligence Group (JIG)	Staff from the CCG, SCHS, LA, LAS and hospital trust wanted to tackle continuing safeguarding issues among Sutton care homes	Data was not shared between partner organisations meaning warning signs were not identified and acted upon until a safeguarding incident occurred	Sharing intelligence would allow early identification of issues in care homes so preventative and supportive action could be taken	All care homes in Sutton	Staff time to prepare for and attend meetings	The first JIG was held in May 2014 and continue to be held monthly	JIG actions are confidential, often identifying individual residents who are the subject of concern. Therefore data are not available to the evaluation. Eleven quorate meetings are held a year

Name	Origin and context	Problem and rationale	Aim	Target	Inputs	Activity	Outputs
Quality Dashboard	Prior to 2014 there was no system in place to enable different agencies working with care homes to share information on the quality of care in each home.	Independent datasets meant trends and issues could not be properly identified and care home performance was not well monitored	Collate data to provide accurate assessments of care home performance and support the development of plans for training and education in response to identified issues	All care homes in Sutton	Staff time to provide data inputs. Cost of the commissioned service provider.	The Dashboard is produced to support the JIG	Monthly dashboard reports.
Engagement channels with residents, and their families, friends and carers – Cake, Cuppa, Chat	CCG staff recognised that they did not have an engagement channel for care home residents' families, friends and carers	A lack of communication means problems and solutions cannot be easily identified	Open a communication channel between the CCG, the care home and the families, friends and carers	Care homes and families and friends of residents in nursing and residential homes	Staff time to organise, attend and write up feedback	Cake, Cuppa, Chats are informal events held in a care home on a bi-monthly basis	Six events have been held to date.

Source: SQW

5. Outcomes and Impacts

5.1 The evaluation has assessed the Vanguard through analysis of quantitative evidence relating to the key metrics (a full list of metrics is at Annex D:) as well as qualitative methods.[5] This chapter presents the quantitative followed by the qualitative evidence, as the latter helps to interpret some of the quantitative findings.

The Counterfactual

5.2 As explained in Chapter 3, no direct counterfactual could be identified within current resources. Instead the evaluation used differences in the packages of interventions received by care homes to compare whether differences in outcomes were due to the different experiences of, and/or the intensity of engagement with, the Vanguard initiatives.

5.3 The weighting approach adopted in this report involved assigning each intervention a number of points based on the likelihood of it contributing to a change in outcomes. The likelihood was based on the view of the independent evaluators and commented on by the Vanguard evaluation lead. The points for each intervention are shown in Table 5-1 below. A score for each care home was generated by adding up the points for all of the interventions it had received.

Table 5-1: weighting of Sutton Vanguard interventions

Name of intervention	Weighting	Commentary
Health and Wellbeing Rounds in Nursing Homes	7	High intensity support from GP and trained care home nurses
Link nurses	6	Bespoke support to care homes to deal with specific problems, sometimes identified by the JIG
Care home pharmacist and medication reviews	5	Direct support from pharmacist. Improved medication can have wide-ranging health and wellbeing benefits
Hospital Transfer Pathway (Red Bag)	4	The Hospital Transfer Pathway, as well as relevant training for staff, was aimed at dealing with residents at point of crisis. The paperwork completed for each resident was a health review in itself.
Resource packages	4	Locally designed resources provided information relating to locally identified common issues faced by care homes
Training packages	3	Single e-learning sessions for individual staff
Supportive Care Home team nurses	3	Due to specific focus on end of life care, likely to have more restricted influence than other interventions. However, likely to have impact on NEL admissions as

[5] The Vanguard has three sets of outcome and impact metrics: effects on the system; resident health and wellbeing; and staff satisfaction. The new care model organises metrics into three different sets: economic outcomes; clinical quality and safety outcomes; and resident experiences outcomes. However, all Sutton's metrics map to both sets.

Name of intervention	Weighting	Commentary
		residents often have two to three admissions shortly before they die. It may also affect LOS.
Care Home Forums	3	An enabling rather than direct intervention but attending required pro-active participation by one or more of the main influencers in the care home
Engagement channels with Residents, Families and Carers – Cake, Cuppa, Chat	1	An enabling rather than direct intervention
Joint Intelligence Group	n/a	Worked across all care homes in Sutton. Not a participative activity, unlike the other interventions.
Quality Dashboard	n/a	Applied across all care homes in Sutton. Not a participative activity.

Source: SQW

5.4 It is worth noting that the more intensive interventions usually involve additional care or support from a health professional and are thus more expensive. The lower scored interventions are generally lower cost in that they involve the creation of a resource or only management (rather than management and clinical) time. The lower cost and assumed lower impact should not mean these interventions are regarded as less worthwhile. They are mostly designed to have an ongoing influence, for example the reference cards for care home staff are intended to support other interventions and can be accessed by individuals wanting to provide better care.

Quantitative outcomes and impact

5.5 The key metrics against which the Vanguard intended to measure its impact were system metrics: the number of 999 calls, A&E attendances, NEL admissions and Length of Stay[6]. Data on these metrics for 2016/17 are only available from April to December (at the time of writing). Therefore only data from April to December in previous years (2013/14, 2014/15 and 2015/16) have been used in order to make a fair comparison across years. The Vanguard also collected data on PPOD and medications. The Vanguard recognises that the frail, elderly population in care homes will always require a certain level of emergency care and therefore it is aiming to reduce avoidable activity rather than activity per se.

5.6 As mentioned in Chapter 3, the care home population of both care homes and residents is not static. In 2015/16 some nursing homes closed and there was a 7% reduction in beds in Sutton. New nursing homes opened in 2016/17, increasing the number of beds, although it is likely that the new homes are not at full capacity in terms of number of residents yet. The analysis attempts to manage this issue, which could affect calculations:

[6] Note, there are some slight variations in the number of care homes in different datasets due to changing numbers of care homes and their activity in respect of the metrics. For 999 data, 22 nursing homes and12 residential homes are in scope. For A&E data, 20 nursing homes and 12 residential homes are included. For NEL, 21nursing homes and 12 residential homes are covered. For LOS, 21 nursing homes and 12 residential homes are covered.

- where care homes closed or opened, the analysis has taken this into account by excluding homes that were not active
- in some cases the analysis takes into account the number of beds per care home by looking at change per bed.

5.7 Some care homes have residents with relatively uncomplicated needs. Other homes, both nursing and residential homes, have residents with more complex requirements, and hence may be more likely to attend A&E or have an unplanned admission to hospital. However, the analysis was unable to make allowance for the different levels of residents' needs.

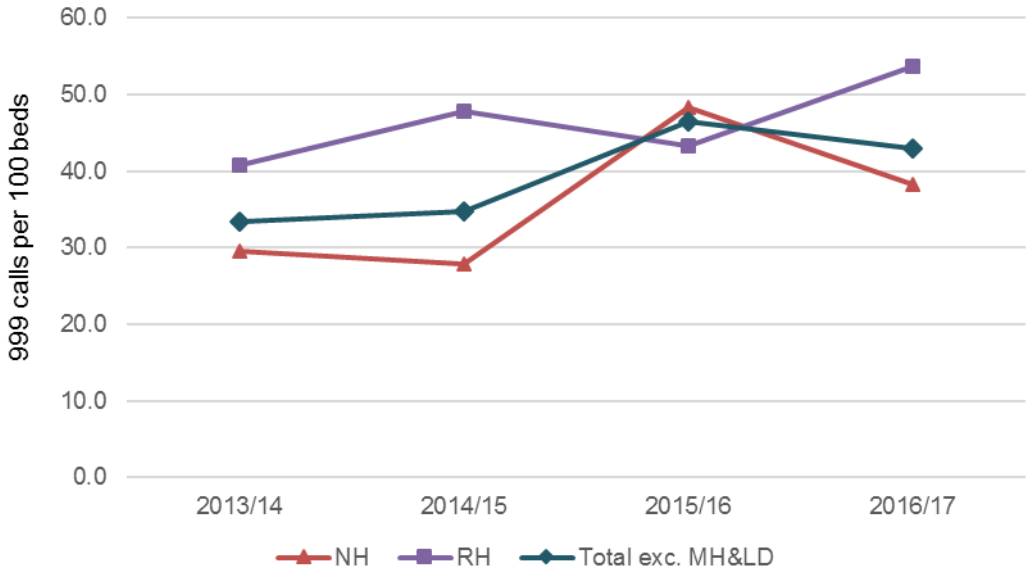
999 calls

5.8 Many of the Vanguard interventions were intended to upskill care home staff and increase their confidence in caring for residents, enabling them to both take preventative steps to avoid residents reaching a crisis and know about the range of options for dealing with different health issues. One anticipated outcome was therefore a reduction in the number of 999 calls.

5.9 Figure 5-1 shows that the number of 999 calls for people aged 65 and above per 100 beds[7] had been rising for nursing homes but had noticeably declined since the introduction of the Vanguard in 2015/16. This is an encouraging sign, especially when set against the rise in calls from residential homes: residential homes were less involved in the Vanguard at this point, so the same degree of change was not anticipated. While the Vanguard has tried to ensure some interventions are available to all Sutton care homes, for example the educational information resources and the Care Home Forum, the focus in the first year was nursing homes. It is only since autumn 2016 that attention has shifted to residential homes.

[7] The chart represents total activity (999 calls) for nursing homes and for residential homes, divided by the total number of beds for nursing homes and for residential homes respectively, taking account of homes that have opened and closed.

Figure 5-1: Number of 999 calls per 100 beds from Sutton nursing homes and residential homes over Q1 to Q3 for four years

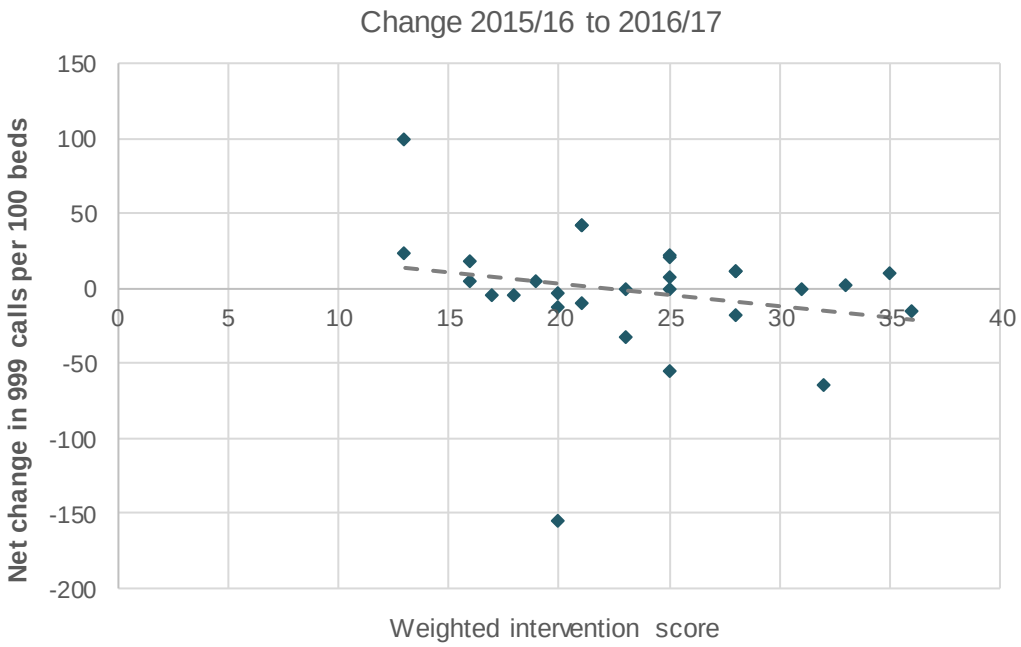


Source: SQW analysis of LAS data

5.10 However, we must be cautious in attributing the decline in 999 calls to the Vanguard. Analysis of the data against the weighted intervention scores for all care homes fails to show that there is a strong correlation between participation in Vanguard activity, and the most significant changes in the number of 999 calls[8]. In essence, a care home with a more substantial package of Vanguard interventions was *not* more likely to experience a greater decrease in 999 calls. In fact Figure 5-2 shows that of the three care homes with the highest weighted scores all experienced a small increase in 999 calls from 2015/16 to 2016/17. The r-squared valued of this chart is 4.8%, meaning the linear relationship between the change in 999 calls and the weighted intervention score explains only a small amount of the variation around the trendline.

[8] The r-squared value shows the percentage of variance explained by the linear relationship between two variables. The closer the value is to 1.0 or 100%, the greater the percentage of variance explained. A value close to zero or 0% means variance is not explained by the linear relationship between the variables.

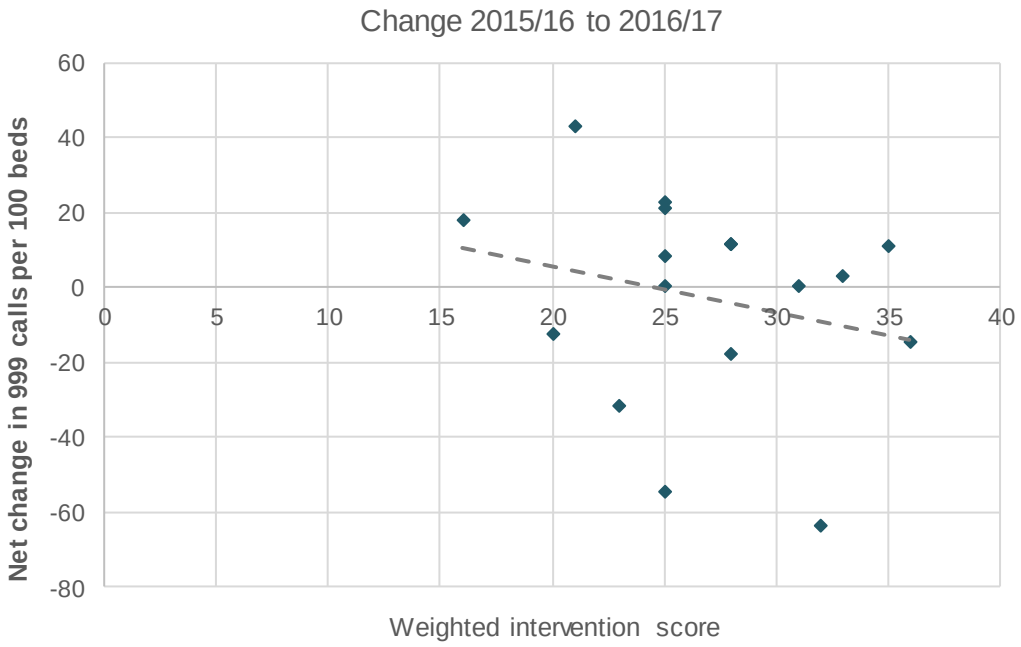
Figure 5-2: Net change in number of 999 calls per 100 beds in Sutton nursing homes and residential homes from 2015/16 to 2016/17 (over Q1-Q3) by weighted intervention score



Source: SQW analysis of LAS data

5.11 If the data for the nursing homes are disaggregated, the lack of correlation between the Vanguard and the change in 999 calls becomes more obvious (the r-squared value for Figure 5-3 is 5.9%). Figure 5-1 shows nursing homes experienced a significant increase in 999 calls from 2014/15 to 2015/16. Rather than the Vanguard being responsible for reducing the level of calls, it may be that 2015/16 was an anomaly, and 2016/17 saw a return to a more normal number of calls. In any case, the ambiguity evident in Figure 5-3 means there is insufficient evidence to attribute the reduction in 999 calls from nursing homes to Vanguard interventions.

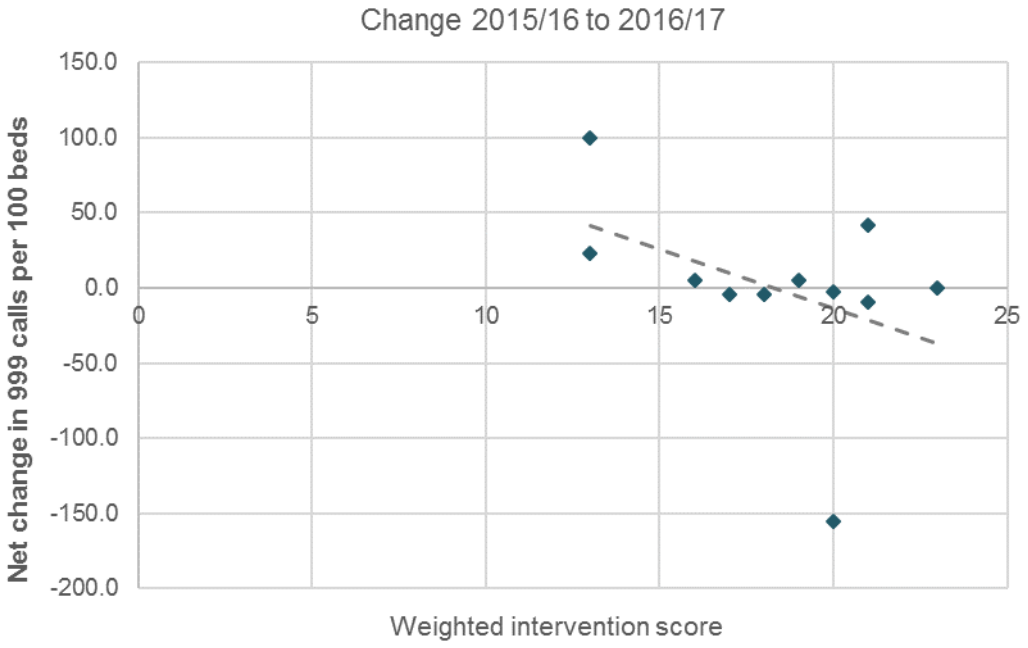
Figure 5-3: Net change in number of 999 calls per 100 beds in Sutton nursing homes from 2015/16 to 2016/17 (over Q1-Q3) by weighted intervention score



Source: SQW analysis of LAS data

5.12 The data for the net change in 999 calls for residential homes suggests a stronger correlation with the Vanguard interventions than it does for nursing homes. Figure 5-4 has a r-squared value of 17.9%. However, there are two significant outliers. If these are excluded, there is very little correlation between the weighted intervention score and a decrease in 999 calls.

Figure 5-4: Net change in number of 999 calls per 100 beds in Sutton residential homes from 2015/16 to 2016/17 (over Q1-Q3) by weighted intervention score

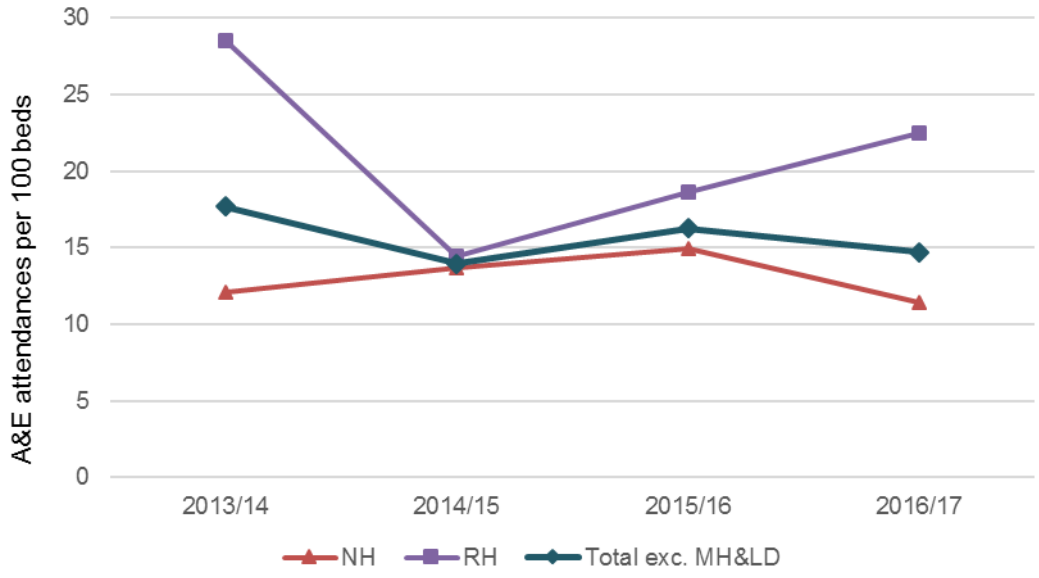


Source: SQW analysis of LAS data

A&E attendances

5.13 In the case of A&E attendances (where residents go to A&E and then return to the care home without being admitted to hospital) for people aged 65 and above, Figure 5-5 shows that A&E attendances per 100 beds from residential homes fell from 2013/14 but since then have risen sharply. For nursing homes, a more gradual rise in attendances from 2013/14 turned into a decline since the Vanguard was introduced in 2015/16. Again, the expectation was a stronger impact on attendances from nursing homes than residential homes as nursing homes had received more focus up until autumn 2016.

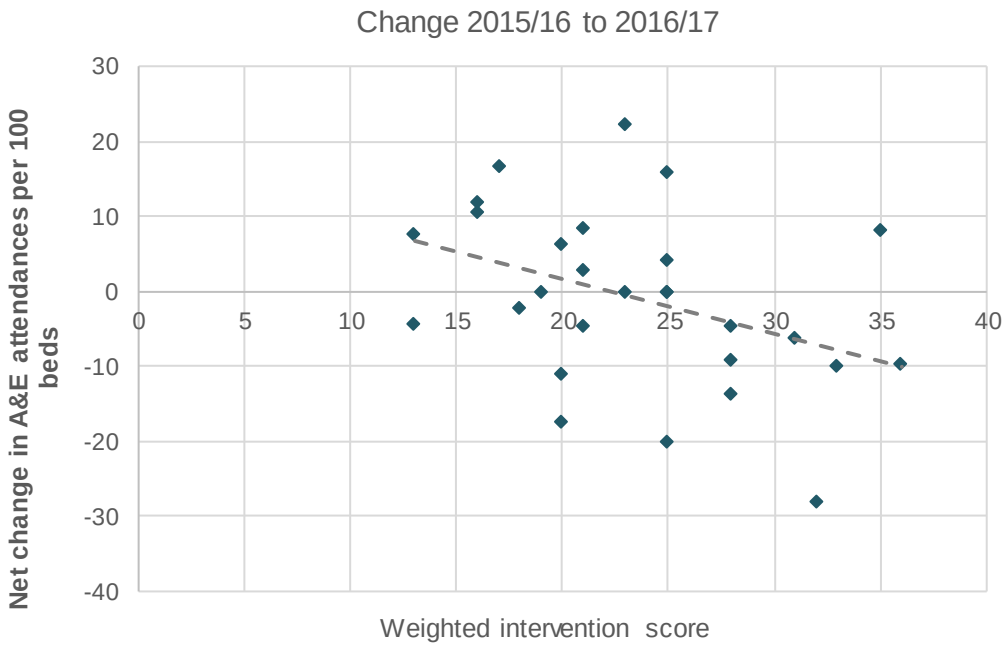
Figure 5-5: Number of A&E attendances from Sutton nursing homes and residential homes per 100 beds over Q1 to Q3 for four years



Source: SQW analysis of Epsom and St Helier UHT data

5.14 Comparison of changes in A&E attendances for both nursing homes and residential homes implies that there is a modest correlation between the intensity of Vanguard interventions and A&E attendances. Figure 5-6 indicates that there is one notable outlier with a score above 25. However, the other seven care homes with a score above 25 witnessed a decline in A&E attendances and the chart has an r-squared value of 15.5%.

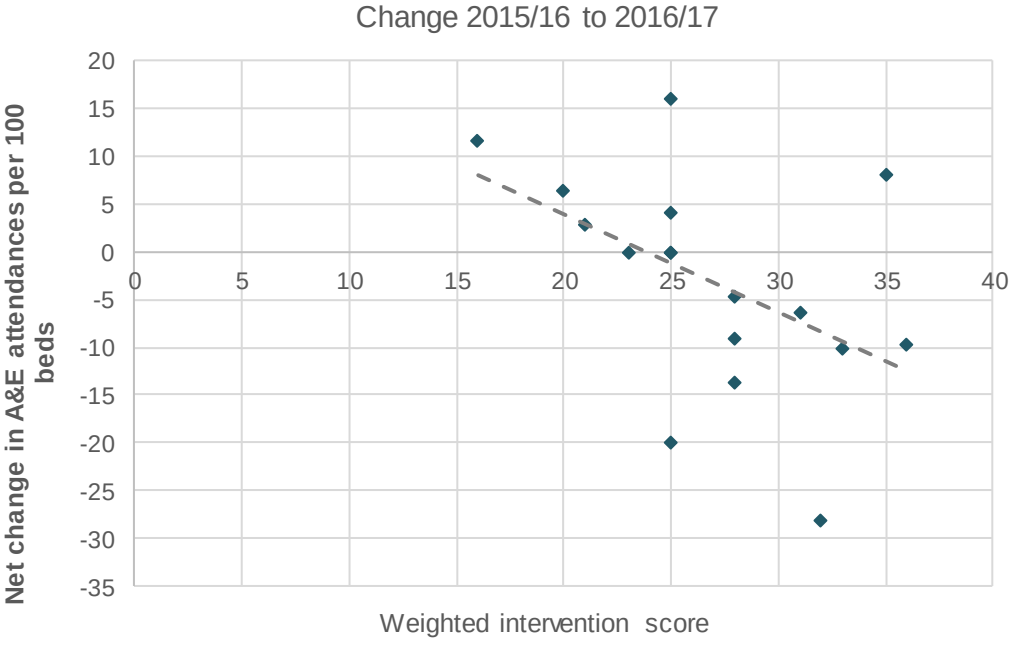
Figure 5-6: Net change in number of A&E attendances per 100 beds in Sutton nursing homes and residential homes from 2015/16 to 2016/17 (over Q1-Q3) by weighted intervention score



Source: SQW analysis of Epsom and St Helier UHT data

5.15 If we look only at the data for nursing homes by their weighted intervention scores, the correlation between the number of Vanguard interventions and a reduction in A&E attendances looks slightly stronger again, with five outliers against eleven data points falling on to or relatively close to the trendline. The visual correlation is supported by the respective r-squared values: Figure 5-6 above has a r-squared value of 15.5% and Figure 5-7 below has a value of 23.4%.

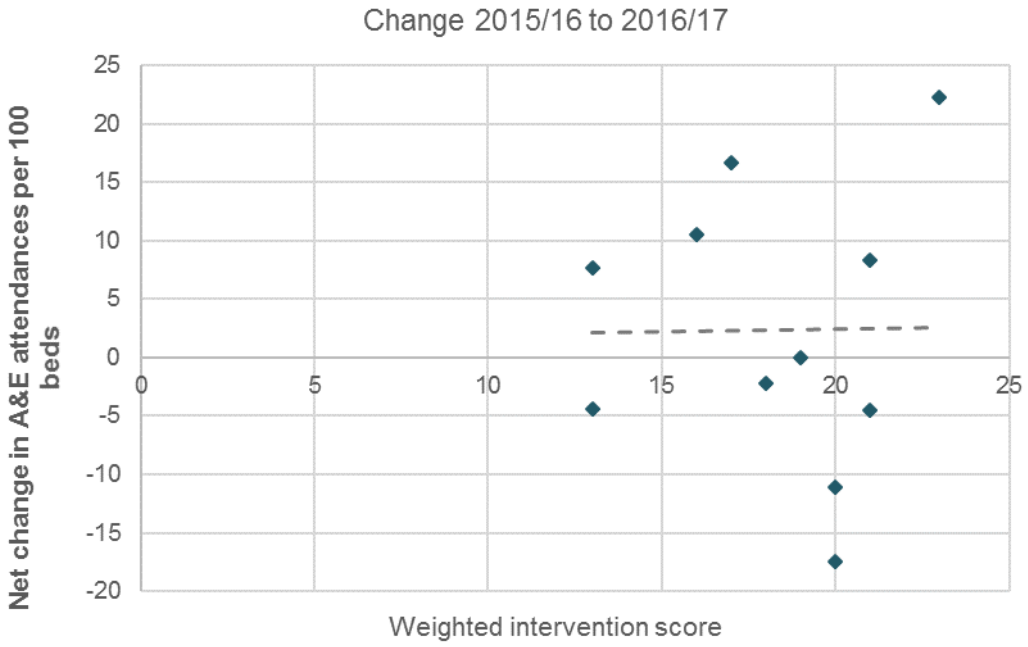
Figure 5-7: Net change in number of A&E attendances per 100 beds in Sutton nursing homes from 2015/16 to 2016/17 (over Q1-Q3) by weighted intervention score



Source: SQW analysis of Epsom and St Helier UHT data

5.16 The chart for residential homes (Figure 5-8) shows no correlation at all between Vanguard interventions and A&E attendances (and the r-squared value is 0.01%).

Figure 5-8: Net change in number of A&E attendances per 100 beds in Sutton residential homes from 2015/16 to 2016/17 (over Q1-Q3) by weighted intervention score

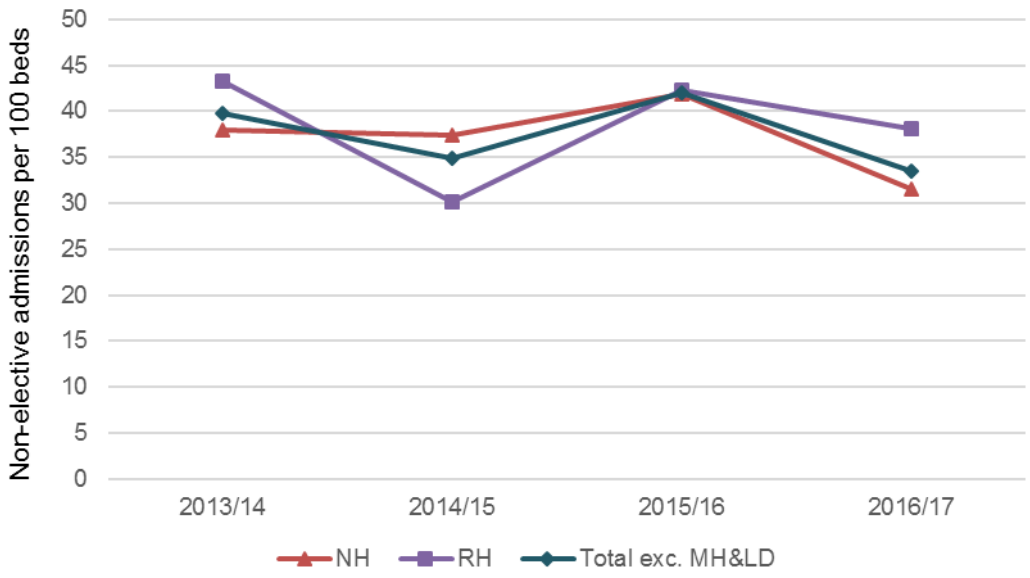


Source: SQW analysis of Epsom and St Helier UHT data

Non-elective admissions

5.17 Despite the fact 999 calls and A&E attendances rose from residential homes, the number of non-elective admissions from both residential homes and nursing homes has dropped since the Vanguard began. The drop was anticipated for nursing homes, given their precedence in receiving Vanguard interventions, but was not expected for residential homes. There are several interpretations of these data. First, the Vanguard may have had an influence through helping care home staff to better address residents' needs. For example, if care home staff are now using the reference cards to identify when residents are dehydrated and taking appropriate action, residents may avoid becoming dehydrated and risking an UTI or fall. It may be possible that the use of the Red Bag assisted ambulance and hospital staff to diagnose and treat a patient more readily, also avoiding the need for an admission. However, despite the drop in admissions from nursing homes and residential homes per 100 beds by 6.3 from 2013/14 to 2016/17, Figure 5-9 suggests that this could be fluctuation around an average rather than a trend driven by the Vanguard: the chart shows that, for nursing homes and residential homes, there was a fall in 2014/15, followed by a rise in 2015/16, followed by a fall in 2016/17. These fluctuations were of a similar magnitude.

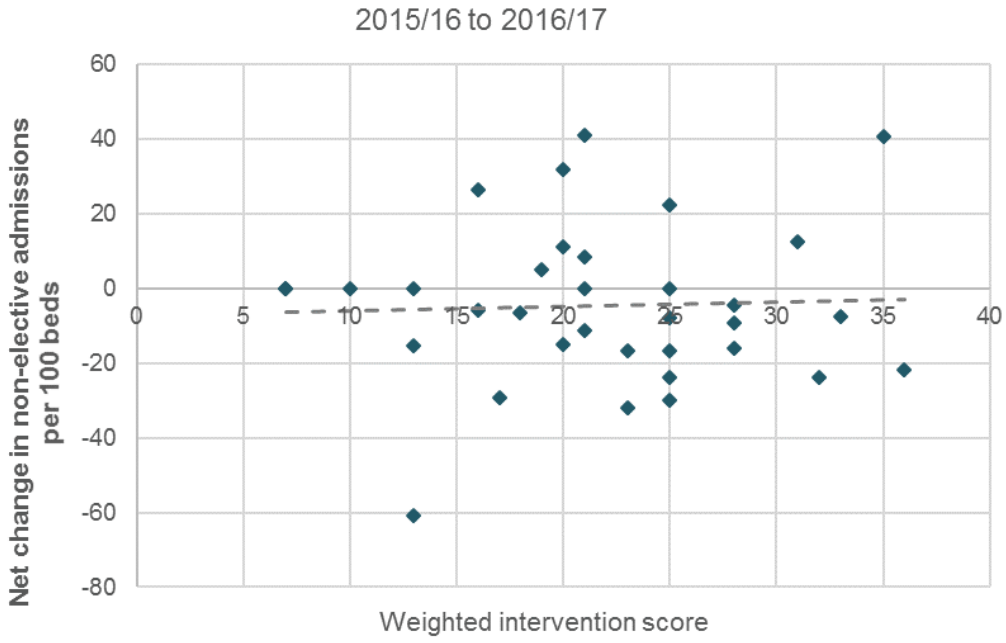
Figure 5-9: Number of NEL admissions from Sutton nursing homes and residential homes per 100 beds for Q1 to Q3 over four years



Source: SQW analysis of Epsom and St Helier UHT data

5.18 Analysis of the data by the weighted scores in Figure 5-10 indicates that care must be taken in attributing the reduction in admissions to Vanguard interventions. The wide variation around the trendline (and the r-squared value of 1.4%) implies there is a weak relationship between the intensity of Vanguard interventions and the change in admissions, or no relationship at all.

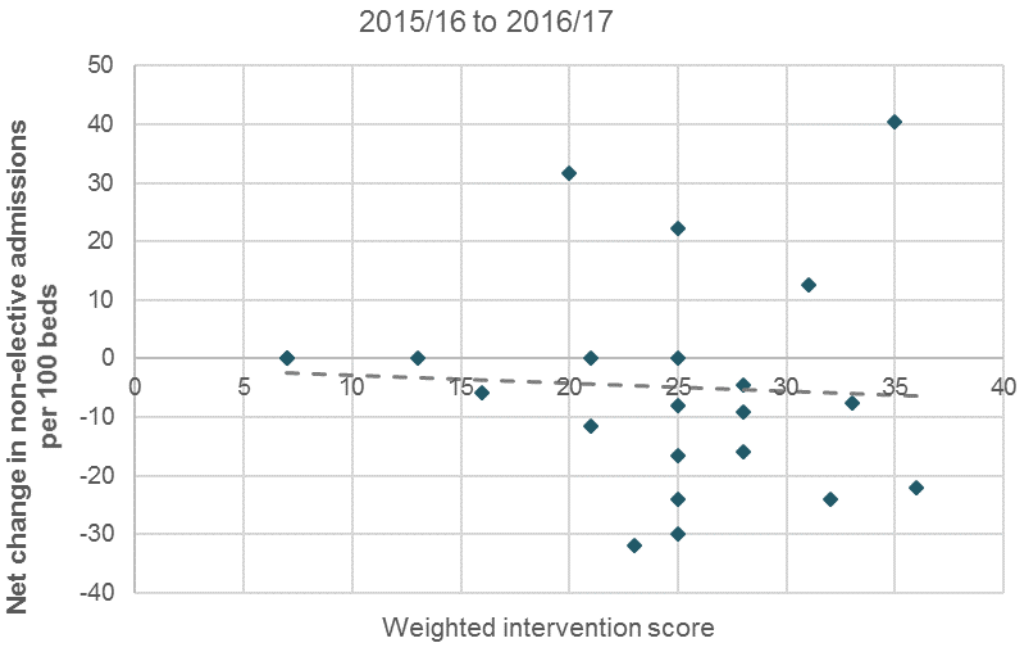
Figure 5-10: Net change in number of NEL admission per 100 beds in Sutton nursing homes and residential homes from 2015/16 to 2016/17 (over Q1-Q3) by weighted intervention score



Source: SQW analysis of Epsom and St Helier UHT data

5.19 The picture is still hard to interpret if the data for nursing homes are disaggregated, as in Figure 5-11. There is wide variation around the trendline. However, for those nursing homes with a weighted intervention score of 25 or above, 5 are above the trendline and 9 are below. Therefore, although the relationship is too weak to conclude that Vanguard interventions reduced NEL admissions from nursing homes, there is a suggestion that it is having an effect on some nursing homes.

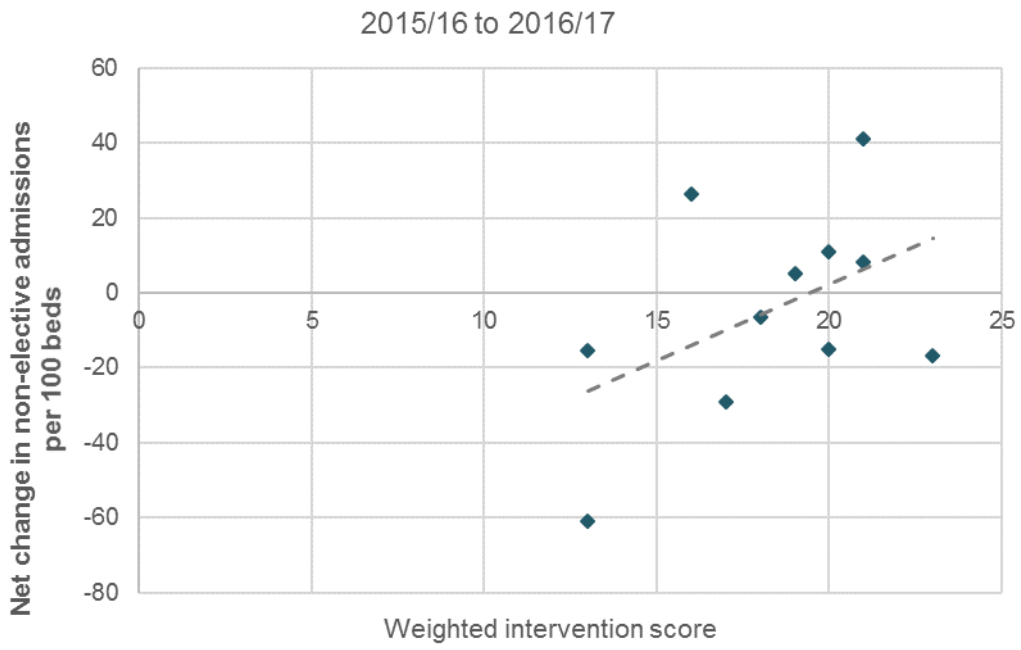
Figure 5-11: Net change in number of NEL admission per 100 beds in Sutton nursing homes from 2015/16 to 2016/17 (over Q1-Q3) by weighted intervention score



Source: SQW analysis of Epsom and St Helier UHT data

5.20 It is more difficult to discern a pattern in Figure 5-12, which displays changes in admissions from residential homes against their weighted intervention scores, and which is based on a small number of data points. However, as noted previously, given the interventions and focus on residential homes to date, a marked improvement in admission rates from residential homes was not expected by this point.

Figure 5-12: Net change in number of NEL admission per 100 beds in Sutton residential homes from 2015/16 to 2016/17 (over Q1-Q3) by weighted intervention score



Source: SQW analysis of Epsom and St Helier UHT data

Best and worst performers

5.21 The 999 calls, A&E attendances and NEL admissions charts only show how care homes with different intervention scores perform on these metrics. They do not show whether a particular care home or particular group of care homes does well, or badly, on more than one of these measures. Analysis was undertaken to compare the top five care homes experiencing the greatest reduction in 999 calls, A&E attendances and admissions alongside the care homes experiencing the greatest increase on these metrics (see tables in Annex F:).

5.22 There is a lack of consistency in care home performance across the key metrics. Few homes feature consistently as achieving high performance across the three metrics: one nursing home and one residential home achieved the top five reductions in 999 calls, A&E attendances and NEL admissions for their care home type. Similarly, one nursing home and one residential home scored in the bottom five for all three metrics. However, several homes feature as one of the top five performers for one or two metrics and in the bottom five for another metric. For example, one home is the highest performing nursing home for reducing 999 calls but the lowest performer in terms of reducing A&E attendances.

5.23 There are no clear patterns in respect of the interventions shared by the best performers and worst performers. It is perhaps notable that the most intensive intervention, the Health and Wellbeing Rounds in Nursing Homes, was not received by every high scoring home and indeed some of the lowest performing homes received this intervention. The two interventions that seem to distinguish some of the top performing nursing homes from the lowest performing nursing homes are the care home pharmacist and the Red Bag, as differences in uptake of these interventions constituted the most obvious differences between the best and worst performers (see Table 5-2). This is most notable in respect of the care home pharmacist, as by the time of writing this report, 16 of the 22 nursing homes within scope of the evaluation had

been visited (of the 22 nursing homes in Sutton, 18 are within the CCG and within the pharmacist's scope, and four are outside). The presence of a number of nursing homes that did not have the care home pharmacist in the bottom five performers and their absence in the top five performers suggests that the pharmacist makes a difference to resident outcomes in nursing homes. There did not appear to be any interventions that were more commonly shared by top performing or low performing residential homes.

Table 5-2: Uptake of Vanguard interventions for top and bottom nursing homes performers on key metrics

	Did not use care home pharmacist	Did not use Red Bag
Top 5 performers on 999 calls		1
Top 5 performers on A&E attendances		
Top 5 performers on NEL admissions	1	
Bottom 5 performers on 999 calls	3	1
Bottom 5 performers on A&E attendances	2	1
Bottom 5 performers on NEL admissions	1	2

Source: SQW analysis

5.24 The mean intervention score of top and low performing care homes on the different metrics also suggests the top performing nursing homes have a similar degree of Vanguard intervention compared to the bottom performing nursing homes, whereas top and bottom performing residential home are not differentiated by their degree of interaction with the Vanguard.

Table 5-3: Average weighted intervention scores for top and bottom performing care homes

Nursing homes	Average weighted intervention score	Residential homes	Average weighted intervention score
Top 5 performers on 999 calls	28.2	Top 5 performers on 999 calls	18.4
Top 5 performers on A&E attendances	30.8	Top 5 performers on A&E attendances	18.4
Top 5 performers on NEL admissions	28.2	Top 5 performers on NEL admissions	17.2
Bottom 5 performers on 999 calls	24	Bottom 5 performers on 999 calls	17.8
Bottom 5 performers on A&E attendances	24.2	Bottom 5 performers on A&E attendances	18
Bottom 5 performers on NEL admissions	27.8	Bottom 5 performers on NEL admissions	19.4

Source: SQW

5.25 On the basis of these figures, it could be reasonably hypothesised that the package of interventions had less of an effect on the performance of residential homes than of nursing homes. This chimes with the analysis of the weighted intervention scores in the charts above. Additionally, it could be concluded that, for nursing homes, real performance improvements

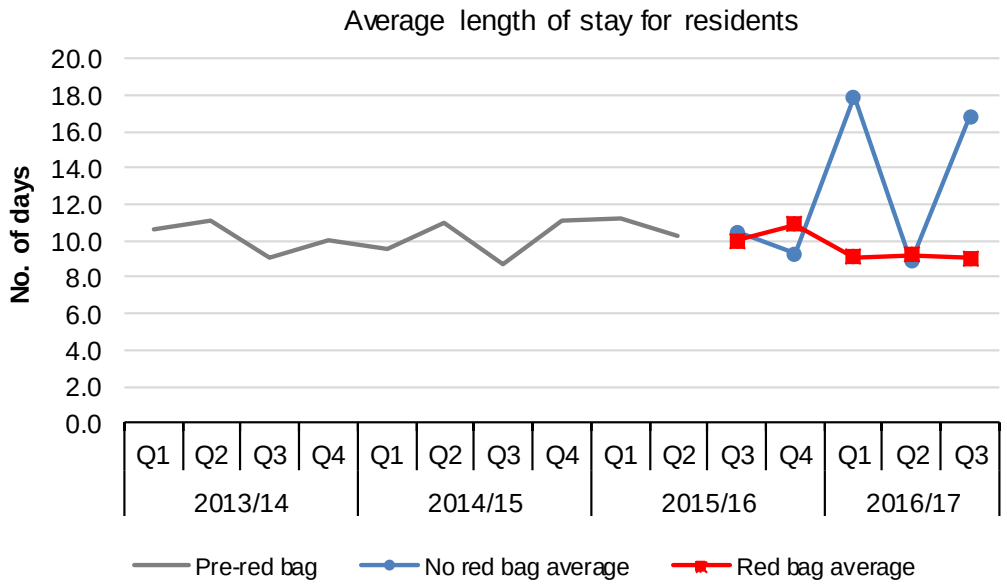
seemed more common above a certain intense degree of intervention, which often included being visited by the care home pharmacist and the use of the Red Bag.

Length of Stay

5.26 The final system metric the Vanguard hoped to influence was the length of stay, that is the number of days a care home resident spent in hospital during a NEL admission. The Red Bag was specifically designed to reduce residents' time in hospital through providing hospital and ambulance staff with better access to information about a resident such that diagnosis, treatment and discharge could be undertaken more efficiently.

5.27 Figure 5-13 indicates that the Vanguard appears to have been successful in reducing the length of stay (LOS) for care home residents. For the period from December 2015 to December 2016, residents from a care home using the Red Bag stayed an average of 9.4 days in hospital compared to 12 days for residents of care homes not using the Red Bag (based on 298 Red Bag stays and 180 non-Red Bag stays). This compares to 10.2 days for residents of all care homes prior to the introduction of the Red Bag. Note that the data are simply for residents who live in a care home using the Red Bag: it is not known whether, for each admission, the resident was sent with a Red Bag complete with all relevant paperwork. Further, the two groups of care homes with 'no Red Bag' and 'Red Bag' are not constant: as a care home began using the Red Bag it was moved from the 'no Red Bag' group to the 'Red Bag' group.[9]

Figure 5-13: Average length of stay for Sutton nursing homes and residential homes residents from April 2013 to December 2016

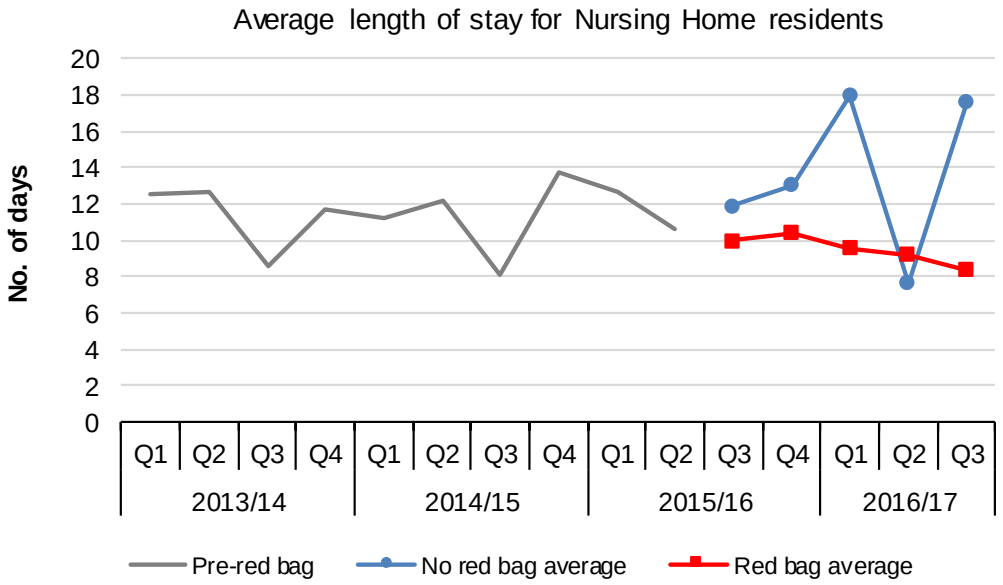


[9] For the Red Bag group, Q3 2015/16 data is based on 3 stays between 2 homes. Q3 2016/17 is based on 105 stays between 21 homes. For the non Red Bag group, Q3 2015/16 data is based on 112 stays between 31 homes. 2016/17 Q4 is based on 23 stays between 12 homes. The point at which there were more homes in the Red Bag group than the non Red Bag group occurred during Q1 2016/17.

Source: SQW analysis of Epsom and St Helier UHT data

5.28 If we consider only residents admitted to hospital from nursing homes, from December 2015 to December 2016, those from a nursing homes using the Red Bag stayed an average of 9.2 days in hospital compared to 14 days for residents of nursing homes not using the Red Bag (based on 210 Red Bag stays and 96 non-Red Bag stays). This compares favourably to an average of 11.2 days for all nursing home residents prior to the introduction of the Red Bag. Figure 5-14 shows this change.

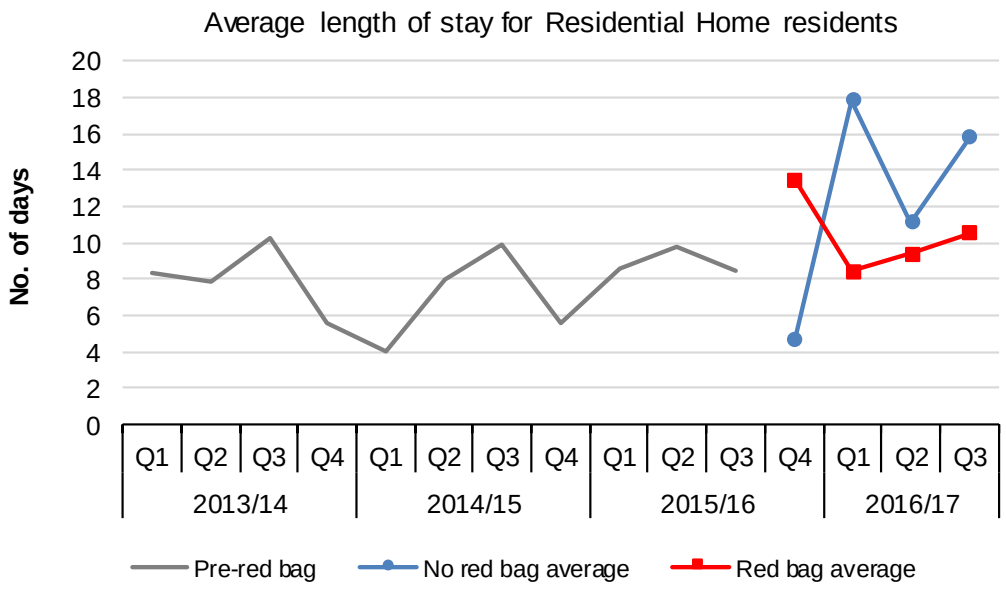
Figure 5-14: Average length of stay for Sutton nursing home residents from April 2013 to December 2016



Source: SQW analysis of Epsom and St Helier UHT data

5.29 If we consider only residents admitted to hospital from residential homes, from December 2015 to December 2016, those using the Red Bag stayed an average of 9.8 days in hospital compared to 9.6 days for residents of residential homes not using the Red Bag (based on 88 Red Bag stays and 84 non-Red Bag stays). Neither of these figures compares well against the average LOS for a residential homes resident prior to the introduction of the Red Bag, 8.2 days. Figure 5-15 shows this change.

Figure 5-15: Average length of stay for Sutton residential homes residents from April 2013 to December 2016



Source: SQW analysis of Epsom and St Helier UHT data

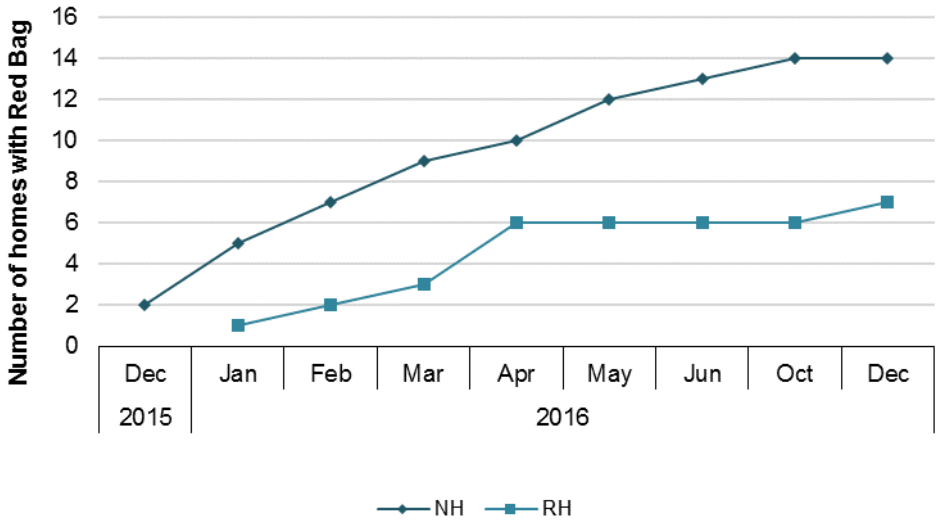
5.30 An analysis of the p-values for LOS data yields the following values: 0.03 for nursing homes, 0.94 for residential homes and 0.09 overall. P-values are an indication of statistical significance. Simply, if the p-value is less than or equal to the significance level (typically 0.05), then it is statistically significant, that is there is reasonable evidence to suggest the intervention has had an effect.[10] These p-values therefore indicate that the reduction in LOS for residents of nursing homes is statistically significant, whereas it was not for residential homes.

5.31 It appears that the Red Bag intervention has been more effective at delivering on its aim to reduce LOS in nursing homes than residential homes. It is likely that the differential impact arises from key differences between nursing and residential homes. Nursing homes are able to provide comprehensive clinical information on the standard paperwork that goes into a resident's Red Bag. Residential homes are limited on the level of clinical information they can provide on the paperwork. Clinicians managing the care of nursing home residents with a Red Bag therefore have ready access to more information than clinicians managing the care of residential home residents with a Red Bag, enabling nursing home residents to access more rapid diagnosis and treatment than residential home residents. It may also be the case that, as a number of consultees observed, the Red Bag improved relationships between hospital staff

[10] The longer explanation is that if the P value is less than or equal to the significance level, you reject the null hypothesis (usually a hypothesis of no difference) and conclude statistical significance. In other words, there is reasonable evidence to suggest the intervention has had an effect (rather than no effect). If the P value is greater than the significance level, you retain the null hypothesis and conclude no statistical significance. In other words, the evidence is not strong enough to suggest the intervention has had an effect. The significance level is usually 0.05 (less than 1 in 20 chance of it being wrong), 0.01(less than one in a hundred chance of it being wrong), or 0.001 (less than one in a thousand chance of being wrong). 0.05 usually indicates statistical significance, and 0.001 indicates high statistical significance.

and care home staff. This could have contributed to hospital staff having greater confidence in caring for and discharging residents. The chart below (Figure 5-16) indicates that the rollout of the Red Bag has been somewhat quicker in nursing homes than residential homes, meaning nursing homes have generally been using the Red Bag for longer than residential homes and thus had longer to improve those key relationships.

Figure 5-16: Number of nursing and residential homes using the Red Bag from December 2015 to December 2016



Source: SQW analysis of Epsom and St Helier UHT data

5.32 As nursing home residents have more NEL admissions than residential home residents (see Table 5-4), there is also greater opportunity for nursing home staff to use the Red Bag, improve their relationships with hospital staff and facilitate better care for residents, including faster discharge.

Table 5-4: Number of Red Bag and non-Red Bag stays for Sutton nursing and residential homes residents from December 2015 to December 2016

	Non-Red Bag stays	Red Bag stays	Total stays
Nursing homes	96	210	306
Residential homes	84	88	172

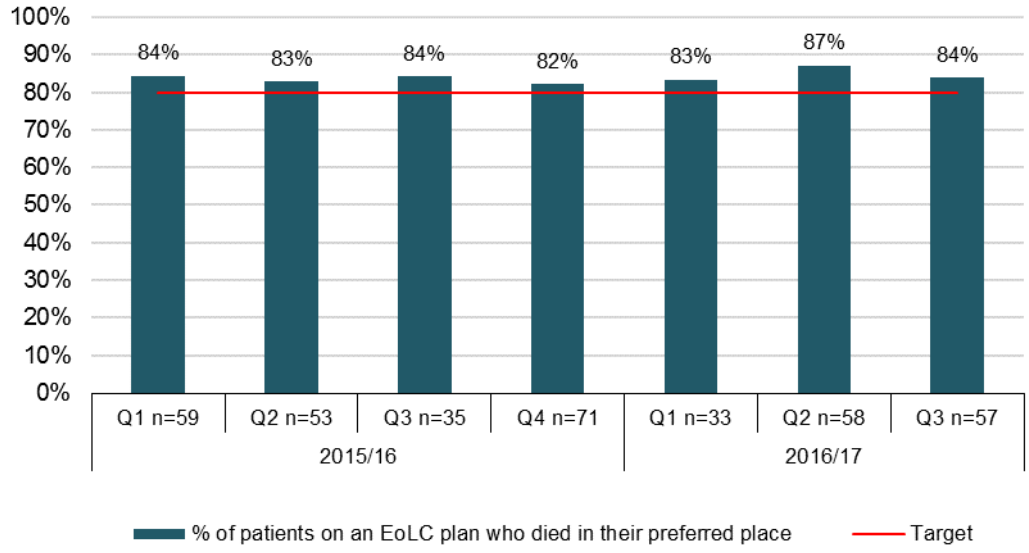
Source: SQW analysis of Epsom and St Helier UHT data

Preferred Place of Death

5.33 The number of residents dying in their preferred place of death was seen by all parties (Vanguard and partner staff, care home staff and families/friends/carers) as being an important measure of the quality of care provided to care home residents in Sutton. However, the data need to be treated with caution as they only represent the small number of Sutton care home residents who die each month, which makes them vulnerable to outliers and fluctuations.

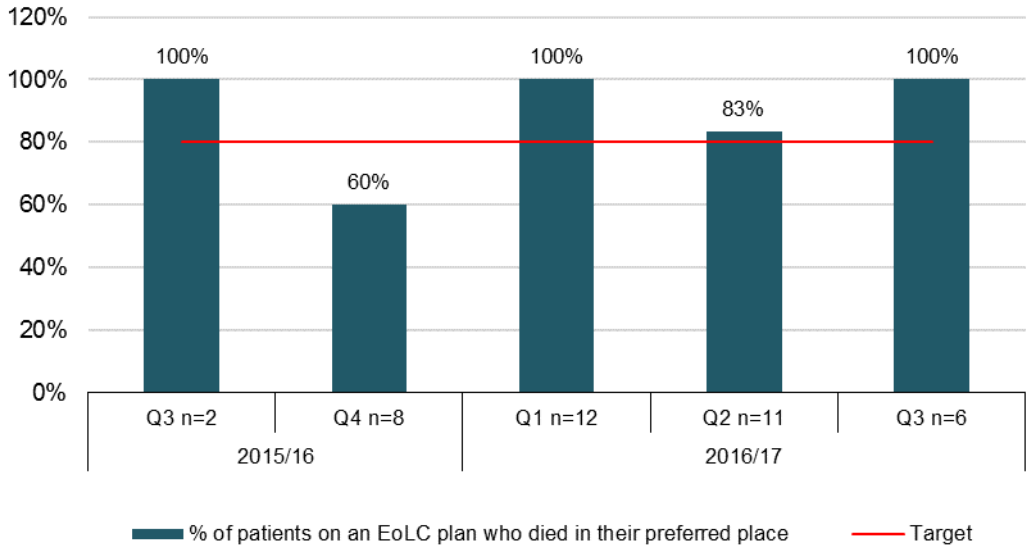
5.34 For Sutton's nursing home residents, the proportion of residents dying in their PPOD has been consistent over the past two years with no statistically significant variations (see Figure 5-17). For residential homes residents, the proportion dying in their preferred place of death has fluctuated more, although this is based on a smaller number of deaths per month (see Figure 5-18). At this stage, there are probably too few data to draw any meaningful conclusions in relation to the Vanguard's impact on residents achieving PPOD.

Figure 5-17: Percentage of nursing homes residents on an EoLC plan dying in their preferred place of death, 2015/16 to 2016/17



Source: SQW analysis of Supportive Care Home team data

Figure 5-18: Percentage of residential homes residents on an EoLC plan dying in their preferred place of death, 2015/16 to 2016/17



Source: SQW analysis of Supportive Care Home team data

Emerging conclusions from quantitative data

5.35 At this point, comparing three-quarters of the relevant financial years, the data show that following the introduction of the Vanguard, 999 calls and A&E attendances reduced for nursing homes, which were the focus of the Vanguard's early interventions. NEL admissions have fallen for both nursing homes and residential homes. LOS has also reduced for residents of nursing homes using the Red Bag. Analysis of performance on these metrics against the weighted intervention scores for care homes indicates some correlation between Vanguard interventions and the performance of nursing homes but not residential homes. Comparison of top and bottom performers on the key metrics, gives further support to the hypothesis that the package of Vanguard interventions had some effect on the performance of nursing homes but not that of residential homes. Further, it seems that real performance improvements seemed more common in nursing homes above a certain intense degree of intervention, typically including the care home pharmacist and the Red Bag interventions (note that as the majority of nursing homes had these two interventions, 16 and 14 respectively of 22 nursing homes, it is more notable that the nursing homes that did not have them ranked as the lowest performers on the key metrics).

5.36 The table below summarises these findings.

Table 5-5: Sutton performance on key metrics and attribution to weighted intervention score for nursing and residential homes

	Nursing homes		Residential homes		Overall
	Change	*Attribution*	*Change*	*Attribution*	*Change*
999 calls	↓	Low	↑	None	↓
A&E attendance	↓	Moderate	↑	None	↓
NEL admissions	↓	Low	↓	None	↓
LOS	↓	Moderate[11]	↔	None[12]	↓

Source: SQW

5.37 Overall, the data present a positive impact for the residents of Sutton's care homes, particularly those in nursing homes. The evidence linking the metric changes to the weighted intervention score (and thus the Vanguard) is mixed. For A&E attendances and LOS in nursing homes, and to a lesser extent 999 calls and NEL admissions, there is a correlation. For residential homes, attribution of changes in performance to the Vanguard is uncertain.

Qualitative outcomes and impact…

5.38 Alongside quantitative analysis of data, the evaluation undertook analysis of qualitative data. This data was gathered through consultations with operational staff; discussion groups with strategic staff, care home managers, care home staff and families and friends of residents; as

[11] P-value is 0.03 (statistical significance is defined by a p-value less than or equal to 0.05).
[12] P-value is 0.94 (not statistically significant).

well as a care home staff survey and a families and friends survey (details of consultees, discussion groups and surveys included at Annex G: and the full set of research tasks is listed at Annex C:). It is worth noting that the Vanguard's products are not branded with a Vanguard logo but with the logo of the relevant partners, which means some consultees would not have been aware that some initiatives were funded by the Vanguard.

5.39 The intention behind these fieldwork assignments was to better understand the context in which the Vanguard was operating, some of the processes by which things were done, and, importantly, gain qualitative information on the outcomes for residents, families/friends/carers, care home staff and managers, and the wider workforce such as community services. This section uses the qualitative data to report on these outcomes for each of the groups of people.

…for care home staff and managers

5.40 In line with the strongest focus of Vanguard activity, the majority of feedback on outcomes related to care home staff, including managers. Two-thirds (66%) of respondents (staff and managers) to the care home staff survey said they had changed their practice a lot or a little as a result of the Vanguard and 64% said it had increased their confidence in caring for residents a lot or a little. While there may be an element of selection bias in respect of those who replied to the care home staff survey, this is an encouraging finding. Further, 62% said it improved their job satisfaction. Care home managers also agreed that their staff had improved their skills and confidence through interaction with the Vanguard. One outcome of these changes was that staff (not managers) took more initiative in delivering care to residents, for example by setting up drinks stations to keep residents hydrated.

5.41 Care home staff themselves, including managers, most valued the Red Bag and the Concerned About a Resident poster followed by the Care Home Forum and the reference cards. Alongside the qualitative responses to the survey and feedback in consultations, it is clear that care home staff, including managers, valued the initiatives that dealt with their most significant concerns, namely dealing with other healthcare professionals and seeking support with regard to resident care. The value of the Red Bag initiative in improving relationships with ambulance and hospital staff was mentioned by several individuals:

> *"We have used the pathway and seen residents return sooner, sometimes not with all the paperwork but our relationship with the local hospital has improved - by this simple pathway."* [Respondent to care home staff survey]

5.42 Vanguard and partner staff had also observed the increase in trust between care home staff and paramedics as a consequence of the Red Bag. The positive feedback on the Red Bag chimes with the findings from the quantitative analysis that identified the Red Bag as an intervention correlated with greater impact on system metrics. The other initiatives mentioned by staff, the Concerned About a Resident poster, the Care Home Forum and the reference cards, were not picked up as significant by the quantitative analysis.

5.43 The discussions with care home staff provided more feedback on the value of the Care Home Support Team, which was not mentioned much in the staff survey. In the words of one member of staff the support system "*is like having a big sister.*" Another said, "*I feel I'm not alone*". As some of the Vanguard staff remarked, care home staff can be isolated from the wider

health and social care system. The change engendered in Sutton is a move towards one of the Vanguard's key aims, bringing care homes into the health and social system as a true partner. The value placed on the Care Home Forum indicates that, rather than being a 'talking shop', care home staff appreciated the opportunity to engage with other organisations and professionals on an equal footing. The Forum was described as establishing a network that was developing into a community. One care home staff member also observed that the Vanguard had improved team working within their care home. Feedback on the link nurse was mixed, with some staff valuing the bespoke training offered but other staff reporting that they had limited contact with the link nurse.

5.44 The emphasis upon building positive and productive relationships is a defining feature of the Vanguard, supported by feedback from all quarters. While some of this work involved paying for clinical staff time, for example the link nurses, much of it was about low-cost engagement activities such as the Care Home Forums, that draw mainly upon management time and commitment. The importance of these activities to those involved should not be underestimated: one care home manager spoke enthusiastically about the impact of the 'Fabulous Awards', which recognised the achievements and commitment of people involved in the Vanguard, for staff who typically feel overlooked and undervalued. The quantitative analysis was not able to identify the impact of these elements of the Vanguard. Nevertheless, they appear to have significant value for care home staff, and thus have value as enabling factors for the Vanguard as a whole.

5.45 The caveat to this positive story is that staff turnover means sustained effort needs to be put into building new relationships as well as nurturing existing relationships. Care home managers who had not been in Sutton for long were not aware of all the forms of support available from the Vanguard.

5.46 It was evident from several sources that there were challenges in delivering the Vanguard interventions to care home staff, particularly care home nurses and care workers rather than managers. In particular, finding the time for staff (not managers) to attend events such as the care home forums or specific training, or even to complete the e-learning modules, was difficult for care homes operating on tight margins with minimal staff capacity beyond directly caring for residents. The 'on the job' opportunities for training offered by the link nurse, the Supportive Care Home team nurses and the resources, were therefore appreciated. It was also sometimes challenging for the Vanguard to communicate with care homes that do not use email as standard.

…for the wider workforce

5.47 Feedback on the wider workforce, that is the other organisations involved in resident care in Sutton such as community services, the local hospital and the ambulance service, was mainly obtained indirectly through consultees' observations relating to their interaction with care homes. In the main, consultees reported that the Vanguard had benefitted the wider workforce, by improving their relationships with care home staff and managers. The consequence of improved relationships has been more collegiate working, with staff from different organisations trying to solve problems jointly.

5.48 The key interaction between the hospital, the LAS and care homes is when a resident has to go to A&E. The Red Bag initiative was designed to improve this interaction by ensuring an

efficient and effective handover of the resident from care home to paramedic to hospital, and vice versa. Feedback from hospital and ambulance staff was broadly positive about the introduction of the Red Bag, signalling that it has achieved its main aim and has saved time for the paramedics and hospital in seeking information about residents as well as improving perceptions of care homes.

…for residents

5.49 The majority of consultees, from strategic staff to care home staff to families, considered it difficult to ascertain the impact of the Vanguard on residents. This was explained in two ways. First, most of the Vanguard interventions had not been directly focused on improving resident experience. Rather, they were aimed at improving the skills and confidence of care home staff to care for residents, improving intelligence about the quality of care in Sutton's care homes and increasing access to other healthcare professionals. It was acknowledged that these interventions are intended to improve resident experience but that in some cases it would take time for improvements to take effect. Second, many residents, particularly in nursing homes, also lack the capacity to clearly express their own view of their experience.

5.50 Nonetheless, two-thirds (66%) of respondents (n=49) to the care home staff survey reported that they believed the Vanguard had improved residents' experience and about half (52%) of respondents to the family survey (n=23) reported that they thought the care their relative/friend received had improved during their time at the home.

5.51 However, families found it hard to attribute improvements in their relative to the Vanguard, as they were not able to easily identify Vanguard interventions. The most visible initiative had been the Red Bag, and those who were aware of it thought it was a useful approach. One in five (22%) of respondents stated that there had been improvements related to planning around hospital admissions.

> *"My Mum woke up one morning, said she didn't feel well. So they rang me to say they were taking her to hospital … I went down to A&E and she was there with her red bag … They asked me what medication she was on, and it was like 'Erm' … And then they opened the red bag and everything was in there."* [Family discussion group participant]

5.52 One family member noted that the usefulness of the Red Bag was restricted to those healthcare staff who were aware of the intervention.

> *"From the Home, to the ambulance, to A&E was perfect, because they had all the information. It was after that [when she was admitted to a ward] they didn't realise there was a red bag, the information wasn't passed on … The bag was always by her head, but I don't think they understood what it meant*." [Family discussion group participant]

5.53 Families also expressed appreciation of the growing access to other healthcare professionals in the care home staff survey (such as GPs), while balancing that with concerns for other aspects of resident experience and wellbeing, particularly a lack of physical activity.

5.54 Care home staff (not managers) reported a mixed picture in terms of improving resident experience. While some cited reductions in length of stay and A&E attendances, a significant minority could not pinpoint specific improvements or rejected the idea that the Vanguard had been responsible for improvements.

> *"It has not reduced A&E admissions neither has it reduced length of stay in hospital. The residents sent to hospital were seriously unwell and we are very unlikely to send residents for minor ailments."* [Respondent to care home staff survey]

5.55 Care home managers and Vanguard staff were much more positive than care home staff (not managers) about the impact the Vanguard had made for residents, citing improvements in all the key impact metrics.

…for families/friends/carers

5.56 Families/friends/carers had not been a key focus of the Vanguard. The Cake, Cuppa, Chat initiative was the main way in which they were brought into the programme. Nevertheless, two in five care home staff (in response to the care home staff survey) thought the Vanguard had a positive impact on families'/friends'/carers' sense of empowerment and control (14% of care home staff thought it had improved it a lot and 27% thought it had improved it a little). It is unlikely that this degree of improvement could have been generated by the Cake, Cuppa, Chat initiative alone, as it only took place in six care homes. It is more probable that the care home staff reporting improvements felt more confident about engaging families/friends/carers than prior to the Vanguard as a result of the training and resources that had been made available to them.

5.57 In addition, two-fifths (43%) of respondents to the family survey commented that they had felt more involved in their relative's/friend's care over the past year, although this was not necessarily attributed to Vanguard intervention.

Emerging conclusions from qualitative data

5.58 The largest part of the feedback, from all types of consultees, suggested that care home staff have benefitted from Vanguard interventions. Staff have gained skills and confidence through the Red Bag, the increased access to support from the Care Home Support team and the information resources provided.

5.59 There was also a significant amount of feedback about the positive cultural changes facilitated by the Vanguard, directly through engagement initiatives such as the Care Home Forum, and indirectly through establishing new working practices between care homes and the wider workforce like the Hospital Transfer Pathway (the Red Bag).

5.60 The qualitative data indicates that there are some early signs of improvements for residents in terms of not having to go so frequently to hospital or stay so long once there, while recognising that there are other issues affecting resident experience such as physical activity that have not been the focus of the Vanguard.

5.61 The weight of evidence on care home staff skills and confidence should be welcome to the Vanguard, given this was the major focus of much of the Vanguard activity. Similarly, the limited evidence on improved resident experience, particularly in as far as consultees were cautious about attributing change to the Vanguard, should not be viewed as too discouraging. There are a number of intermediate steps between Vanguard interventions, improved care home staff skills and experience and improved resident experience that mean it could be too early to observe a causal link. It may also simply be difficult for an observer to make these

connections confidently, particularly as the Vanguard was not branded and some interventions were started prior to the Vanguard.

Economic evaluation

Costs

5.62 The overall full amount of funding for the Vanguard programme in 2016/17 was £1.05m, comprising £563,000 from NHSE and £490,000 from local contributions (Table 5-6). The local contributions from Sutton CCG and its key partners largely consisted of staff time along with some IT and office costs. Actual spend for 2016/17 was not available for the full year at the time of writing (March 2017). Table 5-6 shows a summary of the outturn forecast for Vanguard spend. Of the NHSE funding, £358,000 was spent directly on Vanguard interventions and £205,000 was allocated to Vanguard programme staff costs. The Care Home Support Team (the link nurses, Supportive Care Home Team nurses and care home pharmacist) and the Health and Wellbeing Rounds accounted for 96% of the NHSE Vanguard funding available for direct interventions. These interventions paid for clinical staff time: GPs for the Health and Wellbeing Rounds, bank community nurses, Supportive Care Home team nurses and a pharmacist.

Table 5-6: Total Vanguard spend 2016/17

Description of cost	Forecast cost in £
NHSE core Vanguard award	**£562,667**
Interventions	*£357,853*
Care Home Support Team	£255,253
Health and Wellbeing Rounds	£87,400
Quality Dashboard	£5,000
Alzheimer's and Dementia Diagnosis and Support[13]	£5,000
E-Learning Packages	£2,700
Clinical Champions in Care Homes	£2,000
Care Home Forum	£500
Programme staff	*£204,814*
Programme Director	£82,964
Project Manager	£50,157
Engagement (CSU comms lead)	£40,000
Admin Support	£17,693
GP Clinical Lead	£8,000

[13] In addition to the £5,000 from the 2016/17 funding, the Alzheimer's Society was paid £50,000 from the 2015/16 funding for delivery of this intervention in 2016/17.

Description of cost	Forecast cost in £
Quality Assurance Manager	£6,000
Local contributions	**£490,420**
Care Home Clinical Support Staff	£163,010
Quality Assurance Manager	£70,077
Steering Group	£62,168
JIG Support	£43,141
Strategic lead	£39,382
Workstream Group	£36,440
Care Home Forum	£11,846
GP Clinical Lead	£8,000
LAS Clinical Support	£6,355
Office and IT costs	£50,000
Total Vanguard funding including local contribution	**£1,053,087**

Source: Sutton 160415 Value Proposition Cost Benefit Submission and Sutton CCG

5.63 When both NHSE Vanguard and local funding are taken into account, £576,000 was spent on the logic model interventions, with £477,000 spent on project management, including IT/office costs and communications/engagement (Table 5-7). The Integrated Care workstream was by far the largest workstream, comprising 89% of the total funds spent on interventions. At £87,000, the Health and Wellbeing Rounds accounted for 15% of the money spent on interventions for six nursing homes.

Table 5-7: Vanguard spend per workstream, 2016/17

Vanguard costs by workstream	NHSE funding	Local funding
Description of cost	Cost in £	
Integrated Care		*£512,663*
Care Home Support Team	£255,253	
Health and Wellbeing Rounds	£87,400	
Other interventions[14]	£7,000	
Care Home Clinical Support Staff		£163,010
Care Staff Education and Development		*£15,046*
E-Learning Packages	£2,700	
Care Home Forum	£500	
Care Home Forum		£11,846

[14] Alzheimer's and Dementia Diagnosis and Support and Clinical Champions in Care Homes.

Vanguard costs by workstream	NHSE funding	Local funding
Quality & Safety		*£48,141*
Quality Dashboard	£5,000	
JIG Support		£43,141
Project Management and Leadership		*£477,236*
Programme Director	£82,964	
Project Manager	£50,157	
Admin Support	£17,693	
GP Clinical Lead	£8,000	
Quality Assurance Manager	£6,000	
Quality Assurance Manager		£70,077
Steering Group		£62,168
Strategic lead		£39,382
Workstream Group		£36,440
GP Clinical Lead		£8,000
LAS Clinical Support		£6,355
Engagement (CSU comms lead)	£40,000	
Office and IT costs		£50,000
Total (excluding project management)		**£575,851**
Total		**£1,053,087**

Source: SQW analysis of Sutton 160415 Value Proposition Cost Benefit Submission and Sutton CCG

5.64 Some effort was made to value the time and resources used by the Vanguard, outside of those specifically accounted for in the budget. However, consultees generally found it too difficult to quantify the time they had given to a particular activity. Therefore, the evaluators were unable to fully cost the Vanguard's inputs. However, it should be noted that there are likely to be some important elements of the Vanguard that remain un-costed, such as staff time from the CCG, partners and care homes.

Savings

5.65 Savings have been quantified using the same metrics as used to evidence impact, namely 999 calls, A&E attendances, NEL admissions, Length of Stay and medication costs.[15] Before describing the annual savings, it is important to outline how they are calculated. Since this

[15] The Vanguard modelled savings for other types of activity such as GP callouts and items lost during hospital stays. These are not included in this report because the evaluation did not have newer actual data against which to compare the modelled savings. The Vanguard also modelled efficiency savings such as the reduced cost of intermediate care beds (intermediate care beds are provided in two care homes in Sutton). The evaluation did not examine these savings but will do so for the final evaluation report due in March 2018.

report is using data for the first three-quarters of the financial years of 2015/16 and 2016/17, a number of steps are used to calculate the annual savings. The change for each activity (impact metric) is calculated by using the difference between the actual performance for the first nine months of 2016/17and the projected performance for the year assuming that there was no Vanguard (projected performance is calculated using an inflator of 3.5% on baseline activity). The change for each activity is then multiplied by the tariff for each activity (as used by the Vanguard in their own financial modelling) to get a saving for the nine month period. Annual savings are calculated by extrapolating the activity change for the whole year and then multiplying by the tariff. For example, in the case of NEL admissions, the actual number of admissions for Q1 to Q3 in 2015/16 was 376. Based on the Vanguard inflator of 3.5%, there were 389 NEL admissions projected for Q1 to Q3 in 2016/17. Actual NELs in Q1 to Q3 in 2016/17 were in fact 338. In effect this means the Vanguard saved 51 admissions. Extrapolating that for the year increases the saved NELs to 68. The tariff for a NEL admission is £3,170 so this decrease in actual activity against projected activity represents a saving of £216,000 when annualised for the whole of 2016/17.

5.66 Table 5-8 sets out the annual savings for each type of activity (i.e. for each impact metric). Total annual savings were £466,000. Savings are highest (46% of total savings) for NELs mainly because an admission carries the highest tariff. Therefore avoided admissions can return major savings. The reduction in LOS also resulted in a good proportion (37%) of the savings because actual performance was significantly below projected performance. Note the savings for medication costs are based on the calculations of the care home pharmacist at the time of each medication review.

Table 5-8: summary of savings for 2016/17

Type of activity	Number/value
999 calls	
2015/16 (Q1,2,3) actual	705
2016/17 (Q1,2,3) projected	730
2016/17 (Q1,2,3) actual	749
Projected minus actual	-19
% actual activity change	6.2% increase
Tariff per 999 call	£299
Saving (Q1,2,3)	***£5,778 additional cost***
Saving (annual)	**£7,704 additional cost**
A&E attendances	
2015/16 (Q1,2,3) actual	150
2016/17 (Q1,2,3) projected	155.25
2016/17 (Q1,2,3) actual	157
Projected minus actual	-1.75
% actual activity change	4.7% increase
Tariff per A&E attendance	£265
Saving (Q1,2,3)	***£464 additional cost***

Saving (annual)	**£618 additional cost**
NEL admissions	
2015/16 (Q1,2,3) actual	376
2016/17 (Q1,2,3) projected	389
2016/17 (Q1,2,3) actual	338
Projected minus actual	51
% actual activity change	10.1% decrease
Tariff per NEL admission	£3,170
Saving (Q1,2,3)	***£162,177 saving***
Saving (annual)	**£216,236 saving**
LOS	
2015/16 (Q1,2,3) actual	3,773
2016/17 (Q1,2,3) projected	3,905
2016/17 (Q1,2,3) actual	3,353
Projected minus actual	552
% actual activity change	11.1% decrease
Tariff per bed day	£235
Saving (Q1,2,3)	***£129,733 saving***
Saving (annual)	**£172,977 saving**
Medication costs	**£85,391 saving[16]**
Total saving for 2016/17	**£466,282**

Source: SQW analysis

5.67 Table 5-9 presents actual savings for 2016/17 against the projected savings as calculated by the Vanguard immediately following the award of Vanguard funding in April 2016 and at the end of 2016/17 Q2[17]. It also provides the different total savings minus any savings generated by a reduction in 999 calls, as currently the LAS service is provided through a block contract and therefore is not a saving that can release cash. The Vanguard's £466,000 savings in 2016/17 are roughly similar to the £485,000 savings projected by the Vanguard's own

[16] This is the net saving based on an annual saving at each review less the cost of medications, for pharmacist activity from April 2016 to end Feb 2017.
[17] The Vanguard reports quarterly savings to the central NCM programme team. The Vanguard finalised its full-year savings for the year 2016/17 in June 2017, which was after the preparation of this report.

financial modelling for the same metrics at the start of 2016/17. It is substantially more than the updated projection of £299,000 calculated by the Vanguard at the end of 2016/17 Q2.

Table 5-9: comparison of actual against project savings

Type of saving	SQW analysis[18]	Vanguard projected outturn for 2016/17	
		Updated 2017	Updated post funding award
999 calls	-£7,704	£11,960	£7,533
A&E attendances	-£618	£20,140	£17,757
NEL admissions	£216,236	£156,387	£178,907
LOS	£172,977	£34,117	£183,889
Medication savings	£85,391	£76,234	£97,078
Total annual savings	**£466,282**	**£298,838**	**£485,165**
Total annual savings minus 999 calls	**£473,986**	**£286,878**	**£477,631**

Source: SQW analysis of Vanguard data

5.68 Although the savings totals are not hugely divergent, there are some important differences. The analysis of actual savings shows there were no savings as a result of reduced 999 calls or A&E attendances whereas the Vanguard's financial modelling had calculated that there would be a degree of savings for these metrics (although, as noted above, 999 calls are not currently cashable savings). Instead, actual savings because of reduced NEL admissions were notably higher than those projected by the Vanguard. Actual reduced length of stay savings were similar to the Vanguard's original projected savings.

5.69 The Vanguard financial modelling also calculated savings for future years to show when the Vanguard investment would break even and the long term future savings from adopting the interventions. This is important because every Vanguard is expected to deliver a more efficient healthcare system, including by demonstrating how savings can be made. In the absence of new information relating to some key metrics used in the modelling, the evaluation has not updated the Vanguard's own long term projections on savings. But the current evidence shows overall the Vanguard saved £466,282 in 2016/17, a little less than the initial projected savings of £485,165, against a spend of £1.05m in the same period. Achievement of net savings will therefore depend on maintaining or continuing to reduce activity levels such as non-elective admissions without such high levels of programme funding.

[18] Note a minus sign indicates an increase in costs rather than a saving.

6. The Vanguard as a whole

Impact on the system

6.1 Since the Vanguard award in March 2015 and the commencement of the first full year of operation in April 2016, there is evidence that there has been some systemic change for care home residents of Sutton: 999 calls, A&E attendances, NEL admissions and LOS have fallen. Crucially, there is some reason to believe that the Vanguard has played a part in delivering this change. Both the quantitative and qualitative evidence support this conclusion. The nuances of this overall positive story are important: change has largely occurred in nursing homes rather than residential homes and attribution to the Vanguard is evident only for nursing homes. The focus to date has been on nursing homes rather than residential homes, although residential homes have been involved in many interventions, in line with the Vanguard's 'open to all' policy. As the Vanguard shifts its attention to residential homes, it will be expected that change and attribution can be demonstrated for residential homes as well.

6.2 Those involved directly and indirectly with the Vanguard are broadly complimentary about the way in which it has worked and what it has achieved. People emphasised the changes to ways of working and intermediate outcomes such as upskilled care home staff rather than impact on resident experience. This is to be expected. Consultees will find it easier to report on changes they can directly observe such as training leading to improved skills, rather than more indirect outcomes such as improved resident experience. As the evaluation did not collect data directly on resident experience, there was no way to remedy this evidential gap.

6.3 It is hard to unpick the complex interaction of interventions using quantitative and qualitative evidence. There was insufficient quantitative data to discern trends given the variety within care homes: care homes received different interventions at different times to different degrees, meaning comparison of like with like was challenging. There were some indications that the care home pharmacist and the Red Bag interventions were more closely correlated with improved performance. On the other hand, there was no correlation between the most expensive and intensive intervention, the Health and Wellbeing Rounds, and improved performance. Given the cost of this intervention and its lack of association with better outcomes, there is a case for excluding it as part of the package of care home interventions.

6.4 The qualitative evidence provided some insights about the relative value of initiatives but needs to be used with caution as people could only discuss what they knew about and some interventions were much more visible than others. For instance, the Red Bag was well promoted whereas the JIG was a lower profile initiative run by a small number of senior staff. A greater volume of feedback regarding the Red Bag should not be assumed to mean it was more important in driving change than the JIG.

6.5 It is reasonable to suppose, given the nature of interventions, quantitative evidence and feedback, that the interventions are complementary. The JIG is able to pinpoint specific and systemic problems in care homes. The training and education initiatives could be tailored in terms of content and recipients. The Care Home Support Team could be directed where there was the greatest need. The engagement activities, particularly the Care Home Forum,

underpinned the improving relationships between the different organisations and individuals.

6.6 The combination of initiatives is changing the system in Sutton towards one that should be able to improve quality of care. It has a formal mechanism for rapid identification of issues (the JIG), a set of activities to address them (upskilling care homes staff on specific and general topics), individuals who are genuinely interested, willing and have been allowed the time to find and apply solutions together (improved professional relationships and social capital).

6.7 The evidence implies that the Vanguard may already be having an impact on the quality of care and outcomes for residents. However, the scale of the challenge needs to be remembered. The system faces an increasingly challenging population of residents with more complex needs, financial strain under a policy of austerity, tightened care home finances and the ongoing issue of recruitment and retention of staff. Other factors also influence the extent to which initiatives can make a difference, including care home leadership and management, and IT. In these circumstances, the current direction of travel for the Sutton Vanguard is encouraging.

Factors generating success / failure and potential for replication

6.8 The origins of Sutton's progress predate the development of the first Value Proposition and the award of Vanguard status. Some of the key interventions already existed in some form and were deliberately woven into the Vanguard strategy in order to deepen and widen their influence. These included the JIG, the Care Home Forums, the link and Supportive Care Home Team nurses, and the provision of educational resources.

6.9 This is a significant point in terms of local context and the potential for replication: systemic change, culture change and impact on resident experience was not generated in one year. Considerable learning and investment had already taken place, which the Vanguard could build on. The initial groundwork that laid the foundations for subsequent developments was done by a small group of senior, concerned staff, with personal interest and a high level of commitment to improving the quality of care for Sutton's care home residents. This is perhaps not a necessary condition of success but a nucleus of people with the ambition and remit to drive change can certainly increase the pace at which change can be delivered. The availability of programme funds was certainly required to ramp up the scale of earlier efforts.

6.10 The key challenges to delivery of the Vanguard were broadly anticipated, such as ensuring care home staff had time to give to training and attend events, and communicating with care homes that are not hugely IT literate and where staff spend little time in front of computers. Perhaps the one unexpected finding was that the e-learning was not greatly valued: it was thought it might be more flexible and therefore useful for care home staff but it appeared to have limited impact with face to face training being more highly valued. The link nurses also appeared to have mixed impact, with some care home staff appreciating the bespoke training but a number of people indicating low awareness of the role. This may be due to the fact the link nurses as a resource (1.5FTE from April 2016) were spread too thinly across all the nursing and residential care homes.

Conclusion and lessons

6.11 The experience of Sutton indicates that key ingredients for success include a positive historical context, an enthusiastic and dedicated set of core individuals, with supportive managers, based in the key organisations (CCG, hospital, community services, ambulance service and LA) and additional funding at the right time. These factors seemed to come together at the opportune moment for Sutton and have created an encouraging direction of travel. These conditions may not be replicable quickly, and in some areas easily, in terms of setting up a programme mimicking Sutton's key features. Nevertheless there are important lessons for areas wishing to understand how to begin generating change.

6.12 The issues facing Sutton in the second full year of operation include: maintaining progress made to date given staff churn; driving change in residential homes and understanding how to extend this to MH&LD homes; considering how to maintain initiatives without additional funding such as GP ward rounds in care homes, if these are considered valuable; and dealing with changes to the local care home market with the opening of new larger homes run by national chains. The maintenance of improvements should be seen as critical as delivering improvements in new homes. The soft infrastructure, such as the JIG and the Care Home Forums, is likely to play a significant role in monitoring standards of care, identifying care homes that start to have problems, listening to the concerns of care home managers and sharing experience of what works.

6.13 Importantly, sufficient attention needs to be devoted to accurately monitoring activity as it happens such that subsequent evaluation can be as meaningful and helpful as possible. This should entail: regular mapping of the uptake of Vanguard interventions across Sutton care homes; accurate monitoring of activity; and continued refinement of outcome data collection processes.

Annex A: Glossary

Table A-1: Glossary of abbreviations

Abbreviation	Full text
A&E	Accident and Emergency
CCG	Clinical Commissioning Group
CQUIN	Commissioning for Quality and Innovation
EHCH	Enhanced Health in Care Homes (a type of Vanguard)
EStH	Epsom and St Helier University Hospitals NHS Trust
FTE	Full-time equivalent
HWBR	Health and Wellbeing Rounds
JIG	Joint Intelligence Group
LA	Local Authority
LAS	London Ambulance Service
LBS	London Borough of Sutton
LOS	Length of stay
MH&LD	Mental Health and Learning Disability care home
NCM	New Care Model
NEL	Non-elective admission
NH	Nursing care home
NHSE	NHS England
PPOD	Preferred place of death
RH	Residential care home
SCHS	Sutton Community Health Services
UTI	Urinary tract infection

Source: SQW

Annex B: Full list of Vanguard interventions

Table B-1: Sutton Homes of Care Vanguard interventions

Name of intervention	Description
Pillar One – Integrated Care	
Health and Wellbeing Rounds (nursing homes)	Weekly named GP ward rounds in nursing homes, supported by care coordinator (trained care home staff member)
Health and Wellbeing Rounds (residential homes)	Selected residential homes receive weekly ward rounds by a link nurse, and additional support, such as, training for care home staff to be champions in falls and end of life care
Hospital Transfer Pathway (Red Bag)	Bag to transport paperwork about resident and their personal effects to and from hospital and protocols for staff to follow
Link nurses	Community nurse visiting care homes to support with training, use of resources and other issues e.g. deliver DeAR-GP tool
Supportive Care Home Team nurses	Support and training to care home staff on end of life care (EoLC)
Care home pharmacist	Reviews of residents' medication
Champion roles	Care home staff trained and supported to act as clinical champions within their homes for particular clinical areas
Dementia support	Dementia support workers offering support and guidance to residents, families, friends, carers and care home staff
Socialisation initiatives	A variety of initiatives (Silver Letters, befriending and music therapy) to improve the wellbeing of residents.
Pillar Two – Care Home Staff Education and Training	
Training	E-learning courses for care home staff
Resources	Resources to support care home staff care for residents
Care Home Forum	Meeting for care home managers and/or staff to discuss concerns, network, receive information and training
Student nurse training in care homes	Care homes supported to host nursing students and to develop "training Care Homes"
Care Home Pledge	Pledge, signed by care homes and Vanguard leaders, committing support to Vanguard and better care for residents
Pillar Three – Quality Assurance and Safety	
Joint Intelligence Group	Monthly meetings between key representatives of health and social care organisations with interest in the quality of care in Sutton's care homes

Name of intervention	Description
Quality Dashboard	Combined dataset bringing together relevant performance from JIG member organisations
Engagement channels with residents	Bi-monthly events at care homes for residents, families, friends and carers to engage with care home and Vanguard staff
NHS.net emails	Provision of nhs.net emails to care homes to enable secure electronic transfer of information
Standardised care home policies	Standardised policies for care homes to use to understand good practice and improve care quality

Source: SQW from Vanguard

Annex C: Research tasks

Table C-1: Research tasks

Task	Purpose	Delivery
Scoping stage		
Inception meeting	Confirmed approach to scoping phase including scoping consultees and additional data and documents.	23 August 2016
Desk review of national/local policy, programme and data	Understanding of available data, context and design of Vanguard.	August, September 2016
Scoping consultations (n=10)	To understand the context and design of the Vanguard	September 2016 Consultations with: • 5 members of the Vanguard team in Sutton CCG • Representatives from Sutton Community Heath Services, London Ambulance Service NHS Trust, Epsom and St Helier University Hospitals NHS Trust, London Borough of Sutton and the NHSE New Models of Care Evaluation Team.
Set-up of virtual co-production panel	To ensure service-user perspective incorporated	Three members of SCIE's national co-production network engaged, October 2016. One additional local member found in January 2017.
Refinement of logic models and evaluation method/metrics	To clarify Vanguard aims, scope and activity	August to October 2016 Re-structured logic models presented in scoping meeting. Metrics confirmed with evaluation lead. Revised method tested at local stakeholders workshop.
Local workshop to test proposed approach	To ensure appropriateness of approach and gain buy-in	10 October 2016 25 partners and stakeholders attended
Development of suite of research tools and finalisation of logic models	Reviewed by Vanguard team and co-production panel	End of October, December 2016/ January 2017
Scoping report	Summarises scoping stage and lays out evaluation approach	14 October 2016
Research governance/ethical approval	Not required for service evaluation following check on http://www.hra-decisiontools.org.uk/research/	n/a

Task	Purpose	Delivery
National workshop with interested stakeholders	To consider data and local evaluation approaches, particularly key implementation, methodological and analytical challenges and learning.	9 December 2016 with representatives from CH6
Fieldwork stage		
Briefing to care home managers: session for care home managers/ owners/ other staff as relevant	To enlist support of care home managers in delivering care home staff survey.	Delivered at care home forum on 25 November 2016
Consultations with operational staff (n=15) involved in support/ delivery of the Vanguard to gain views on effectiveness, what is working well/not well, for whom and why etc.	To address all seven aims of the evaluation but with a particular focus on context, changes made and 'active ingredients of success'. Where possible, they will be used to explore findings from analysis of secondary data.	14 completed, November 2016
Collection of **resident and family/carer primary outcome data**	Cancelled hold due to changes in delivery of ASCOT CH3. Resource diverted to family/friend/carer survey to coincide with and supplement family discussion groups.	
Family/friend/carer online survey to supplement discussion groups. Link sent to care home managers to forward to their contact lists.	To understand impact, the components making the most difference, the 'active ingredients' and unintended costs/ consequences.	Run in March, n=23
Collection of **resource-use/cost data**: costs for ambulance call outs, conveyances, A&E attendance, NEL, LOS, medicines and supplements, for pre-intervention until most recent data available	To understand changes in resource-use, costs and savings	Financial template supplied in January 2017
Collection of **secondary data**: • monitoring data on HWBR, link nurses, Supportive Care Home team nurses, pharmacist, Red Bag, resources, training • local dashboard data • outcome/impact data on ambulance callouts, conveyances, A&E attendances, NEL, LOS, medications.	To understand impact, the components making the most difference and the 'active ingredients'	Vanguard provided mapping of interventions by care home, related monitoring data and outcomes/impact data
Staff survey to assess care home staff perceptions of and satisfaction with the Vanguard. Online and paper version. Sent through care home managers.	To understand impact, the components making the most difference, the 'active ingredients' and unintended costs/consequences	Run through January and February 2017, n=49

Task	Purpose	Delivery
Discussion groups: x3 families, x2 care staff, x1 care managers, x1 strategic staff. Aim to enlist participants from nursing homes and residential homes with moderate to significant engagement.	To understand impact, the components making the most difference, the 'active ingredients' and unintended costs/ consequences. Where possible, they will be used to explore findings from analysis of secondary data and consultations.	Completed: x 2 families groups (n=3 and n=2), x 3 care home staff (n=2, n=4 and n=4), x 1 care managers group (n=5) and x 1 strategic staff group (n=11)
4 resident and family/friend/carer video case studies	To showcase the achievements of the Vanguard	In development between Vanguard and SCIE. Outside of the core evaluation research and analysis.

Source: SQW

Annex D: Outcome and impact metrics

Table D-1: Sutton Homes of Care Vanguard outcome and impact metrics

Metric	Data	Source of metric	Available for evaluation
Avoidable inpatient activity for people with ambulatory sensitive care (ASC) conditions	National Quality Dashboard	National quality metric	Not analysed
Decrease in the number of incidents at care homes causing avoidable harm (AQP homes)	AQP data, by care home per quarter	Value Proposition 2	Not analysable
Improved compliance with CQC standards	CQC ratings	Value Proposition 2	Sourced through CQC website. Not analysed as small dataset.
Increase in achievement of preferred place of death for Care Home residents	Data on patients on an EOLC plan achieving their preferred place of death, % per month	Value Proposition 2	Available
Increase in care home staff skills and confidence	Staff survey	SQW/SCIE	Available
Increase in care home staff work satisfaction	Staff survey	Value Proposition 2	Available
Increase in referrals to other services	Community services	Vanguard	Not available
Increase in workforce confidence and skills	Consultations	SQW/SCIE	Available
Increased sense of empowerment and control for residents and families/carers	No data	Value Proposition 2	Not available
Reduced staff turnover	NMDSSC Open Access Dashboards – at LA level	Value Proposition 2	Available
Reduction in 999 calls	LAS data	Value Proposition 2/ Vanguard advice	Available
Reduction in A&E attendances	EStH data	Value Proposition 2	Available
Reduction in falls (AQP homes)	AQP data, by care home per quarter	Value Proposition 2	Not analysable
Reduction in length of stay	EStH data	Value Proposition 2, Measuring the Impact of Our Interventions: tracking outcomes and activity through metrics	Available

Metric	Data	Source of metric	Available for evaluation
Reduction in non-elective admissions	EStH data	Value Proposition 2	Available
Reduction in prescribing costs	Care home pharmacist	Value Proposition 2	Available
Reduction in pressure ulcers (AQP homes)	AQP data, by care home per quarter	Value Proposition 2	Not analysable
Reduction in total bed days	National Quality Dashboard	Value Proposition 2, Measuring the Impact of Our Interventions: tracking outcomes and activity through metrics	Not analysed
Reduction in UTIs (AQP homes)	AQP data, by care home per quarter	Value Proposition 2	Not analysable
Reduction of errors in medications (AQP homes)	AQP data, by care home per quarter	Value Proposition 2	Not analysable
Usage and cost of low dose anti-psychotics	Available from Vanguard.	Local metric	Not available

Source: SQW

Annex E: Weighted intervention scores for all care homes

Table E-1:

Ranking	Code	Weighted intervention score
1	NH5	36
2	NH15	35
3	NH4	33
4	NH1	32
5	NH7	31
6	NH8	28
7	NH3	28
8	NH6	28
9	NH18	25
10	NH10	25
11	NH13	25
12	NH17	25
13	NH2	25
14	NH11	25
15	NH9	23
16	RH11	23
17	NH12	21
18	NH21	21
19	RH8	21
20	RH3	21
21	RH2	20
22	RH1	20
23	NH14	20
24	RH6	19
25	RH5	18
26	RH10	17
27	NH16	16
28	RH9	16
29	NH22	13
30	RH4	13
31	MH&LD1	13
32	RH7	13
33	MH&LD2	12
34	MH&LD3	12
35	RH12	10
36	NH19	7
37	NH20	7
38	MH&LD4	6
39	MH&LD5	6
40	MH&LD6	6
41	MH&LD7	6
42	MH&LD8	6
43	MH&LD9	6
44	MH&LD10	6
45	MH&LD11	6
46	MH&LD12	6
47	MH&LD13	6
48	MH&LD14	6
49	MH&LD37	3
50	MH&LD15	3
51	MH&LD16	3
52	MH&LD17	3
53	MH&LD18	3
54	MH&LD19	3
55	MH&LD20	3
56	MH&LD21	3
57	MH&LD22	3
58	MH&LD23	3
59	MH&LD24	3
60	MH&LD25	3
61	MH&LD26	3
62	MH&LD27	3

Ranking	Code	Weighted intervention score
63	MH&LD28	3
64	MH&LD29	3
65	MH&LD30	3
66	MH&LD31	3
67	MH&LD32	3
68	MH&LD33	3
69	MH&LD34	3
70	MH&LD35	3
71	MH&LD36	3
72	MH&LD38	3
73	MH&LD39	3
74	MH&LD40	3
75	MH&LD41	3
76	MH&LD42	3
77	MH&LD51	0
78	MH&LD43	0
79	MH&LD44	0
80	MH&LD45	0
81	MH&LD46	0
82	MH&LD47	0
83	MH&LD48	0
84	MH&LD49	0
85	MH&LD50	0
86	MH&LD52	0

Source: SQW

Annex F: Highest and lowest performance against key metrics

Table F-1: Nursing homes achieving highest performance on key metrics

Top five homes	Change per 100 beds	Health and wellbeing rounds in nursing homes	Link nurses	Supportive Care Home Team nurses	Pharmacist/medication reviews	Red bag	"E-Training packages	Resources packages	Care Home Forum	Cake, cuppa, chat	Total weighted intervention score
999 calls per 100 beds											
NH13	-150.0		6	3	5	4	3	4			25
NH7	-100.0	7	6	3	5		3	4	3		31
NH3	-33.3		6	3	5	4	3	4	3		28
NH1	-28.6	7	6	3	5	4		4	3		32
NH17	-28.6		6	3	5	4		4	3		25
										Average score	28.2
A&E attendances per 100 beds											
NH1	-28.0	7	6	3	5	4		4	3		32
NH2	-20.0		6	3	5	4		4	3		25
NH3	-13.6		6	3	5	4	3	4	3		28
NH4	-10.0	7	6	3	5	4		4	3	1	33
NH5	-9.8	7	6	3	5	4	3	4	3	1	36
										Average score	30.8

Top five homes	Change per 100 beds	Health and wellbeing rounds in nursing homes	Link nurses	Supportive Care Home Team nurses	Pharmacist/medication reviews	Red bag	"E-Training packages	Resources packages	Care Home Forum	Cake, cuppa, chat	Total weighted intervention score
Top five homes	**Change per 100 beds**	**Health and wellbeing rounds in nursing homes**	**Link nurses**	**Supportive Care Home Team nurses**	**Pharmacist/medication reviews**	**Red bag**	**"E-Training packages**	**Resources packages**	**Care Home Forum**	**Cake, cuppa, chat**	**Total weighted intervention score**
NEL admissions per 100 beds											
NH9	-32.0		6	3		4	3	4	3		23
NH2	-30.0		6	3	5	4		4	3		25
NH1	-24.0	7	6	3	5	4		4	3		32
NH17	-24.0		6	3	5	4		4	3		25
NH5	-22.0	7	6	3	5	4	3	4	3	1	36
										Average score	28.2

Source: SQW analysis

Table F-2: Nursing homes achieving lowest performance on key metrics

Lowest five homes	Change per 100 beds	Health and wellbeing rounds in nursing homes	Link nurses	Supportive Care Home Team nurses	Pharmacist/medication reviews	Red bag	"E-Training packages	Resources packages	Care Home Forum	Cake, cuppa, chat	Total weighted intervention score
999 calls per 100 beds											
NH16	255.6		6	3				4	3		16
NH9	160.0		6	3		4	3	4	3		23

Lowest five homes	Change per 100 beds	Health and wellbeing rounds in nursing homes	Link nurses	Supportive Care Home Team nurses	Pharmacist/medication reviews	Red bag	"E-Training packages	Resources packages	Care Home Forum	Cake, cuppa, chat	Total weighted intervention score
NH5	28.6	7	6	3	5	4	3	4	3	1	36
NH14	25.0		6	3		4		4	3		20
NH11	25.0		6	3	5	4		4	3		25
										Average score	24

Lowest five homes	Change per 100 beds	Health and wellbeing rounds in nursing homes	Link nurses	Supportive Care Home Team nurses	Pharmacist/medication reviews	Red bag	"E-Training packages	Resources packages	Care Home Forum	Cake, cuppa, chat	Total weighted intervention score
A&E attendances per 100 beds											
NH17	16.0		6	3	5	4		4	3		25
NH16	11.8		6	3				4	3		16
NH15	8.1	7	6	3	5	4	3	4	3		35
NH14	6.3		6	3		4		4	3		20
NH13	4.2		6	3	5	4	3	4			25
										Average score	24.2

Top five homes	Change per 100 beds	Health and wellbeing rounds in nursing homes	Link nurses	Supportive Care Home Team nurses	Pharmacist/medication reviews	Red bag	"E-Training packages	Resources packages	Care Home Forum	Cake, cuppa, chat	Total weighted intervention score

Lowest five homes	Change per 100 beds	Health and wellbeing rounds in nursing homes	Link nurses	Supportive Care Home Team nurses	Pharmacist/medication reviews	Red bag	"E-Training packages	Resources packages	Care Home Forum	Cake, cuppa, chat	Total weighted intervention score
NEL admissions per 100 beds											
NH15	40.5	7	6	3	5	4	3	4	3		35
NH14	31.7		6	3		4		4	3		20
NH11	22.2		6	3	5	4		4	3		25
NH7	12.5	7	6	3	5		3	4	3		31
NH6	-4.5	7	6	3	5			4	3		28
										Average score	27.8

Source: SQW analysis

Table F-3: Residential homes achieving highest performance on key metrics

Top five homes	Change in 999 calls per 100 beds	Health and wellbeing rounds in nursing homes	Link nurses	Supportive Care Home Team nurses	Pharmacist/medication reviews	Red bag	"E-Training packages	Resources packages	Care Home Forum	Cake, cuppa, chat	Total weighted intervention score
999 calls per 100 beds											
RH5	-100.0		6	3		4		4		1	18
RH8	-83.3		6	3		4		4	3	1	21
RH11	-55.6		6	3		4	3	4	3		23
RH1	-50.0		6	3		4		4	3		20
RH12	0.0		6					4			10

Top five homes	Change in 999 calls per 100 beds	Health and wellbeing rounds in nursing homes	Link nurses	Supportive Care Home Team nurses	Pharmacist/medication reviews	Red bag	"E-Training packages	Resources packages	Care Home Forum	Cake, cuppa, chat	Total weighted intervention score
										Average score	18.4

Top five homes	Change in 999 calls per 100 beds	Health and wellbeing rounds in nursing homes	Link nurses	Supportive Care Home Team nurses	Pharmacist/medication reviews	Red bag	"E-Training packages	Resources packages	Care Home Forum	Cake, cuppa, chat	Total weighted intervention score
A&E attendances per 100 beds											
RH1	-17.5		6	3		4		4	3		20
RH2	-11.1		6	3		4		4	3		20
RH3	-4.5		6	3		4		4	3	1	21
RH4	-4.3		6	3				4			13
RH5	-2.2		6	3		4		4		1	18
										Average score	18.4

Top five homes	Change in 999 calls per 100 beds	Health and wellbeing rounds in nursing homes	Link nurses	Supportive Care Home Team nurses	Pharmacist/medication reviews	Red bag	"E-Training packages	Resources packages	Care Home Forum	Cake, cuppa, chat	Total weighted intervention score
NEL admissions per 100 beds											
RH4	-60.9		6	3				4			13
RH10	-29.2		6	3		4		4			17

Top five homes	Change in 999 calls per 100 beds	Health and wellbeing rounds in nursing homes	Link nurses	Supportive Care Home Team nurses	Pharmacist/medication reviews	Red bag	"E-Training packages	Resources packages	Care Home Forum	Cake, cuppa, chat	Total weighted intervention score
RH11	-16.7		6	3		4	3	4	3		23
RH7	-15.4		6	3				4			13
RH1	-15.0		6	3		4		4	3		20
										Average score	17.2

Source: SQW analysis

Table F-4: Residential homes achieving lowest performance on key metrics

Lowest five homes	Change in 999 calls per 100 beds	Health and wellbeing rounds in nursing homes	Link nurses	Supportive Care Home Team nurses	Pharmacist/medication reviews	Red bag	"E-Training packages	Resources packages	Care Home Forum	Cake, cuppa, chat	Total weighted intervention score
999 calls per 100 beds											
RH2	162.5		6	3		4		4	3		20
RH3	100.0		6	3		4		4	3	1	21
RH7	40.0		6	3				4			13
RH6	33.3		6	3			3	4	3		19
RH9	14.3		6	3			3	4			16
										Average score	17.8

Lowest five homes	Change in 999	Health and wellbeing	Link nurses	Supportive Care Home	Pharmacist/medica	Red bag	"E-Training packages	Resources packages	Care Home Forum	Cake, cuppa, chat	Total weighted

Lowest five homes	Change in 999 calls per 100 beds	Health and wellbeing rounds in nursing homes	Link nurses	Supportive Care Home Team nurses	Pharmacist/medication reviews	Red bag	"E-Training packages	Resources packages	Care Home Forum	Cake, cuppa, chat	Total weighted intervention score
	calls per 100 beds	rounds in nursing homes		Team nurses	tion reviews						intervention score
A&E attendances per 100 beds											
RH11	22.2		6	3		4	3	4	3		23
RH10	16.7		6	3		4		4			17
RH9	10.5		6	3			3	4			16
RH8	8.3		6	3		4		4	3	1	21
RH7	7.7		6	3				4			13
										Average score	18

Top five homes	Change in 999 calls per 100 beds	Health and wellbeing rounds in nursing homes	Link nurses	Supportive Care Home Team nurses	Pharmacist/medication reviews	Red bag	"E-Training packages	Resources packages	Care Home Forum	Cake, cuppa, chat	Total weighted intervention score
NEL admissions per 100 beds											
RH3	40.9		6	3		4		4	3	1	21
RH9	26.3		6	3			3	4			16
RH2	11.1		6	3		4		4	3		20
RH8	8.3		6	3		4		4	3	1	21
RH6	5.0		6	3			3	4	3		19

Lowest five homes	Change in 999 calls per 100 beds	Health and wellbeing rounds in nursing homes	Link nurses	Supportive Care Home Team nurses	Pharmacist/medication reviews	Red bag	"E-Training packages	Resources packages	Care Home Forum	Cake, cuppa, chat	Total weighted intervention score
										Average score	19.4

Source: SQW analysis

Annex G: Consultations, discussion groups and surveys

Table G-1: Consultations, discussion groups and surveys for the Sutton Homes of Care evaluation

Type of research	Role / number of responses	Organisations / homes represented
Scoping consultations	Quality Assurance Lead	Sutton CCG
	Director of Quality	Sutton CCG
	Lead nurse, Darzi Fellow (Vanguard)	Sutton CCG
	Vanguard Programme Lead	Sutton CCG
	Project Manager (Vanguard)	Sutton CCG
	CQUIN Project Manager	Sutton Community Health Services
	Team Leader, Local Safeguarding Lead, St Helier Complex	London Ambulance Service NHS Trust
	Adult Protection Specialist Nurse	Epsom and St Helier University Hospitals NHS Trust
	Divisional Director of Community Services	The Royal Marsden Community Services
	Head of Commissioning - People	London Borough of Sutton
Fieldwork consultations	Link GP	Nursing home in Sutton
	Nursing Manager	Nursing home in Sutton
	Manager and care coordinator	Nursing home in Sutton
	Manager	Residential home in Sutton
	Manager	Residential home in Sutton
	Link Nurse	Sutton Community Health Services
	Carshalton Clinical Integrated Locality Manager	Sutton Community Health Services
	Clinical Nurse Specialist	Sutton Community Health Services
	Care Home Pharmacist	Sutton CCG
	Team Leader, Local Safeguarding Lead	London Ambulance Service NHS Trust
	Project Support Manager, Service Improvement & Transformation Team	Epsom and St Helier University Hospitals NHS Trust
	Head of Commissioning – People	London Borough of Sutton
	Inspection Manager	CQC

Type of research	Role / number of responses	Organisations / homes represented
	Clinical Director, Integration, Older and Vulnerable Adults and End of Life Care	Merton CCG
Strategic staff discussion group	11 members of staff	Organisations represented included: The Royal Marsden Community Services, Sutton CCG Sutton Community Health Services Epsom and St Helier University Hospitals NHS Trust London Ambulance Service NHS Trust
Care home manager discussion group	5 members of staff	Staff represented four nursing homes in Sutton
Care home staff interviews	10 care home staff	Care home A: 2 separate interviews, each with a care worker Care home B: one group interview with two register nurses and two carers Care home C: 4 separate interviews with: a care coordinator; a team leader; a registered nurse; a care worker
Care home staff survey	49 complete responses	21 responses from 8 nursing homes 12 responses from 7 residential homes 16 responses from 12 mental health and learning disability homes
Friends/family discussion groups	5 relatives	Residential home – 2 family members Nursing home – 3 family members
Friends/family survey	23 complete responses	13 responses from people connected with a nursing home resident 9 responses from people connected with a residential home resident 1 response from a person with an unspecified connected to a resident of a Sutton care home

Source: SQW