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A study to develop integrated working between primary health care services and care homes

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Glossary of terms/abbreviations

DN – District nurse

GP – General practitioner

PIRG – Public involvement in Research Group

MDT – Multidisciplinary team

NHS – National Health Service

MUST – Malnutrition universal screening tool

Waterlow scale – (Waterlow 1985) A tool used to assess the risk for pressure ulcer development.

BMI – Body Mass Index

CH – Care home

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Executive Summary

Key Messages

- In England, most long term care for older people is provided by the independent sector.
- Multiple NHS services visit care homes. These include initiatives to improve access to health care, reduce unplanned hospital admissions and work with care homes as providers of intermediate and end of life care. Models of service delivery to care homes however, are erratic, ill-defined and focus almost exclusively on the individual resident/patient encounter
- The lack of shared organisational outcomes are likely to inhibit systematic integration of health and social care services, to sustain more stability and quality in care homes residents' living arrangements and care.
- Care home residents do not have universally high levels of health services use or uniformly close involvement of primary care staff.
- Access to services and recognition of health care needs was a mediated and complex process. Primary care services were reliant on how care home staff interpreted residents' health status, care home procedures and the quality of the relationship with the NHS staff.
- Financial incentives, governance processes or the use of shared protocols and assessments supported integrated working only when care home staff assimilated NHS patterns of working and priorities.
- NHS services favour models of care that focus on diagnosis, treatment and episodic involvement, whilst care home providers prioritise on-going support and relationships that foster a continuous review of care.
- The lack of an identifiable entity that is care homes means there is no one place for NHS commissioners and managers to go to engage with the sector, or establish contracts, for more than an individual or group of care homes
- Integrative processes that enabled NHS and care home staff to achieve integrated care were, in the main, informally negotiated and based on confidence in the staff involved.
- There is a need to adjust patterns of working in the care home to ensure that health care is not "delivered" to individuals in care homes but organised to support the facilitation of care delivery, review and discussion of residents' priorities and preoccupations, with the older person , their preferred representatives and care home staff

Background

People living in care homes have complex needs, and are the oldest and frailest of the population. Care homes that do not have on site nursing rely on primary health care services for medical and nursing support and access to specialist services and secondary health care. Research consistently demonstrates that people living in care homes have erratic and inequitable access to NHS services, particularly those that offer specialist expertise in key areas such as dementia and end of life care. Primary Health care providers are very aware of the need to improve how they work with care homes. This has led to the development of a range of initiatives that range from the funding of NHS beds in care homes to the creation of specialist roles designed to promote better working between primary care and care homes. This study aimed to make explicit what is known about developing integrated working between health and care home providers, assess the consequences for older people and provide guidance and recommendations for integrated working that can inform future service development and research in these settings.

Aims

The overall aim of the study was to establish how care homes and health care services achieve integrated working to promote the health of older people. The objectives were:

1. To review the evidence for the research effectiveness of different approaches and support tools used to promote integrated working between NHS services and care home staff.

2. To identify how integrated working is interpreted, organised and implemented in care homes across England, and at what cost.

3. To identify patient and organisational outcomes arising from integrated working between NHS services and care homes that reflect the priorities, experiences and concerns of older people that live in care homes.

4. To evaluate the impact of interventions that support integrated working between NHS and care home staff, on patient and organisational outcomes, including cost and effective use of resources.

5. To describe facilitators and barriers to integrated working between care home staff and health care practitioners.

6. To develop a typology of integrated working between health services and care homes

Methods

The three year study was organised in two phases. Phase one had two interrelated elements. A systematic review of the effectiveness of integrated working between health care and care homes and a national survey of how integrated working is achieved by NHS services working with, and for, care homes that do not have on site nursing.

Phase two involved prospective case studies of three models or approaches to integrated working (care homes with NHS/LA funded beds and linked multidisciplinary teams, care homes in receipt of specialist service support and care homes reliant on primary care services equivalent to those provided to people living at home). Older people in six care homes were tracked for twelve months to understand how they defined health care needs over time, their use of services and compare the different approaches to integrated working. Also interviewed over the twelve months were residents, relatives NHS and care home staff, and stakeholders who could provide an organisational perspective on the barriers and facilitators to integrated working.

An organisational framework based on the Kodner and Spreeuwenberg [1] model of integration was used to inform the analysis and synthesis of data and cross-case comparisons of how the different contexts and mechanisms affect the outcomes for the older person. Subsequently, thematic content analysis was used to identify key themes, common experiences and priorities of care from the categorised data including service delivery, organisational, funding, and clinical/health and social care and their sub-levels. The economic analysis focussed on investigating the collaborative working between the six care homes and their respective primary health care services, through an analysis of health and social services used by samples of the residents, and resident–level costs.

Results

The review, survey and case studies highlighted recurring concerns and persistent themes about how the NHS works with care homes that are not markedly different from research reports and policy documents on health care involvement with care homes published ten years ago.

At the resident level of care, access to services and recognition of health care needs was a mediated and complex process. Primary care services were reliant on how care home staff interpreted residents' health status. Internal care home procedures and the quality of the relationship with the NHS staff determined who accessed services. This process seldom involved joint review or discussion and even more rarely included the resident or a family member.

In care homes that had nursing provision either within the building or nearby, there was evidence of nursing staff assimilating health care work that in other sites was provided by NHS services to residents categorised as receiving personal care only.

The study found that the integrative processes that enabled NHS and care home staff to achieve integrated care were, in the main, informally negotiated and based on confidence in the staff involved. These informal but acknowledged methods of care co-ordination could ensure that there was ongoing identification of resident need and those respective responsibilities and patterns of decision making were jointly understood and trusted. Financial incentives, governance processes or the use of shared protocols and assessments, either did not facilitate that process, or supported integrated working when care home staff assimilated NHS patterns of working (e.g. in the care homes with funded rehabilitation beds). It was all predicated on individual services' and staff's ability (and capacity) to engage with that process. At the service delivery level of integration, the findings suggest that it is investment in the development and creation of these personal relationships that have the most potential to improve how the NHS and care homes work together. Therefore, factors that facilitated integration at the level of the primary care and care home staff include:

- Engagement around resident care that focuses on specific domains of knowledge;
- The opportunity for staff from both sectors to collectively address the issue as they develop shared knowledge and therefore create a distinct social entity;
- The development and improvement of practice, built on shared resources and knowledge, which meets the needs of the older person.

One of the significant barriers for health service providers is identifying such places of engagement at strategic and organisational levels of the system are related to the lack of an identifiable entity that is care homes. There is no one place to go to engage systemically with the sector, or establish contracts, for more than an individual or group of care homes.

Conclusions

It is uncontested that closer working, proactive care, service specification, leadership and integration of different NHS services can promote the health care of older people resident in care homes. This study found that there is not a particular model of service delivery that can achieve this. There is an inherent tension when NHS services favour models of care that focus on diagnosis, treatment and episodic involvement, whilst care home providers prioritise on-going support and relationships that foster a continuous review

of care. The findings suggests this tension can be negotiated through the care home manager's leadership, the quality of the working relationship between NHS practitioners and senior staff, and a focus on specific issues of mutual interest. For the older person, accessing, receiving and achieving health care was a co-constructed process. The significance of a mediator (care home staff or relative) who participated in communication and discussions with a range of professionals about residents' health needs should be acknowledged by NHS services and incorporated into patterns of service delivery. There is a need to adjust patterns of working to ensure that health care is not "delivered" to individuals in care homes but organised to support the facilitation of care delivery and discussion of residents' priorities and preoccupations, with the older person and their preferred representatives.

The Report

1 Introduction and Background

1.1 *Introduction*

Primary Health care providers are very aware of the need to improve how they work with care homes in order to improve the services received by older people who live there. As such a range of initiatives have been developed to promote better working between primary care and care homes. Services and projects are often initiated by the health care sector either because of recurrent problems (such as unplanned hospital admissions, avoidable injury or need for support at the end of life), because of a clinical champion or a need to support older people who "fall between" services or are in transition, not being well enough to be at home, but not ill enough to be in hospital. Examples of such initiatives include NHS funding intermediate care beds in care homes, respite care and joint budgets to support continuing care of people with high levels of dependency or as they approach the end of life. It also includes schemes that are problem specific such as falls prevention, activity promotion, infection prevention and continence and nutrition specialist support. Such initiatives are often supported by the payment of financial incentives for General Practitioners (GPs), use of shared documentation, integrated care pathways and designated practitioners working with care home staff to improve care.

This study aimed to make explicit what is known about developing integrated working between health and care home providers, assess the consequences for older people and provide guidance and recommendations for integrated working that can inform future service development and research in these settings.

1.2 *Background*

In England, there are 376,250 over 65year olds living in 10,331 care homes Over 20% of those aged 85 and over live in long term care settings. The average resident is female, over 85 years old, and in the last years of their life. A significant proportion of care home residents have dementia, are in receipt of seven or more medications and live with depression, mobility problems and pain [2]. The care home market is heterogeneous. There is a diverse mix of for profit and not for profit providers that range from charities, faith based organisations, small private family run businesses to large publically listed companies. The majority of care homes do not have on site nursing provision and a significant proportion have less than ten beds. The

median size of a care home with on site nursing is 35 beds and without on site nursing, 25 beds, although the trend is for larger care homes that offer on site nursing care [3].

Care Homes are often geographically and socially isolated, sequestered away from the communities in which they are situated [2]. People living in care homes have complex needs, are the oldest and most frail of the population and the care home workforce have limited opportunities for relevant training [3-6] and links with the broader health and social care economy. Care homes that do not have on site nursing rely on primary health care services for medical and nursing support and access to specialist services and secondary health care. Research consistently demonstrates that people living in care homes have erratic and inequitable access to NHS services, particularly those that offer specialist expertise in key areas such as dementia and end of life care [7-11]. How problems and services are defined by the health service does not always reflect how older people and care home staff define health needs and the types of health care they would like [12]. One experimental study that involved NHS staff working with care home staff to improve continence care demonstrated the benefits of a shared structured approach to help challenge and change established patterns of service delivery improve information exchange and integrate systems of care [2]. An approach that has also been used successfully to support end of life care in care homes [3].

As long as provision of primary health care remains erratic, reliant on individual practitioners' interest in working with care homes, then health service involvement with care homes remains discretionary and locally determined. An extensive review by Szczepura et al [2] summarized the evidence on improving care in care homes with no on site nursing. The authors concluded that medical care could be improved by making it more proactive and preventative and that primary care should also work on a more strategic basis with care homes. There is a reasonable evidence base to suggest that targeted support by health care services will improve outcomes for older people in care homes. However, as a Cochrane review [3] concluded, while most physical rehabilitation interventions for residents in care homes are worthwhile and safe, reducing disability and bringing improvement in physical condition, there is insufficient evidence to make recommendations about the best intervention, improvement sustainability and cost-effectiveness. The recurrent issue is how to embed and sustain patterns of working between the health care service and care homes as independent (and diverse) providers of care for the oldest old.

1.3 *The current study*

This study considers how health care services work with care homes and provide support to their residents, and resolve what can be often competing ideas of good practice. Integrated working by the NHS in care homes has largely been at the initiation of the health service to address acknowledged short comings in service provision to this vulnerable population and reduce avoidable crisis events, problems and unplanned admissions to hospitals. An increasing interest and involvement of the health service in the third sector and specifically care homes, has led to a myriad of approaches to working together. Little is known about the range of models and approaches being used, to what extent care homes are equal partners and if the services provided reflect the priorities and needs of older people.

Within a mixed method study it is useful to have an organising theoretical framework. Kodner and Spreeuwenberg [1] present a model that they argue aims to aid conceptual clarification to support those engaged in theory and practice in the arena of integrated care. The model is 'patient-centric' (p1), which has relevance and fit with the aims of the research team, who were concerned to establish the care home resident's voice at the heart of this study.

At conception of the study, there were no other theoretical models of integrated working that appeared useful for the planned study, however more recently authors have developed Kodner and Spreeuwenberg's work, eg [2] and this has been incorporated within the analysis and discussion.

Kodner and Spreeuwenberg [1] argue that a patient/person centred integration of health and social care services should incorporate a coherent set of methods and models that can engage with the different levels of organisation, management, funding and clinical care within and between the two sectors. It is unknown to what extent these different levels of integration have been achieved with care homes, through for example, access to joint funding, undertaking shared planning and needs assessment, co-location of services, joint training, case management, shared clinical records and decision support tools. Furthermore, within integrated working, little is known about how roles, responsibilities, relationships, resource use, governance and desired outcomes are negotiated between care homes and NHS organisations. However we were not 'testing' the model in a deductive way in care home settings. It was used as the central organising theoretical framework to bring the data collected using the different methods together in order to answer the study questions. Evans et al (88) argue that theoretical frameworks are of particular utility in mixed methods studies. They suggest that theoretical frameworks can be used as navigational devices or maps ensuring that findings are theory based, thus increasing their credibility and enabling better transferability to practice settings.

The Kodner and Spreeuwenberg model is based on studies undertaken in settings other than care homes so it was important not to 'force' the data to 'fit' the model, rather the model was used to guide data collection, such as collecting data relating to the macro, meso and micro organisational levels, and data analysis, where the model was used as an organisational framework for data analysis. As data were thematically analysed, the structures within the model were expanded by creating additional categories for data not fitting neatly into the categorical exemplars provided by Kodner and Spreeuwenberg. We also expanded the higher level categories, for example, Kodner and Spreeuwenberg use a heading of 'clinical', which we expanded to 'clinical, health and social care'. At a time when there is direct policy support for health care and the third sector to work together this study seeks to make explicit what is known about developing integrated working between health and care home providers. The focus is on those care homes that offer personal care and do not provide onsite nursing care as these are the care homes that rely most on health service support.

1.4 Aims

To establish how care homes and health care services achieve integrated working to promote the health of older people

Objectives

1. To review the evidence for the research effectiveness of different approaches and support tools used to promote integrated working between NHS services and care home staff.

2. To identify how integrated working is interpreted, organised and implemented in care homes across England, and at what cost.

3. To identify patient and organisational outcomes arising from integrated working between NHS services and care homes that reflect the priorities, experiences and concerns of older people that live in care homes.

4. To evaluate the impact of interventions that support integrated working between NHS and care home staff, on patient and organisational outcomes, including cost and effective use of resources.

5. To describe facilitators and barriers to integrated working between care home staff and health care practitioners.

6. To develop a typology of integrated working between health services and care homes

2 Methods

This chapter outlines the methods that were used to achieve the six study objectives. The focus of the Approach (**A**nalysis and **P**erspectives of integrated working in **PR**rimary care **O**rganis**A**tions and **C**are **H**omes.) study was to make explicit what is known about developing integrated working between health and care home providers, assess the consequences for older people and develop a typology of integrated working that can inform future service development and research in these settings. A two-phase mixed method study was undertaken.

2.1 *Study Design*

A mixed method design was used, based on the principles of evaluation of complex interventions when using a phased approach [3]. The design was also informed by a recognition that quality improvement relies on understanding how service development and change is achieved at individual, group, organizational and environmental levels [4-6]. The study objectives were investigated using mixed methods in two phases with four elements.

Phase one: addressed study objectives 1-3 and 6 through a review and a survey:

1. A systematic review of the research evidence for the effectiveness of integrated working between primary health care services and care homes for older people.

2. A national survey of care homes to establish the range and type of health care service provision to care homes in England including the care home manager's experience of integrated working with them.

Phase two: addressed study objectives 3 to 6 through case studies and a validation meeting:

3. A prospective case study analysis was conducted with six care homes in three different geographically diverse areas of England which had differing levels of integration with NHS primary care services.

4. A Validation meeting attended by care home experts to consider the findings from both phases of the study and to draw up recommendations for commissioners.

2.1.1 Study organisation and management

The study was overseen by a management group made up of the researchers and study research team which met at least four times a year, and a study steering committee which met twice a year and acted as an expert panel

and critical partner to the project. An organisational chart was devised by a study steering committee member to clarify the research process and the structure of the study (see appendix 1 for chart and a related article submitted to Involve). The overall role of the study steering committee was to ensure that the study was conducted in line with the protocol and that the design, execution and findings were valid and appropriate for the older people, the care home staff, practitioners and other organisations that are responsible for their care. Specifically members were asked to:

- Provide expert advice and guidance on all aspects of the study; individual members may provide expertise for the different phases
- Ensure the project is running to its timetable
- Address any project risks and ensure the appropriate procedures are in place
- Provide a forum for discussion of issues arising from the research
- Read and comment on any reports and other relevant study documents
- Act as a link between the project and other related research studies, NHS and charitable organisations interested in integrated working between care homes and health care services.
- Be involved in the dissemination of the findings throughout the duration of the study

2.2 *Phase 1: Systematic review:*

2.2.1 Aims

The aim was to review the evidence from the research on the effectiveness of different approaches and support tools used to promote integrated working between NHS services and care home staff. More specifically four broader aims were identified:

1. To review the effectiveness of integrated working between care home/nursing home staff and health care practitioners and evaluate their impact on the health and well being of older people in care homes.
2. To describe and evaluate interventions that aim to promote or facilitate integrated working between care home/nursing home staff and health care practitioners and evaluate their impact on the health and well being of older people in care homes.
3. To identify barriers to integrated working between care home/nursing home staff and health care practitioners and identify

factors needed to achieve meaningful integration and partnership working.

4. To investigate the extent to which contextual factors, such as location, service providers, resources, shared infrastructures and professional roles influence the sustainability and effectiveness of integrated working.

The review was conducted according to inclusion criteria and methods pre-specified in a protocol developed by the authors before the review was carried out (See Appendix 2, page 202).

2.2.2 Identification of studies

The aim was to review the evidence from the research on the effectiveness of different approaches and support tools used to promote integrated working between NHS services and care home staff.

We included interventions designed to develop, promote or facilitate integrated working between care home or nursing home staff and health care practitioners. Interventions that involved staff going in to provide education or training to care home/nursing home staff were included as long as there was some description of joint working or collaboration. We excluded studies where staff were employed specifically for the purpose of the research without consideration of how the findings might be integrated into ongoing practice (i.e. project staff introduced for a limited time to deliver a specific intervention). For a study to be included there had to be evidence of at least one of the following:

Inclusion criteria:

1. Clear evidence of joint working
2. Joint goals or care planning
3. Joint arrangements covering operational and strategic issues
4. Shared or single management arrangements
5. Joint commissioning at macro and micro levels

Studies also had to report at least one of the following outcomes:

1. Health and well being of older people (e.g. changes in health status, quality of life)
2. Service use (e.g. number of GP visits, hospital admissions)
3. Cost such as savings due to avoided hospitalisations
4. Process related outcomes (such as changes in quality of care, increased staff knowledge, uptake of training and education and professional satisfaction)

As the literature in this area is limited we included all studies that involved an element of evaluation. This included controlled and uncontrolled studies. However, because they are more susceptible to bias, studies without a control were used to describe and catalogue interventions rather than evaluate effectiveness. Process evaluations and qualitative studies including those using action research methodologies were included in order to identify facilitators and barriers to integrated working.

Box 1: Search terms on PubMed (search terms were suitably adapted for other databases)

Component 1

Search "Delivery of Health Care, Integrated"[Mesh] OR integrated[ti] OR team[ti] OR interdisciplinary[ti] OR integration[ti] OR integral[ti] OR integrat*[ti] OR seamless[ti] OR continuity[ti] OR interface[ti] OR multidisciplinary[ti] OR multiprofessional[ti] OR multiagency[ti] OR interprofessional [ti] OR multi sector[ti] OR model*[ti] OR coordinat*[ti] OR partnership*[ti] OR tufh OR continu*[ti] OR interagenc*[ti] OR stakeholder*[ti] OR network*[ti] OR systems[ti] OR team*[ti] OR shared[ti] OR joined-up[ti] OR pooling[ti] OR vertical*[ti] OR horizontal*[ti] OR collaborat*[ti] OR cross organi*[ti] OR multi-professional[ti] or intermediate care[ti] or multi agency[ti] or multiagency[ti] OR managed care[ti] OR joint care[ti] OR ((individual[ti] or separate[ti]) AND budget) OR partner*[ti] OR all-inclusive[ti] OR in-reach[ti] OR chain[ti] OR comprehensive[ti] or total care[ti] OR interface[ti] OR "service interaction" OR seamless[ti] OR interagency[ti] OR "Patient Care Team"[MAJR]

AND

Search Family Physicians OR general pract*[ti] OR general physician*[ti] OR family doctor*[ti] OR general medicine[ti] OR Primary Health Care OR Continuity of Patient Care OR "primary care" OR continuity of care OR physician*[ti] OR "Physicians"[Majr:NoExp] OR "Physicians, Family"[Majr] OR "Physician Assistants"[MeSH Terms] OR"Nurse Practitioners"[MeSH Terms] OR "Physician's Practice Patterns"[MAJR] OR physician*[ti] or practitioner*[ti]

AND

Search Nursing Homes OR nursing home*[ti] OR "nursing home*" OR long-term care[ti] OR long term care [ti] OR nursing facilit*[ti] OR residential[ti] OR institutional care[ti] OR resident*[ti] OR continuing [ti] OR respite care OR nightingale home OR nightingale homes OR care home*[ti] OR long-term[ti] OR longterm[ti]

AND

Search geriatrics OR elderly OR older OR middle age OR middle-age OR senior OR frail OR care of elderly OR geriatric nursing OR geriatric assessment OR "Aged"[Mesh] OR "Health Services for the Aged"[Mesh] OR "Middle Aged"[Mesh] OR "Homes for the Aged"[Mesh] OR "Aged, 80 and over"[Mesh] OR senior*[ti] or pensioner*[ti] OR retire*[ti]

Component 2: Simplified, focused searches involving two aspects of the subject:

NHS / Primary Care / Nursing homes

Search ("Physicians"[Majr:NoExp] OR "Physicians, Family"[Majr] OR "Physician Assistants"[MeSH Terms] OR"Nurse Practitioners"[MeSH Terms] OR "Physician's Practice Patterns"[MAJR] OR physician*[ti] OR practitioner*[ti] OR specialist*[ti] OR primary care[ti]) (nursing home*[ti] OR residential care[ti] OR care home*[ti] OR residential home*[ti])

Nursing homes / Integrated Care

Search (nursing home*[ti OR residential care[ti] OR care home*[ti] OR residential home*[ti]) (integrat*[ti] or team*[ti] or cooperation[ti] OR multidisciplinary[ti])

Elderly / Integrated Care

Search (elderly[ti] or older[ti] or geriatric*[ti] OR senior[ti]) (integrat*[ti] OR team*[ti]) AND (community OR nursing homes)

2.2.3 Data extraction and synthesis

Electronic search results were downloaded into EndNote bibliographic software. Two reviewers (from the research team) independently screened all titles and abstracts of citations identified by the electronic search, applied the selection criteria to potentially relevant papers, and extracted data from included studies using a standardised form. Any disagreements concerning studies to be included were resolved by consensus or by discussion with a third reviewer.

Due to substantial heterogeneity in study design, interventions, participants and outcomes we did not pool studies in a meta-analysis. Instead a narrative summary of findings is presented and where possible we have reported dichotomous outcomes as relative risks (RR) and continuous data as mean differences (MD) (with 95% confidence intervals). Data in the evidence tables is presented with an indication of whether the intervention had a positive effect (+), a negative effect (-), or no statistically significant effect (0). The qualitative studies were used to generate a list of potential barriers and facilitators to integrated working. Each paper was systematically read by two researchers to highlight any factors that may have impacted on the process, both those that were explicitly referred to by the authors and those identified by the reviewers within the papers' narratives.

The quality of the included studies was assessed using design assessment checklists informed by the Cochrane Collaboration risk of bias tool ([7] quality assessment checklist for qualitative studies ([8]. The core quality-assessment domains are summarised in Table 1. As other non controlled studies were used to inform contextual understanding rather than evaluate effectiveness they were not formally quality assessed.

Table 1. **Quality assessment criteria by study type**

Randomised controlled trials all scored as *Yes/No/Unclear*	
Sequence generation	Was the allocation sequence adequately generated?
Allocation concealment	Was allocation adequately concealed?
Blinding	Was knowledge of the allocation intervention adequately concealed from outcome assessors?
Incomplete outcome data-	Was this adequately addressed for each outcome?
Selective outcome reporting	Are reports of the study free of suggestion of selective outcome reporting?

Controlled studies (without randomisation) all scored as *Yes/No/Unclear*	
Baseline results reported	Were baseline results reported for each group?
Groups balanced at baseline	Were there any significant differences in the groups at baseline?
Blinding	Was knowledge of the allocation intervention adequately concealed from outcome assessors?
Incomplete outcome data-	Was this adequately addressed for each outcome?
Selective outcome reporting	Are reports of the study free of suggestion of selective outcome reporting?
Qualitative studies - *Scored as fully or mostly, partly or not at all*	
Scope and purpose	*e.g*. clearly stated question, clear outline of theoretical framework
Design	*e.g*. discussion of why particular approach/methods chosen
Sample	*e.g*. adequate description of sample used and how sample identified and recruited
Data collection	*e.g*. systematic documentation of tools/guides/researcher role, recording methods explicit
Analysis	*e.g*. documentation of analytic tools/methods used, evidence of rigorous/systematic analysis
Reliability and validity	*e.g*. presentation of original data, how categories/concepts/themes developed and were they checked by more than one author, interpretation, how theories developed
Generalisability	*e.g.* sufficient evidence for generalisability or limits made clear by author
Credibility/plausibility	*e.g.* provides evidence that resonates with other knowledge, results/conclusions supported by evidence

Data were extracted from each study on methodology, type of intervention, outcomes, participants, and location. In addition, an interpretive approach based on Kodner and Spreeuwenberg's [1]) work on integrated working, was

used to compare and contrast the nature and level of integration across the studies using the principles of framework analysis (Spencer and Richie 1994). Each study was categorised in terms of the degree of integration and the complexity classified as micro, meso and or macro. In addition, based on the assumption that care homes with a higher level of integration would show evidence of correspondingly greater levels of support and contact with health care professionals, each study was analysed to identify the amount of contact, support and training given by the health professionals involved in the study. The findings of the review are presented in Chapter 3.

2.3 *Phase 2: Survey*

2.3.1 Aims

The survey addressed study objectives 2 and 5. It aimed to establish the current focus, range, type and level of integrated working that exists between primary health care services and care homes across England, and the facilitators and barriers to achieving it that were reported by care home managers.

2.3.2 Sampling

A national sample of care homes was identified using the online directories held by the Care Quality Commission (CQC). Care homes were eligible for inclusion in the survey if they:

- provided personal care only (no on-site nursing);
- accommodated only older people (including people with dementia);
- had 25 places or more

2.3.3 At the time the study was undertaken (September 2009), there were 2,514 care homes in England that met the inclusion criteria, 30 of which were randomly selected to pilot a purpose designed questionnaire, with the main study based upon and systematic random 1 in 4 sample from the remaining homes (n=621). "This ensured that a representative spread of care homes were included and the survey was feasible within the time allowed. It took an administrator two weeks to locate/confirm the designated person and email addresses of the 621

care homes as well as establish which care homes would prefer hard copies of the questionnaire."Questionnaire design

A self completion questionnaire was designed, informed by the systematic literature review of integrated working between care homes and primary health care [9] and the different levels of integration (funding, administrative, organisational, service delivery, clinical care) that can be achieved within and across organisations [1]. Responses were received from four of the 30 (13%) pilot homes (after three reminders) As a result the survey was shortened, and questions that were poorly understood were removed. The final version (Appendix3) took between 15 and 20 minutes to complete and comprised five sections:

1. The primary and community health care services the care home reported that it had received in the previous six months;
2. How the NHS worked with the home, including use of shared documents, joint learning and training, integrated care planning,
3. Provision of services for the NHS for which the care home receives specific payment;
4. Experiences of integrated working with local health care services, and views about the effects of integration, and barriers to achieving it;
5. Characteristics of the care home (region, number of beds, type of registration, number of homes in the organisation, proportion of self-funding residents, staff numbers and qualifications, star rating of the home at the most recent inspection).

2.3.4 Distribution

A web-based online version of the questionnaire was set up using Survey Monkey (http://www.surveymonkey.com/). An email distribution database of care homes was generated from addresses provided in the CQC directory (35% of homes in the sample). E-mail addresses that were not available from the CQC directory were found through other internet searches (41%), or phone calls to the home (24%). Thirty-seven care homes (6%) stated either that they did not have an e-mail address or that they did not use it, and were sent the questionnaire by post. A further 49 postal questionnaires were sent out to care homes that were unable to receive the online questionnaire due to spam filters or email addresses that were no longer in use.

Care home managers were asked to complete and return the questionnaire within two weeks. To encourage participation each manager was contacted

in advance by email or post to explain the purpose of the study and inform them when they would receive the questionnaire. In addition, three reminders were sent a week apart to non responders; and managers were informed that completion of the questionnaire would enable them to attend one of four national workshops where the findings would be presented. Care homes completing the survey also had the opportunity to enter a prize draw for a voucher.

2.3.5 Survey extension

Following a disappointing response rate, the survey was extended to care homes that were not randomised to the original sample, using an alternative method. Senior managers of four national care providers were approached, and asked to send out the survey link on behalf of the study to the residential care homes in their organisations, which one manager subsequently did. However, in sending the link to all residential care homes in the chain, some that also had on-site nursing beds were included. As replies were anonymous, it was not possible to identify dual-registered homes and remove them from the analysis. Since the pattern of working with local health services of dual-registered homes might be expected to differ from that of residential homes without any on-site nursing, it was not appropriate to combine responses from the two waves of the survey. Therefore, the results of the two groups were analysed separately. The responses obtained from the national survey (referred to as survey 1: S1) and the major provider (survey 2: S2) were compared to explore differences and similarities.

2.3.6 Analysis

The characteristics of responding care homes, and reported use of primary and community services in the previous six months were analysed descriptively, and comparisons between S1 and S2 were made using chi square, Mann Whitney U and unpaired t tests, as appropriate.

Six proxy indicators of integrated working between care homes and primary health services were selected from the survey items. These reflected a continuum of NHS involvement from practices that could be defined as collaborative (frequency of involvement and perception of how the NHS worked with the care home) to those that were indicative of conscious and planned involvement such as shared training and investment. :

1. Whether or not the care home reported using > 0.333 health and social care services per bed (i.e. > 1 service per 3 beds) in the previous six months (Yes / No).

2. Whether or not the care home reported that any NHS professionals or teams work with the home in an integrated way (Yes / No)

3. Amount of learning and training together with NHS colleagues reported by the care home (Weekly / Monthly / Every now and again vs. Rarely / Never)

4. Whether or not the care home reported use of shared documents (e.g. care plans and notes) with any NHS colleagues (Yes /No)

5. Use of integrated care plans (care home with NHS staff), e.g. continence care (All residents or Sometimes vs. Never)

6. Whether or not the care home reported receiving extra payment from the NHS for provision of beds for any of the following services: respite care, palliative / end of life care, continuing care, rehabilitation, day care or to reduce hospital bed use.

An overall integration score was derived for each home based on the percentage of the integration variables for which it had indicated integrated working with the local health service.

Stepwise logistic regression was used to model each integration indicator. Independent variables included in the modelling were: number of beds in the care home; residents per bed (occupancy); number of care homes in organisation (S1 only); proportion of residents self funding; whether care home has dementia beds (Yes / No); location in London and SE (vs. rest of England); proportion of total staff that are full time (taking part time staff as .5FTE); staff: resident ratio; staff: bed ratio; density. Correlation analysis used to explore associations between star ratings and each of the integration indicators, using an unpaired t test, and between star ratings and the overall integration score using a Pearson's correlation test. Views about integrated working were compared between S1 and S2 using Mann-Whitney U tests, and reported descriptively. Statistical significance was reported when $p < .01$.

Data from the free text boxes were downloaded from the Survey Monkey and entered into NVivo8 (QSR International Pty Ltd.) software for qualitative analysis. Responses were read and thematically coded. The qualitative data consisted of short explanations of why particular response options had been selected and some questions asked which only for narrative about the particular issue. Responses often contained comments in relation to more than one question, for example, comments were made about GP retainers in comments boxes associated with questions about different issues. Consequently the qualitative data was analysed in two ways, firstly by response to each question, but also thematically, - by inductively coding the data to search for themes across the data set.

2.4 *Phase 2: Care home case studies*

2.4.1 Aims

The case study phase addressed study objectives 3 to 5 by investigating current integrated working practices between care homes and primary health care professionals. Six care homes in three regions in England, North West, South East and West, were identified as the case study sites.

2.4.2 Recruitment of care homes

Care homes that were invited to participate had to meet the following criteria:

- Registered to provide care for older people including those with cognitive impairment;
- Within an hour's journey of one of the three academic bases;
- Providing personal care (care homes with mixed provision were included in the study but only residents receiving personal care were included in the study);
- Reflected a range of sizes (small (20-30 beds) and large (30+ beds)

The sampling criteria for the inclusion of care homes reflected the range of approaches to integrated working identified from the systematic review and national survey. These corresponded to (as far as was possible) the categories developed by Kodner and Spreeuwenberg [1] (Table 2)

Table 2. **Features of integration for different levels of integration**

	Micro integration	Meso/macro integration
Features of integration to be evident	• Evidence of integrated working between care home and NHS staff on a patient by patient basis	• Joint funding and service level agreements between care homes and NHS providers
	• A working relationship that is perceived to be good between both parties	• Joint planning/ evidence of meetings that are extra to patient

		specific discussions
	• Some shared documentation in use	• Service provision to the care home that is care home wide (e.g. regular clinics, health promotion initiatives)
	• Care home staff and NHS staff know each other by name and have established methods of exchanging information about patients	• Shared education and training offered across the care home
	• Some joint assessment in use	• Shared documentation/frameworks of care used routinely for care home residents
		• NHS funded beds within the care homes
		• Evidence of joint case finding, review of patient/older people needs and anticipatory care

Eligible care homes that fitted the study criteria were identified in a number of ways including:

- Consultation with the relevant PCTs
- E-invitation through care home networks
- On line searches to identify care home related initiatives between the NHS and care homes in the nominated geographical areas.
- Self identification through invitations to care homes that participated in the national care home survey in phase one of the study

Regardless of how they were identified initially, recruitment followed the same process. After an initial meeting between the care home manager and members of the study team, for interested care homes separate meetings were set up with care home staff, residents and where possible relatives, to outline the study, what it involved, give them information sheets and answer any queries. Following these meetings the care home manager was asked to confirm whether or not the care home had decided to participate, permission was also sought from the care home organisation, where appropriate. However, the research staff worked closely with the care homes to ensure that they endorsed the recruitment process for care home staff and older people that worked best for their particular care home.

2.4.3 Recruitment of residents and relatives

Up to seven residents from each care home were purposively selected to represent a range of resident health care service use. Where care homes were identified via a particular NHS innovation, older people who were receiving care from this team were included. All residents recruited had capacity to consent to participate or had consultee assent, and were expected to be resident in the care home for the coming year. Details of the exclusion criteria and recruitment, in particular the process for consultee assent, where the older person does not have the capacity to consent themselves, are given in the ethics protocol (appendix 4).

Relatives were approached for recruitment to the study with the resident's permission; full details of the process are given in the ethics protocol.

2.4.4 Recruitment of care home staff and primary care professionals

Once residents were recruited, the key worker or care home staff member most involved in their care and the primary health care professional they had most contact with were identified and contacted regarding participation in the study. All potential participants received a study information sheet, were

given the opportunity to ask the researcher questions and at least 48 hours to decide whether or not they wanted to be involved.

2.4.5 Recruitment of stakeholders

To complement the data collected from the older people and direct providers of integrated care, interviews were conducted with up to three key informants/stakeholders in each of the three sites to provide an organisational perspective on the different levels of integrated working. In each site letters of invitation with information about the project were sent to stakeholders such as commissioners of older people services, managers of older people services and charities/voluntary organisations that provide services (e.g. advocacy services) to older people through working with health and social care.

2.4.6 Data collection

Multiple sources of date were collected in order to provide a full picture of how the different models of integrated working were implemented and experienced across the three study sites by older people resident in the care homes, care home staff, and health care professionals. Basic information was collected on each care home including size, geographical location, GP services received, rating from the last Care Quality Commission inspection. Qualitative methods were the main source of data collection including face to face interviews, focus groups, notes reviews, documentary reviews and field notes, as well as validated measurement tools for assessing the health and quality of life of older people resident in care homes. To establish any changes across the case study phase, the one year period of data collection was divided into four parts, Time 1 (month 1 - baseline), Times 2, 3 and 4, were Months 4,8 and 12 respectively. Table 3 outlines the data collection that was carried out with residents, their key worker in the care home and the primary health care professionals who were most involved in their care over the case study phase.

Table 3. **Data collection for residents, care home and primary staff**

1. RESIDENTS	2. CARE HOME STAFF	3. PRIMARY CARE PROFESSIONALS (PCPs)
Interviews (Time 1, 2, 3) • Health and social status including Euroqol (EQ5D) • Perceived well being, support needed with daily activities, dependency (Barthel scale) • Health care services received, their effectiveness and satisfaction with them	**Interviews** (Time 1, 2, 3) • Care given by care home staff • Changes in health status • Experience of working with PCPs • Training and support given by PCPs • Perceptions of integrated working	**Interviews** (Time 1, 2, 3) • Care given by PCPs, plans, assessments, referrals • Changes in health status • Experience of working with care home staff • Care home staff training and support given • Perceptions of integrated working
Care home notes reviews (Time 1, 2, 3 and 4) • Demographic information, health conditions, medication • Care – planned, and ongoing – shared with PCPs • Health care services received including hospitalizations, changes in health status and needs	**Focus groups** (1/care home) • Experience of working with PCPs including referral processes, level of contact, feedback, communication, shared paperwork, any training received. • Perceived facilitators and barriers to integrated working with PCPs	**Focus groups** (1/care home) • Experience of working with PCPs including referral processes, level of contact, feedback, communication, shared paperwork, any training given to care home staff. • Perceived facilitators and barriers to integrated working with PCPs

Additional data collection was also conducted as follows:

c) Reviews of the key documents and tools that were shared by the care home staff and health care professionals such as care pathways, shared notes and assessment tools, to establish the structural and organisational context of integrated working.

d) Field notes were also written by the researchers and the PIR members following any care home visits.

e) Stakeholder/key informant interviews

f) Individual interviews with up to 3 family carers or relatives per care home, to get their experiences and views of integrated working between care home staff and health care professionals.

Full details of the data collection including the consenting process and paperwork are given in the case study ethics protocol (See appendix 5).

Two amendments were made to the data collection protocol. Firstly to maximise confidentiality and sensitivity, individual interviews were conducted with relatives rather than focus groups. This major amendment to the protocol was approved by the ethics committee. Secondly, a minor amendment to the data collection was approved by the Study Steering Committee. Given the consistency of their condition and services received across Time points 1 to 3 the residents, their key worker and corresponding PCP were not interviewed at Time 4 unless there was a significant change in their health condition, and or the way that care home staff and PCPs worked together in relation to their care.

2.4.7 Data Analysis

All interviews and focus groups were recorded, transcribed and entered into N-vivo software (QSR International Pty Ltd). Statistical data from validated assessment tools, and information on the older person's use of services, were entered onto an SPSS database. In addition, for the purposes of description and comparison, resident service use was summarised for 16 residents over the four data collection time periods using Visio™ software. This visual representation allowed for the identification of some particular patterns of service use.

The findings generated from the integrated working in the six study sites were brought together in two units of analysis:

1. The site where the different modes of integrated working are situated.
2. Cross case comparisons looking at how the different contexts and mechanisms affect the outcomes for the older person.

The coding and categorisation of the qualitative data used an organisational framework based on the Kodner and Spreeuwenberg (2002) [1] model of integration as outlined in Chapter 1. Subsequently, thematic content analysis was used to identify key themes, common experiences and priorities of care from the categorised data including service delivery, organisational, funding, and clinical/health and social care and their sub-levels. Data from the case studies were also analysed to elucidate what promotes closer working between care homes and PCPs, and resident's perceptions of their health and care priorities. Care home field notes were also analysed thematically.

2.5 *Economic analysis*

The economic analysis focussed on investigating the collaborative working between the six care homes and their respective primary health care services, through an analysis of health and social services used by samples of the residents, and resident–level costs. Data for the economic analysis on resident's service utilisation were collected through the reviews of care home notes, as described in section 2.5.6. Resource use was converted to costs and associations were explored between service use and costs (dependent variables) and resident characteristics. Further details are given in Chapter 5 sections 5.5 to 5.6.2.

2.6 *Ethics and research governance*

Formal ethical approval was sought for the Phase 1 Survey and the Phase 2 Case Studies. A favourable opinion for each stage of the survey was given by the University of Hertfordshire Ethics Committee.

The phase two cases studies received a favourable review from Essex 2 NHS Research Ethics Committee (REC reference 10/H0302/14). Research governance permissions were received from all the research governance offices for both the NHS service providers and the social care organisations involved. Delays in obtaining research governance and Research Passports for researchers meant that planned data collection was deferred by at least one month in Site 1, and two months in Site 3.

2.7 *Validation event*

A validation event (formerly termed consensus event): "What does 'good health care' look like for older people living in care homes?" was held in October 2011 to enable a small group of experts, who commission, provide and or receive health care services in care homes, to discuss the relevance of the Approach study for the area of care that they represented. Following a presentation of the main study findings, experts were split into three groups to discuss and rank the findings that they considered to be most pertinent. In this validation event a modified nominal group technique was used to answer

the question "What does 'good health care' look like for older people living in care homes?" Nominal groups are potentially powerful learning and development tools [10], have a particularly useful role in analysing health care problems [11] , and can help bridge the gap between researchers and practitioners (Carney et al 1996). A nominal group approach designed for ill-structured problems was chosen for this event, to allow for disagreements over problem definition, and for potential solutions that overlapped or varied widely in specificity. This requires the groups to generate ideas, confirm that they are addressing the same problem, analyse the content of the ideas, categorise ideas and clarify the items in each category[12]. A co-design approach was taken, involving different stakeholders from the NHS, social care and care homes [13]. A detailed account of the process is provided in chapter 8 (8.2.2 Organisation and rationale for validation event).

2.8 *Public involvement in research (PIR)*

PIR work within the Approach study was integrated throughout the research process from project design to dissemination and in all areas of the study in terms of its management and sites. Public involvement in the study was achieved in three ways:

1. **User involvement in the study design and research process:**
   Older members of the Public Involvement in Research (PIR) group that have direct experience of care homes at the Centre for Research in Primary and Community Care (CRIPPAC) , were involved in the development of the proposal. Two members continued their involvement through membership of the study steering committee and as reviewers of study documentation including ethics submissions, development of survey questions and data collection tools and analysis throughout the life of the study. Both Brunel and Lancaster had equivalent user representatives who were involved in reviewing the study documentation, commenting on emergent findings and contributing to the research advisory group.

2. **Users as participants in recruitment and data collection with older people, relatives and care home staff:**
   Members of the public involvement in research groups at the three sites held honorary contracts with the university, received research training and were involved with coffee mornings held to introduce the study in the care homes and discussed the study with residents prior to consent. This helped the consent process and facilitated the organisation of interviews at the participating care homes. Participants received payment for their time in addition to the payment for their expenses.

3. **User Involvement through patient and older people representation and stakeholder representatives of service provider organisations:**
(NHS, Private and third sector) The study steering committee and the validation event had representation from charitable and Care Home organisations (e.g. English Community Care Association).

Further details of the active involvement in fieldwork in the recruitment and data collection processes are reported here.
In each of the three university sites undertaking case study work, PIR representatives were recruited in the following way. Written information was prepared about the study and distributed to local user involvement groups to ask for volunteers interested in being involved in the study. Two people per site were recruited for this work (although one person withdrew from Site 3 partway through the project owing to ill-health). Following appropriate governance processes such as CRB checks and the issuing of honorary contracts the PIR members able to participate. All PIR members received travel expenses and honorariums as determined by the university site practices based on good practice guidelines[14, 15] .

2.8.1 Public Involvement in Research(PIR) Role

The role that PIR members would take in the study was a negotiated one and was iteratively developed during the study. The research team had some clear ideas based on previous experiences in other studies [16], but these were discussed with the PIR members before a decision was made about their activity in the project (Table 4).

Table 4. **PIR fieldwork activities**

Activities undertaken	1.Recruitment	Providing residents with information and answering any questions, Providing clarification, reiterating information, Identifying potential residents for recruiting and consenting.
	2.Interview facilitation	Preparing resident for interview to be undertaken by researcher Checking consent of resident Sitting in on interview Post interview follow up Note taking in focus group Pre interview
	3.Resident support	Post interview Project presence within care home increased
	4.Researcher support	

The fieldwork activities that PIR members undertook were classified in four ways: recruitment, interview facilitation, resident support and researcher support. In the initial visits to care homes, in one site (Site 2) PIR members assisted in the introduction of the study to residents either in a group meeting or in one to one discussions with residents. Once residents had agreed to participate, the PIR member was able to accompany the researcher to the care home when interviews were being undertaken. The PIR member could spend time with the residents reminding them about the research and

the interviews, which facilitated the researcher's engagement with the resident during the interview. After the interview the PIR member could revisit the resident to check they were happy with had happened and been said. This role was both a support to the resident and the researcher. More practically PIR members on four occasions (2 for Site 1 and 2 for Site 2) were able to support researchers to undertake focus group interviews with care home and primary health care staff.

2.8.2 Support and Training

Support and training was delivered in two ways: cross site meetings and specific locality meetings at each research site. Three meetings were held for all PIR representatives (November 2009, September 2010 and March 2011) in London.

At the first meeting which was held jointly with the wider project team the study as introduced to the PIR members. The second meeting which involved only the PIR members, PIR leads and researchers from each site discussed expectations of the work and identified areas of work for PIR representatives to be involved with. The third meeting followed a period of involvement in data collection and was an opportunity to reflect on the work undertaken to date, learning, challenges encountered and make future plans for involvement.

PIR members brought a wide range of previous experience in engagement with care homes, involvement in research and consequently required different levels of preparation to take on this role. So, site specific meetings were held and provided tailored support to meet the needs of the PIR members located there. These ranged from briefing meetings to one to one meetings to address specific issues. Ongoing support was provided when any fieldwork activity was undertaken by a PIR member. This took the form of meeting before the site visit, and follow up debriefs immediately after the visit. All team members were asked to complete a reflective debriefing sheet, on which issues could be noted and then followed up within the site team. Regular site meetings ensured these could be addressed with all team members present.

2.8.3 Review of PIR work undertaken

A review of the PIR work undertaken by the research team with the PIR members has identified a number of key areas of learning for the project team which have relevance for a wider audience summarised in Table 5. Within the way the PIR work was structured a number of good features were identified. These concerned the establishment of good working relationships between the researchers and PIR members in each site and also, to a lesser extent between sites. The identification of clear roles and activities ensured

PIR members felt a part of the project team. Their involvement created an extra resource for the project that provide helpful in the case study work.

There were some practical challenges faced during the fieldwork by the PIR members and the researchers. Working in a care home environment created challenges for interacting with residents when they had communication problems and the environment was noisy or distracting. The busyness of the environment also meant that roles and responsibilities could become confused as other demands shaped what needed to be happening when, so requiring adaptability in what was needed at any point in time. There were occasionally issues about seeing and hearing about resident's distress which required attention after the visit. The extent to which PIR members were able to be involved in fieldwork visits was not as great as it could have been because arrangements for visits were often only confirmed by the care home at short notice, which meant the PIR members already had other commitments. Finally, whilst the presence of PIR members during fieldwork visit was a support for the residents and the researcher it did require 'holding' by the researcher which added another level of complexity in an already busy environment.

Table 5. **Experiences of PIR working**

What went well?	Working relationships	Working jointly as PIRs and researchers during fieldwork in care homes
	Establishing roles within project	Feeling part of the project
	Extra resource	More people present during data collection
What was more difficult?	Environment and communication	Potential confusion of roles and responsibilities at time of visit
		Ease of hearing and talking to residents in communal areas or where residents have hearing problems

	Seeing and hearing about resident's distress	Hearing or observing situations that do not look or feel right
	Practicalities of arranging PIR involvement	Short notice often given by care home for visits and therefore short notice for PIR members to respond
	'Holding' PIR work by researcher	Multiple activities researcher has to hold when working with PIR members in terms of oversight and support alongside data collection activities

As a project team we would make the following recommendations about PIR work in care homes about preparation for PIR work in this setting. Project researchers need to:

1. Identify appropriate tasks and activities for PIR members to undertake on visits.

2. Ensure PIR members are:

- Well informed and confident in the role they are performing for the visit;
- Aware of study protocols and procedures for reporting issues or difficulties;
- Comfortable with what has happened during the visit after the visit is over.
- Kept informed about progress of project and likely involvement/changes to involvement

3. Have a debrief session on the day and, where appropriate, follow up supervision for difficult issues raised by the work.

In a multi-site study creating links between PIR members across geographically distant sites to share knowledge and experiences creates a greater sense of involvement in the whole project

PIR visits to care homes occurred in all three sites, in all 6 care homes

3 The systematic review

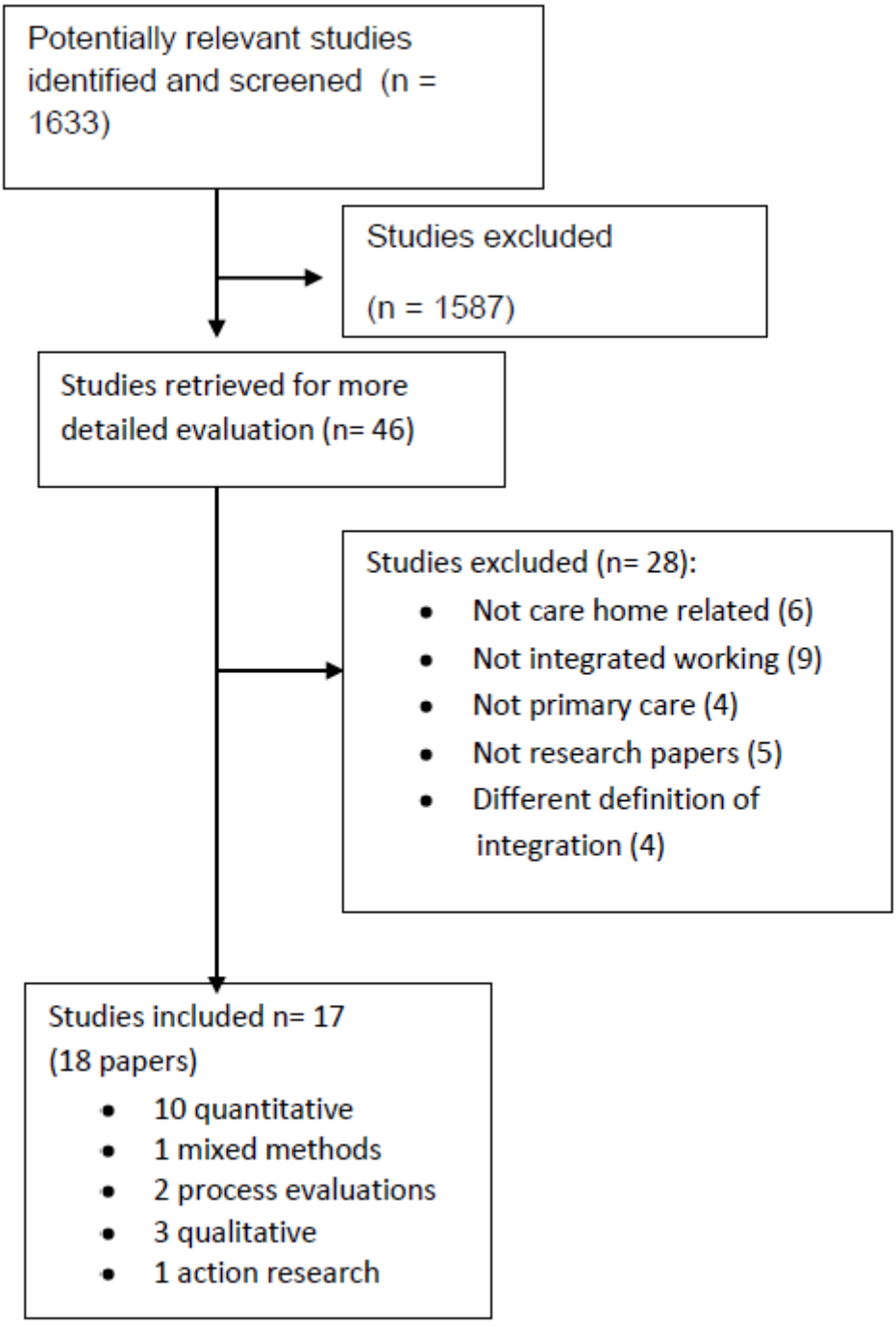
3.1 *Introduction*

This chapter summarises the findings of the systematic review, highlighting the characteristics of integrated working from the research literature. To understand the evidence for the benefits of different approaches to health care services supporting older people in care homes, a systematic review was conducted to identify studies using integrated working between primary health care services and care homes for older people; evaluate their impact on the health and well being of older people in care homes, and identify barriers and facilitators to integrated working. This was not a comprehensive review of the literature on integrated working, but was very specific to this study, as set out in the study inclusion criteria of the review protocol (see appendix 2). The findings were also used to inform the design of the questionnaire which was developed for the national care home survey (appendix 3).

3.2 *Results*

We screened 1721 citations published up to February 2009, of which 46 full text articles were assessed for eligibility. Figure 1 shows the flow of studies through the selection process; 17 studies (reported in 18 papers) met our inclusion criteria.

Figure 1. Approach study identification (Source: QUOROM statement flow diagram



3.2.1 Characteristics of included studies

Ten studies were quantitative, (four of which were RCTs), one used mixed methods, two were process evaluations, three were qualitative and one was action research (Table 6 see Appendix 2). Nine were conducted in the UK, five in Australia, two in the USA and one in Sweden. Eleven (65%) studies were conducted in nursing homes, five in residential homes and one in a combination of both. Study participants included residents, relatives, care home staff both residential and nursing, and health professionals including general practitioners, district nurses, nurse specialists, pharmacists, psychiatrists and psychologists. Seven studies were focused on individual care, for example, specific health care needs such as end of life [17-21] or wound care [22] and dementia [23] . Six studies focused on residents' needs as a group, such as detection and treatment of depression [24], bowel related problems [25] and/ or supporting the care home staff interactions with residents through training [26] and improved prescribing [27-30]. A further four papers were service evaluations such as an in-reach team for care homes [30], a care home support team [31], and nurse practitioners [32, 33]. End of life care was the focus of five papers [17-20, 34], three of which focused on care pathways ([18-20].

3.2.2 Risk of bias

There were seven controlled studies of which four were RCTs. Although the RCTs could be expected to be less susceptible to bias than the non randomised studies the potential for bias in both groups of studies appeared to be high (Table 2 and 3 see Appendix 2). A number of the studies appeared underpowered and for many follow up was short. The qualitative studies employed a range of methodologies including action research, interviews, focus groups and questionnaires. As with the quantitative studies, the quality was low, only two out of four ([18, 21] had a clearly defined purpose and design. With one exception [35] descriptions of the study sample, data collection and analysis were inadequate and evidence of their credibility and transferability was limited (Table 4 see Appendix 2).

3.2.3 Effectiveness

The heterogeneity of the outcomes and, in particular, the interventions meant that making comparisons between studies was challenging. Three studies looked at the effect on prescribing[27-29] , three included mortality as an outcome[28, 29, 33] and two looked at disruptive behaviour[23, 28]. The remaining outcomes, only included in single studies, were depression [24] (Llewellyn Jones 1999, hospital admissions [29], functional status[29] , wound healing [22], and bowel related problems [36]. Full details of the results are in Appendix 2 Table 5. Although there were some improvements in outcomes, the majority of studies showed that the intervention had either

mixed effects (that is improvement in one outcome but no effect or negative effect in another outcome), or no effect when compared with the control group. Insufficient information was available to evaluate the cost of integrated working between care homes and primary health care professionals.

3.2.4 The nature of integrated working

There was extensive variation in the way that health care services and care homes worked together and the frequency of contact. Whilst some studies involved weekly multidisciplinary team meetings [32], monthly meetings were more common [18, 36]. All the studies potentially increased care home staff access to health care professional's support and advice, with 15 out of 17 involving care home staff in multidisciplinary interventions or joint working. Care home staff were involved in multidisciplinary meetings and some studies sought their opinions [29], but they were led by health care professionals, with health care orientated and defined goals. Staff training was an integral part of all studies bar three; only a few studies consulted with care home staff on their perceived training needs [17, 21]. The range of training input varied from as little as three hours [19] to seven seminars[26] or continuous training and support [32, 33].

The level of integration for all studies and the degree of support and training provided by NHS staff for the care homes is reported in Table 6. The majority of studies showed micro integration at the clinical level, involving close collaboration between care home staff and health care professionals to achieve specific outcomes (12 out of the 17) e.g. wound care techniques and wound healing. The remaining five studies were integrated at the clinical level but also showed greater complexity of integration in terms of funding and organisation or strategy, one at the meso level [31] and four at the macro level[19, 30, 32, 33] .In service delivery, four studies used dedicated multidisciplinary teams to support staff and residents in care homes[31], three of which achieved their remit of avoiding unnecessary hospitalisation [30, 32, 33]. Two UK studies also had health service funded beds within care homes, one for use by a specialist health care nursing team (Szczepura et al 2008) the other to provide end of life care [19]. A distinguishing feature of four out of the five studies classified at higher levels of integration was that care home staff received support and or training which was ongoing, as opposed to being offered at discrete time periods during the intervention. For example, nursing home staff were facilitated to recognise and manage acute conditions [32], to improve residents' overall care and potentially reduce health care staff involvement[33].

Table 6. **Level of Integration, care home support staff & training**

Study	Model	1. Care staff involved in team meetings/joint working	2. Level of care home staff support	3.Training for care home staff	Training details	Level and features of integration
Llewellyn-Jones, 1999	Multidisciplinary case conferences	√	Duration of intervention only – no information on length	√	Duration of intervention only – no information on length	*Micro* Close collaboration between health care professionals and care home staff
King, 2001	Multidisciplinary consultation & collaboration	√ Senior nursing staff only	Duration of intervention only – 8 months	×	×	*Micro* Close collaboration between health care professionals and care home staff
Opie, 2002	Multidisciplinary consultation & collaboration	×	Duration of intervention Only – 4 weeks	×	×	*Micro* Close collaboration between health care professionals and care home staff
Schmidt, 1998	Multidisciplinary team meetings	√	Duration of intervention only 1 year	×	×	*Micro* Close collaboration between health care professionals and care home staff
Vu, 2007	Multidisciplinary consultation & collaboration	√	Duration of intervention only1 year	√	Training wound management. No details	*Micro* Close collaboration between health care professionals and care home staff
Crotty, 2004	Multidisciplinary case conferences	√	Duration of intervention only 1 year	√	Half day workshop on managing challenging behaviours	*Micro* Close collaboration between health care professionals and care home staff

Joseph, 1998	Multidisciplinary care	√	Ongoing weekly meetings to discuss deaths, hospitalisations and complications	√	6 hours of seminars every year. Ongoing training and feedback in the management of acute conditions	*Macro* Nurse practitioners employed to provide additional primary care Managed care Hospital avoidance
Kane, 2004	Multidisciplinary care	No information	Ongoing support but no details	√	Ongoing no information on the amount. Focus on training care home staff to improve resident's care	*Macro* Nurse practitioners employed to provide additional primary care Managed care Hospital avoidance

Goodman, 2007	Multidisciplinary consultation & collaboration	√	Duration of intervention only approximately monthly over 6 months	√	Duration of intervention One training session for care home staff in one care home	*Micro* Close collaboration between health care professionals and care home staff
Szczepura, 2008	Multidisciplinary care	√	Ongoing over 2 years	√	Ongoing over 2 years	*Macro* Dedicated nursing and physiotherapy In-reach team Dedicated care home beds Hospital avoidance Joint NHS – local authority initiative.
Proctor, 1998	Multidisciplinary Training – high level of staff involvement	√	Duration of intervention 6 months, weekly visits by specialist nurse	√	Duration of intervention – 7 one hour seminars by multidisciplinary team on topics chosen by care staff	*Micro* Close collaboration between health care professionals and care home staff

	pathways		No information		palliative care	professionals and care home staff Care pathways NHS funded bed
Doherty, 2008	Care home support team	√	Ongoing 1 year	√	Ongoing No details	*Meso* Dedicated care home support team established by NHS
Hasson, 2008	Link nurses in care homes	√	Duration of intervention, monthly meetings over 3 years	√	Duration of intervention only- nine 3 hour training sessions	*Micro* Close collaboration between health care professionals and care home staff
Avis, 1999	District nurses supporting care home staff	√	Duration of intervention only	√	Duration of intervention Only. At least 6	Micro Close collaboration between health care
Knight, 2007	Collaborative working using integrated care pathways	√	Duration of intervention only 3 years	√	Duration of intervention only	*Micro* Close collaboration between health care professionals and care home staff
Mathews, 2006	Collaborative working using integrated care	√	Duration of intervention only	√	Duration of intervention 3 hours on	*Macro* Close collaboration between health care
	pathways		No information		palliative care	professionals and care home staff Care pathways NHS funded bed
Doherty, 2008	Care home support team	√	Ongoing 1 year	√	Ongoing No details	*Meso* Dedicated care home support team established by NHS
Hasson, 2008	Link nurses in care homes	√	Duration of intervention, monthly meetings over 3 years	√	Duration of intervention only- nine 3 hour training sessions	*Micro* Close collaboration between health care professionals and care home staff
Avis, 1999	District nurses supporting care home staff	√	Duration of intervention only	√	Duration of intervention Only. At least 6	Micro Close collaboration between health care

			2.5 years		training sessions no details on length		professionals and care home staff
Hockley, 2005	Champions identified in care homes	√	Duration of intervention Only 1 year. Regular clinical support no information on frequency	√	Duration of intervention – Monthly collaborative learning and monthly action learning sets	*Micro*	Close collaboration between health care professionals and care home staff

3.2.5 Barriers and Facilitators to integrated working

A number of cross cutting themes that influenced the achievement of integrated working were identified (Tables 7 and 8) including care home access to services and the different working cultures of care home staff and health care professionals that acted as barriers and facilitators. Care home staff identified a lack of support from health care professionals and a failure to recognise their knowledge and skills[17, 21] There were negative perceptions on both sides with care home staff feeling that health care professionals were sometimes acting in a 'policing' rather than advisory capacity [17, 31] and health care professionals perceiving care home staff as lacking in knowledge and expertise, and unwilling to change their practice [18].

Whilst input and training from health care staff was valued, for care home staff to access it, dedicated time and finance from care home managers was necessary. Holding sessions within the care home and setting up a learning contract with the staff could facilitate training [20] . Examples of positive interactions included one care home support team described acting as a link to 'the outside world' by the care home, and supporting clinical decision making across the multi disciplinary team [31]. Difficulty in maintaining levels of staff skills and knowledge were exacerbated by the high staff turnover experienced by care homes [17, 20, 21]. However, one study found a higher rate of staff turnover amongst the health care professionals involved in the intervention than the senior staff in the care homes [36]. Consistency of care home managers was identified as an important factor in building collaborative working with health care professionals[20].

Table 7. **Barriers to integrated working**

1. Difficulty of NHS staff gaining the trust of care homes and NHS cynicism of care home expertise
2. Lack of access to NHS services
3. High staff turnover and lack of access to training
4. Lack of staff knowledge and confidence
5. Care homes were professionally isolated
6. Lack of teamwork in care homes

Table 8. **Facilitators to integrated working**

1. Care homes valued NHS input and training
2. 'Bottom up' approach to train staff so that all levels of staff are involved
3. Health care professionals acting as a advocate for care homes in relation to care
4. Health care professionals acting as facilitators for sharing good practice and enabling care home staff to network
5. Health care professionals promoting better access to services for the care home
6. Care home managers supporting staff access to training for example, through establishing learning contracts.

3.3 *Discussion*

This review addressed study objectives 1 and 5 by evaluating research studies which involved integrated working between primary health care professionals, and highlighting any reported barriers and facilitators to achieving it. Seventeen studies were eligible for inclusion in the review, eight of which were controlled evaluations. Although some of the studies reported positive outcomes most interventions had mixed or no effects when compared with the control group. There was insufficient information available to evaluate the cost of integrated working between care homes and primary health care professionals. Some of the qualitative studies suggested that integrated working had the potential to improve the quality of life for older people in care homes through increased support for care home staff and increased access to health care services. A small number of studies which were integrated at the macro or meso level, involved care homes that were supported by dedicated health service teams and health service funded beds or managed care, showed more positive outcomes such as avoidance of hospitalisation. They also differed from the micro integrated studies in their capacity to give ongoing support and training for care home staff, which had the potential to address one of the main identified barriers to integrated working and ultimately improve resident's care. This indicates that for integrated working to be successful, formal structures may need to be in place for health service delivery and organisation of care for care homes.

Despite the lack of evidence on effectiveness, studies consistently demonstrated key issues that supported or militated against integrated working. Barriers to integrated working included a failure to acknowledge the expertise of care home staff, their lack of access to health care services, as well as high care home staff turnover and limited availability of training. Facilitators to integrated working were the care home manager's support for the intervention, protected time and the inclusion of all levels of care home staff for training and support by health care professionals.

A common feature of the interventions was the use of multidisciplinary teams to improve one or more aspect of older people's health care. However, all the studies were led and conducted by health care professionals. There was no evidence of care home staff being involved in the definition or focus of the studies and some evidence that care home staff felt that their knowledge and views were not valued. Seven studies employed external project staff in some capacity, which implies that integrated working may require some external facilitation.

Three studies used integrated care pathways as a means of improving the quality of end of life care for older people resident in care homes. Care pathways may increase integrated working for the individual older people who have them, but this will not necessarily extend to the care home residents as a whole. The use of a shared assessment and care framework and documentation itself can become a useful source of continuity in an environment where there is high staff turnover and shift working in both sectors[36].

The majority of studies were only integrated at the micro level that is, close collaboration between care home staff and individual professionals for the benefit of specific residents. There was wide variation amongst the studies in terms of the frequency and intensity of care home staff support and training, and only one study that involved the care home residents. Care home staff training and support ranged between those studies where it was ongoing and those where it was provided only on one occasion. Where there was support and training of care home staff it was not clear if the ultimate aim was to train staff to a level of expertise so that health services could withdraw.

3.4 *Conclusions*

Integrated working aims to ensure continuity of care, reduce duplication and fragmentation of services and places the patient as the focus for service delivery. This review identified a limited number of studies where the intervention supported integrated working between care homes and primary health care professionals. The narrow focus and single issue orientation of the majority of the studies did not engage with the needs of care home population or the context and organisation of their care. Outcome measures reflected the priorities of health care professionals rather than residents and care home staff. In view of the growing demand for residential and nursing home care together with funding constraints, more effective working between the NHS and care home providers is essential. There is an urgent need to develop and test interventions that promote integrated working and address the persistent divide between health services and independent providers.

4 National Survey of Care Homes Results

4.1 *Introduction*

This chapter summarises the findings of the national survey that addressed research aim 2 and 5. The survey findings are reported in seven sections. Firstly, the response rate and the comparability of care homes included in survey 1 (S1) and survey 2 (S2) is presented. Use of primary care services is considered individually before exploring indicators of integrated working.

4.2 *Results*

4.2.1 Response rates

Of the 621 homes in the original sample (S1), a total of 86 were sent paper copies. Of the remaining 535, a total of 501 successfully received the electronic survey link, with the remaining 34 either having software that rejected the link, or opted out of e-survey. Identification of these homes so that they could be sent a paper copy instead was not possible. Ninety-three of the 587 care homes receiving the survey completed it, 77 online and 16 by post, giving an overall response rate of 15.8% (15.4% online, 18.6% post,). The collaborating care home chain reported sending the survey link to 131 members (S2), 102 of whom completed the survey (78% response rate). Overall, we therefore received 195 questionnaires out of 718 (27%) for inclusion in the analysis.

The completed questionnaires were reviewed for inclusion in the analysis. Four homes in S1 were excluded from the analysis, three were incomplete (had not completed the sections requesting data describing characteristic of care home) and one deemed ineligible because it reported only 10 beds (inclusion criteria was > 25 places), leaving 89 homes in the S1 analysis. Three homes reporting 22 or 23 beds were retained in the study. Item omission is dealt with in the analysis of individual elements of the questionnaire.

4.2.2 Characteristics of participating care homes and comparison of responses S1 vs. S2

The key characteristics of care homes responding to both S1 and S2 were compared. There were statistically significant differences between S1 and S2 (Table 7) in terms of: (a) the mean number of beds per home was significantly lower in S1 than in S2 (39 vs. 55); (b) as was the proportion of staff employed full time (75% vs. 85%). The proportion of self-funding residents (those paying for their own care), was higher in S1 than S2 (43% vs. 28%). There were no differences between the two surveys in terms of the proportions of homes accepting residents with dementia; the mean number of staff per bed or the star rating (quality rating) of homes at the last CQC inspection (an external audit of quality-see CQC website for details). Given the differences in home size, the percentage of part-time staff and the proportion of self-funded residents, all factors that may influence the potential for integrated working, we have distinguished between S1 and S2 throughout the rest of the analysis.

Table 9. **Characteristics of participating care homes and comparison of responses from the national random sample (S1, n=89) and major chain (S2, n=102).**

Characteristic		S1. N=89			S2. N=102			Significant difference, S1 *vs.*S2 (Chi Square)
		Responses	n	%	Responses	n	%	
CQC region: London &SE (vs. Rest of England) *		76	28	36.8	91	77	15.4	p=.001
Dementia beds	Yes	75	45	60.0	92	50	54.3	ns
Number of care homes in organisation	1	75	23	30.7	102	0	0	p<.001
	2-5		19	25.3		0	0	
	6-10		9	12.0		0	0	
	11-20		4	5.3		0	0	
	21-30		8	10.7		0	0	
	>=31		12	16.0		102	100	
Density	Rural	70	6	8.6	81	2	2.5	ns
	Village		5	7.1		4	4.9	
	Suburban		7	10.0		9	11.1	
	Urban		52	74.3		66	81.5	
Number of stars at last inspection	0 Poor	75 (mean 2.12)	1	1.3	89 (mean 2.15)	0	0	Difference between means (t test) ns
	1 Adequate		12	16.0		7	7.9	
	2 Good		39	52.0		62	69.7	
	3 Excellent		23	30.7		20	22.5	

Characteristic	S1. N=89			S2. N=102			Significant difference, mean S1 *vs.*S2 (ttest)
	Responses	Mean Median	SD Range	Responses	Mean Median	SD Range	
Number of beds in home	75	39.0 37.0	10.9 22-93	91	55.3 47.0	31.8 20-180	p<.001
Residents per bed / occupancy (%)	65	93.0 100.0	11.0 47-100	88	87.9 93.1	14.6 42-100	p=.015
% of residents who are self funding	55	42.8 37.8	28.7 0-100	83	27.6 22.7	23.9 1-100	p=.002
% of total staff that are full time	71	74.7 86.3	27.3 4-100	85	84.5 87.5	16.2 19-100	p=.009
Total staff per bed (Part time taken as .5FT)	63	.71 .66	.20 .42-1.24	80	.76 .68	.30 .42-1.91	ns
Total staff per resident (Part time taken as .5FT)	59	.77 .69	.23 .42-1.57	80	.86 .77	.30 .42-1.98	p=.052

*CQC Region:n(%)	East Midlands	East	London	North East	North West	South East	South West	West Midlands	Yorks & Humber	Total
S1	8 (10.5)	8 (10.5)	5 (6.6)	3 (3.9)	13 (17.1)	23 (30.3)	7 (9.2)	4 (5.3)	5 (6.6)	76 (100)
S2	6 (6.6)	8 (8.8)	5 (5.5)	21 (23.1)	10 (11.0)	9 (9.9)	11 (12.1)	6 (6.6)	15 (16.5)	91 (100)

ns: not significant

4.2.3 General practice and care homes

All care homes reported receiving services from general practitioners (GPs). Eighty-one per cent of homes in S1 and 92% in S2 reported that they worked with more than one practice (Table 10). Many comments were made about the GP services provided; some described the difficulties care homes faced getting when asking GPs to visit residents in the care home.

'GPs in this area generally do not like to visit and prefer to diagnose over the phone, which we find unacceptable. We really struggle to get them to visit their patients. It takes months for medication changes to be reflected on repeat prescriptions. Medication reviews only happen at our request apart from one surgery which is very proactive'.

Services described included surgeries/clinics held in the care home:

'We have a weekly surgery held in the home for all their patients to attend if they wish. The surgery rings the day before for list of patients'.

Others saw no need for care home based clinics as they felt they received a good service from GPs or a service that had lasted for a short period of time:

'*There is no need, as our GPs visit whenever they are needed'.*

'Had been promised weekly set day-only survived 5 weeks.'

A small number of homes reported paying retaining fees to GPs (Table 10), but comments about this were all negative. Retainers were thought to be unfair:

'Personally I do not think any care home should pay a retainer, service users have a right to basic medical care and it's not right that care homes should pay for this. They would get this care free of charge in their own homes and frankly a care home is their home.'

Table 10. **Relationships between General Practice and Care Homes**

Do you currently have more than 1 GP practice working with the care home? n(%)	Phase	Yes	No		Practices	2 - 4	5 - 9	>=10	Total
	S1 Missing 3	70 (81.4)	16 (18.6)	If YES, how many practises ? n(%)	S1	37 (59.7)	24 (28.8)	1 (1.6)	62 (100)
	S2	94 (92.2)	8 (7.8)		S2	49 (57.0)	30 (34.8)	7 (8.3)	86
	Chi Square: p=.028				Mann Whitney U: not significant				
Do you pay a retainer to your main GP practice? n(%)	**Phase**	**Yes**	**No**		**Retainer**	**<£1,000**	**£1,000-£4,999**	**£5,000-£9,999**	**£10,000 - £14,999**
	S1 Missing 9	7 (8.8)	73 (91.3)	If YES, amount of retainer per year. n(%)	S1	0	1 (14.3)	3 (42.9)	3 (42.9)
	S2 Missing 8	5 (5.3)	89 (94.7)		S2	1 (20.0)	3 (60.0)	1 (20.0)	0
	Chi Square: not significant				Mann Whitney U: p=.03				

4.2.4 Other primary care and community services

The questionnaire collected data on the use of 27 different types of primary and community health care professionals and services in the previous six months (Table 11). The main services used by homes were district nurses (DN) and opticians (over 90% of homes), and community psychiatric nurses and chiropody/podiatry services (more than 80%). Community Psychiatric Nurses were reported to visit 86% of homes, dieticians and speech and language therapists visited 70% of homes. There was a significant difference between S1 and S2 in reported use of dieticians, specialist nurses, hospice teams and (marginally) consultant geriatricians; these were used by a larger proportion of homes in S2. Half of homes did not report use of any palliative services (Macmillan, Marie Curie or Hospice teams) in the previous six months. Of homes using palliative services, 60% reported using more than one (Table 12).

The number of professional/services received in care homes in the last 6 months were similar in S1 (mean 14.10; SD 5.11; median 14) and S2 (mean 14.48; SD 4.88; median 14.5However, the mean number of professionals/services per bed was significantly higher in S1 (.39 (.163) vs. .32 (.172), p=.012) than S2.

Table 11. **Reported use of services in the previous 6 months, (either to individual residents or on a full care home basis), ranked by overall (S1+ S2) percentage of homes.**

Rank	Professional or Service	Overall % (S1+ S2)	S1=89		S2=102		Signif. Diff.*
			N	%	N	%	
1	District Nurse	92.1	84	94.4	92	90.2	ns
2	Optician	90.6	81	91.0	92	90.2	ns
3	Community Psychiatric Nurse	85.9	78	87.6	86	84.3	ns
4	Chiropody, Podiatry	82.7	73	82.0	85	83.3	ns
5	Continence service	74.9	66	74.2	77	75.5	ns
6	Physiotherapist	71.2	63	70.8	73	71.6	ns
7	Pharmacist	70.7	66	74.2	69	67.6	ns
8	Speech and Language therapist	70.2	58	65.2	76	74.5	ns
9	Dentist	69.6	65	73.0	68	66.7	ns
10	Dietician	69.1	53	59.6	79	77.5	.008
11	Old age psychiatrist	66.5	58	65.2	69	67.6	ns
12	Specialist nurse, eg older people, diabetes	63.9	42	47.2	80	78.4	<.001
12	Occupational therapist	63.9	59	66.3	63	61.8	ns
14	Hearing services	52.9	51	57.3	50	49.0	ns
15	Macmillan nurse	49.7	39	43.8	56	54.9	ns
15	Practice nurse	49.7	45	50.6	50	49.0	ns
17	Consultant geriatrician	44.0	33	37.1	51	50.0	.073
18	Falls, exercise coordinator	37.7	35	39.3	37	36.3	ns
19	Hospice team	32.5	22	24.7	40	39.2	.033
20	Community matron	31.9	25	28.1	36	35.3	ns
20	Intermediate care team	31.9	30	33.7	31	30.4	ns
22	Clinical psychologist	30.4	25	28.1	33	32.4	ns
23	Care home support team	19.9	18	20.2	20	19.6	ns
24	Marie Curie nurse	14.7	12	13.5	16	15.7	ns
25	Health visitor	11.0	9	10.1	12	11.8	ns
26	Admirals nurse	4.7	4	4.5	5	4.9	ns
27	Other	2.6	4	4.5	1	1.0	ns

Table 12. **Reported use of palliative care services (Macmillan, Marie Curie, Hospice team) in the previous 6 months**

Number (%) of homes using	S1. N=89	S2. N=102	Total
0 palliative services	46 (51.7)	43 (42.2)	89 (46.6)
1 palliative services	23 (25.8)	19 (18.6)	42 (22.0)
2 palliative services	10 (11.2)	27 (26.5)	37 (19.4)
3 palliative services	10 (11.2)	13 (12.7)	23 (12.0)

Additional responses revealed that specialist nurses were particularly valued.

'*We benefit from Advanced Nurse practitioners from [name] PCT who are Nurse Prescribers. Most of the routine GP work is now done by them.'*

'*Previously access to services was a barrier, but now they work closely with the care home specialist which has improved their access to services.'*

A consistent theme within the qualitative comments was the difficulty of accessing many specialist services, as resources were felt to be increasingly difficult to access:

'*We find it very difficult to get services following referrals and also have to push hard to get the assistance we need. It appears that local services are stretched and currently visits vary even for longstanding clients from the district nursing team vary as there are only 2 nurses at present covering the north [county] area, the twilight team are also stretched too, we have often had visits to administer specialist medications after 11pm at night when the client is in bed!'*

Care home managers identified a range of specialist staff they would like to access whom they felt could benefit residents, these included community matrons who visited only 32 % of responding homes.

4.2.5 Integration indicators

Homes in S1 and S2 differed significantly on two key indicators of integration (Table 13): use of health and social care services (higher in S1), and provision of services for NHS for which the home received specific payment (59% of homes in S2 vs. 36.5% in S1). There were no significant differences between responses from homes in S1 and S2 on the other four indicators of integration: self reported working with NHS professionals/teams in an integrated way (overall 62%), frequency of joint learning and training (56%), use of shared documents (69%), integrated care planning (57%). The mean overall integration scores were similar for S1 and S2 (54.7% vs.54.8%; unpaired t test, not significant), i.e. homes in both surveys indicated integrated working with the NHS in just over half of responses on the 6 key integration variables.

Table 13. **Joint working between care homes and NHS: 6 key indicators of integration**

(S1, n=89; S2, n=102)

1.Use > 1health/social care service in last 6 months per 3 beds		Yes		No		Total		Significant difference S1 *vs.* S2			
	S1	48 (64.0)		27 (36.0)		75 (100)		Chi. Square			
	S2	33 (36.3)		58 (63.7)		91 (100)		p < .001			
2. Work with NHS professionals/teams in an integrated way		Yes		No		Total		Significant difference S1 *vs.* S2			
	S1	45 (60.8)		29 (39.2)		74 (100)		Chi. Square			
	S2	57 (62.6)		34 (37.4)		91 (100)		Not significant			
3. Joint learning and training between care home and NHS. n(%)		Weekly,monthly,every now&again		Rarely, never		Total		Significant difference S1 *vs.* S2			
	S1	53 (62.4)		32 (37.6)		85 (100)		Chi. Square			
	S2	52 (51.5)		49 (48.5)		101 (100)		Not significant			
If YES, which colleagues? *Tick all that apply.*		GP	DN	Pharm-acist	Spec. Nurse	CPN, MHT	CHST	ICT	Diet-ician	Geriatr-ician	Pall-iative
	S1	1	29	23	12	14	21	6	15	1`	8
	S2	6	23	20	40	8	5	4	22	1	26
4. Use shared documents with NHS colleagues. n(%)		Yes		No		Total		Significant difference S1 *vs.* S2			
	S1	61 (70.1)		26 (29.9)		87 (100)		Chi. Square			
	S2	68 (68.0)		32 (32.0)		100 (100)		Not significant			
If YES, which colleagues? *Tick all that apply*		GP	DN	Pharm-acist	Spec. Nurse	CPN, MHT	CHST	ICT	Diet-ician	Geriatr-ician	Pall-iative
	S1	52	57	14	29	41	8	13	33	19	22
	S2	53	53	15	40	43	13	15	41	20	23
5. Integrated care planning with NHS colleagues, eg continence care. n(%)		As appropriate, Sometimes		Never, Don't know		Total		Significant difference S1 *vs.* S2			
	S1	47 (59.5)		32 (40.5)		79 (100)		Chi. Square			
	S2	49 (55.1)		40 (44.9)		89 (100)		Not significant			
6. Receive extra payment from NHS for		Yes		No		Total		Significant difference S1 *vs.* S2			
	S1	31 (36.5)		52 (63.5)		85 (100)		Chi. Square			

providing specific services, Yes (vs No), and which services n(%)	S2	59 (59.0)	41 (41.0)	100 (100)	p = .002			
		Respite care beds	Palliative care beds	Continuing care	Rehab-ilitation	To reduce bed use in hospitals	NHS day care	Total
	S1	11 (12.9)	9 (10.6)	25 (29.4)	7 (8.2)	3 (3.5)	3 (3.5)	85 (100)
	S2	27 (27.0)	30 (30.0)	56 (56.0)	8 (8.0)	11 (11.0)	8 (8.0)	100 (100)
Significant difference S1 *vs.* S2, Chi. Square		p= .018	p= .001	p <.001	ns	p= .056	ns	

Key: CPN: Community Psychiatric Nurse; CHST: Care Home Specialist Team; ICT: Intermediate Care Team; MHT: Mental Health Team; Palliative: Macmillan or other palliative care team; ns: not significant

Many care homes reported positive relationships and styles of working with the NHS:

'We have a lot of input from outside agencies and always welcome them to our home. Both the residents, and staff benefit from these visits.'

Qualitative data appear to reflect more on the relationship element of their working with individual primary care staff than integrated working at an organisational level.

'*These responses make it look like we hardly ever work with NHS colleagues whereas we have regular contact with District Nurses and GP with whom we have a good working relationship and liaise closely about individual residents*.'

And:

'*We have the best relationships with the GP, district nurses and pharmacist as we work most closely with them.'*

Responses were also made regarding specific NHS staff:

'The responses above are in respect of the District Nurse team, however I do not feel that Hospitals are as forthcoming with integrated working and sharing information for the benefit of the residents.'

Joint education and training is a key feature of integrated working [1](Kodner and Spreeuwenberg 2002), illustrated by the following informant:

'The nurse specialist for care homes provides monthly training for the care home staff. They have quarterly meetings with the GP and other primary health care professionals where care home staff select a resident whose care they would like to discuss. It also provides a forum for learning and training.'

However much of the training described involves NHS staff providing specific skills for care home staff such as fall prevention. Managers also indicted that training that had been previously accessed had been cut:

'...used to be regular but because of the cut backs don't know when we will get any further training from them.'

Training in an integrated system should not be one way- and care home staff indicated that they have skills and knowledge but there were not opportunities to share these with NHS staff:

'*We would like to work more closely with the NHS staff and share our knowledge.'*

Qualitative data indicate that using shared documentation and assessment tools can mean a range of different things, including the care home completing documentation provided by the NHS, or using their own versions of standardised tools e.g. MUST (Malnutrition Universal Screening Tool):

'...we have all our own documentation which is of a high standard, although we have used some documentation from D/N (District nurse) Re continence assessments. '

Sharing may also be one way- i.e. NHS staff may use Care home notes but care home staff do not get reciprocal access to NHS notes.

'Not sharing per se; more they look at our notes. We then get a copy of any letters produced for Dr's or family, but not access to their notes.'

4.2.6 Predictors of integrated working

We used regression analysis (separately for S1 and S2) to explore the care home characteristics associated with integration (each of the six key indicators and the overall integration score). However this exercise revealed few statistically significant factors. Smaller homes (number of beds) in both S1 and S2 were more likely than larger homes to have used > 1 professional or service per 3 beds in the last 6 months. In S2 (n=89), homes in London and the SE were more likely than those in the rest of England to report using shared documents with NHS colleagues (42.9% vs. 72.0%, Chi Squared p= .033).

Exploring associations between integration (key indicators and overall score) and star quality ratings of homes at the last inspection found only one significant correlation. In S2, homes meeting the first key integration indicator (used > 1health/social care service in last 6 months per 3 beds) had significantly more stars than those that did not (mean 2.32, (SD 0.48) vs.2.05 (0.55), unpaired t test, p= .028).

4.2.7 Care home managers' views about integrated working

Care homes reporting integrated working with the NHS (62% of all respondents, see Table 13) were largely positive about its effects. Respondents saw the benefits of integrated working in terms of improving access to services (both therapeutic and preventative), continuity of care and speed of response from the NHS as well as providing opportunities to discuss resident's care. However, approximately a half of respondents said they felt the NHS was reluctant to share information with care homes (Table 14).

Table 14. **Views about the effects of integrated working between care homes and NHS (from homes reporting integrated working only:S1, n=45; S2, n=57**

Integrated working between the NHS and my care home has: n (%)	N	Strongly Agree / Agree	Strongly Disagree / Disagree	Don't know
Improved access to preventive care for residents	96	73 (76.0)	21 (21.8)	2 (2.1))
Provided opportunities to discuss resident's care together	98	79 (80.6)	18 (18.3)	1 (1.0)
Led to greater continuity of service provision	98	74 (75.5)	11 (21.4)	3 (3.1)
Provided a wider range of services for older people	97	67 (69.1)	27 (27.8)	3 (3.1)
Improved the speed of response from primary care	96	70 (72.9)	22 (22.9)	4 (4.2)
Not made residents aware of available services	95	41 (43.2)	48 (50.1)	6 (6.3)
Had no effect on residents quality of life and wellbeing	96	20 (20.8)	75 (78.1)	1 (1.0)
NHS staff are reluctant to share information together	97	43 (44.3)	51 (52.6)	3 (3.1)

Approximately a quarter of respondents (57/197) listed the professionals they worked with in an 'integrated' way. However close reading of these comments mainly suggests that the professional they have named is the one with whom they have the best working relationship with. They did not

identify specific methods of working that supported integration or maintained continuity, it appeared that it was the quality of the relationship that was important, e.g.:

'work very closely with GPs and district nurses' and 'The GP teams, Physiotherapy and occupational therapy, Dental services, Palliative care, continuing care team all work with us on an individual need basis'.

Although the survey focused on primary care, many of the care homes indicated that working with secondary care presented major difficulties particularly regarding communication.

'I feel there is a mistrust and poor communication. Transferring a resident to hospital we send all details and then are phoned to ask for them again- poor discharge information to the home which involves possible re-admission to hospital for the resident.'

Or,

'Very poor feedback when a resident returns from hospital and every time a resident is sent to hospital all their notes are sent with them, i.e. medication, abilities, and every time we get numerous calls from the hospital asking for the sent information so not really worth sending it in the first place. This is very frustrating for the home.'

All homes were asked about their experiences and perceived barriers to - Experiences and perceived barriers to integration - Experiences and perceived barriers to integration provided enough support and respected care home staff knowledge and experience. Over one third of care homes stated that they felt they were monitored by the NHS, 45% reported a lack of trust between the NHS and care homes, and over half felt that care homes did not have enough say when working with the NHS (Table 15).

'We feel that when NHS staff come to the home they are looking for reasons to report back. If they ask an unqualified member of staff a question and they get a different answer from a qualified member of staff they report back that we have bad communication in the home. They do not accept that the unqualified staff members feel intimidated by them and usually answer in a non-committed way as they do not feel it is their place to comment on a resident's behaviour.'

Table 15. **Experiences and perceived barriers to integration**

n (%)	Survey	N	Strongly Agree / Agree	Strongly Disagree / Disagree	Don't know
EXPERIENCES					
NHS staff provide enough support to help us work effectively	S1	78	40 (51.3)	37 (47.4)	1 (1.3)
	S2	93	51 (54.8)	40 (43.0)	2 (0.2)
NHS staff respect care home staff knowledge and experience	S1	76	30 (39.5)	44 (57.9)	2 (2.6)
	S2	93	48 (51.6)	44 (47.3)	1 (1.1)
Working with NHS staff takes up too much time	S1	76	6 (7.7)	67 (85.9)	5 (6.4)
	S2	93	8 (8.5)	81 (86.2)	5 (5.3)
Sometimes working with the NHS feels like they are monitoring us	S1	76	27 (35.5)	47 (61.8)	2 (2.6)
	S2	94	37 (39.4)	55 (58.5)	2 (2.1)
BARRIERS					
It is difficult to know who in the NHS we can ask for information	S1	78	49 (62.8)	28 (35.9)	1 (1.3)
	S2	95	50 (53.2)	43 (45.7)	1 (1.1)
Care home staff don't have enough say when working with NHS staff	S1	78	42 (56.0)	32 (42.7)	1 (1.3)
	S2	96	46 (49.5)	42 (45.2)	5 (5.4)
Lack of trust between the care home and NHS	S1	78	33 (42.9)	42 (54.5)	2 (2.6)
	S2	96	44 (46.3)	47 949.5)	4 (4.2)
Staff don't stay long enough to get to know the NHS staff	S1	78	9 (12.7)	62 (87.3)	0
	S2	96	13 (14.4)	75 (83.3)	2 (2.2)
It is important to have a named person we can contact	S1	78	74 (96.1)	3 (3.9)	0
	S2	96	92 (97.9)	2 (2.1)	0
Staff don't stay long enough to get involved in training with NHS staff	S1	78	6 (8.5)	63 (88.7)	2 (2.8)
	S2	94	7 (8.1)	77 (89.5)	2 (2.3)
We cannot work together well because of different priorities	S1	78	16 (21.3)	57 (76.0)	2 (2.7)
	S2	96	18 (19.4)	72 (77.4)	3 (3.2)

Poor communication had an adverse impact on integrated working:

'*And, not telling us the diagnosis, treatment required or already given, medication requirements etc. and using the Data Protection Act as the reason, is sheer lunacy. How can we provide the required care when we haven't been told what that might be????'*

Qualitative responses indicate that working relationships are often dependent on relationships between the care home and individual primary care staff, rather than with the wider organisations. For example, they may have a good relationship with the district nurse, but problems with working with the GP. Most of the comments qualified responses giving examples of individual practitioners.

'Doctors tend to respect nurses as do Macmillan nurses but on the rare occasions we get physio, OT involvement some can be negative. Most District Nurses good relationship.'

Different working cultures and priorities were also felt to contribute to poor relationships; care home staff felt that some NHS staff did not understand the role of the care home:

'Some NHS staff do not understand the workings of a care home and that it is in fact "home" to the residents.'

'Greater understanding of restrictions and regulatory commitments demanded by regulatory bodies on care homes.'

Care home staff felt strongly that their knowledge of the resident should be listened to by NHS staff and respected:

'We are not qualified nurses but do know our residents better than a stranger who may see them for 10 minutes. '

4.3 *Implications of findings for integrated working*

The national survey provides contemporary evidence of the state of integrated working between care homes and primary health care services, as a basis for policy-making and service planning, and as a benchmark against which future progress may be measured. Care homes are a hub for a wide range of NHS activity, but this is ad hoc with no recognised way to support working together. In line with other recent work by the British Geriatric Society, [37](the findings suggest that integration between care homes and local health services is only really evident at the level of individual working relationships and arguably reflects patterns of collaborative working rather than integration. Contrary to expectations the survey did not find a pattern of increasing activity and collaboration when compared with an earlier survey[38].

The national survey found that care homes (with no on-site nursing) are a hub for a wide range of NHS activity with up to 28 different services identified in our study. However there was no single recognised way in which homes and primary care services work together.

The first phase of the survey experienced difficulties in eliciting responses from a national sample of homes of above average size, and a second phase, involving a major independent chain, was undertaken. Homes in the independent chain were more likely to work with multiple GP practices than those in the national sample (92% vs. 81%). A small proportion of homes (7%) reported paying a 'retainer' fee to the GPs they worked with, but, in contrast to the findings of an earlier study [39], no evidence was found that homes paying a retainer received more services per resident than those that did not. High proportions of homes in both phases of the study reported close

links with DNs, opticians, chiropodists/podiatrists, Community Psychiatric Nurses and continence services. On average, homes reported accessing between 14 and 15 different professionals or services in the six months before the survey.

Surprisingly, despite the national focus on end of life care (Department of Health 2010) and the recognition that care homes are places where people die (16% of people in England die in a care home www.endoflifecare-intelligence.org.uk) only half of homes reported use of any palliative services in the last six months. Lower proportions of homes reported utilisation of most services than was found in a previous survey (where 74% of residential care homes reported access to palliative care nurses) [38]. However, this may be because our questionnaire asked specifically about services accessed in the previous six months, whilst the earlier study asked in general terms whether care homes had access to services.

Homes in the major chain were significantly more likely to report providing extra remunerated services for the NHS (e.g. respite) than those in the national sample (58% vs. 35%), but there were no differences between the survey phases in reporting other indicators of integration, or experiences, views or barriers to integrated working. No particular care home characteristics were found to be associated with any of the integrated working indicators used in the study, although the findings do confirm that confusion surrounds the practical meaning of the term 'integration' despite the survey including a definition. Indicators of integrated working (joint learning and training, shared documents, integrated care planning, provision of remunerated services) used in the study were based on recent literature[1] . High proportions of homes that stated that they did not work with the NHS in an integrated way reported that they did engage in these activities (32% joint learning and training; 62% shared documents; 40% integrated care planning; 44% extra payments from the NHS). Piloting of the questionnaire had not identified these inconsistencies.

The survey findings suggested that there was evidence of some organisational processes that could support integration within some care homes (clinicians working in ways sympathetic to care home priorities, shared information systems, financial incentives). However, these were likely to be at the lower level of linkage and co-ordination. Linkage describes organisations working together on an ad hoc basis within major system constraints ([40]. There was also evidence to suggest that working practices were dictated by NHS methods of service delivery and priorities for care.

In the survey care home managers were able to identify integration at a normative level [41, 42] focused on working relationships but they recognised this was person specific and vulnerable to change. There was

evidence of some integration at a clinical level (e.g. interprofessional and joint training). Evidence at other levels of integration, such as organisational (pooled budgets and formal contractual arrangements), financial and administrative (information systems) were apparent where care homes received extra resources to provide NHS services (e.g. respite care).

Although there is no hierarchy associated with these different levels [42], it is clear that the levels of integration (or collaboration) achieved are those which are within the powers of actors who are working on the front-line of service delivery (professional integration [41].

5 Resident experience of health care

This chapter discusses the case study phase including the location, characteristics of the care homes and residents, and the nature of their integration with primary health care services. The organisation of NHS services over the one year period of the case studies, including the primary health care professional's experience of providing services to the care homes, and accounts of the resident's and their relative's experience of receiving them are also presented.

5.1 *The case study sites*

5.1.1 Locality descriptions

Study sites 1, 2 and 3 covered three geographically dispersed areas in England including an inner area of a major city in the south east with high deprivation and also areas of high affluence; a suburban town; and a large area with a dispersed and diverse population including rural and coastal areas, affluent areas and some with significant deprivation (table 16 for demographic information). With the exception of Site 2 all the care homes were located in different primary care trusts. All experienced some degree of reorganisation of their primary health care services as part of the new commissioning arrangements that were introduced in 2011. During the course of the study all relevant primary care trusts became integrated care organisations.

Table 16. **Case study sites demographic information**

PCT 1 COVERED CARE HOME 1	***Population:*** *Inner city area with a population of approximately 200,300 with 45% aged between 20 and 39 years old. 9% 65 years or older* ***Life expectancy:*** *women – 81 years, men 75.1 years. Only 9% population over 65 years.* ***Level of deprivation*** *– 8th most deprived area in the city.*	**PCT 4 COVERED CARE HOME 5**	***Population:*** *Unitary authority area population approx: 120,000. 11.6% of population aged over 65.* ***Life expectancy:*** *Male – 77.7 years, female 82.6 years. Overall, 75.9 years in most deprived area, 80.4 years in least deprived* ***Level of deprivation*** *– Over half the population live in areas of deprivation.*
PCT 2 COVERED CARE HOME 2	**Population:** Outer suburban area of large city with a population of approximately 330,00 **Life expectancy:** women – 86.7 years, men 84 years. 14% population are over 65 years **Deprivation** – 15.8% of people who live in the area are income deprived	**PCT 5 COVERED CARE HOME 6**	**Population:** Outer suburban area of large city with a population of approximately 250,000. 13.9% of population over 65 **Life expectancy:** women – 83.4 years, men 78.6 years. 5 years higher for men in least than in most deprived areas **Level of deprivation** – Lower than national and regional average levels of deprivation
PCT 3 COVERED CARE HOMES 3 AND 4	***Population:*** *Care homes both in same PCT area with a dispersed and diverse population, including rural areas, densely populated areas, affluent areas and areas of significant deprivation. Total population in the region of 335,000 people. 17.8% of population aged 65+.* ***Life expectancy:*** *Male 75.9 yrs, female 81.0 yrs.* ***Deprivation:*** *-19 areas amongst the most deprived 20% in the country.*		

5.1.2 Organisational changes

The study was undertaken against a backdrop of organisational changes (see table 17). At the level of primary care, GP services were unchanged in how they worked with our care homes but across the sites reorganisations of District Nursing services meant that there were some changes in the staff that provided nursing support to the care homes. In site 3 where there has been direct commissioning and explicit links with social services care delivery was affected for residents in the care homes. The care home sector also experienced instability over the study period at both the national and individual care home level. Large care home providers have struggled to survive as businesses, there have been exposés of bad practice, and individual homes continue to have ongoing staff retention issues. In 2009 the Care Quality Commission created new models of inspection and reporting.

Table 17. **Organisational changes across the study sites during the case study phase**

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	Site 1 CH 1	Site 1 CH 2	Site 2 CH 3	Site 2 CH 4	Site 3 CH 5	Site 3 CH 6
Trust / Commissioning	Merged with another PCT and hospital trust, aiming to become Foundation trust - The trust became an integrated care organisation on 1st April 2011	The trust became an integrated care organisation ?when	Between the start of the study and March 31st 2011 the Practice Based Commissioning Consortium was an advisory body to the PCT regarding their commissioning. The Consortium includes all 13 local GP practices in the locality. As of April 1st 2011 the Consortium became a formal sub-committee of the PCT. It has delegated authority for commissioning care for all local patients.		PCT reorganising, details unclear Merged with another PCT and hospital trust, aiming to become Foundation trust. GP consortium for 17 practices (in 3 groups?)	PCT Merging with community services (3 others) aims to become Foundation trust Board decided against hospital merger Pathfinder GP consortia (number not finalised) (announced April 2011) – 49 practices.
GP services	No change to the provision of GP services 1 GP consortia	No changes to the GP service provision	No changes to the GP service provision	No changes to the GP service provision.		Residents requested to change their GP as they were not happy with the care provided
DN services	*Reorganisation of DN teams prior to the study commencing into mega- teams.* No change to the	The DN reduced her visits from twice a week to once a week	Reorganisation of DN teams prior to study.	Reorganisation of DN teams prior to study – but no impact as rarely used.	Reorganisation of DN teams prior to the study commencing into mega-	

	organisation of the DN teams in case study phase, but at Time 1 residents were being seen mainly by agency nurses. At time 2 onwards they were seen by permanent members of the team mainly				teams for several GP practices running from central hubs – home still becoming used to this arrangement during the year.	
Other services	Two changes to the Care home nurse specialist, one in November 2010 and then again in August 2011-10-21	NHS chiropody no longer available. Residents have to pay for a private chiropodist who visits the care home.	Continence team changed referral process.	Dietetics team education programme ended.		GP based podiatry and dietetics no longer to be funded. Direct referrals to allied health services, especially physiotherapy no longer possible after April 2011 (have to refer via GP)
Social care services	Not known	Not known	Not known	Not known	Social services reorganising (details unknown) Social services	Social services reorganising(details unknown)

					funding for places under consideration (decision still unknown). Beds half empty Social worker responsible for care home changed	
Care Home changes	Three different managers over the case study period. Some reorganisation of care home staff, who were moved to work on different units.	No changes	Deputy manager post advertised x 2 during study.	New senior RN appointed in nursing home linked to study care home	CH company underwent regional reorganisation CH Manager given new responsibilities Home half full – originally for redevelopment/ extension, but in summer 2011 this changed to decisions being made about whether –	Ownership in process of changing CH manager given area responsibility Jan 2011, thus now responsible for managing 3 homes, plus 2 as relief manager
Regulation and inspection		Inspected once under new CQC	Inspected once under old	Inspected once under new CQC	Home asked for self assessment	

		system	system (Star rating)	system	of all CQC standards in October 2010	

5.2 *Care home characteristics*

This section discusses the characteristics of the care homes including their size, affiliation, staffing levels, NHS involvement and study defined level of integration.

5.2.1 Care home recruitment

We recruited six care homes based in 3 geographically diverse areas within England and in two sites this took considerably longer than the others but it is unclear why. The care homes were recruited to represent a range of levels of integrated working, on the basis of how they described the way that they worked with primary care services. For the purposes of the study, care homes 1 and 2 were defined as having a high level of integration as they both had intermediate care beds; care homes 3 and 4 were defined as having a medium level because of their close working with specialist services, and care homes 5 and 6 which received the usual services, as having a low level of integration. In terms of defining how their integration was operationalised, (see table 2), care homes 3,4, 5, and 6 all operated at the micro level of integration as they had close collaboration with primary care professionals and did not show any features of integration at the meso and macro levels. Care homes 1 and 2 operated at the meso level of integration as contained NHS funded beds with dedicated health and social care teams, as well as service level agreements. Forty four care homes that met the study criteria were contacted, (see table 18 for details). There were three main reasons for refusal: insufficient staff, involvement in other projects, and permission being refused by senior managers despite initial expression of interest from the care home.

Table 18. **Care home recruitment**

Site	*Method*	*Care homes contacted*	*Immediate Refusal*	*Initial interest*	*Refusal after initial interest*	*Total refusals*
1	*Letter and telephone*	*5*	*0*	*5 meetings*	*3*	*3*
2	*Letter and telephone*	*8*	*0*	*3 meetings*	*0*	*0*
3	*Letter and telephone*	*24*	*16*	*8*	*6*	*22*
3	*Telephone only*	*7*	*5*	*2*	*2*	*7*
Totals		*44*	*21*	*18*	*11*	*32*

Care homes 1 and 2 were defined as having a high level of integration. Both had on site intermediate care beds funded by NHS and Social services respectively. Residents in these beds received additional care from a dedicated multi-professional team of nurses and therapists. One of the care homes had electronic records, an intranet connection to the GP practice, a twice weekly GP clinic in the care home, and support from an NHS appointed care home nurse specialist.

Care homes 3 and 4 were defined as having a medium level of integration. They both worked closely with specialist health care services (continence and nutrition) in addition to the usual primary care support.

Care homes 5 and 6 were defined as having a low level of integration. They both received primary care support from a GP practice and linked district nursing services. In one of the care homes, the GP ran a weekly clinic. No additional NHS funding was given to these care homes.

5.2.2 Size, affiliations and NHS services received

The focus of the study was on care homes that provided personal care and support (residential) as opposed to nursing care. Three care homes had both residential and nursing beds which were separate in two homes (on different floors), but mixed in the other. Only older people who were in residential beds were recruited.

The size of the care homes ranged from 29 to 87 beds; at their last CQC inspection five had a 2* CQC rating and one had a 3* rating. Three of the care homes were run by large care home organisations, two by not-for-profit housing groups and one was a privately owned. In terms of links with primary care, two care homes were served by one GP practice that provided weekly clinics, one of which was paid a retainer by the care home. The other four were visited by GPs from at least three practices, and of these two worked with up to ten different practices. Five out of the six care homes had regular visits from district nurses, ranging from daily visits to visits when needed. In the care home where nursing and residential care beds were not separated, residents in personal care only beds received nursing care from nursing home nurses. During the course of the study this care home did not receive any visits from district nurses. Care homes 1 and 2 both had a dedicated NHS multi-disciplinary team including physiotherapist, occupational therapist and social worker that gave intensive support to a small number of residents who were in intermediate care beds.

A variety of standardised assessments was used by the six care homes. These were completed on a regular basis, most commonly monthly. These included weight, BMI and Must scores, Waterlow score (pressure area risk score) moving and handling. Table 19 gives further details of NHS involvement in the care homes, as well as staffing levels and resident assessments that were carried out by them.

Table 19. **Care home characteristics and NHS services received**

	Size / Type of beds/Funding	Care home staff/ organisation	Study defined level of integration	NHS involvement with care home:
CARE HOME 1 Inner city, 5 floors purpose built modern building. Large care home provider with 30+ care homes. **CQC 2*** - 2010 inspection	*Dual registered* - 87 beds, 40 contracted to social services, 47 private. 1 residential floor with 30 beds, 1 mixed 6 intermediate care and 6 residential beds 12, 1 nursing floor 30 beds, 1 dementia floor 15 beds. **Registration:** up to 56 dementia beds, 31 old age.	**Staff:** 30/43 NVQ 2 + 1 activity co-ordinator **Assessments:** Aggressive episodes, Barthel, CAPE, Care assessment, Continence, Epilepsy, FRASE, Manual handling, MUST, Night care assessment, Nutrition score, Waterlow, Weight.	**High level of integration**: based on close working with intermediate care team for IC beds, Care Home Nurse Specialist and GP.	- 1 Gp practice, 2 'clinics' a week on set days. No retainer - Intermediate care team: social worker, physio, physio assistant, OT Weekly DN visits Regular contact from Care home nurse specialist - rehab team (physio, OT, SALT) mental health nurse, dietitian, NHS chiropodist. Nurse specialists on request No service specific clinics, shared protocols, notes or funding.
CARE HOME 2 Suburban, 3 floors purpose built – 5 houses joint ownership housing association and care home provider. **CQC 2*** - 2010 inspection	40 beds, 5 private beds, 30 PCT block booking, 5 rehab (joint funding PCT/social services), 4 learning disability, 12 Asian elders and 18 residential care, 1 respite. **Registration:** 1 dementia place, 4 learning disability, 36 old age.	**Staff:** 2 managers, 16 FT staff with NVQ 2+, 13 PT NVQ 2+ **Assessments:** Waterlow, MUST/BMI, Falls risk assessment, Barthel, Manual handling, Fire risk.	**High level of integration:** based on close working with dedicated intermediate care team for rehabilitation beds.	- 10 different GP practices, no 'clinics' no retainers, - 1 DN covers all care home beds. - Intensive support from rehab team of close working with intermediate care team of physio, OT, intermediate care nurse and social worker. - No service specific clinics, shared protocols, notes or funding. Care home nurse specialist recently pulled.

CARE HOME 3 Suburban small city 2 floor purpose built not-for-profit housing group. **CQC** 3* 2010 inspection	29 older people's places 1 respite bed, up to 6 beds for residents with dementia care needs.	**Staff:** FT – 2 managers, 10 with NVQ2+, PT– 10 with NVQ2+ (Medical and BTEC Social Care students) **Assessments:** In-house: Nutritional risk assessment, falls assessment, fire risk, first aid risk, weight monitoring	**Medium level of integration:** No formal integrated working approaches or mechanisms. Close working with the continence team for a number of residents at time 1	DNs visit daily according to resident need. 5 GP practices, no retainers or clinics, 1 practice has a designated GP for care home Other primary care services visiting: Pharmacist, CPN & memory clinic, old age psychiatrist, dietitian, podiatrist (NHS & private), physiotherapist, optician, continence team, dentist, and social worker. Audiology outpatients clinic. Renal dialysis unit 3x weekly visits for 1 resident.
CARE HOME 4 Dual registered privately owned. Converted house 4 floors, 1 for dementia care. **CQC** ? 2011 (awaiting) **2*** 2009)	32 beds: nursing; dementia and old age. Nursing and residential numbers vary; 12 residential care at T1. Bed allocation mixed throughout the home with staff covering both.	**Staff:** FT- 1 manager, 4 qualified nurses, 15 care staff, PT - 1 family liaison, 2 qualified nurses, **Assessments:** Dependency profile Pressure assessment, falls risk, manual handling, nutrition	**Medium level of integration:** No formal integrated working approaches or mechanisms. Dietitian providing training for all care home staff at time 1.	3 GP practices, no retainers or clinics (12 month pilot clinic by 1 practice).No DN visits, qualified nurses in home provide all nursing care. Other primary care services visiting: CPN & memory clinic, podiatry (NHS & private), Dietitian, Optician, physiotherapist, social worker
CARE HOME 5 Suburban 2 floor purpose built Corporate home provider 300+ care homes, in partnership with	35 beds, old age approval for an extension, vacant rooms for respite care All Local Authority funded	***Staff:*** FT – 1 manager, 12 staff NVQ2+PT -, 9 NVQ2, 6 in training **Assessments:** Waterlow, MUST/BMI, falls risk , Manual handling, fire. In house monitoring assessment and information procedures.	**Low level of integration:** good working relationship with primary health care staff no formal integration	10 GPs, no retainer, no clinics, residents retain GP when admitted. DNs based at GP surgeries but contacted via a central hub. Pharmacist, dietician (advise but don't always see residents), chiropodist, optician, audiometry, dentist, OT, Physiotherapist. Optician and Chiropodist visit regularly (NHS chiropodist for 2 residents, others private). Residents go out

Local Authority CQC 2* 2009				to Dentist and for hearing tests.
CARE HOME 6 Suburban Corporate owned Purpose built 3 floors, 5 separate units. CQC 2* 2009 inspection	*Dual registered* - 64 beds, 10 dementia with nursing care, 12 dementia with personal care, 12 old age with nursing care, 22 bed old age with personal care, 8 beds any age with physical disability requiring nursing care.	**Staff:** FT –18 + 1 manager, 5 seniors, 8 part time staff, 1 activity coordinator. Care staff with NVQ2 – 9, Care staff without NVQ2 – 17. **Assessments:** Waterlow, MUST/BMI, falls risk assessment, Manual handling, fire risk Gold Standard, Barthel. Internal assessments and paperwork maintained. Monthly assessments of all key needs, risks and care plan.	**Low level of integration:** Good working relationships but no formal integration.	1 GP, on retainer (being contested), no regular clinics Pharmacist, diabetic nurse, chiropodist, optician, Macmillan nurse, dentist, district nurses visit homes as needed. Chiropody services are usually private but NHS chiropodist visits one resident. Residents go out for audiometry.

5.2.3 Resident recruitment and participation

Across the six care homes our researchers were introduced to 58 residents who had expressed an interest in taking part in the study; of these 19 decided not to participate and 39 were consented to the study. Although this was slightly less than our target of 42 it reflects the difficulties involved in recruiting frail older people. Recruitment took place over two months for sites one and two and four months for site 3. Resident's service use was tracked through interviews and care home notes reviews, over a year which was divided into four time points for data collection. Two residents in two different care homes were in intermediate care beds. It was not possible to do follow up interviews with them following their discharge from the care home as planned. One resident was admitted to hospital and subsequently discharged from the care home, the other moved into sheltered housing. Although she was not interviewed in the community, the social worker who arranged and monitored her discharge was interviewed. Overall we collected data for T1 to T3 for 31 residents (see table 20); notes reviews were also conducted for residents at T4, but they were not available for analysis as data collection was delayed in site 3.(It was the last site to join the study and had been delayed by a protracted governance process). After consulting with the study steering committee, the decision was taken not to analyse the notes reviews from T4 for a number of reasons. Firstly, the small number of participants, any analysis at T4 would have been based on data from only 21 residents across care homes 1 to 4. Secondly, the initial analysis had indicated that overall, there was little change for residents across the previous three time points. Consequently, it was decided that further analysis would not provide any additional information from the previous three time points.

Table 20. **Recruitment, retention of residents, and duration of follow up**

Care Home	Numbers of residents in study			Number of days between baseline and third interviews for the 31 residents completing the study				Significant difference ANOVA
	T1	T2	T3	Mean	SD	Min	Max	
1	5	3	3	171.3	1.53	170	173	<.0005
2	6	5	5	199.0	10.5	191	211	
3	7	7	7	237.9	15.3	204	248	
4	7	5	5	191.0	9.6	197	209	
5	7	7	6	197.0	12.9	177	208	
6	7	5	5	197.6	23.4	170	248	
TOTAL	39	32	31	203.3	23.4	170	248	

Of the eight residents, who dropped out of the study, four died, three were discharged to sheltered housing and one to hospital. The death rate of 10% was lower than the rates for similar longitudinal studies in care homes which ranged from 15 to 20%. [43]

The total number of interviews and notes reviews conducted at each time point is given in table 21. The number of resident interviews conducted differed across the three time points, as some participants only consented to having their notes reviewed. Other dropped out of the study, or were unavailable as they were in hospital when data collection was conducted. Table 21a gives a breakdown of the number of interviews by care home at time points 1 to 3. At time 4, only care home notes reviews were carried out.

Table 21. **Resident interviews and notes reviews at time points 1 to 4**

CARE HOME	TIME 1		TIME 2		TIME 3		Time 4
	Interviews	**Notes reviews**	**Interviews**	**Notes reviews**	**Interviews**	**Notes reviews**	**Notes reviews only**
1	2 *(3 notes only)*	5	1 *(2 notes only)*	3	1 *(2 notes only)*	3	3
2	6	6	4 *(1 in hospital)*	5	4 (1 notes only)	5	5
3	7	7	6 *(1 notes only)*	7	6 *(1 notes only)*	7	7
4	6 *(1 notes only)*	7	5 *(1 notes only, 1 withdrawn)*	5	4 (1 notes only, 1 sheltered housing)	5	5
5	7	7	5 (2 notes only)	7	5 (2 notes only)	6	6
6	7	7	4 (1 notes only, 2rip)	5	4 (1 notes only)	5	5
TOTALS	**35**	**39**	**25**	**32**	**24**	**31**	**31**

5.3 *Residents' characteristics*

The residents who participated in our study were predominantly white and female, 90% (10% male, n=4) with a median age of 86 (range 65 to 101 years n=39) and this did not differ by care home. The mean length of time participants had been in the care home varied greatly but not significantly

between the homes in the study. Resident's length of stay at Time 1 ranged from 1 month to 132 months (11 years) with a median of 17 months (mean 25 months st. dev 28.46, n=39). The majority of residents had been admitted to the care home from hospital (n=16, 41%), with the remainder from home (n=11, 28%), another care home (n=9, 23%), 1 from sheltered housing, 1 from a relative's home and 1 from an NHS rehabilitation unit.

Information about the level of assistance that residents required with activities of daily living, and any changes over time, was taken from the care home notes. There were no significant differences in Barthel scores across the care homes (Anova, p=0.28). The mean Barthel score (Mahoney and Barthel, 1965) was 14 (Median 15 St dev 3.8, n=39), which suggests low dependency although this does not account for mental capacity or how long it takes for different activities to be completed. The number of conditions ranged from 1 to 11 across the care homes, with a mean of 4 (median 4 St dev 2.4, n=39). There were significant differences between homes in the mean numbers of medical conditions and prescription medicines reported by participants, but no difference in rates of falling (which were low in all homes).

Eighty one percent of residents had four or more conditions at baseline. The number of conditions ranged from 1 to 11 across the care homes, with a mean of 4 (median 4 St dev 2.4, n=39). Six residents (15%) had a recorded diagnosis of dementia, significantly lower than expected for this population. It is likely this was due to under reporting and the fact that all residents who participated were able to consent themselves to participate in the study. A further seven residents with no diagnosis had other signs of cognitive impairment including memory loss (n=6) and confusion (n=1).

Residents were prescribed between 0 and 21 medications, with a mean of 9 (n=39, median 9 St dev 4.2). There were significant differences between homes in the mean numbers of medical conditions and prescription medicines reported in resident's notes (Anova, p=.002 and .005 respectively), but no difference in rates of falling (which were low in all homes). There was a weak correlation between the number of medications taken by participants and their Barthel score (Spearman rho -.272, p=.094; more medications associated with higher dependency), but no association between Barthel index and number of medical conditions, or between the number of prescription medications and medical conditions.

The baseline characteristics of participants are compared by care home in Table 22. No significant difference was found between the care homes in terms of age (Anova, p=0.71). Detailed health and demographic profiles for individual residents can be found in table ECON1 appendix 5 .

Table 22. **Baseline characteristics of participants and comparison across care homes**

Care home		1 n=5		2 n=6		3 n=7		4 n=7		5 n=7		6 n=7		Signif-icance
Characteristic		N	%	N	%	N	%	N	%	N	%	N	%	Chi Sq
Gender	Male	1	20.0	1	16.7	0		2	28.6	2	28.6	0		ns
Ethnicity	Not White	0		2	33.3	0		0		0		0		ns
Dementia diagnosis		2	40.0	0		1	14.3	1	14.3	0		0		ns
Incontinent		0		1	16.7	0		0		1	14.3	0		ns
		Mean Min	SD Max	Mean Min	SD Max	Mean Min	SD Max	Mean Min	SD Max	Mean Min	SD Max	Mean Min	SD Max	Anova
Age (years)		89.6 83	7.5 101	84.0 79	8.3 96	88.9 76	7.2 96	84.3 65	12.2 101	84.1 73	6.2 93	84.0 66	9.6 96	.71
Time in care home (months)		29.6 1	18.4 47	30.0 1	50.8 132	20.4 3	21.0 59	10.7 3	6.6 20	40.7 1	29.7 84	25.3 1	28.3 132	.52
Number of conditions		5.6 4	1.5 7	5.8 4	1.2 7	2.3 1	1.4 5	3.0 1	1.3 4	6.4 2	3.3 11	5.4 1	2.2 8	**.002**
Number of medications		13.4 9	4.5 21	6.0 1	3.3 11	11.1 7	3.1 15	8.9 2	4.2 14	6.0 0	3.3 10	10.6 6	2.8 13	**.005**
Total falls in last 3 months		.60 0	1.3 3	.17 0	.41 1	.14 0	.38 1	0		0		0		.38
Barthel (O unable - 20 independent)		11.0 3	4.9 15	16.2 6	5.3 20	14.6 12	2.4 18	13.1 5	4.6 20	14.3 12	1.8 17	15.3 12	2.6 18	.28

5.4 *Service involvement from Time 1 to Time 4*

Patterns of service delivery did not seem to differ between the care homes regardless of their level of integration. The GP and District nurse were the most frequent visitors to the care homes, which mirrors the findings of the survey. Most residents' conditions appeared to be fairly stable over the year, but just over a third (13/39, 33%) had at least one hospitalisation.

Visio™ data timelines of service use and changes in health were plotted for 16 residents across the four study time points, based on information from the notes reviews. Half of these (8/16) out of the residents had at least one hospitalisation over the year. Prior to hospitalisation, service use was often characterised by a clustering of input, in particular frequent visits from the GP and District nurse (See Visio™ residents 02 and 14). Intensity of service use was assessed by frequency of contact with different services and hospitalisations over the twelve month period no association between Barthel index and number of medical conditions, or between the number of prescription medications and medical conditions.

Overall the nature of the service input was event specific and reactive. Services went into the care home to see individual residents independently of each other. In Care home 6, GPs undertook annual reviews with two residents (See Visios™ residents 36 and 39) two medication reviews in care

home 3 and one in care home 5 (See Visios™ residents 12, 14 and 28). In addition, some other services such as the dietician and specialist nurses had reviewed a few residents' care. The two residents in intermediate care received time limited intense input from a dedicated multidisciplinary team. Only two residents were recorded as receiving joint working, neither of whom were in the high integration care homes. In Care home 6, the GP and District nurse carried out a joint visit to prescribe morphine for a resident (see Visio™ 38). In care home 3, a multidisciplinary meeting was held to discuss the care for resident whose health was deteriorating. This happened after the resident had been hospitalised four times (see Visio™ resident 14). Three out of the six care homes had provision for residents in need of nursing care. In two care homes which had nursing beds the care home nursing staff had no contact with them. In care home 4 care home nurses did not appear to discriminate between those who had been assessed as being in need of nursing and those in need of personal care. District nurse visits to this care home were rare and there was evidence that the nursing home nurses compensated for the lack of NHS input, and carried out what would have been defined as district nurse work in all the other homes. In some cases their presence possibly meant hospitalisations may have been averted. There were, for example situations when nurses on site checked resident's vital signs and monitored their condition after episodes of vomiting, residents 20 and 25 (See Visios™ residents 20 and 25).

Services received by residents over time

High Level User Site 1 Care home 1 Key

Resident 02: Female 95 years

Stroke, dementia, asthma, confusion, osteoporosis, depression, colostomy

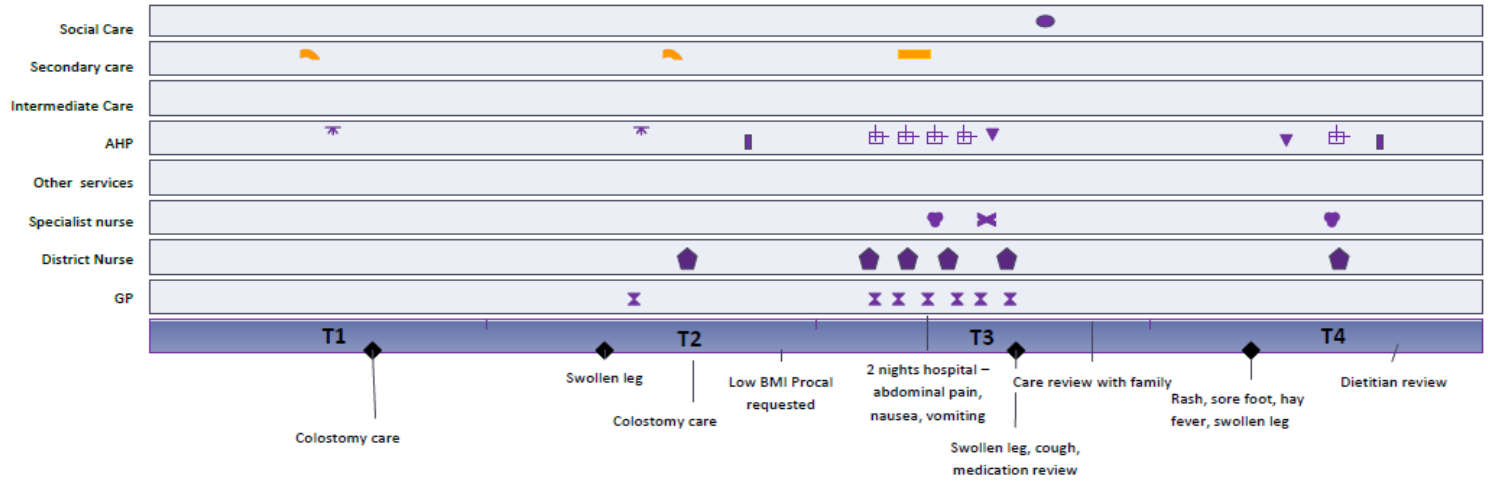
Resident 39 months, transferred from another care home.

Moderate dependency, cognitive impairment, 12 medications

GP
District Nurse
Practice Nurse
Diabetes Nurse
Continence nurse
CPN
Memory team
Social worker
Paramedics
Tracker nurse
Tissue viability nurse
Phlebotomist
Lymphodema nurse specialist
Geriatrician
Intermediate care
Care home nurses
Psychiatrist
Physiotherapist
Physio assistant
Occupational Therapist
Chripodist NHS
Chiropodist private
Dentist
CH CH staff
R Relative/friend
Dietitian
Optician
Audiology
Outpatient appointment
Day Surgery
Hospital admission
CH sends sample to surgery
A & E

Purple (dark) = Service visits resident in care home
Orange (pale) = Resident visits service

Involvement of Health and Social Services



Project 08/1809/231

Services received by residents over time

High Level User Site 2 Care home 3 Key

Resident 14: Female 83 years

Vascular dementia, leg ulcers

Resident 36 months, transferred from hospital reason not recorded.

Low dependency, dementia diagnosed prior to admission, 11 medications plus dressings

GP
District Nurse
Practice Nurse
Diabetes Nurse
Continence nurse
CPN
Memory team
Social worker
Paramedics
Tracker nurse
Tissue viability nurse
Phlebotomist
Lymphodema nurse specialist
Geriatrician
Intermediate care
Care home nurses
Psychiatrist
Physiotherapist
Physio assistant
Occupational Therapist
Chripodist NHS
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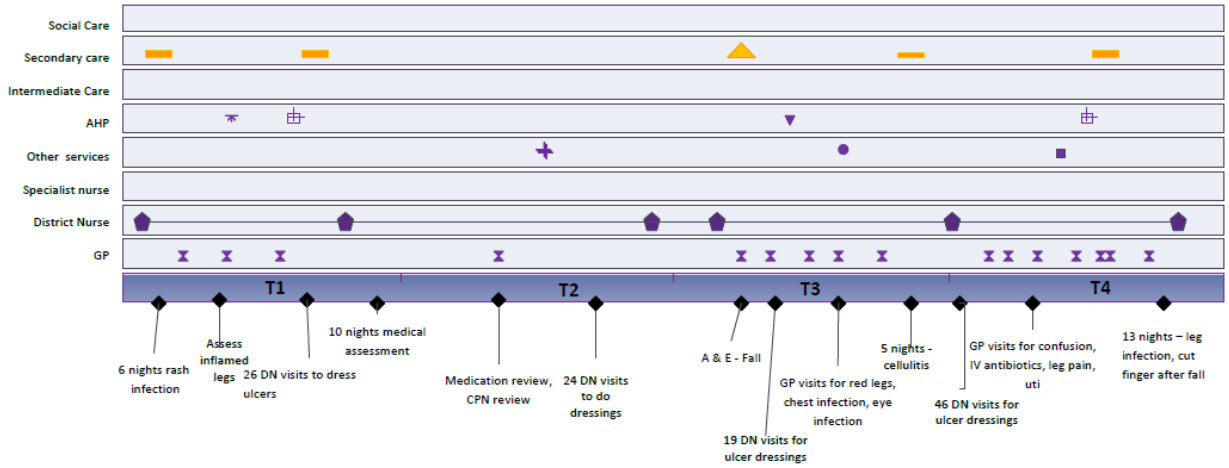
Involvement of Health and Social Services



Services received by residents over time

Medium Level User CH6

Resident 36: Female 88 years

COPD, high blood pressure, osteoarthritis, recurring UTIs, epiphora, cataract left eye, anaemia. Anxiousness and panic attacks

Resident 2 ¾ years, admitted from hospital following fall, slow recovery, poor mobility, confusion and difficulty making choices. Lonely and afraid of going home (associated with falls). Generally frail.

Low dependency, some problems with memory and confusion , 13 medications. Mobilises with zimmer frame.

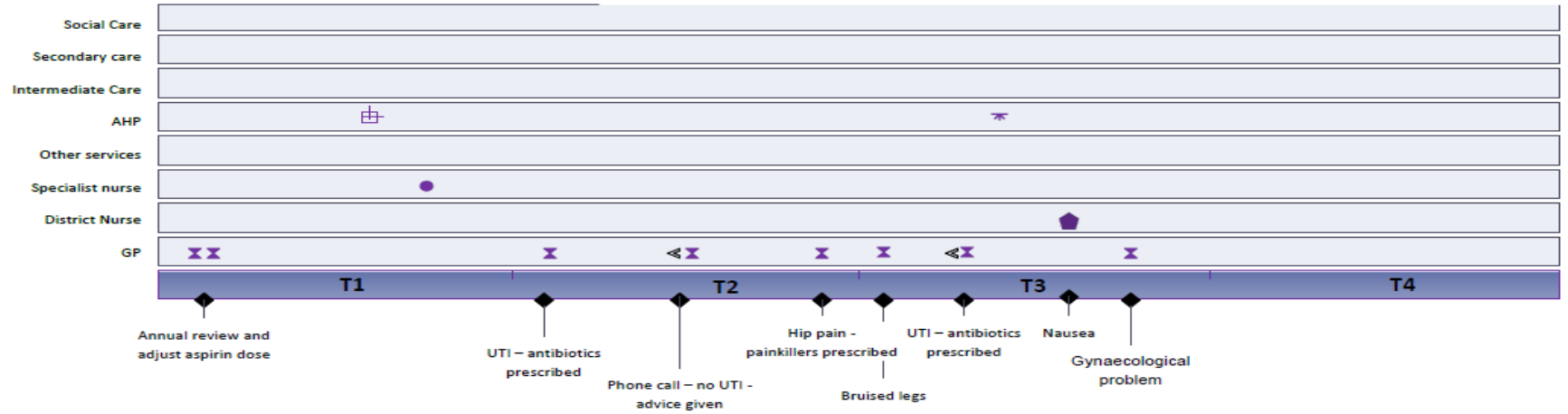
Key

- GP
- District Nurse
- Practice Nurse
- Diabetes Nurse
- Continence nurse
- CPN
- Memory team
- Social worker
- Paramedics
- Tracker nurse
- Tissue viability nurse
- Phlebotomist
- Lymphodema nurse specialist
- Geriatrician
- Intermediate care
- Care home nurses
- Psychiatrist
- Physiotherapist
- Physio assistant
- Occupational Therapist
- Chripodist NHS
- Chiropodist private
- Dentist
- CH staff
- Relative/friend
- Dietitian
- Optician
- Audiology
- Outpatient appointment
- Day Surgery
- Hospital admission
- CH sends sample to surgery
- A & E

Purple (dark) = Service visits resident in care home

Orange (pale) = Resident visits service

Involvement of Health and Social Services



Services received by residents over time

Low Level User CH6

Resident 39: Female 80 years

Diabetes mellitus (non-insulin dependent), hypothyroidism, hyponatremia, cataracts, anaemia. Problems mobilising except for short distances.

Resident 4 ½ years, admitted from hospital. Needs assistance with self care, and sometimes with mobility. High risk of falls.

Low dependencyno cognitive impairment, 11 medications. Mobilises with zimmer frame and assitance.

Key

- GP
- District Nurse
- Practice Nurse
- Diabetes Nurse
- Continence nurse
- CPN
- Memory team
- Social worker
- Paramedics
- Tracker nurse
- Tissue viability nurse
- Phlebotomist
- Lymphodema nurse specialist
- Geriatrician
- Intermediate care
- Care home nurses
- Psychiatrist
- Physiotherapist
- Physio assistant
- Occupational Therapist
- Chripodist NHS
- Chiropodist private
- Dentist
- CH staff
- Relative/friend
- Dietitian
- Optician
- Audiology
- Outpatient appointment
- Day Surgery
- Hospital admission
- CH sends sample to surgery
- A & E

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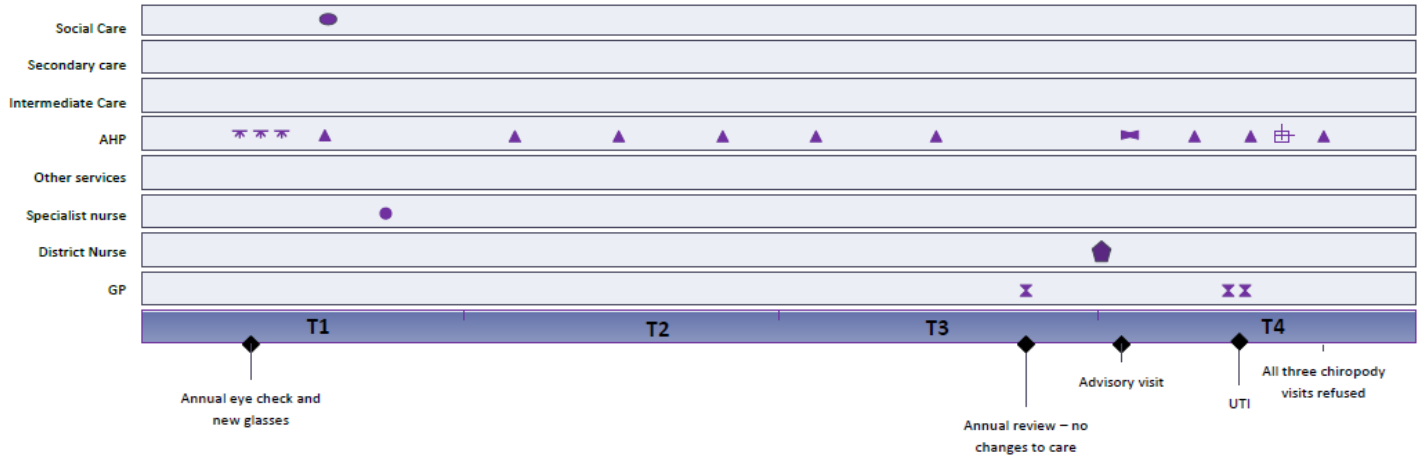
Involvement of Health and Social Services



Services received by residents over time

Low Level User Site 2 Care home 3

Key

Resident 12: Female 89 years

Congestive cardiac failure, TIA, AF

Resident 3 months, transferred from another home to be near daughter.

Low dependency, no cognitive impairment, 7 medications

Family involved in care

GP
District Nurse
Practice Nurse
Diabetes Nurse
Continence nurse
CPN
Memory team
Social worker
Paramedics
Tracker nurse
Tissue viability nurse
Phlebotomist
Lymphodema nurse specialist
Geriatrician
Intermediate care
Care home nurses
Psychiatrist
Physiotherapist
Physio assistant
Occupational Therapist
Chripodist NHS
Chiropodist private
Dentist
CH CH staff
R Relative/friend
Dietitian
Optician
Audiology
Outpatient appointment
Day Surgery
Hospital admission
CH sends sample to surgery
A & E

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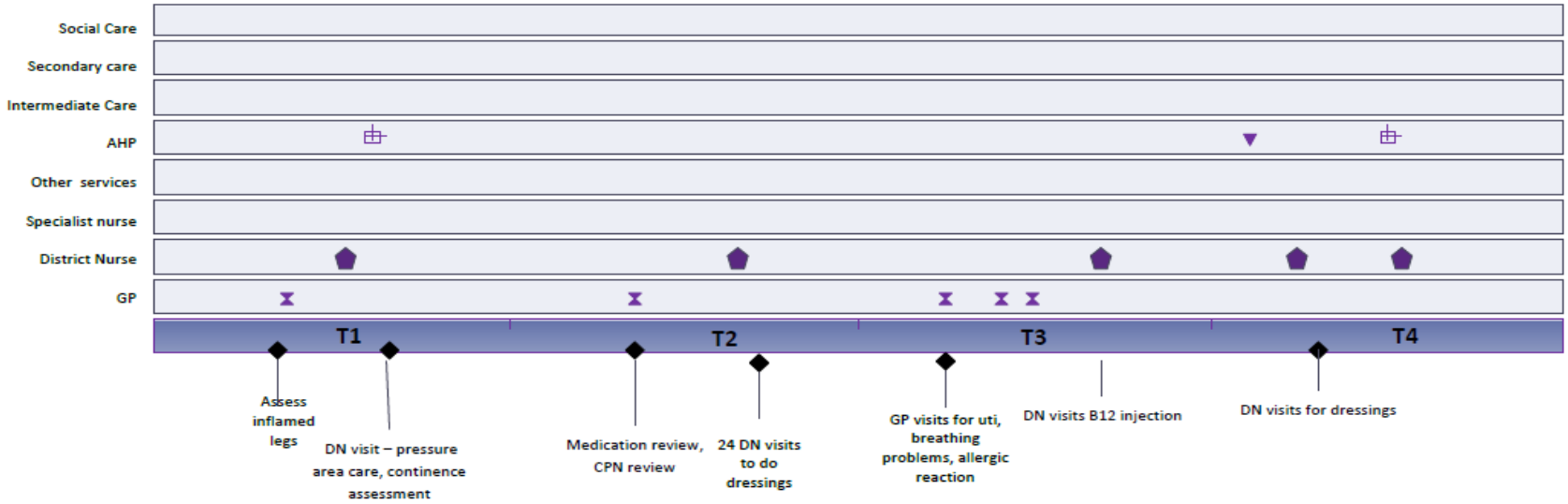
Involvement of Health and Social Services



Services received by residents over time

High Level User Site 2 Care home 3

Key

Resident 14: Female 83 years

Vascular dementia, leg ulcers

Resident 36 months, transferred from hospital reason not recorded.

Low dependency, dementia diagnosed prior to admission, 11 medications plus dressings

- GP
- District Nurse
- Practice Nurse
- Diabetes Nurse
- Continence nurse
- CPN
- Memory team
- Social worker
- Paramedics
- Tracker nurse
- Tissue viability nurse
- Phlebotomist
- Lymphodema nurse specialist
- Geriatrician
- Intermediate care
- Care home nurses
- Psychiatrist
- Physiotherapist
- Physio assistant
- Occupational Therapist
- Chripodist NHS
- Chiropodist private
- Dentist
- CH staff
- Relative/friend
- Dietitian
- Optician
- Audiology
- Outpatient appointment
- Day Surgery
- Hospital admission
- CH sends sample to surgery
- A & E

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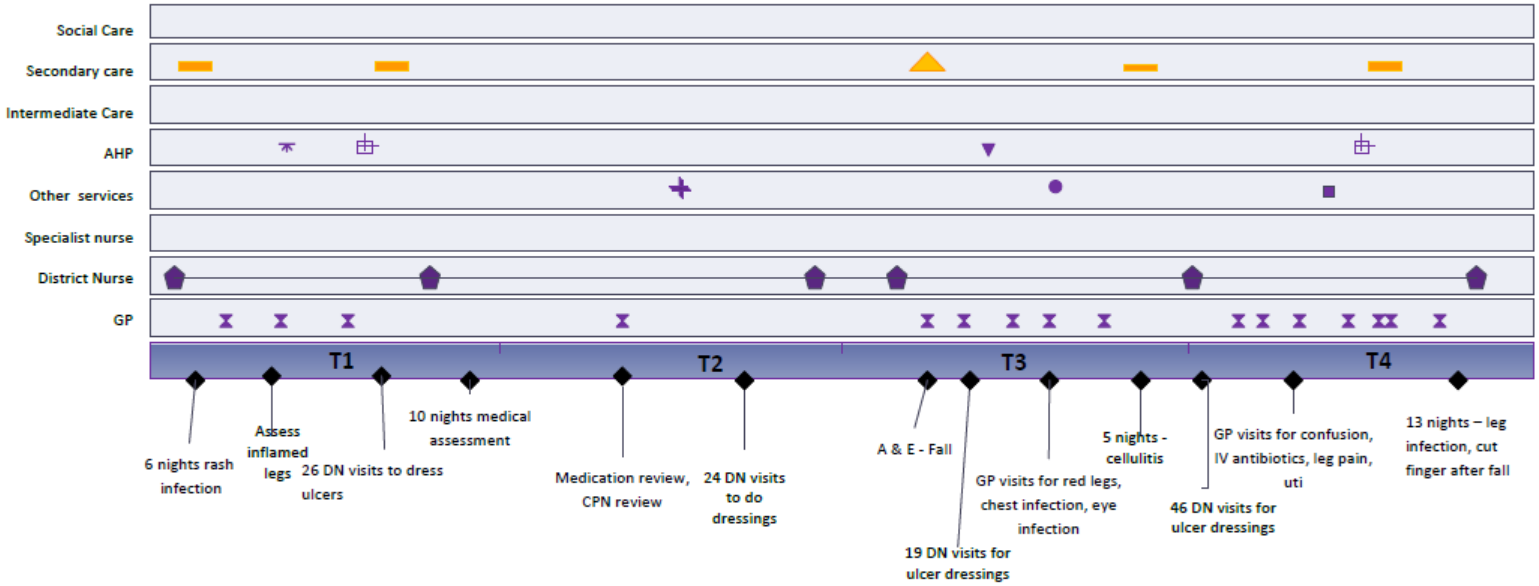
Involvement of Health and Social Services



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Services received by residents over time

Medium Service User CH5

Resident 28: Male 73 years

Parkinson's, high blood pressure, Angina, CVA, persistent bilateral cellulitis, oedema, visual impairment

Resident 7 years, referred from hospital after a fall too unwell to live alone. 8 medications at study start. Mobilises with frame indoors and wheelchair outdoors

Low dependency, some cognitive impairment noted(not formally assessed), brother has enduring power of attorney and is main decision maker, very involved in care.
In T4 started to become more dependent, mobility reduced, incontinent of urine

Key

- GP
- District Nurse
- Practice Nurse
- Diabetes Nurse
- Continence nurse
- CPN
- Memory team
- Social worker
- Paramedics
- Tracker nurse
- Tissue viability nurse
- Phlebotomist
- Lymphodema nurse specialist
- Geriatrician
- Intermediate care
- Care home nurses
- Psychiatrist
- Physiotherapist
- Physio assistant
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- Chripodist NHS
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- CH staff
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- Audiology
- Outpatient appointment
- Day Surgery
- Hospital admission
- CH sends sample to surgery
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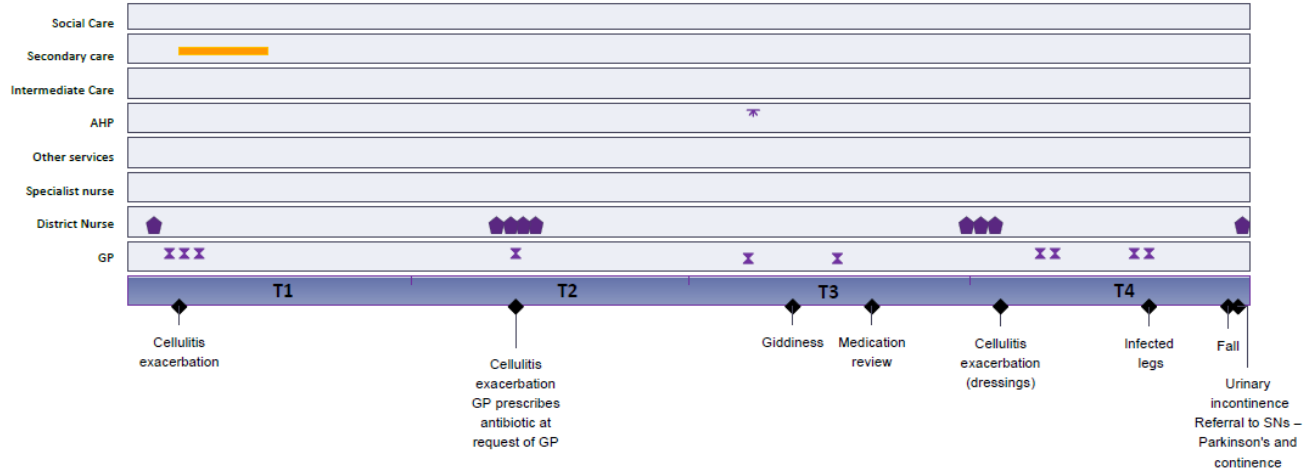
Involvement of Health and Social Services



Services received by residents over time

High Level User CH6

Key

Resident 38: Female 81 years

CVA - Left arm immobile/LH side restricted movement, hypertension, osteoporosis, chronic gastritis, frequent falls. Bilateral pubic rami fracture, back pain, sight problems chronic cough, possible depression.

Resident 1 month, referred from rehabilitation unit following fall.

Low dependency, no cognitive impairment, 10 medications

Family involved in care

- GP
- District Nurse
- Practice Nurse
- Diabetes Nurse
- Continence nurse
- CPN
- Memory team
- Social worker
- Paramedics
- Tracker nurse
- Tissue viability nurse
- Phlebotomist
- Lymphodema nurse specialist
- Geriatrician
- Intermediate care
- Care home nurses
- Psychiatrist
- Physiotherapist
- Physio assistant
- Occupational Therapist
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- Dentist
- CH staff
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- Dietitian
- Optician
- Audiology
- Outpatient appointment
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- CH sends sample to surgery
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Purple (dark) = Service visits resident in care home

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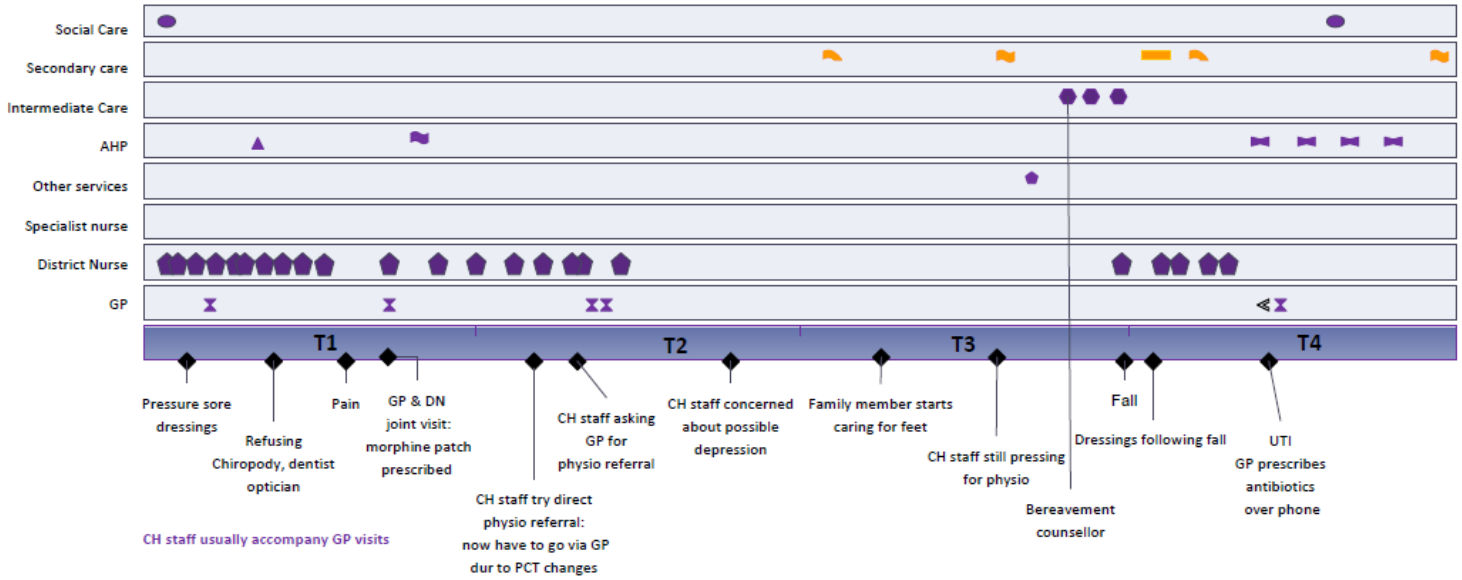
Involvement of Health and Social Services



Services received by residents over time

High Level User Site 2 Care home 4

Resident 20: Female 101 years

Hypertension, heart disease, registered blind, poor hearing

Resident 17 months, Daughter unable to care for her in own home.

Low dependency, No cognitive impairment , 9 medications

Key

- GP
- District Nurse
- Practice Nurse
- Diabetes Nurse
- Continence nurse
- CPN
- Memory team
- Social worker
- Paramedics
- Tracker nurse
- Tissue viability nurse
- Phlebotomist
- Lymphodema nurse specialist
- Geriatrician
- Intermediate care
- Care home nurses
- Psychiatrist
- Physiotherapist
- Physio assistant
- Occupational Therapist
- Chripodist NHS
- Chiropodist private
- Dentist
- CH staff
- Relative/friend
- Dietitian
- Optician
- Audiology
- Outpatient appointment
- Day Surgery
- Hospital admission
- CH sends sample to surgery
- A & E

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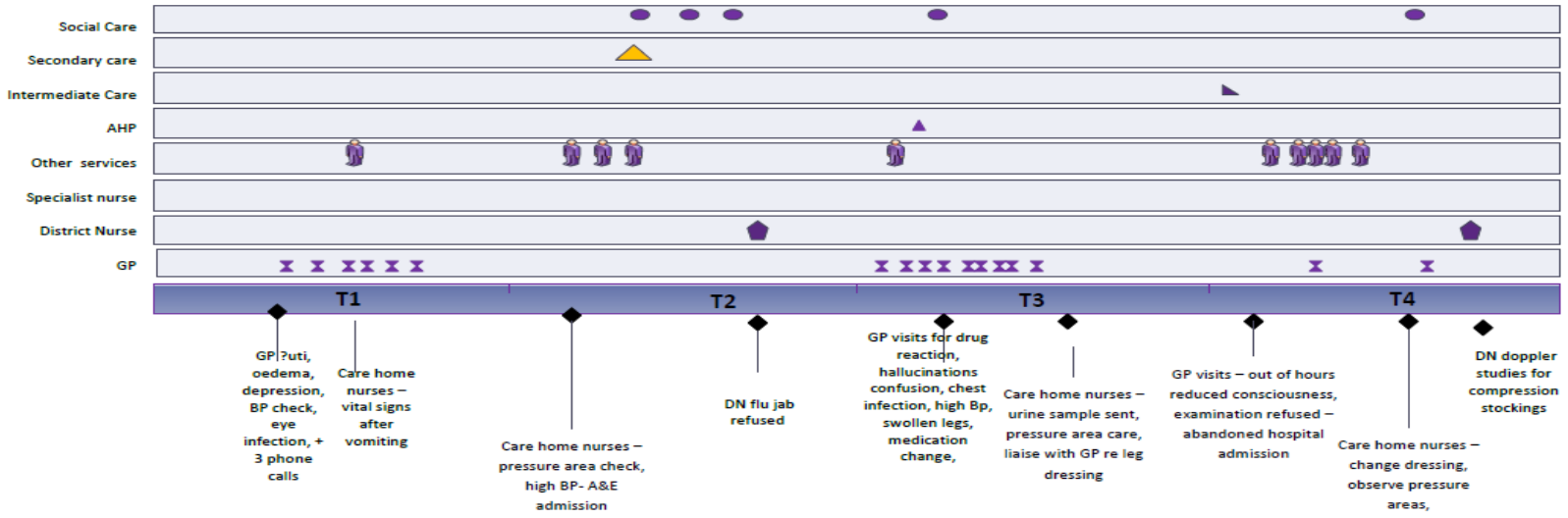
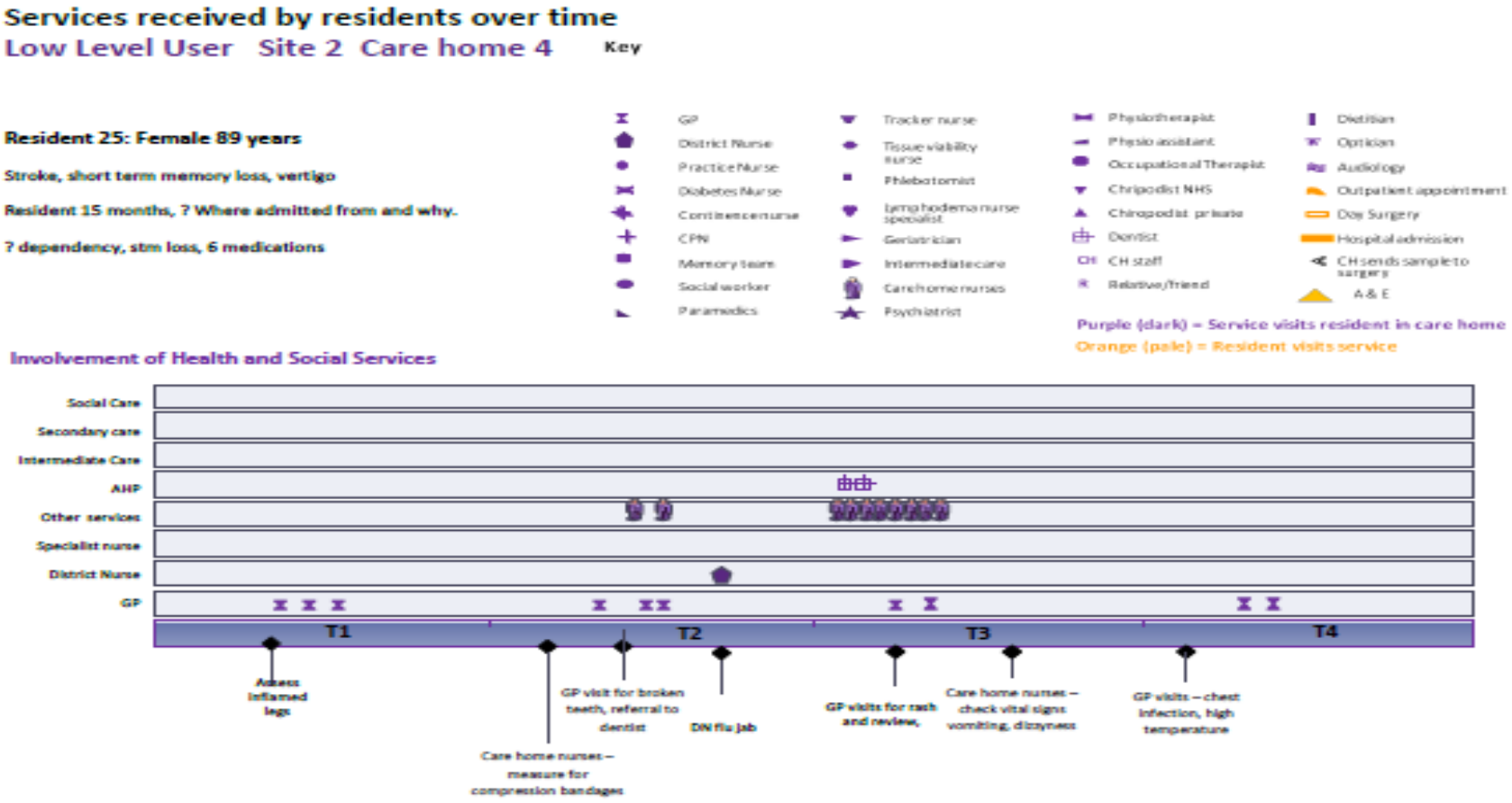
Involvement of Health and Social Services





5.5 *Service and utilisation costs*

The economic analysis focussed on investigating the collaborative working between the six care homes and their respective primary health care services, through an analysis of the range and frequency of health and social services used by samples of the residents, and resident–level costs.

A comprehensive list of professionals and services was compiled spanning all sectors: primary and community (GP, district / community nurses, specialist nurses, community matron, phlebotomist, pharmacist, physiotherapist, occupational therapist, speech and language therapist, dietician, palliative care, chiropodist, dentist, optician, psycho-geriatrician / psychiatrist, mental health nurse); hospital (outpatient, day hospital, A&E, inpatient, ambulance / paramedic); social care (social worker / care manager, day care); voluntary (day care); private. The number of contacts for each professional or service in the previous period was recorded. An additional category (care home nurse) was added at T2 for care home 4 when it was realised that nurses from the nursing wing in that home were used to treat the residents in the residential wing. The T1 value for the care home nurse contacts in care home 4 was imputed as the mean of T2 + T3 contacts.

Data were collected through interviews with residents and reviews of care home records (to validate and supplement the information gained through self report). For the purposes of the economic analysis, data gathered in TI, T2, and T3 were included, data was not available for all the residents at T4. The T1 (baseline) data collection covered resident's service use in the three months prior to their recruitment to the study, T2 covered the period between the baseline and second interviews, and T3 covered the period between the second and third interviews. The mean observation period was 29.3 days (SD 23.4).

Patient level data were entered into SPSS for analysis. For the 31 participants who completed the study, the number of contacts for each individual item of service use at each time point was summed (T1+T2+T3). The mean number of days between baseline and third interviews differed significantly between care homes (Table 20), so total contacts were converted to an annual utilisation rate to enable accurate comparisons. The total number of different professionals and services used by participants over the study period was calculated, and patient characteristics associated with this were explored. Costs (£, 2010) were calculated as the product of the number of uses of each professional or service item and nationally validated unit costs (Appendix 5 ECON 1).

5.6 *Service use of 31 participants completing the study - comparison between care homes*

No service use by any resident in any of the study care homes was reported for several items on the check list of services and professionals used in the data collection process, including community matron, occupational therapy, speech and language therapy, palliative care, day care, counsellor / psychologist. Mean service use, by care home, for the remaining 19 items (for which at least one resident reported at least one contact during the study period), standardised to an annual rate, is shown in Table 21. The services which were used in all the six care homes were: GP, district / community / care home nurse, optician, chiropodist, hospital outpatient, hospital inpatient (either acute or community settings). Reported use of GPs, practice nurse, hospital outpatients, and (marginally) A&E and opticians was significantly different between the care homes (ANOVA, p=.013, .035, .011, .054, .068 respectively). Residents in four of the homes had accessed A&E services. A dentist had visited all but one of the homes.

Table 23. **Comparison of care homes in annual utilisation of professionals or services (all items separately) for 31 patients providing data at each time point (T1+T2+T3)*.**

Care home	1 n=3		2 n=5		3 n=7		4 n=5		5 n=6		6 n=5	
	Mean Min	SD Max	Mean Min	SD Max	Mean Min	SD Max	Mean Min	SD Max	Mean Min	SD Max	Mean Min	SD Max
GP visits	10.70 5.6	5.58 16.7	4.29 1.3	2.97 9.1	8.03 1.2	6.35 18.9	16.45 8.6	6.79 25.0	3.770	3.198 .6	9.82 1.3	7.05 20.6
DN/ CN nurse visits	29.96 1.4	45.88 82.9	5.39 1.2	9.20 21.8	13.770	27.96 76.6	1.300	.932.5	6.350	7.06 17.2	67.90	144.7 326.6
Practice Nurse visits	.460	.80 1.4	0		.160	.41 1.1	0		0		.760	.70 1.3
Specialist Nurse visits	1.400	1.40 2.8	0		.470	1.24 3.3	0		0		2.18	4.87 10.9
Care home nurse consultations	0		0		0		14.82 6.6	6.23 21.0	0		0	
Mental health nurse visits	0		0		.160	.42 1.1	.260	.59 1.3	.230	.56 1.4	0	
Physiotherapist visits	.930	1.60 2.8	0		0		.260	.59 1.31	0		1.020	2.30 5.1
Dietician visits	.470	.81 1.4	0		.470	.86 2.2	.790	1.77 4.0	0		0	
Chiropodist visits	1.860	1.61 2.8	2.550	2.40 5.2	3.330	3.78 10.9	.240	.55 1.2	1.720	1.60 4.1	3.370	4.11 8.0
Dentist visit	2.330	2.91 5.6	2.080	2.99 6.5	.960	.99 2.2	.530	1.18 2.6	0		1.010	1.67 3.9
Optician visit	2.79 1.4	1.40 4.2	.760	1.15 2.6	.480	.87 2.2	.510	.70 1.3	1.300	.87 2.7	1.040	1.73 4.0
Psychiatrist home visits	0		0		0		.240	.55 1.2	0		0	
Paramedics (Ambulance)	0		.240	.54 1.21	0		0		0		0	
Inpatient community hosp	0		0		0		0		0		18.930	42.33 94.65
Inpatient acute hospital	.930	1.62	5.49	7.65	14.70	29.90	1.00	1.60	9.81	15.27	0	

		2.8	0	15.8	0	79.6	0	3.7	0	31.9		
Hospital outpatient	.930	1.622.8	3.850	2.9117.8	.510	.962.5	.260	.591.31	.630	1.072.6	1.000	1.373.8
A&E	0		.500	.691.3	.310	.541.1	1.820	2.005.3	.410	.261.23	0	2.6
Day hospital	0		.800	1.162.6	11.6680	30.9181.8	.530	1.182.6	0		0	
Voluntary /Crossroads	0		0		2.130	5.6314.9	0		0		0	
Total number of services	6.06	06	3.42	.894	4.13	.695	4.43	1.526	3.22	1.25	4.02	1.25

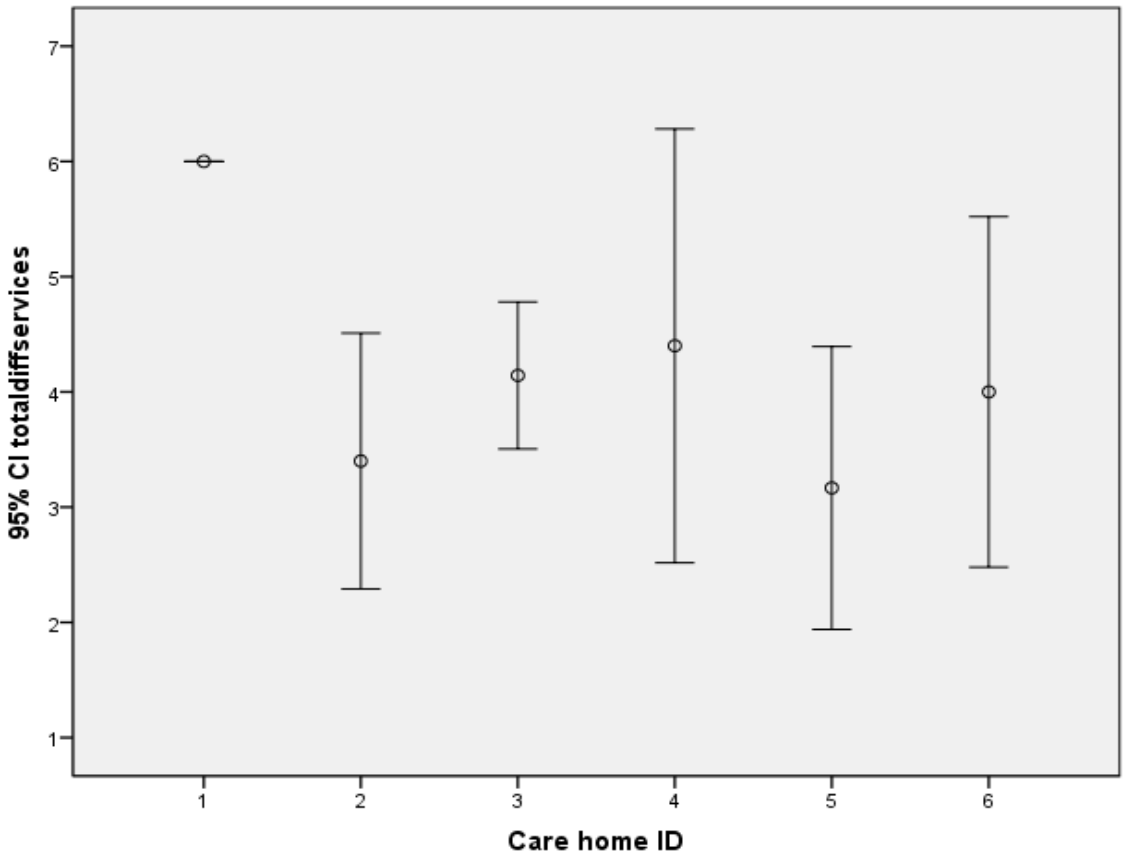
*Service use over the observation period has been standardised to an annual rate.

DN/CN: District nurse/Community nurse

No service use by any resident in any of the study care homes was reported for community matron, occupational therapy, speech and language therapy, palliative care, day care, phlebotomist, counsellor / psychologist.

Participants used between two and six different professionals or services during the observation period (T1+T2+T3). There was a significant difference (ANOVA, p=.019) between care homes in the mean number of professionals and services used by participants (Table 23), with more being accessed by residents in care home 1 compared to the other homes (Figure 3). No significant associations were found between the number of professionals and services accessed and patient age, time in care home, number of medical issues, Barthel measure of independence in ADL (Spearman's rho or gender (Kruskal Wallis test). A higher number of prescribed medications was significantly associated with having contact with more professionals / services (Spearman's rho .462, p= .009).

Figure 2. Comparison of care homes in mean number of different professionals or services over total observation period (T1+T2+T3), for 31 residents completing the study, with 95% Confidence



5.6.1 Costs

Service use costs for the 31 participants who completed the study were summed by category (GP; other community medical (dentist, chiropodist, optician, psychiatrist); nurses (district, community, care home, practice, specialist, mental health) and allied health professionals (physiotherapist, dietician); inpatient; other hospital (A&E, outpatient, ambulance, day hospital); voluntary; overall), and compared between homes (Table 24). There were significant differences between homes for GP and other community medical service use (high in homes 1 and 4).

Total costs were driven by hospital costs (Pearson correlation with in-hospital costs .953, p <.0005, and with other hospital costs .850, p<.0005). Across the whole sample, higher GP costs were associated with taking more medications (Spearman's rho .443, p=.012), and there was a trend for higher nursing and AHP costs to be associated with higher dependency on the Barthel index (Spearman's rho -.333, p=.067). No other patient characteristic was associated with any category of cost.

Table 24. **Annual costs (£ 2010) of service use for 31 participants providing information over all three time periods: comparison of care homes**

T1+T2+T3 Cost category	Care home 1 n=3		Care home 2 n=5		Care home 3 n=7		Care home 4 n=5		Care home 5 n=6		Care home 6 n=5		Significant difference between models ANOVA
	Mean Median SD	Min IOR Max	Mean Median SD	Min IOR Max	Mean Median SD	Min IOR Max	Mean Median SD	Min IOR Max	Mean Median SD	Min IOR Max	Mean Median SD	Min IOR Max	
GP	1283.22 1175.52 699.30	674 824-3678 2000	515.43 374.40 356.84	156 117-710 1088	964.23 6543.18 762.16	149 262-1599 2265	1973.74 1265.85 814.65	1026 974-2365 2996	452.28 492.47 382.90	0 148-1030 1030	1178.29 1161.06 846.12	159 800-1554 2469	.013
Other community medical profs	1713.87 2044.56 667.79	965 970-3812 2186	851.48 575.76 523.59	390 292-1208 1658	1168.73 872.24 838.73	327 373-1784 2636	2094.14 1582.31 691.17	1251 1165-2427 2996	547.71 703.14 391.96	88 197-1087 1087	1416.18 1503.19 1007.41	506 800-1865 3087	.024
Nurses and AHP (Physiotherapist. Dietician)	816.56 858.34 1045.58	191 213-2061 2024	126.69 30.54 216.12	29 30-760 513	364.42 126.97 648.40	0 51-261 1822	233.46 193.83 125.49	97 124-363 397	153.82 57.61 170.93	0 0-317 405	1719 55.76 3509	27 27-282 7992	.506
Inpatient (acute & community hospitals)	322.80 0 559.11	0 0-484 968	1898.28 702.09 2647.69	0 0-4390 5458	5086.48 0 10346.88	0 0-8067 27539	344.52 0 552.49	0 0-455 1268	3392.66 0 5283.19	0 0-9330 11026	1883.43 0 4211.49	0 9417	.755
Other hospital: OP. A&E. ambulance, day	126.88 0 219.76	0 0-432 381	718.96 487.34 371.38	388 392-1066 1215	1490.47 107.69 3682.35	0 0-338 9837	275.00 118.49 409.52	0 0-128 1001	125.78 119.29 156.99	0 0-300.56 350	135.76 0 186.04	0 350	.734
Voluntary	0		0		214.250 566.86	0 0 1500	0		0		0		.668
TOTAL COST	2998.11 3072.16 625.96	2377 2683-3072	3595.40 2702 2675.71	1240 1537-6349	8324.35 2210.3	437 923-11781	2947.11 2536.97 837.16	1979 1246-3220	4219.97 1019.83 5583.68	88 719-10561	5154.64 2464.	533 1532-9506	.818
		3629		6797	8 13772.06	38296		4212		12211	74 4585.09	10499	

Other community medical professionals: Dentist, Chiropodist, Optician, Psychiatrist. Note: n=26 of 39 residents at baseline (84%)reported self paying for chiropodist

Nurses: District, Community, Care home, Practice, Specialist, Mental health. AHP: Allied Health Professionals. OP: Outpatient

5.6.2 Costs of care and level of perceived integration

Residents in care home 1 used a larger range of professionals and services than those in the other care homes over a nine month observation period, but this may reflect the characteristics of the residents recruited, the location of the care home (inner city) rather than primary care and care home processes. The overall range of services accessed by the sample as a whole was limited (maximum 6), and no residents reported access to therapy services. However, this is a high cost population with the mean annual cost for the sample being £4873 (SD 7150), and driven largely by the hospital use of a small proportion of the residents.

Data for the analysis provides unique micro-level information about service use and costs of care home residents. However, the relatively small samples, and the possibility of selection bias in the recruitment process, limit the conclusions that can be drawn.

5.7 *Residents' perspectives on their health and the services received*

This section focuses on care home residents' and relatives perspectives and experiences of using health services; their perceived health needs and quality of life, based on the interview data. Twenty two residents were interviewed on three occasions, four were interviewed twice and nine only once; five residents had their notes reviewed but did not agree to be interviewed. Four main themes were identified: experiences of ageing, health and well-being; changing health care needs over time; accessing health and social care; and the experiences of living in a care home. These themes illustrate the complex interplay of relationships between residents their relatives, care home and health care staff, when determining resident's health care needs and accessing services. Each theme and its sub themes are discussed and further illustrated through two case studies (appendix 5) accounts drawn from the residents' interviews.

5.7.1 Experiences of ageing, health and well being, attitudes and experiences

Residents' personal attitudes to their own age and health, and the way that people living in care homes have a sense of being part of a group of people who have similar problems may be a significant influence on the way that they access health and social care. There is, for some, an apparent acceptance of their ageing body and its current limitations: *I mean when you get to 81 you can't expect to be 16 can you really, you know what I*

mean? … so I reckon all the tablets they've given me's kept me alive Resident 8 (Care home 2, high level of integration)

Some residents explained that they were not ill, but that their ageing body was to be expected as part of 'normal' ageing and, for some, was the reason they articulated for living in the care home.

Yes, but that's all, and that's the reason I'm here, it's not that I'm ill, it's to do with I can't walk.

What's the matter with your legs, what's the problem?

Old age (laughs).

You're wobbly on them, are you? Is your balance not very good … ?

I mean, 92…

Are you?

…*what can you expect?* Resident 19 (Care home 4, medium level of integration)

Residents differentiated between specific diseases that caused illness and increased limitations in mobility and ability.

Personal expectations about their ageing body may combine with concerns about being a burden to care home staff, relatives or health care services, resulting in residents not expressing (fully) their needs, believing that they are to be expected in older age, that their needs are of a lower priority than other people with recognisable illnesses. Some residents deemed it inappropriate to complain about feeling unwell or to make demands on individual care workers and therefore did not 'bother' them. Nevertheless, as this following quotes demonstrate, living with a recognisable symptom such as pain, did affect their mobility and overall wellbeing:

You know, my health before, I used to go outside walking and still I'm going but I'm getting tired now, you know, and sometimes my legs is paining so when I went to the doctor yesterday, I said, Doctor ?, why my leg, he said, there's nothing wrong but that is you've got arthritis. *Resident 6 (Care home 2, high level of integration)*

And:

Anyway no, I feel as though I'm complaining and I'm not doing that.., well when I've got stiff aching legs it isn't easy to be oh jolly Joe and all this, you know?

No, of course.

You might do for the first two days, three days but you soon get fed up if I've got this rotten leg again or, you know, which isn't fair on the girl, and

I've said so, I'm sorry. *Resident 14(Care home 3, medium level of integration)*

Personal thoughts about and acceptance of poor health, having an ageing body, having "good and bad days" could be concomitant with fatigue. This can mean that some residents either wish to be left alone to rest at times – or that they do not complain about health problems. Several of the interviews highlighted that health for this population was transient. It did not fit with a conventional narrative of a discrete problem that could easily be addressed by a GP or nurse.

So does that mean you never feel unwell, or under the weather at all?

Yes, yes, more or less it, yes it's like that lovey. Not unwell, not ill, just some days are good and others less good. Some days I feel better than others but if I am not so good I have a quite day, that's all. It's not being ill, just a little bit dozy and quiet. And they leave me alone when I want to be and I like that. It's just one of those things. After all, I'm almost 94 now, and this body isn't as young as it used to be. Resident 16(Care home 3, medium level of integration)

Some residents, and relatives, reported an improvement in health and wellbeing after going to live in a care home.

I even walk around here and don't feel like I will fall down. I can do what I want and don't have to worry about the things like food and washing and cleaning, I can just relax and enjoy my life again. It's luxury in a way! And my family seem so happy too, and they visit me as much as they did at home, but without the worry of having to do things for me all the time. So now I get to see them and enjoy them all properly instead of worrying that I was being an nuisance like I did before. Resident 30 (Care home 5, low level of integration)

There was also awareness that others in the home, or of a similar age, being in a similar or worse situation. Downward comparisons to those worse off than themselves appeared to increase the likelihood of residents accepting and tolerating their health problems rather asking for assistance with them.

That's right, yes, I was very… I get… when it was… when there's a lot of pain and it's there night and day and you do get tired of it but other people are the same so, you know, I mustn't grumble …Resident 14 (Care home 3, medium level of integration)

However, both Care Home and Primary Health Care staff need to be aware that a resident's failure to articulate health problems and stoicism may mask underlying health issues or care needs. We noted how health needs may at times get lost in their apparent quietness and lack of complaint by residents and that resolvable problems may not be not expressed by residents or recognised by care home staff.

They will do it but I try and do things for myself as you say, you've got to, you know, make a little effort, you can't because they are very busy here and they've got a lot of people that take advantage of it here, not saying too much, you know, a lot of them play on it. I mean you can't expect too much, they're absolutely wonderful, I mean you couldn't meet nicer carers really but I don't like to put on people because I've not been brought up that way. Resident 8 *(Care home 2, high level of integration)*

There were examples where care home staff could have been helped by a discussion or review of a resident's behaviour with a health care professional. One resident had multiple health problems, and wished to spend most of her time alone and in her room as an act of independence. She also expressed a sense of acceptance about her own age and health issues and a desire to be allowed to live within this. However, among care home staff and family there were concerns about the possibility that she may be depressed or isolating herself for other reasons, which at times caused a conflict of care intentions with the resident's expressed needs and wishes.

She gets cross with her family because they tell her she should do more and talk to the other residents, get up and join in with the things that go on in the home but she is not lazy, she cannot do this because she is disabled. Her family do not seem to understand this.

Notes of interview Resident 39 (Care home 6, low level of integration)

One resident explained how she was having problems with double vision, and how this had caused a perceived tension between her and care home staff

we call it double sight, oh I saw, there was always somebody in my room and there was nobody there and they'd got a bit cross with me in the end because I wouldn't believe them that there wasn't anybody here….

And so they said 'now look there's nobody here'...

...and I could understand but it was a, I can't explain the, oh what it was like really, it was a bit frightening. Resident 20 (Care home 4, medium level of integration)

The reluctance of residents to make a fuss and their concern about being a nuisance to Care Home staff or to primary care, affected the way that health care is asked for.

How is your stoma now*?*

Horrible. But... (Pause) I try to manage but I mean, they look after us and the nurses are good with us because... Sometimes I think I'm a nuisance.

Resident 24 (Care home 4, medium level of integration)

5.7.2 Changing health care needs over time

Residents' experiences and their ability to express their needs changed over time within the care homes visited. There were differences between people who had resided in care homes for more than a year, and those who were new to communal living. Some residents, and relatives, reported an improvement in health and wellbeing after going to live in a care home.

I even walk around here and don't feel like I will fall down. I can do what I want and don't have to worry about the things like food and washing and cleaning, I can just relax and enjoy my life again. It's luxury in a way! And my family seem so happy too, and they visit me as much as they did at home, but without the worry of having to do things for me all the time. So now I get to see them and enjoy them all properly instead of worrying that I was being an nuisance like I did before. Resident 30(Care home 5, low level of integration)

There was also awareness that others in the home, or of a similar age, being in a similar or worse situation. Downward comparisons to those worse off than themselves appeared to increase the likelihood of residents accepting and tolerating their health problems rather asking for assistance with them.

That's right, yes, I was very… I get… when it was… when there's a lot of pain and it's there night and day and you do get tired of it but other people are the same so, you know, I mustn't grumble …Resident 14 Care Home 3 medium level of integration

With respect to the expression of need two different approaches to this were identified: a passive and a consumerist mode. For some residents feeling secure and being able to trust in the care provided by the Care Home included not having to take decisions and make direct arrangements with health care services. Feeling that all personal needs are well cared for was a priority, both for residents, and for some people there was a sense that quality of life is facilitated by living in a Care Home.

In some cases, such as one resident with memory problems who had been living in his care home for 5 years, there was an acceptance that this was the most effective way of living:

I have good health and I just stay here because it's where I stay and that's easy and works quite well you see. Resident 27(Care home 5, low level of integration)

This sense of security in being cared for can affect how residents perceive and access health and social care, because they may be more likely to leave decisions about this to care home staff, or relatives and take on a more passive role.

Entrusting activities of daily care, such as clothes washing, catering, cleaning to care home staff or decisions around accessing care could be interpreted as evidence of passivity and institutionalisation. However it may be that this is not always a giving up of responsibility for such activities, instead it may be that residents act as consumers of the services provided by the care home.

Do you ever want to arrange anything like this yourself?

No, why should I be bothered with that. They are called care workers and so that's their job. Caring. That's what I pay them for and that's what I expect them to do. Resident 34 (Care home 6, low level of integration)

The direct link between payment and care in this setting is not often articulated as clearly as this. A passive or consumer approach taken by residents with respect to their care also shapes attitudes about health and social care. It may affect the way that residents understand and are engaged with information and treatment for health problems, although other factors such as trust in health care professionals, and an expectation that care will be provided if needed, contribute to this.

And do you know what the results showed in your blood test, do you know what they were for?

No, I never ask, I never ask them anything anyway, I mean I'm not a doctor, I'm not a nurse, I mean I couldn't see what, but they look after us.

So is the GP going to be coming out to you again, to check on you?

I haven't got a clue. Resident 24 (Care home 4, medium level of integration)

This experience of engagement with healthcare is explored further in the next section.

Both Care Home and Primary Health Care staff need to be aware that a resident's failure to articulate health problems and stoicism may mask

underlying health issues or care needs. We noted how health needs may at times get lost in their apparent quietness and lack of complaint by residents and that resolvable problems may not be not expressed by residents or recognised by care home staff.

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There were examples where care home staff could have been helped by a discussion or review of a resident's behaviour with a health care professional. One resident had multiple health problems, and wished to spend most of her time alone and in her room as an act of independence. She also expressed a sense of acceptance about her own age and health issues and a desire to be allowed to live within this. However, among care home staff and family there were concerns about the possibility that she may be depressed or isolating herself for other reasons, which at times caused a conflict of care intentions with the resident's expressed needs and wishes.

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And so they said 'now look there's nobody here'...

...and I could understand but it was a, I can't explain the, oh what it was like really, it was a bit frightening. Resident 20 (Care home 4, medium level of integration)

5.7.3 Accessing health and social care

Residents' access to health and social care services was variable and a mediated process, that reflected and shaped residents' expectations and experiences of life in the care home. Their knowledge of the wider health and social care services was limited and their assumptions about how care home staff and primary care practitioners worked did not reflect the practices observed in this study.

For the majority of our participants care home staff act as intermediaries between residents and health and social care professionals. Of the 33 residents who were interviewed at least once, 30 said that they would tell someone at the care home if they felt unwell and in need of primary health care. Senior care workers were the conduit to accessing health care, whether being asked to arrange appointments by key workers, or being asked directly by residents. The role of care home managers varied across the six homes, some being fully involved in and informed about individual resident care (usually in the smaller home), some being uninvolved. Typically, residents would talk to a trusted member of care staff and expect that referrals were made to appropriate health care services. As these quote demonstrates, residents were aware this could be an involved and negotiated process before a GP is contacted. The decision was mediated by others.

I talk to my key worker first thing. Then going to the office, downstairs to the office, the manager, anybody, J or S, and he says, Mr P is worried about health, he's got... So he says, he think, need a doctor, they take appointment for the doctor, you know. Resident 6 (Care home 2, high level of integration)

…**so how does it work if, you know, you've just, you think that you're not having a strong enough painkiller, who do you talk to to try and see if you can get something?**

With the main team, your key worker, or one of the care workers…

…Or one of the home team, and we've got a manageress and I've got manageress, to them and then they get in touch with the doctor and they talk to the doctor and he knows whatever it is, and he will prescribe the tablets, but you mustn't go and buy tablets yourself because that's not right. Resident 8 (Care home 2, high level of integration)

Two factors shaped residents' mediated access to health and social care services: the passive/consumerist perspective adopted by the resident and /or, their knowledge of different care roles. In line with a passive approach to living in a care home often there is a tacit expectation, by both residents and relatives that care home staff will notice health problems and act accordingly to call in appropriate health care professionals. Over half had experience of, and thus an expectation that, care home staff would observe

that they were in need of health care and that this would be arranged automatically. This may in part be based on a belief that Care Home staff possess a level of observation and expertise to both notice the change and identify that it was a matter that warranted referral to health care services**.**

they notice what I need and they arrange it for me when I need it, they are very good like that. Excellent I would say, they keep an eye on you and when they think you're bad they sort it all out and they say that the Doctor or the Nurse is coming in and you just do that because they say to and it is all quite fine because they are the ones who know, aren't they? Resident 29 (Care home 5, low level of integration)

Residents also expressed a confidence in the expertise in care home and health care staff, to the extent of placing all care decisions it their hands.

I ask what I want to ask and they tell me what they want to tell me. If I don't want to do something then I don't. But as far as my health care I leave that up to them, they are the experts, aren't they? Resident 2 (Care home 1, high level of integration)

Expectations about access to health and social care changed. Older people became normalised to how the care home worked with the NHS. Over time and with increasing acceptance and understanding of care home practices and procedures, residents (and to some extent relatives) there was a greater acceptance and for some, willingness to allow Care Home staff to take more of a role in all aspects of care. This was particularly true for decisions about initiating access to primary care.

The exception to direct staff mediation occurred in a few cases were three participants who did not access health care via the care home staff, two residents preferred to tell a relative about any health problems, then expecting the relative to make arrangements for care via the care home and one, self referred to the GP.

How would you get the help that you might need if you had some worries about your health?

Well me daughter, as I say, she was a nurse years ago, she's very understanding and capable and she would know what to do…

…**Yes, yeah, or you're saying that the nurses might arrange it themselves?**

I'm not sure about that, no I'm not sure about that, but I know if I tell me daughter she'll pass it on. Resident 12 (Care home 3, medium level of integration)

Exceptionally, this person was independent and able to travel alone and the care home supported them in how they contacted the GP, even if this meant that they were unaware if medication changed.

So if you needed to see a Dr how would you go about it?

I'd go on a bus and see a Dr.... I'd go myself.

So you wouldn't go through the staff here and ask them to make you an appointment?

Would I hell. Resident 21(Care home 4, medium level of integration)

This trust in the expertise of Care Home and Primary Care staff can be fragile when a resident needs are not addressed, or where residents feel the care being provided is detached or uncaring. Such issues can be intensified when residents feel they have no choice in the care they receive.

*I think the girls here try, but the GP is hopeless. She comes in and whatever you say she carries on in her own sweet way. I believe she listens to nobody and does whatever she wants to. I have heard her with (Senior Care Worker) and they get quite heated sometimes. (Senior) is usually right in what she says but the doctor seems to think we are all making a fuss about nothing….*Resident 35 (Care home 6, low level of integration)

… with these young people, I wouldn't talk, they're only here for a short time. I don't know how the other one I had in the first place, I could talk to her but these are younger ones really. I think that's the trouble with a lot of these youngsters here, they you know they're only, oh they're just doing it for a job really, they don't really know a lot about people. Oh I don't know. I am too critical I suppose. Resident 16 (Care home 3, medium level of integration)

Access to the range of primary care services was variable. Most residents appeared to have the access to core primary care services (GP and Community Nurse) when needed. Access to chiropody care was a particular issue, either through quality or cost, with almost two thirds of the residents interviewed mentioning chiropody care, and half of these having problems with the quality or cost of this care. Access to physiotherapy was also a particular problem in some homes, and where a resident felt a need for greater mobility this was perceived as a significant cause of deterioration in health.

It is all good and I am well apart from the physiotherapy. I need this for moving better and feeling better. The girls here help me but they do not know all of this thing I need. Resident 38 (Care home 6, low level of integration)

For some residents when seeking help or advice about their health they did not differentiate between care home staff and external NHS staff

The doctor. I shouldn't say this really should I? But to me they're not, it's like there was a nurse, was a matron, she wasn't one of them was she, she was the boss person and here I feel they're all the same, all together. Resident 16(Care home 3, medium level of integration)

This was particularly the case with nursing staff, where the many different nurse specialists were not always recognised by residents particularly in care homes with nursing nearby or on site, it is difficult to differentiate between the roles, as is illustrated here:

So have you spoken to the district nurse about whether you should keep having it on?

Well they just don't know.

They don't know either?

No, no.

Who do you think you could ask about that?

Well I've got to see the doctor about it. I think, I think he'll be coming this week or sometime soon because he'll want to know how I've gone on with the district nurse…

…**But what about nurses, have you, do you know if you've ever seen the nurse from the continence team?**

Well what's the difference? …Resident 16 (Care home 3, medium level of integration)

Experiences of engagement with health and social care services were mixed, as has already been illustrated. Some residents appeared to feel that they had been lost to the system altogether, or had become lost by the demands on or hierarchy of the care home.

*Well that I don't know. I just feel I'm on a sort of, waiting, I'm not as ill as a lot of people so I think I'm just left to tick over.....*Well I think they've got more dying people to deal with. Resident 16 (Care home 3, medium level of integration)

Engaging with the hierarchy, and knowing who to speak to could also be used as a tool to escalate or improve care:

…*Well I had to… first of all I done it this morning, I was seeing the senior… the senior nurse who comes with the others and tell her and she's had a*

look and she's going to be in touch, get in touch with somebody else who is higher up still, who is going to look at it when I finish this afternoon. Resident 14 (Care home 3, medium level of integration)

Interaction and information sharing between care home staff and primary care staff was expected by residents, regardless of our integration classification of the home, details of how this worked in practice was rarely articulated. It was an assumption of the residents interviewed that information would be shared but they did not know for sure, or the process by which it was done, and as this quote shows they did not always feel able to ask:

And do you think the care home staff work together with the healthcare staff?

Well I don't know that do I dear really? You know, I'll be treading on someone's toes, I don't know. Resident 8 (Care home 2, high level of integration)

And:

Do you think the healthcare staff who come into the care home, like the district nurses and the doctor, do they work together with the care home staff would you say?

Well I don't know really, you know, I think they come in for the money, half of them, you know, they come for… it's their job they're doing, they come in.

But do you think they work together and maybe share information about… so, for example, if you're not feeling well and you've told R, would she then pass on your information?

She would, she would, she would, yes. Resident 11(Care home 2, high level of integration)

5.7.4 Experiences of living in a care home

The focus of the study was residents' access to health care, to examine if the different service configurations affected the resident experience of health care. However, the study identified insights into the daily lives of residents and their wellbeing and these form part of the context within which health care needs are expressed and access to services is mediated.

For our participants the care home was their home but is characterised by both private and public space, and is both a place of domesticity and a sphere occupied by professionals. As such it is a complex organisation seeking to balance the personal private domestic sphere with communal living and the provision of professional care services. Residents have the

options of using public space for organised/individual activities or using their own rooms. This was a complex balance for participants and one that was subject to different interpretations by those involved with residents.

We identified three aspects of living in a care home that influenced how residents' engaged with issues of health and access to services: independence and choice, involvement and activity, isolation and loneliness. These are inter-related.

Independence, involvement, choice and activity

Whilst appreciating feeling cared for and valuing a sense of safety, many residents appreciated being allowed independence and space to live as they chose.

I just get on with it and live my life and they are good to me here, like good friends and they look after me so I'm fine. I like that they don't, get in, you know, they don't impose you know. Resident 26(Care Home 5 low level of integration)

Similarly, some residents wished to have the independence of choice to remain in their room and relax in their own way. It can be difficult for care home and health care staff to balance and respect such wishes with a concern that the resident may be withdrawing for health or psychological reasons.

Few participants went outside of the care home-their life was lived within the care home and environs. The loss of independence and choice can be significant factors for residents in care homes, affecting general wellbeing. The benefits of feeling secure and cared are counter balanced by reduced autonomy and independence. Loss of usefulness and boredom may be reduced by involvement in activities which may also enhance an individual's quality of life.

I said to the nurse, I'm fed up with this running around after me. I said, it's me who's running around after other people usually. And so she said, oh well, never mind. Two days afterwards she said, here, I want you. So I wondered what she wanted. There's a sink full of cups there, she said, you can wash those up!.....*And do you know, it was a joy*. Resident 35 (Care home 6, low level of integration)

Loss of independence and choice in personal care can be difficult for some residents, such as one who, whilst other factors were involved, felt embarrassed to bathe with a carer in the room and felt that choice was being removed from her for the convenience of Care Home staff.

The only thing I get cross with is the bathing, they go on and on about it wanting me to bath, telling me it should be good for me, very silly. I wash

and I prefer a shower but I can't shower so why should I bathe especially with them standing over me. It is embarrassing, very embarrassing and I don't want it. They say it's my choice but I think they pressure me because it suits them, not me. Resident 29 (Care home 5, low level of integration)

Involvement and activities

Some participants read or listened to the radio or music but most activity focussed upon watching television. This was an important source of company and a way of passing time away from the communal nature of the care home environment is illustrated by this comment from another resident in care home 4.

'I just lay here day in, day out, not like being at home with your family is it? So, oh, I take life as it comes, that's all I know, that's a godsend is television.' Resident 19 (Care home 4, medium level of integration)

Across the care homes there was variable use of public activities and spaces. Our participants commented on their use (or otherwise) of 'public' areas within in the care home, for some, such areas were uninviting because they were not stimulating social environments. In care home 2, one resident expressed the benefit of activity:

I'd say you need to put your mind occupied, if you sit long in the room, then you getting depressed, but if you coming down and join with the activities and automatic bother you inside, just talk to somebody, then you can come out from your chest and you feel much better. Resident 6(Care home 2, high level of integration)

Inevitably activities undertaken within the individuals' room were individually based and meant not engaging with other residents. As a participant in care home 2 noted:-

I mean, I don't mind being by myself for a day. Some of them absolute go berserk if they haven't seen anybody for a few hours. So I feel a bit more able than a lot of people when they're by themselves. ... In fact, it's nice sometimes to be by yourself. And I do crochet and I listen to the radio and I've got CD discs and my telly Resident 10 (Care home 2, high level of integration)

And the home library, it's very nice, the man comes here and supplies me nice books. My time is passed in reading books Resident 9

Where residents feel unable to do any activities of this sort there can be a conflict between an appreciation of feeling cared for, and a need to be active and have purpose.

You feel well cared for?

Oh, course, honestly, and I say 'Leave that, I'll do it myself', 'No you won't, I'm going to do it, it's my job and I'm going to do it'. Oh they're

wonderful.....*Well I think myself, talking to you, I think myself I don't want to interfere with anybody, but there are things I would like to do, because I'm never tired, I'm never tired.* Resident 17(Care home 3, medium level of integration)

5.7.5 Isolation and Loneliness

Some residents noted that there were limited opportunities for social interaction with other residents as illustrated thus:-One factor in the limited social engagement with other residents was resultant from participants 'distancing' themselves from other residents who they considered to be different from themselves as follows:-.

I suppose I'm a bit disappointed in the fact that there's only like two of us that we can talk each other. I hadn't quite realised how the rest of the people in the home, they don't really... We would have nothing in common shall I say. Resident 6 (Care home 2, high level of integration)

Some residents expressed their boredom, taking part in an interview was appreciated as a social interaction in itself. As this quote demonstrates feelings of isolation were compounded by not having the energy to seek out other people.

Jesus this place here is boredom. It's hell. I been here on my own except between 4 and 5.....Yes. I'm glad to see you here. Someone to talk to. Someone to talk to. Resident 21 (Care home 4, medium level of integration)

It is nice having somebody like you to talk to, it's just, you see I stay in my room but I just haven't got the energy to go down, and then if you go down you can't find somebody to talk to. Resident 16 (Care home 3, medium level of integration)

And for one person, her need to talk and feeling of loneliness was more significant than her health:

But I don't, I don't feel ill love……I just feel lonely

One resident had multiple health problems, and wished to spend most of her time alone and in her room as an act of independence. She also expressed a sense of acceptance about her own age and health issues and a desire to be allowed to live within this. However, among care home staff and family there were concerns about the possibility that she may be depressed or isolating herself for other reasons, which at times caused a conflict of care intentions with the resident's expressed needs and wishes.

She gets cross with her family because they tell her she should do more and talk to the other residents, get up and join in with the things that go on in the home but she is not lazy, she cannot do this because she is disabled. Her family do not seem to understand this.

Notes of interview Resident 39 (Care home 6, low level of integration)

Relationships with family can also have a powerful impact on the well being of residents, and their need for others to talk to and socially engage with. Residents with limited contact with friends and family frequently alluded to their feelings of isolation.

5.7.6 Multiple perspectives on health care and access

For a number of participants we had interviews with the older person, their relatives, care home worker and primary care professionals. All of these individuals are involved, to a lesser or greater degree, in decisions about accessing health and other care services. However, regardless of how NHS involvement was structured, opportunities to bring people together to review care, streamline referral processes and review care were ad hoc and relied on the quality informal working relationships. The findings demonstrated that residents' perspectives on their health care and access to services were situated within an organisational context (the care home) and their interactions with others (family members and professionals). Communication was mediated through a range of perceptions of what was important and interpretations of resident's behaviour and wishes.

These differing perspectives and the complexity of how health needs are interpreted and communicated are captured in two case studies where the responses about the residents' health are presented from resident, family member, care home staff member and NHS professional (appendix 5). These illustrate different components of the issues noted in the previous sections. Both demonstrate how the move to a care home has been a solution to pre-existing health problems for the older person and her family. In one (Cath) Access to health care is mediated through the care home staff who the resident and GP trusts and is, if needed, supplemented by a family member. In Case study 2 (Ann) it is apparent that everyone (resident, daughter, care home staff and District nurse) are aware of her pain and her progressive deterioration These concerns are mediated via district nurse who involves the GP for a review of medication and pain control. There is in both accounts a reliance on care home staff alerting NHS staff as problems arise However, in none of these accounts is it clear how this is documented or reviewed or more importantly, future needs are anticipated.

5.8 *Conclusion*

The older people from across the six care homes were of a similar age and level of disability. The costs of their healthcare were not dissimilar across the different high, medium and low levels of integrated working. The hospital use of a small proportion of the residents meant that, this is a high cost population.

The resident and relative interviews highlight several key issues:

- Addressing an individual's needs in a care home occurs within a social context of their daily lives in a collective institution;
- Resident's perspectives on needs are broader than just being health focused, wider social needs for independence, control, activity, purpose and company, are important to them and shape their experiences of well-being and health;
- Health needs may be chronic and/or fluctuating and or acute;
- Articulation of need is shaped by an individual's perspective on their own ageing process;
- Access to health care services is mediated by family and or care home staff; and this mediation is recognised by residents either in a passive or consumerist way;
- Residents' understanding of different external health care professional roles is limited;
- Although recipients of primary care services, residents were not often engaged in the decision making or information flow about and around them.

For all residents access to care is mediated by others. This is achieved by a variety of routes including direct request from residents, the intervention of relatives or an expectation that staff will notice clinically relevant changes and refer as appropriate. Recognising the reliance residents have on care home staff for access to primary care is challenging. This could reflect a passive attitude to their care by older people or an expectation by them that, as they are living in a care home, that the staff will be proactive in organising care. Regardless of which model of access is underpinning these expectations it is clear that care home staff are the main route of access to primary care services for older people resident in care homes. Hence it is important that primary care staff take note of care home staff referrals (or comments), involve them with the resident's permission in discussions and review of care. Care home staff can both act as the advocate for resident's needs and the focus for continuity of care for the different NHS services that visit the care home.

6 Care home and NHS professionals working to provide clinical, health and social care

6.1 *Introduction*

The model proposed by Kodner and Spreeuwenberg [1] describes integrated working as being operationalised at the care interface, i.e. at the level where care is delivered. They argue that integration has an impact on both professionals who deliver care and those who receive care, though the impact is not equally felt. They go on to make a case for looking at the care experience through the 'patient lens' (p3), and that integrated working is particularly important for those receiving both curative and care services. This chapter follows on from the residents' accounts of their experiences in chapter 5 and describes integrated working in the care homes at the clinical level from the perspective of the care home and NHS professionals involved.

The chapter is organised using the headings summarising the features of integrated working as described by Kodner and Spreeuwenberg [1] at the clinical interface. It considers how residents' health care needs were identified and shared between the staff, how responsibility and accountability for health related care was negotiated, resources that supported integrated working and access to specialist services. It concludes by looking in detail at one exemplar areas of work end of life care.

6.2 *Identification and review of residents' health and social care needs*

There were examples of older people's condition deteriorating over the time of the study, including loss of mobility, incontinence, loss of appetite, shortness of breath, falls (see resident Visios™ in chapter 5)and a corresponding increase in input from care home staff and primary health care staff. There were also residents who were stable and asymptomatic as well as residents whose mobility and function improved over the year. Two residents from care home 4 who were not in designated short stay beds, were, discharged to their own homes or sheltered accommodation: an unexpected finding that is illustrative of the variability and changeability of the resident experience.

The residents in the six care homes were designated as needing personal care and support. This could involve providing assistance with personal care, shopping, domestic duties, making health-related appointments,

monitoring residents' health, contributing to review meetings in the care home, as well as arranging social outings, and providing 'one to one time'.

However, it was recognised that residents' needs would change over time, as is described here:

When he came he was hundred, so with one person we were able to manage. And then anyway he started going down, mobility wise, and at one time he needed even two people. And then he started having some medical problem as well, problem of incontinence, leg ulcer, and he lost a lot, a lot of his mobility. So now he can walk really just the minimum, maybe from his bedroom to the bathroom, with really close supervision. (Care home staff 1)

This incremental decline is a common experience for many residents.

Close relationships existed between care staff and residents, and these could be described in very caring and affectionate terms. Care home staff could demonstrate a detailed familiarity with residents' preferences, anxieties and wishes:

'She likes to toddle off on her own and she had a fall so it's knocked her confidence so she's a bit frightened now going out. So what we've done is we've sent a carer with her to go to the shop and she's quite happy with that at the moment. But she was just getting to the stage where she was going to go on the bus to town and it's knocked her right back.' (Care home staff 2)

Mirroring residents' expectations described in Chapter 5, care home staff saw themselves as the people having the greatest knowledge of residents and talked about monitoring their health and well-being on a day-to-day basis. Care homes 1 and 2 carried out monthly assessment for all their residents including pressure area and nutritional status. However, these were internal to the care home and were only routinely shared with visiting NHS professionals for intermediate care residents. Similarly, some (but not all) care home staff were very clear they had a monitoring and advocacy role for their residents.

'I've noticed just of late she's suddenly been a little bit naughty with the sweets and things, you know, at teatime, and I said "oh XXXXX are you sure you can have this?", she says "oh yes, it will be okay", you know. But I thought well I'll have to keep an eye on that so she could do probably with a review on that.' (Care home staff 3)

' ... we support him like just grooming him up, getting well dressed, make sure his boots are well-fitted, when he came in, his boots were all tattered, they were not in a good shape. So we had to fight very hard to get the new

boots which he had, the first ones, they were too short, they were too tight, then we have to order another one.' (Care home staff 4)

In terms of working with visiting health care professionals, across the sites, care home staff anticipated what residents they knew might find confusing

or difficult, or not, when talking to a GP or nurse. Care home staff described their advocacy role in terms of what would help the resident to be settled and happy and part of the care home. They also saw it could be a three way process involving family members too. It was a broad and ongoing view of health and wellbeing:

When people first come here it can be a difficult time for them. They are experiencing huge changes and often quite low. We are a special kind of community which some people enjoy, others find hard, but I do think or at least I hope, you know, I hope that everyone can eventually be ok, be happy here. I think it is important that we help identify what each person is like, what their preferences are, and how we can help every person to be as happy and comfortable as we can. If that means speaking up for someone, or making sure they get the right healthcare, or helping them tell their relatives what they need and want... (Care home staff 5)

One resident reflected on how her support worker supported her to deal with her ill health and fears about dying:

Then my key worker....she took me aside, she says sit down, and she say 'Why you worries?' She say, 'Everybody got to go one day'. She say, 'My husband also is very sick nowadays'. She say, Don't worry, if you worry too much, you have to suffer yourself'. So she gave me all the time, courage'. (Resident 6 Care home 2high level integration)

Whilst care home staff would often describe their role in terms of enjoying and valuing working with older people, only one NHS professional interviewed expressed an active interest in this population and their needs, As is described here:

I think we all have to be interested in elderly care because it's such a big proportion of our work, kind of elderly people get old... it's something you've kind of got to enjoy because otherwise it's kind of what is the point of being a GP if you're not going to enjoy elderly care... (Primary care professional 1)

The knowledge and understanding of the residents that care home staff had was nevertheless recognised and valued by some of the NHS staff that visited, especially if there were long gaps between visits. This GP explains how they value the proactive way that staff works with them to support both them and the resident:

Because there aren't so many residents on our register from there, we can go for several weeks without one of us having to go in. When we do go in, I value the proactivity of the staff. They are respectful of resident privacy and their ability to do things independently, but are always available to attend an appointment with me, or any other of the GPs in this practice if we or they or the resident believe this is useful. However, they seem to only attend visits I make, if the resident agrees. (Primary care professional 2)

Information sharing was on an ad hoc basis. Even though, professionals relied on the mediated working and advocacy work that care workers did, care workers' knowledge of residents was acknowledged but underutilised across the sites. This example illustrates the benefits of care home staff taking responsibility for monitoring and feedback of residents' care and the potential for more structured approaches:

'We had somebody came in from hospital and she was on like really strong Clopidogrel, (strong Aspirin) and then she was on dispersible Aspirin, but you're only supposed to be on this Clopidogrel for so long because it's really super Aspirin. Well what happened was she got a little cut on the back of her leg, we couldn't stop it bleeding, it thinned her blood too much you see. So, since she'd been to hospital we've got that sorted so ... but it was us that sorted it because I thought she's on this, she'd come from somewhere else and I thought why is she on this for so long? Anyway when we pointed it out to the doctor he said "Oh yes, we'll change that" so he stopped that… So you've got to be careful, so we keep an eye on things like that now because since that's happened it just makes you a little bit more aware. (Care home staff 3).

Integrated working between the NHS professionals that visited the care homes was also limited. In one focus group for primary health care staff, it quickly became apparent that the focus group was the first time they had talked with each other, even though they all were linked to the care home. Apart from the rehabilitation teams working in CH 1 and 2 for a discrete group of residents, who were in the care home for a limited period of time, there was minimal evidence of systematic review and discussion about residents between professionals. The care homes with re-enablement /intermediate care beds had more frequent, intensive contact with NHS staff, and regular meetings about residents who were in the home for a specified time. For these residents, NHS staff took the lead in how information and support for residents was co-ordinated. They were more likely to interpret their working relationship with care home staff as having functional goals and their role as supervisory and educational. There was a recognised pattern of joint working and review, where there were shared goals and clarity about how the plan for rehabilitation was realized:

Right, once a week we have a, what's called an MDT, Multi-Disciplinary Team meeting, that occurs on a Wednesday at 11 o'clock where we have representatives, carers from the care home, we have our physio, our occupational therapist, myself and a Social Worker and we spend an hour, maybe an hour and a half but it tends to be an hour, going through all the patients, what their progress has been, what needs to be done in the future and we aim to get them home after their period of rehab between four and six weeks. (Primary care professional 3)

This approach to working together did not transfer to other residents in CH1 and 2, even though the NHS professionals worked for the same primary care organisation, and in CH1 would also take referrals to see residents who were in long term residential care beds.

A specific issue or problem could provide the structure for closer working and sharing of information within a framework that supported integrated working. For example care homes 3 and 6 were implementing care tools for end of life care.

The palliative care, weekly, the palliative care team, because we're trying to fit it to the Gold Standard, so they're coming down on a weekly basis to have MDT meetings. (Care home staff 6)

Apart from these examples, none of the care homes described having joint planning meetings where knowledge about all the residents in the care home was shared and reviewed. If reviews took place it was more likely to be opportunistic, an informal, conversation on the outcome of the reason for the visit by the primary care professional. Care home staff would have liked a more formal structure. In contrast to the NHS professionals care home staff would emphasise reviews that were to monitor ongoing care rather than those that were problem oriented (falls prevention, end of life care), objective driven. A recurrent issue was the importance of medication review and management. It was a source of concern across all the sites.

... They used to come every six weeks where I used to work before, but they don't seem to do that here, you know, but yeah, it's not a bad idea I think sometimes just to check them and their medication. I think sometimes they need a review on their medication, you know, because they're taking tablets sometimes and you think well do they really need these, they've been on them for years, you know, and it wouldn't be a bad idea if they reviewed them every now and then.' (Care home staff 3)

6.3 *Responsibility and accountability: Care home staff involvement in health care*

Who was responsible for health care was negotiated in all the care homes and shaped by the care home context, quality of working relationships and how the regulatory guidance was interpreted. Across all the sites care home

staff were able to manage minor health issues, much in the same way as would be managed at home. Where there was a history of having worked with, and being supported by NHS staff, care home staff were more likely to absorb tasks that otherwise might have required nursing input. How this was negotiated however was variable. In this example the care home staff member will look after a resident's wound dressing but were clear when they would need the services of primary care.

We have been doing that for so long that the district nurse trusts us to do the basics to start with now. So we keep them clean, cream them, get him to keep his legs up and to move them and we put some simple dressings on small problem areas. But then, from experience, we know that if he starts to break down, you know, the tissue on his legs gets bad, or his legs start to get hot or shiny or both then we call out the nurse straight away and they come out immediately. It's not a formal thing, but I do like to think we are all working together and changing things for him as he needs and keeping him as well as possible. (Care home staff 7)

This way of working with district nurses contrasts with the care homes where staff may have had sufficient knowledge to identify something needed to be done, and could undertake certain tasks but might not take responsibility either because of how regulatory requirements were interpreted or the relationship with NHS staff was not robust enough to support this approach to working. It was a source of frustration to NHS staff, compounded when NHS staff knew that there were nurses on site albeit not providing care to these residents. As this quote from a visiting district nurse demonstrates.

I truly don't understand why we get called out for some of the minor assessments and tasks that we do. The senior care worker is experienced and has nursing qualifications I believe, and yet she will not take responsibility for dressings of simple jobs like blood sugars or urine tests They have nursing units here and whilst I can appreciate that this is a residential unit it seems to me this a duplication we don't need. They should use the resources they have here better than they do. (Primary care professional 4)

This view that on site nursing should be used to support residential care beds was echoed by the district nurse that visited care home 1.

Knowing who should take responsibility for decision making on health care related issues was a recurrent theme across all the care homes and most noticeable when care home staff either did not have regular contact with NHS professionals or had proscribed patterns of working where access to NHS services was limited to particular times or referral pathways. In care home 4 there was noticeably less contact with district nursing services because the nurses from the linked nursing home addressed nursing issues. Care home staff gave examples of when they were expected to carry out

tasks, which they have not been shown how to do, or they are excluded from information which is necessary to care for the resident.

Like when a resident has been to a hospital appointment, sometimes their family will accompany them and they'll come back here, it will just be basic information that they give us. We've got a gentleman who just recently had a Physiotherapist visit him, she was here for quite a while with him and his family and they showed him the exercises and all we were given really was a piece of paper showing us and how we should be… to do this. And some of the things that were on there like we don't think that's our job, we're not trained to do those things and we're not Physiotherapists. (Care home staff 10)

When primary health care staff, in this case a dietician discussed and planned care with care home staff it was evident that this could be a complex but positive process. It was an unexpected finding of the study that of the different professionals that visited the care homes therapists (dieticians and physiotherapists) provided more examples of discursive and ongoing working relationships with care home staff. In this example, a concern about a resident's weight loss was the trigger for a four way discussion that included three different members of the care home staff.

There was one patient who, she'd been losing weight and we were talking about why, she shouldn't need to, and the care assistant came in, the named support worker came in, we sat down and we talked. The next thing, she'd gone and fetched the cook, we had a chat, we suggested what we'd do, we left it for a month, she was on her own, she was the named support worker, she knew what she was doing, a month later, this lady who had been losing a kilo a month for the last six months and nobody bothered to pick up on it or flag it up or ring in, started to gain weight. And it's just somebody taking responsibility for her. (Primary care professional 5)

The dietician's comment about "someone taking responsibility" illustrates that who should take the lead and who was accountable for monitoring health care and recovery was not clear. However, even when there was clear guidance, interviews suggested it was something that should or could be done. Implementation was desirable but discretionary:

Yeah, basically the home should still be checking weight monthly and we aim to work to NICE guidelines to review three to six monthly, but usually it's a bit sooner than that because we've always got new people being referred so we can go back and catch up and see what's happening, so we're hoping that we're gonna, through what we're doing, manage to stabilise weights even if we can't actually gain weight towards a healthy BMI, it's probably not realistic, but if we can just stabilise weight and make sure things are going as well as they can do, that would be ideal.

(Primary care professional 6)

For General Practitioners visiting the care homes efficient use of their time was their frame work for judging the quality of homes. e. For the majority this was a paramount concern. Judgements about care homes seemed to be based on their functions as "wards in the community", emphasising 'care' rather than their roles as 'homes'. Within this framework, conflicts between the interests of staff, residents and clinical practitioners were seen as problematic.

There are some care homes where you go to where you think, well the staff here are going to be well organised, they'll know exactly what's going on, they know their... On the whole they know their clients, they know their medical conditions, they've often worked there for a long time and they'll present you with a good history of that patient's problems, what's going on and you can make a fairly quick decision and hopefully a quite appropriate one and there are others where the staff may not have such a good idea and therefore it's more difficult to make the appropriate decision.. (Primary care professional 1)

The GPs were aware that care home staff may define or present the health needs and problems of the residents in terms of what level of care they were able or willing to provide. The level of skill of care home staff, availability of staff on a particular shift and their leadership quality, were both seen as important determinants of the home's performance and how need for health care was defined There was some awareness that there was a gap between the demands made on care homes and the resources they could deploy.

What I do notice is there is a big difference in what some residential homes want to look after and which ones they're happy to keep. Because some residential homes are really good at saying, look, this patient should come and stay with us and we'll look after them and if necessary will die with us. Where there other ones who for probably a mixture of reasons, probably staffing levels or they don't feel happy or safe or looking after those clients feel that, oh no, gosh this patient is dying, we're not really sure what to do and we'll shunt them off…. And I think that's often very dependent on the manager who's on at the moment or that evening or something, as to whether they feel comfortable or not... You notice it more with the residential homes which aren't dual registered because then they don't have that skill mix and they don't have the ability to step someone up.(Primary care professional 1)

From a GP perspective and to a lesser extent that of the district nurses, efficiency of care homes as "wards in the community" was seen as a function of their ability to meet the needs of the doctors visiting them.

……ringing us about appropriate things in good time and we can plan our day, because we work flat out most of the time….. they are usually very good, they will ring early, they will tell us what, who they want seen, they

will not ring you for non-urgent stuff, just to go out and see that, they'll tie it in when you're out there and let you know about it. So they're very good generally. (Primary care professional 7)

….if you're going to a well-run residential home you'll have a nice easy visit and things will get sorted. And they will have done all the things that needed to be done appropriately. Whereas if you go to a less well run one, where they can't find the staff, it takes ages, it gets your back up before you've even seen the patient and then if they're a bit disorganised, they're um'ing and ah'ing and they can't find the notes, you're thinking, what am I doing here? (Primary care professional 1)

Integrated working was seen as a matter of controlling and shaping the care environment, it was not about working with care home staff as co- workers where discussions about health care were shared. This emphasis on efficiency extended to limiting visits to care home residents who were mobile.

….with the people in residential homes we try and get them down to the surgery rather than visit them. In general, with nursing homes I think people are usually, it's there, if a patient needs seeing we usually accept that we have to go. (Primary care professional 8)

6.4 *Shared standards, assessment tools and practices guiding care for care home residents*

A wide range of assessment tools were referred to within the interviews with care home and primary health care staff, including those used regularly by care home staff (e.g. the Malnutrition Universal Screening Tool, (MUST)), one-off assessments by primary health care staff such as fall risk and mental health assessments, intermediate care team assessments of residents in rehabilitation, ongoing assessments such as continence, and assessment of residents for specialised equipment such as beds and mattresses.

The continence team worked with care home 3, and provided them with three day urine input and output forms on residents, to complete prior to the continence support worker visiting to undertake a full assessment. Assistance may also be given to residents to complete a bladder diary. However, the degree to which this arrangement was perceived as working was variable. It was something the care home staff were expected to do for the continence nurse to help her plan her work, not as part of a process of shared working

When they're referred to the continence team we get like a three day bladder chart and we have to, what the input and their output and we have to monitor it for three days and record it on this chart then they will go back and assess that and work off that. (Care home staff 8)

I'm definitely struggling with is that the care homes not working with me to get the information especially the urine samples...because they just didn't have the information for me there to do my initial assessment. (Continence support worker) (Primary care professional 9)

Care homes 1 and 2 5 and 6 both carried out monthly assessments with residents including pressure area (Waterlow) and nutritional status (MUST) monitoring. Interestingly, the two care homes that received specialist service support (continence and nutrition) did not work to shared protocols for ongoing care or review).

What about assessments like Must, do you share those?

We don't share them as such except if we have some concerns. BMI and MUST generally are shared with the GP. If the person is losing weight or some, any problem. With the GP and the dietician, maybe because we need help when we are concerned, if not they remain on the system here.(Care home staff 1)

Despite the care home and primary care staff both using the same assessment tool, i.e. MUST, they did not share the outcome of the assessments resulting in duplication. Care home 1 also had access to a community based dedicated falls service which formally assessed residents to find out what was causing the falls and advised care home staff on how to avoid further episodes. This service was not available to residents in other care homes:

So for the majority of clients that do have falls within the community we as a falls kind of service if you like, we go out and assess the reason as to why they've fallen in order to minimise it happening in the future. Because also maybe to signpost them to other professionals that they may need to have, you know, intervention or they might need to have reviews with regards to their kind of long term management. (Primary care professional 10)

For residents in time limited beds (care homes 1 and 2)there were examples of primary care staff reviewing or monitoring resident's care. This included, post discharge reviews by the social worker, intensive short term reviews by the intermediate care team of resident's progress in rehabilitation. In the other care homes medication reviews by the GP had been carried out at least once during the time of data collection.

Homes that were part of larger chains used corporate assessment and record keeping tools. This could be seen as an administrative task and then kept in the manager's office or seen as crucial for resident care. This variability is captured in the following excerpts:

We have to keep them up to date at all times, but in reality we just know how things are. I sometimes wonder if we need all this paperwork. (Care home staff 7)

The records we keep are really important to making sure all the residents get good care. It's more than just an exercise; it's like a diary of their lives so no matter who is working they know what is happening on the unit and for each person. (Care home staff 5)

6.5 *Sharing Notes*

Information about residents was kept in multiple locations, which were rarely accessed and shared. Even in the care home that had e records, only the physiotherapist and dietician entered information on to the system. In all the care homes, professionals kept their own notes, and district nurses held duplicates of the notes that they left in the care home. Care home 1 had an intranet connection which enabled the GP to access medical notes from the care home. None of the other primary care staff visiting the home regularly were aware of this. Care home staff did not have access to this computer.

District nurses in all the care homes would leave notes in the residents' room for continuity of care from other visiting nurses it was not seen as a means of sharing information with the care home staff.

We leave a note to say what we have done, a summary of it, in the care home. That's left for the staff there and anyone else on the team that might come in and see the patient another day, because we are a big team and several of us might visit the home. But the main records are in the surgery, results and so on. There are issues of confidentiality about leaving too much information accessible, and we don't always have time to stay in the care home for the time it would take to write everything fully up there and then in the surgery as well. (Primary care professional 13)

Care home staff described how they would try and obtain information about visits of primary health care staff to include in the residents' notes.

When someone, you know, say the GP or the chiropodist comes we try to have a bit of a conversation with them about what they have done with the resident, if we haven't been present. If it is a minor or routine thing then that may not be very much of a conversation, but anything more detailed we will discuss in more detail. It's all about, like, like…like.. it's about keeping it in proportion and making sure we know what is going on. The main thing for us is to get the information and make sure we have a record of it because asking the residents isn't always reliable, especially if they aren't well. (Care home staff 5)

Care homes were more willing to share their notes with others, and 'sharing' was often one-way.

Yeah, but everybody else has… we do share our information with them but they don't always trust us with theirs. (Care home staff 5)

6.6 *Negotiated relationships : barriers and facilitators to care*

Rosen et al (2011) (77) describe communication and high-trust relationships as normative integrative processes crucial to integrated working. Building relationships took time and effort, and could be difficult when care provision was reorganised or factors designed to improve NHS involvement such as the use of financial incentives to improve GP involvement had unintended consequences. In CH 1, set days for GP clinics designed to encourage continuity and build working relationships, restricted residents' access to care as limits were placed on how many residents could be seen and when. Similarly, in care home 6, the relationship with the GP providing care to the home was described as problematic by care home staff, this had been exacerbated as the home was reviewing payment of the retainer. This issue of payment had become a barrier, reducing flexibility around when the GP would visit and meant staff felt they had to work hard in order to access care for residents.

The problem is that if the resident is a bit confused or forgetful, or perhaps if they are just too ill, if you see what I mean, then it's hard to find out from the resident what happened. Then, if the GP doesn't feel like telling us much, or is in a hurry, because she won't leave a written record, we then don't know what happened unless there is a result like new medications. The GP can be uncommunicative in the extreme and I think begrudges having to come here at all at times, especially if it is not the weekly round that the retainer pays for, even though she is meant to cover emergencies too. So, for us, the best thing is to go to GP visits whenever we can, sometimes we can ask the question and give the information that the residents can't so I think that's helpful. We try to work as well as we can with the GP, even when things are difficult. (Care home staff 5)

Care home staff described having to be diplomatic when working with primary care staff in order to access what they need for residents whilst maintaining the relationship.

*We can often see if something needs changing, just because we know the residents so well. You know, if like *** is getting a UTI, which she does quite often no matter how hard we try, or if ***'s bloods aren't quite right. It's like a balance though, we know what we think the problem is but they (primary care staff) sometimes don't like it if we say that outright, we have to just suggest and let them make the decisions."(Care home staff 7)*

Primary care professionals also describe variability in relationships between different care home staff. It was context and sometimes shift dependent. The following professional identifies differences in the level of care depending on which staff are working in the care home:

I find, in this home, there's a very good… I call them the A Team and *they're on today, you know, the carers, and it depends what carers are on as to what happens. I mean, there's a client in here with a Supra Pubic Catheter, he's a frequent blocker, so they've got to actually be able to sit with him for at least half an hour to give him his fluids with thickening. Some of them obviously don't do that, the catheter's blocking, ... But, as I said, there's good carers in here and there's bad, there's a good team and there's really a lazy lot that I know, when we get called out, it's because they're on and they haven't given him the fluids that's needed. (Primary care professional 14)*

6.7 *Access to health and social care for residents*

The survey had shown that there was considerable variation in patterns of visiting and what services care homes could access. Accessing GP in care homes usually mediated through the care home staff. Care home staff often supported residents during their consultations or treatments by primary care staff. When staffing allowed they would accompany health staff for visits if residents wanted this, and they also saw this as a role that facilitated more efficient visits for the health practitioner:

' *... it's just job satisfaction and you're making your resident feel comfortable, the main thing is making sure they're relaxed with everybody that comes in. So we usually tend when the resident, service users are going to use a chiropodist we go with them first and we say "This is so and so, he's come to do your feet" you know, XXXX or whatever, and introduce them and I say "Do you want me to stay or would you like me to go?" And we do that, make sure that they're comfortable with it and vice versa we ask them if it's alright if they, they say "Can we stay?" and we say "Yeah, not a problem" ...* I mean we're dealing with their personal care anyway so, but they're usually like "Oh I want you to stop", some of them are nervous.' (Care home staff 3)

It was a role that was particularly important when residents had cognitive impairment and when family needed to be kept up to date with decision making around care:

'*When the GP comes, then it's necessary you have to be there because XXXX, she will tell you she's sick, of course, we have seen her vomiting, then the doctor will do a physical examination, there's some questions which the doctor wants to ask about the drugs and so forth XXXX, she can't even remember any of the drugs, so you have to tell the GP ... we*

accompany, and also to give the feedback to the daughters. She might tell the daughter this 'Alright, the doctor has been' (Care home staff 4)

Accessing primary care professionals, other than the GP, had to follow specific routes of referral, whereby the care homes directed all requests for new health issues via the GP surgery. It was not a system that always worked, as this member of staff indicated:

It did take us several times of faxing the GP to do that (change medication), but he did take her off it in the end. Sometimes that happens, they seem to ignore faxes that they don't think are urgent, and that is frustrating for us because we are trying to save them some time and make communication easier for everyone. (Care home staff 9)

If an existing problem required review then direct contact with, for example, the district nurses could be made. Direct referrals to specific services rarely took place. However, Care home had developed a relationship with a dietician who was happy to be approached directly and who would then 'speed up' the referral process with the GP. It was an indirect benefit of working with a specialist service:

If I just refer resident today to the doctor, then I phone XXXXX [dietician], I referred a resident, XXXXX will liaise with the doctor then she quickly comes to me. (Care home staff 4)

6.8 *Initiatives to support integrated working*

There were examples of initiatives designed to improve how NHS services worked with care homes. These were most notable when GPs had reorganised how they provided care and when providing end of life care for residents.

GPs recognised that how they worked with care homes was not efficient or in the best interest of the residents

…..in terms of the efficiency of going out to patients in the way we do it and this sort of ad hoc basis, it's not particularly efficient….. there are also issues regarding continuity of care because the system we have at the moment means different doctors are going in. So, patients that do have on-going problems sometimes get seen by a different doctor at different times which is not always better for them. (Primary care professional 15)

Two GPs described how they changed how they visited the care homes to provide continuity and less reactive care for residents. It has also been seen as more efficient reducing demand that was out of hours or unplanned visits. As these two quotes demonstrated, they were not sustained because of conflicting demands on GP time or increase in workload. Decisions about

closure of pro-active care were made using judgements about cost-effectiveness, qualified by perceptions that clinical interventions were not always necessary.

We did have a trial period with a different residential home which was a mixed one as well with nursing, where we allocated a doctor to go there on a regular basis three times a week, because the demand for visits were high, and we thought 'Well how can we manage this better and provide improved service'. And the service I think was excellent but we couldn't afford that much time out of .., because when you go in "while you're here doctor can you just look at, while you're here" and it actually escalates, and it almost delegates the responsibility from them because it covers them to just ask you to check people out that really don't need checking out by a medical practitioner. Some do, and actually the care was actually hugely better but we just couldn't afford to take people out, we couldn't provide the service in the practice if we were doing that in all the nursing homes. (Primary care professional 7)

….two doctors really looked after [one care home] between them, so they arranged to visit on a Monday and a Thursday ….. under the assumption that the staff there would try and hold the patients until, you know, unless it was something urgent, until that day and they'd sort of do a ward round and sort out any problem and get to know the patients with hopefully continuity of care. We did that for about a year but at the end of the day we added up how many patients we were seeing and it had doubled within the year …. and the ward rounds were taking longer and longer and longer and we decided against it. (Primary care professional 8)

In both these situations, an increased demand for medical time, and the success of the service led to its cessation. It was not clear from the interviews if care home staff had been involved in shaping how the change to practice had been initiated and throughout the interviews with GPs, differentiation between care homes with on site nursing and those without were not made.

6.9 *End of Life Care*

At the time of the study there was a national initiative to improve end of life care in care homes. Although initially directed at nursing homes, some care homes without nursing, did engage with the programme. It was identified as something that was changing how care home and NHS staff were working together, although, over the year's data collection we observed few examples of joint working.

Care home 5 worked with a Macmillan Nurse on the Gold Standards Framework palliative care initiative:

The palliative care, weekly, the palliative care team, because we're trying to fit it to the Gold Standard, so they're coming down on a weekly basis to have MDT meetings.... Well, they're doing it with the staff and it goes with the care plans and if, from the care plan, that it's seen that that person needs to be seen, then they are seeing the family and the individual as well. But because it's palliative care, it's the nurses first and then. (Primary care professional 16)

This GP saw end of life care as a specific area of care that had influenced and changed how he worked with the care home, moving from being reactive to proactive around advanced care planning.

The main change has been what I was just saying about preparation for death really, I think, and being proactive about preferred place of care and making sure that, hopefully, either the staff or myself would have discussed what might we do should they become frail or terminally ill before it happens. I would say I'm trying to prepare proactively for that so that people aren't suddenly whisked off to a hospital to die…..(Primary care professional 17)

This was also one area where paper work and documentation was being used to inform care.

' ... like for in the event of a death or, you know, illness, who wants to be contacted, if they've got a living will, if they do then you've got to have proof, so I've got to make sure that's all in ...., make sure that all the care plans are up to date every month.' (Care home staff 2)

'And the GP?

Yeah, he's good like that. Because he always says "well can you manage them?" you know, and if we can we keep them, you know, as long as you're making sure that they can get the proper care, because they want to be in their home don't they?' (Care home staff 3)

The NHS practitioners interviewed, however, had a view of palliative care that did not seem to include active medical intervention, the possible need for support of care home staff was not discussed, the focus was primarily on the resident as a patient.

…some of them [care home residents] don't need it because some of them are not going to benefit from interventions when they're 90 and things, you know, because they're at the end stage of their life anyway… (Primary care professional 7)

The clinical decisions you might make there might be different from a younger patient. Now, that isn't to say that we wouldn't give them completely the most appropriate care but it's to say, what is appropriate for

that patient? So, for example, if a patient has dementia, for example, you don't want to be over investigating them. (Primary care professional 1)

6.10 *Impact of different NHS approaches to working with care home*

Care homes were selected on the basis that they had different levels of contact and involvement with NHS services. The care homes that had intermediate care beds and linked NHS multidisciplinary teams had shared documentation, assessment and review of residents with evidence of ongoing supervision and educational support of care home staff. However, this input was restricted to a small group of residents and the experiences and patterns of working in the wider care home were indistinguishable from the other case study sites. What we had initially identified as a model for high integration was in effect an example of a NHS enclave within a long term residential setting. Similarly in the care homes that had additional support from specialist services (nutrition and continence) examples of integrated working were limited, resident specific and NHS led. Although the development of closer working relationships through more regular contact did improve one care home's access to primary care services because the therapist supported requests for visits

Experience of staff appears to be more influenced by the working and personal relationships they have developed. We did not find any evidence of shared practice guidelines/assessment tools/joint care planning for the ongoing and long term care of residents between any of the care homes. Separate documents were used by staff from the different organisations and kept separately with no sharing of information, with the exception of site 3 – where there was an example using an end of life care tool.

What did emerge from the NHS and care home staff accounts were competing priorities (to create NHS equivalent ways of working or to maintain support and a home like community environment). Care home staff and residents (as chapter 5 has shown) saw that health care often needed to be mediated through care home staff. NHS staff recognised that care home staff had important role in knowing the resident but either were not confident of their skills and knowledge or did not have a way of systematically consulting or working with care home staff. A situation that could be compounded by a belief that care homes could provide their own health care and often made unnecessary demands on GP and nursing time.

It appeared that therapists were more able to adopt a care home wide approach and work with care home staff on issues of interest and concern to them. Why this was is unclear, and because of the small numbers involved should be treated with caution. However, it may be that the focus of their work is closer to a care home orientation, one of support and re-

enablement and that this provided a common platform for review and discussion.

The case studies highlighted that NHS staff were aware that the care provided and access to services could be suboptimal. How staff negotiated responsibility for health care was context dependent and relied on the quality of existing working relationships. Examples of initiatives to improve access in these sites had either not been sustainable, had had unintended consequences of reducing flexibility and responsiveness of GP services or focused on a single issue identified as important by the NHS.

This chapter has demonstrated the range of provision, approach to care across the sites but it also suggests that there are mechanisms and approaches to care that persist regardless of whether NHS involvement is on a resident by resident basis or as a result of extra provision. The focus on individual residents, health care professional led service delivery different priorities to discourage joint working, shared review and active use of shared documentation. Where there were examples of integrated working this was either achieved because care home staff were working for, as opposed to with NHS staff or the strength and quality of working relationships developed over time were able to sustain integrated (albeit informal) systems of care.

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6.12 *End of Life Care*

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The main change has been what I was just saying about preparation for death really, I think, and being proactive about preferred place of care and making sure that, hopefully, either the staff or myself would have discussed what might we do should they become frail or terminally ill before it happens. I would say I'm trying to prepare proactively for that so that people aren't suddenly whisked off to a hospital to die…..(Primary care professional 17)

This was also one area where paper work and documentation was being used to inform care.

' ... like for in the event of a death or, you know, illness, who wants to be contacted, if they've got a living will, if they do then you've got to have proof, so I've got to make sure that's all in ...., make sure that all the care plans are up to date every month.' (Care home staff 2)

'And the GP?

Yeah, he's good like that. Because he always says "well can you manage them?" you know, and if we can we keep them, you know, as long as you're making sure that they can get the proper care, because they want to be in their home don't they?' (Care home staff 3)

The NHS practitioners interviewed however had a view of palliative care that did not seem to include active medical intervention, the possible need for support of care home staff was not discussed, the focus was on the resident as a patient.

…some of them [care home residents] don't need it because some of them are not going to benefit from interventions when they're 90 and things, you know, because they're at the end stage of their life anyway… (Primary care professional 7)

The clinical decisions you might make there might be different from a younger patient. Now, that isn't to say that we wouldn't give them completely the most appropriate care but it's to say, what is appropriate for

that patient? So, for example, if a patient has dementia, for example, you don't want to be over investigating them. (Primary care professional 1)

6.13 *Impact of different NHS approaches to working with care home*

Care homes were selected on the basis that they had different levels of contact and involvement with NHS services. The care homes that had intermediate care beds and linked NHS multidisciplinary teams had shared documentation, assessment and review of residents with evidence of ongoing supervision and educational support of care home staff. However, this input was restricted to a small group of residents and the experiences and patterns of working in the wider care home were indistinguishable from the other case study sites. What we had initially identified as a model for high integration was in effect an example of a NHS enclave within a long term residential setting. Similarly in the care homes that had additional support from specialist services (nutrition and continence) examples of integrated working were limited, resident specific and NHS led. Although the development of closer working relationships through more regular contact did improve one care home's access to primary care services because the therapist supported requests for visits

Experience of staff appears to be more influenced by the working and personal relationships they have developed. We did not find any evidence of shared practice guidelines/assessment tools/joint care planning for the ongoing and long term care of residents between any of the care homes. Separate documents were used by staff from the different organisations and kept separately with no sharing of information, with the exception of site 3 –where there was an example using the end of life framework.

What did emerge from the NHS and care home staff accounts were competing priorities (to create NHS equivalent ways of working or to maintain support and a home like community environment). Care home staff and residents (as chapter 5 has shown) saw that health care often needed to be mediated through care home staff. NHS staff recognised that care home staff had important role in knowing the resident but either were not confident of their skills and knowledge or did not have a way of systematically consulting or working with care home staff. A situation that could be compounded by a belief that care homes could provide their own health care and often made unnecessary demands on GP and nursing time.

It appeared that therapists were more able to adopt a care home wide approach and work with care home staff on issues of interest and concern to them. Why this was is unclear, and because of the small numbers involved should be treated with caution. However, it may be that the focus of their work is closer to a care home orientation, one of support and re-

enablement and that this provided a common platform for review and discussion.

The case studies highlighted that NHS staff were aware that the care provided and access to services could be suboptimal. How staff negotiated responsibility for health care was context dependent and relied on the quality of existing working relationships. Examples of initiatives to improve access in these sites had either not been sustainable, had had unintended consequences of reducing flexibility and responsiveness of GP services or focused on a single issue identified as important by the NHS.

This chapter has demonstrated the range of provision, approach to care across the sites but it also suggests that there are mechanisms and approaches to care that persist regardless of whether NHS involvement is on a resident by resident basis or as a result of extra provision. The focus on individual residents, health care professional led service delivery different priorities to discourage joint working, shared review and active use of shared documentation. Where there were examples of integrated working this was either achieved because care home staff were working for, as opposed to with NHS staff or the strength and quality of working relationships developed over time were able to sustain integrated (albeit informal) systems of care.

7 Stakeholder interviews

7.1 *Introduction*

Stakeholder interviews were undertaken with 11 stakeholders across the three sites (Table 25). The purpose of these interviews was to obtain an organisational perspective, on integrated working between the NHS and the care homes.

Participants were purposively recruited to capture a range of experience of working with and for care homes. They were a heterogeneous sample employed in local, regional and national roles in the care home sector and primary care (care home senior managers, commissioner, locality NHS managers and practitioners with a specialist/enhanced role to work with care homes).

Data collection took place as the role of Primary Care Trusts changed, shadow commissioning groups were created, Care Quality Commission responsibilities in the regulation of care homes were modified and a large national care home provider chain was threatened with bankruptcy. This affected recruitment and three stakeholders who originally agreed to participate, either withdrew or were no longer able to find time for an interview.

Interviews were semi structured, conducted at the participants' place of work, taped and transcribed. Interview prompts included how they understood NHS provision to care homes, their definitions of integrated care, what they identified as facilitators and barriers to effective integrated care and how NHS organisational changes could affect care homes. The interview schedule was not fixed and participants were free to discuss what they saw as the most important issue.

Table 25. **Stakeholder participants by site and care home**

Study code	Site and care home	Stakeholder
SH1	Site 1, Care home 1	Specialist residential care home nurse
SH2	Site 1, Care home 2	Assistant Director of Community Services
SH3	Site 1, Care home 1	General Practitioner
SH5	Site 2, Care homes 3, 4	Director of Community Services
SH6	Site 2, Care homes 3, 4	Manager, Practice Based Commissioning Consortium
SH7	Site 2, Care homes 3, 4	GP/Commissioning lead for community services/Primary care member on urgent care network
SH8	Site 3, Care home 6	Senior manager care home
SH9	Site 3, Care home 5	Medical director care home organisation
SH10/11	Site 3, Care home 5	Clinical practice manager and Quality manager – care home organisation (Joint interview)
SH12	Site 3, Care home 5	Information manager care home organisation

7.2 Findings

The findings are organised under what they revealed about integration from an organisational perspective. Specifically, it considers stakeholder views and descriptions of relevant financial arrangements, management and administration of integrated working and perceived barriers and facilitators to integration at this level.

7.2.1 Funding

All stakeholders recognised that the needs of the individuals living in residential care homes for health care had increased, and that their needs often were equivalent nursing home residents. What was perceived as social need and health care need however, was locally negotiated and affected how funding between the NHS and care homes was organised. The lack of clarity, combined with no mechanisms to audit or review made joint funding difficult or, when something was in place, vulnerable to funding cuts. Care homes had no mechanism by which they could negotiate or contest funding decisions that directly affected access to healthcare. , as is described by this senior care home manager.:

The majority of the issues in the last 18 months have been down to financial reasoning. Or opportunity financial reasoning: services that have not wanted to provide a service find reasons to cut it using finances as their rationale (SH8)

NHS stakeholders PCTS and Local Authorities referred to cuts being made to intermediate care beds and re-enablement funding in care homes that was agreed between health and social care, but without reference to the care homes affected by these decisions. This stakeholder did not know how the care home would respond to the loss of funding.

.. they've (adult social services) just decommissioned a significant amount of intermediate care services...I imagine what would happen is the care home, those beds would just go into their main stock and they'll just accept patients through the main stock, they won't have the additional resources of the therapy support and the nursing support in the same way they've got it now.(SH2)

It was also acknowledged bycommissioners and clinicians with a wider remit that investment in preventive care for care homes, was worthwhile and might lead to savings across the health economy. However, this was identified as something for the future. . By preventative care they did not always mean health based interventions, but also social activities that have an impact upon residents' wellbeing in a broader sense:

……because I think that would give us dividends back later in the health process and on our later spend, so is it right for us to fund some (activities that give meaning to residents' everyday lives). (SH6)

At the service level, financial incentives were described as having mixed benefits for integration of health care with care homes. Payment of retainers to GPs, or the use of enhanced payments could encourage GPs to work more closely with care homes, to be more responsive, However, experience to date had indicated that such incentives did not always result in the desired effect on service provision *We stopped paying retainers after doing a survey of homes and finding that services received no extra services for this. (SH9)*

And the evidence is [about enhanced service payments]) so far is, we can't find enough evidence to say that there is a lot of admissions to the hospital, to say that if you input somebody through a payment would that work [reduce hospital admissions]. (SH7)

Extra payments to GPs could also have an unintended consequence of perpetuating a particular model of service delivery that placed the focus and responsibility for care on the GP. Although this approach was used to illustrate good practice with respect to the continuity of care (SH6) it was also described as being an out of date model of care (SH1). Two geographically disparate informants likened it to a Dr. Finlay model of service delivery. When payment was made to a named GP it could mean that care home's reliance on one practitioner could reduce choice for residents. Payment assumed that they would be the main clinician visiting and that other services (because they were not remunerated) would not be

as involved. One GP described the additional work he provided for the £10,000 a year retainer he received. This involved "ward rounds", out of hours care, talking to relatives and support of people that were dying. A volume of work that he said was not sustainable for the money paid. It raised the question that certain approaches to funding could result in care homes being less likely to benefit from the range of primary care services that were available alongside, and through GPs (e.g. practice nurse led clinics, falls clinics, nurse practitioners, access to counselling etc) and reinforced a pattern of provision that was already problematic. As one care home provider observed:

GPs and primary care services have absolute awareness that they have to provide a service for residential care homes. However, it is the nature and level of services provided that we struggle with particularly when services are not provided such as tissue viability, dietetics, or having enough district nursing to change dressings etc. (SH8).

The limitations of the funding model described by the stakeholders, which appears to limit access to broader primary care services that sit alongside GPs, such as district nursing, specialist nursing services are not likely to be addressed in the new regime of CCGs, where funding is primarily influenced by GPs

7.2.2 Management and organisation of integrated care

One of the features of an integrated system is that there is oversight and coordination of joint performance targets; supervision of professionally diverse staff; and the building and maintenance of a shared culture. Apart from the shared objective amongst NHS participants of reducing unplanned and unnecessary admissions to secondary care, the plans and arrangements for working together were diffuse. Stakeholders had difficulty providing examples of where this occurred. There was no evidence of systematic data collection or data monitoring to inform decision making about quality care, commissioning and service provision (SH2; SH5).

.. we don't do any auditing at the moment and we don't look at outcomes at the moment. (SH5)

None of the stakeholders seemed to know if different configurations or organisation of services had different effects.

If the district nursing team is working very closely with the care homes you'll find that that care home will probably have less admissions to hospital, but there are care homes out there who we have very little dealings with, which is really odd, and I think what could be happening there is that they just send anybody with the slightest little thing, they just send them off to hospital. (SH2)

At the management level, care homes were largely invisible to the NHS. This was compounded by the fact that there was nobody to represent them or for the NHS to liaise with. Two stakeholders commented that they did not know who to work with or how to structure communication with so many different providers. It was only in times of crisis that care homes were valued.

I think that what I find is that the NHS forgets about the homes and because they've sort of been farmed out to the private sector...there isn't a service manager representing them, so when the working parties or steering groups are looking at transforming services there isn't a voice for the homes. When the tables are turned and in the winter there is a bed blocking crisis, the NHS is then very aware, and want them to work really well together.... but once that crisis has passed then it is back to normal and people are redesigning services, as I said, they don't seem to invite people from the care home sector to be involved in that. (SH3)

It was noted that GPs, too, operate as businesses, but ways have been identified to ensure representation from the sector without compromising business sensitivities. Several NHS stakeholders presented a view that care homes were motivated by profit and that this affected how needs were expressed and listened to.

I think that the challenge for us would be how to get true representation…and differentiating the profit motive from the care motive. (SH6)

It is interesting to consider, in an increasingly open market in health care if such differentiation will continue into new relationships between primary care and other service providers

7.3 Barriers and facilitators to integration

A number of barriers and facilitators to integration were identified by the stakeholders. Barriers concerned a lack of shared purposes, processes and information at a strategic and practical level between care homes and primary care and between primary care services, Facilitatiors to integrated working were those approaches to working that bridged services and were built upon good relationship, communication and information.

7.3.1 Lack of Clarity of purpose, processes and information

In talking about integration between primary care and care homes it was apparent that there was a lack of integration within the primary care organisations and no guidance on how NHS services could work together for care homes. Stakeholders could all list the primary care services going into

the care homes (eg podiatry, community matrons, long term conditions team, physiotherapists, occupational therapists, district nurses, GPs, speech and language therapists, chiropody, specialist nurses, equipment loans). However, these were resident specific. There was no overview or review of service delivery. For example the care home specialist nurse identified that a patient needed to see a heart failure nurse only to discover that there was someone being seen by the nurse on another floor of the care home, but the NHS nurse and the care home staff did not know. Primary care practitioners themselves did not know how other primary care services were organised or available to care home residents:

I don't know what the set up of the dentist is, it's so different, that I'm not aware of exactly how it functions. (SH3)

The competing priorities of risk management, quality of care and the need for proactive over response/ reactive approaches to health care provision informed how stakeholders understood integration. For care homes the expectations of the regulator, and the ongoing challenge of managing risk, but still being as home like as possible in their care were key factors in how they engaged with health care services. It was something that was not well understood by NHS partners.

...., regulation can cause a loss of personalisation so can other issues…..difficult to balance that kind (monitoring identifying people at risk) of approach with providing personalised care in an environment that is as non institutionalised as possible. (SH8)

For the NHS, with the absence of any framework to guide them it was possible to choose how they worked with a care home and what they prioritised. This specialist care home nurse indicated that it was down to the individual practitioner how much or how little she did and what she chose to focus on. She goes on to comment that no one takes responsibility for issues like quality of life.

No, the way I see this role, it's got three strands, it's got monitoring, support and investigation. And my emphasis has been on support because I think prevention's better. (SH1)

There was a recurring theme that it was not clear to commissioners or providers who was ultimately responsible at the strategic level for ensuring residents in care homes had access to health care (and what that care should entail).

I think if I had a vision of what I would like to see, I would like to see residential homes investing themselves in those kinds of services to maintain people to the best of their ability, Who funds that? I mean somebody should be doing it is my feeling; somebody should be doing that kind of work maintaining people. (SH7)

This quote also identified possibly the most significant barrier to integrated working which concerns the availability of funding to support the delivery of personalised care for residents in a proactive and focused way.

A key feature of the challenges described here, concern information and a lack of shared information at many levels, between practitioners, within primary care and between primary care and care homes. Identified was an unresolved issue about how data held on residents, which was held by the care homes, should be shared. Staff working in these oganisations were unsure about sharing that information without a resident's permission especially in situations where the person has dementia.

7.3.2 Facilitating Integration Through Bridging work

Some possible solutions were identified in the interview data, and related to bridging work. Examples were given of people in particular roles that acted in a bridging role by enabling communication and integration, or specific clinical situations that triggered an imperative to work together for a defined period of time. Bridging work can occur through new roles such as that held by a specialist residential care home nurse role (SH1). She saw her role about developing relationships to improve knowledge of what is available and enhance good communication. A practical way the post holder did this was to introduce services to each other:

I worked with the homes and the services to introduce them all to each other .. to act as a bridge and a communication channel between NHS services and the homes. (SH1)

The organisation and provision of end of life care (SH3, SH7) was an example of a situation driven by clinical need that did appear to increase integrated working. The use of end of life care frameworks such as the Gold Standard Framework for Care Homes and provision of training for care home staff was one example of inter-sectoral planning and working together. Common decision support tools (i.e. practice guidelines and protocols) are often identified as supporting integration across services. However, the initiative relied on NHS staff and care homes expressing an interest, and in some instances its success relied on care homes' ability to pay for training. It was an example of integration occurring at the clinical level of care, driven by meeting individual resident need, but it did not apply to all care homes or all services in the organisations represented. Key features described by people in bridging roles and care delivery around end of life concerned relationships which led into good communication.

The need for good relationships as a means to support integrated working was echoed elsewhere:

I suppose it's how they communicate, I think communication is probably key and I think, you know, it's useful for, they need to know where the district nurse is, they need to know how to access the district nurse, they need to know what the district nursing service can offer. Sometimes it's ignorance.., will cause the patient to end up in hospital so I think it's about relationships really, really helpful, good relationships. (SH5)

It has to be about trust, and it's about professional respect and working together. (SH9)

However, the relationships described were either locality specific or held by certain individuals with specific sets of skills and knowledge themselves.

Some of the company's care homes have wonderful relationships with the local health carers, in some the relationship is so bad that the GPs have closed their list to any residents from specific homes, and will only change this if required to by the PCT. (SH12)

The difficulty with a reliance upon relationships was that they are people specific, so when funding for posts ceased or post holders moved on the relationships were not sustained.

There is a mechanism for discussion but not many people know how to use it. Since the care home specialist nurse post finished there has been a vacuum even though people are very aware of care homes need for support (SH2).

In order to ensure ongoing communication and sutaining productive relationshsips, one way proposed was through agreed policies and documentation. Whilst communication and information sharing were consistently identified as problematic, there were stakeholders (SH9 SH10, SH11) who argued the use of comprehensive policies and procedures that if actively shared, could act as a framework to support integrated working. This was not unproblematic as described above. This lack of clarity regarding data ownership raised questions around ideas and initiatives to promote future integrated working that relied on shared documentation and IT systems.

7.4 Discussion

A recent European review of quality indicators for residential care [44] aimed to validate at the organisational level of care homes result-oriented quality indicators. By identifying relevant indicators that are meaningful to care home staff, residents, managers and purchasers of services they argue it is possible to have a systematic way of addressing and discussing

everyday practice. This review focused on care within the care home and not on working with external services. Nevertheless, it highlighted the need to know what good care looked like and the importance of differentiating between quality of care and quality of life. These are issues that stakeholders in these interviews could partially articulate but did not appear to have a shared framework to work with to address the concerns.

Vertically integrated solutions, whether hierarchical or virtual in nature, are consistently seen as a defining feature of integrated care [41, 45]. Interventions that cross multiple, linked domains, both in terms of levels and types of integration, allow for better patient/resident outcomes and system-level performance[46] . At the strategic level, initiatives that aimed to achieve vertical integration between the NHS and care homes (intermediate care and the discharge of people who were dying from hospital to care homes) had strengthened inter agency relationships. However, there was minimal evidence of ongoing performance review and this meant that such initiatives were particularly vulnerable to budget cuts. The use of financial incentives to increase GP involvement in care homes was not seen as automatically guaranteeing improved access to health care or reduction of inappropriate use of secondary care. It could have the unintended consequence of reducing access to the broader community services and creating dependency on a single practitioner.

It is unsurprising that stakeholders identified good communication between NHS and care home organisations, good working relationships and sharing of resident/patient information as important for integrated working. However, the absence of clear accountability frameworks and trust between organisations and practitioners meant this was difficult to develop. Luch [47] in a systematic review of the use of health care technologies observed that absence of trust in the quality of the data or how it might be used was closely linked to concerns about liability. The interviews too, suggested that from an organisational perspective liability and accountability concerns had not been addressed between providers. In a policy environment that emphasises security especially in relation to patients' data protection this might explain why sharing data on residents' health care needs and use of NHS services was not a straightforward process.

The overall impression is of a context that is in constant flux, resulting in inconsistencies with respect to commissioning, funding, service provision and a lack of knowledge and understanding across the sectors about each other. Even though the stakeholders were recruited from across the three sites; with very different experiences of how the NHS works with care homes, their comments were similar and amplified the findings of the care home survey. Furthermore, the stakeholder interviews corroborated the care home data that suggested that it was the quality of the interpersonal relationships between certain professionals that supported integrated working rather than a particular model of care or organisational

infrastructure. This is a situation that was vulnerable to change reliant on individual personnel choosing to work closely with care homes vulnerable to external funding decisions, and with no agreed mechanism for the review of service provision.

8 Validation event "What does 'good health care' look like for older people living in care homes?"

8.1 *Introduction*

This chapter describes the validation event that brought together key informants to discuss whether the findings resonated with them, where there were areas of common agreement and what the implications were for future strategies for integrated working.

The care homes in this study were a "hub" for multiple services and visitors, many of whose input was mediated by care home staff. Previous chapters have demonstrated the range of experience and perspectives these different groups brought and the impact it could have on the residents' health and access to services. There was a convergence of NHS services, family members and the linked involvement of commissioners, regulator (CQC) and social services as funder and contract monitor. However, the study found almost no examples of joint discussion or review that extended beyond care delivery at the resident or micro level of care. The validation event created an opportunity to start that discussion and review the study findings through the lens of the different stakeholders.

8.2

The specific aims of the event were to:

- Test the emerging findings
- Inform the recommendations that will be made as part of the final report for the commissioning and delivery of primary health care services to care homes.
- Feed the results of the day into the ongoing consultation on social care integration.

Members of the Study Steering group suggested potential participants. It was emphasised that the basis for selection was that they were representative of their profession/group, had power to comment authoritatively on the findings, and were acknowledged experts (either through personal experience and or role) Those who were unavailable were asked to suggest someone with similar expertise to attend in their place. In total, 32 out of 50 invited attended drawn from the different constituent sectors: care homes, primary care, adult social services, commissioning, as

well as Public Involvement in Research representatives (PIR). NHS and Care home staff and residents from participant care homes were also invited to participate via an online live conference and were provided with joining details and password for the day's event.

8.2.1 Online participation

The validation meeting was set up by a multimedia technical specialist and was broadcast by web conferencing technology which allowed information to be shared simultaneously, across geographically dispersed locations in nearly real-time. All online participants were requested to give their email contact details prior to the meeting so that login details for the event could be sent to them. A web conference virtual room was built and loaded onto a laptop at the conference room, and a Web camera was used to broadcast the meeting in live time via internet. Online attendees could join the virtual room online from any part of the world as long as they had an internet connection. The attendees could see and hear the speakers with the slides running simultaneously and also had the ability to ask questions or make comments by typing which the facilitator could read comment out to the conference room. Following the meeting a podcast was developed which could be viewed by those who were unable to attend. Please see the links below. The validation meeting was facilitated by members of the Approach study team.

Online DVD version:

http://www.health.herts.ac.uk/uhpgms/podcast1112/approach/
Please use the following login and password when accessing them:
Login ID: **approach**
Password: **primarycare**

Welcome, introductions and structure of the day **Dr. Katherine Froggatt**

Enabling the NHS to work more effectively with care homes **Clive Bowman Bupa**

Video: http://meet39738857.adobeconnect.com/p6ic7r0vtod/

Audio:
http://www.health.herts.ac.uk/uhpgms/podcast1112/approach/part1.mp3

Video feedback from resident's interviews.

Video: http://www.youtube.com/watch?v=wldB3G9kF5M

Audio:
http://www.health.herts.ac.uk/uhpgms/podcast1112/approach/feedback.mp3

Overview of Approach: Prof. Claire Goodman

- What evidence is there for the effectiveness of different models of health care services working with care homes?
- What is the range of service provision to care homes and how much does it cost?
- What is the primary health and social care professional's experience of providing services to care homes, and resident's and their relative's experience of receiving them?

Video: http://meet39738857.adobeconnect.com/p868ta1hiij/

Audio:
http://www.health.herts.ac.uk/uhpgms/podcast1112/approach/part2.mp3

Feedback and recommendations - current health and social care context including the 'Caring for our future' consultation and 'any qualified provider' initiative. Prof. Steve Iliffe

Video: http://meet39738857.adobeconnect.com/p42fi4gb1su/

Audio:
http://www.health.herts.ac.uk/uhpgms/podcast1112/approach/part4.mp3

8.2.2 Organisation and rationale for validation event

To make sure we placed the resident's voice and priorities at the centre of the day began with a short youtube film. (Video:www.youtube.com/watch?v=wldB3G9kF5M) This seven minute presentation was of a care home resident talking about what was important to them about their healthcare. The script was developed from quotes in the interviews and delivered by a 90 year old actress. The intention was to share the preoccupations and concerns of the people that had been interviewed.

Prior to the meeting all participants were sent briefing packs outlining the study and the schedule of the event (see appendix 7). Participants were also asked to prepare their responses to the following questions in readiness for the meeting:

- What are the two main issues that influence 'good health care' in care homes?
- What works well in the provision of primary health care services to care homes?

- What one aspect you would change in order to improve primary health care provision to care homes?

The purpose of this was twofold. To provide at the outset a point of reference and comparison with the findings that was specific to the different groups represented and to establish where there was agreement across the groups.

Participants' priorities for NHS and Care home working were discussed in the context of presentations on the care home sector, the findings of the Approach study and the video account of residents' experiences of receiving health care in a care home This was followed by, three discussion groups representing care homes and residents and relatives representatives, the NHS, and social services which were asked to discuss the following:

- To what extent do the groups agree/disagree with the findings?
- Which findings are considered to be the most important?
- What information is missing and what needs further research?

The expert responses and recommendations for future primary care provision and organisation for care homes were recorded by a facilitator using a nominal group technique (see method chapter) and summarised at the end of the Validation. Following the meeting the descriptive accounts of agreements and disagreements with the study findings were analysed to identify future recommendations for research and primary care service provision to care homes.

The event was held at a central London location and participants attended for a day. Proceedings were disrupted for 45 minutes in the morning by an unscheduled fire alarm.

8.3 *Findings*

The validation event was attended by 32 people: ten representatives from primary health care and geriatric medicine, three senior representatives from the care home sector, two representatives from social care, five relatives and PIR representatives and nine members of the research team, two administrative and IT support staff and one international observer (appendix 7).

In terms of the findings of the study the participants across the groups validated the following specific elements:

- There is inequity present for people residing in care homes compared to people living in their own homes (with respect to health and other aspects of care, for example access to equipment).

- Different views are held by primary care and care home staff with respect to what is required of the other.

- Care homes want flexible support, advice and information on how they should be providing care.

- Health care professionals wanted care home staff to follow correct referral procedures and protocols, and align their working practices more closely with the priorities of health care.

- The key features of integrated working were not shaped by the model of health care delivery, but by the relationships with individual primary care staff and their style of working with care home staff.

- The role of the GP and the optimal model of GP provision (single GP or multi-GP practices) is contested. Both approaches have practical implications and potential adverse consequences in terms of ensuring good primary care medical cover for residents.

- Better communication is still needed between the primary care and care home sectors (e.g. mutual education, induction of staff, and preparation of care home managers).

- There is a need for flexible service provision that reflects individuality of care homes and practicality of primary care provision in any locality

- The place and ability of regulation to drive change forward was questioned by some participants.

The different sectors present also identified particular issues. NHS staff working in primary care, were keen to emphasise that from their perspective they did value care home staff and their work, whilst recognising areas for further development in the sector. The apparent valuing of the care home staff contribution to the health care of residents was later partly undermined when statements were made about the need for care home staff to have more training and education.

There was also a more comprehensive discussion of the different ways in which GPs engage with care homes and the advantages and disadvantages of different GP service models. Care home representatives highlighted that this was currently an unmanaged area of provision shaped by competing and variable interests. This results in a complex process of service provision, often driven by personalities and relationships that cannot be replicated when effective, or changed when not. NHS participants thought that incentivisation of GPs and development of specialist skills and roles were more effective than the study appeared to suggest. Relatives and residents representatives wanted to prioritise the message residents should be being consulted about their needs before any changes to primary care provision. Throughout these discussions participants referred to experiences and knowledge about care homes with on-site nursing rather than care

homes with no on-site nursing. Even within this expert group it was difficult to keep a focus on care homes with no on site nursing provision and the particular challenges and opportunities for integrated working they posed.

Social care representatives prioritised issues with respect to providing individualised care for residents, but also tailored for individual care homes. They perceived that social care had an important role in regulating this through their current processes of inspection, regulation and as primary purchasers of care home services. They were particularly surprised, that social services had not been identified more strongly in the findings as a driver for integration and improvements in the quality of health care of residents.

The day had started with the residents' views and this was referenced throughout in the presentations and comments by the APPROACH team. However, at the end of the day, all groups charged the research team to ensure that the residents' voice was heard and their needs were the focus. The team acknowledged that they would aim further to address this balance in the final report. This feedback illustrated the difficulties of sharing residents' views as the proxy account of the video had not been sufficient to bring their voice "to the table". The online contact demonstrated the potential of the approach and what was possible, and there was considerable interest and intention to participate from the study sites. However, due to previous commitments and care homes' limited internet access, it was unsuccessful in achieving any take up from the care homes, only two NHS practitioners participated for part of the day and did not raise any questions or give any comments.

A challenge of the validation process was to avoid statements at the end that represented the lowest common denominator about the findings. We deliberately did not seek a final consensus but a validation of and feedback about the findings. What emerged was that care home and family representatives recognised the findings, indeed, considered them as self-evident. However, for health and social care, despite some broad agreements, their response to the findings was more wide ranging. There was a belief that their role as a source of support and their recognition of what care home staff achieved and the potential of their contribution to improve health had been under-reported.. They did not think the findings were wrong, but based on their personal experience believed there was more integrated working between the NHS and care homes than the study had found.

In conclusion, the findings presented were recognisable by the participants, so although there were only six case studies the findings arising from them can be generalised more widely. The one area that was most debated and challenged was the role of the GP.

A number of further themes raised during the day were used to revisit the data as the analysis was concluded. These concerned:

- Making the resident voice more visible (see Chapter 5)
- Economics and value for money dimension (see Chapter 5).

A number of recommendations were identified that were triggered by the findings of the study with respect to future service provision developments and research. (see also recommendations in chapter 9).

Service

- Define quality standards of health care provided to residents living in care homes
- Develop intelligence about the care home population health needs in order to influence commissioning

Research

- Social Care's engagement with the independent sector
- Identification of recognised model(s)/way(s) of working between primary care and care homes
- Controlled trials of different models of care needed to test models of working

8.4 *Discussion*

The validation event enabled a discussion to begin between the different stakeholders and created a forum the findings had shown was difficult to establish across the organisations involved. The online links and potential for linking geographically disparate care homes offered one way of addressing the known barriers to communication and knowledge transfer. However, uptake was disappointing.

Whilst care home and resident and relatives' representatives validated the findings, health and social care believed their involvement and contribution and the level of integration achieved was understated. A more structured conversation about specific areas of care of common interest (e.g. nutrition, medication review, continence) may have provided a sharper focus for the discussion of the findings. Nevertheless, it did engage participants and demonstrated there was an interest and commitment across all sectors to develop methods of working together for the long term benefit of the older person. It was a limitation that we were not able to secure representation from the regulator.

9 Discussion

9.1 *Introduction*

The study aimed to make explicit what is known about developing integrated working between health service and care home providers. It sought to assess the consequences for older people and ultimately develop a typology of integrated working for service development in these settings. Specifically the study

- Reviewed the evidence of the effectiveness of different approaches and

support tools used to promote integrated working

- Surveyed how integrated working is interpreted, organised and implemented in care homes across England, and when this was documented, at what cost.

- Identified patient and organisational outcomes that reflected the priorities, experiences and concerns of older people.

- Evaluated different models of integrated working including cost and effective use of resources.

- Described the facilitators and barriers to integrated working between care home staff and health care practitioners.

We used a very broad definition of integrated care [45] to capture a wide range of initiatives and processes that might support integrated working . This chapter considers what the findings showed about how care homes are integrated with their local NHS. Informed by the work of Kodner and Spreewenberg [1] and Kodner [41, 48] firstly it considers at what level (funding, administrative, organisational, service delivery and clinical) the different approaches to service delivery achieved integration (if at all), and then considers the effects on residents, care home staff and NHS professionals' definitions of effective care.

The chapter concludes by arguing that it is unlikely that there is an ideal model or "type" of service delivery for care homes with no on site nursing provision. Rather, there are key features inherent within different service models that can help to address the enduring issues encountered by care home residents and staff. The evidence suggests that Commissioners and service providers should review patterns of service delivery to care homes and how the different services work with each other as well as for the care homes they serve. In particular there is a need to consider whether certain roles and approaches are more able to support approaches to health care needs that are defined by residents and mediated by family members and

care home staff. Finally it debates what "technologies" or mechanisms clarify the processes of care, and the (often overlapping) responsibilities of NHS and care home staff to support continuity of care. The overall strengths and limitations of the study and recommendations for future work and development are also discussed.

9.2 *Integration between health and the independent sector: organisational and administrative integration (Macro Level)*

Most of the literature and discussion on integrated care for older people has focused on the patient journey and service use within (albeit loosely) bounded systems of health care. The challenges of integration are discussed in terms of the patient journey between primary and secondary care (vertical) or between clinical specialties and professional groups (horizontal), and what is necessary to achieve this [49] . Evaluations of integrated care in England have also looked at the relationship with social care [50, 51]but how the NHS works with the independent sector at an organisational and administrative level is not well described.

Care homes are set apart from the main systems of care. They have been described as 'islands of the old' (an allusion to Sontag's [52] writing on "kingdoms of the sick"). It is a metaphor that captures both their geographical separation, administrative and financial independence of health care and the liminal place their residents (from a health care perspective) inhabit between life and death, sequestered away from the services and communities around them [53]. These are all characteristics that can hinder integration and co-ordination of health care. In the interviews, commissioners, GPs who had been involved in providing enhanced services to care homes and care home executives highlighted how difficult it was to define lines of accountability and responsibility between the services, or even to know how to engage with such a diverse group of providers.

As the review and case studies demonstrated, attempts to integrate care, focused on specific problems, such as falls or continence and/or the clinical encounter. Functional integration that included shared planning of services, funding, needs assessment either did not occur or was limited to examples of NHS (and social care) investment in intermediate care services to achieve very specific NHS defined goals of hospital discharge and prevention of admission. This approach created an NHS enclave of high integration in the care homes studied but was not transferable to the wider care home. Residents not in receipt of specialist NHS team services experienced reactive, resident specific working equivalent to that observed in care homes without funding for intermediate care.

9.3 *Administrative infrastructure supporting integration*

The availability of an integrated information structure is a key feature of integrated care systems [54]. Care homes were by default "hubs" of NHS service delivery with up to 28 separate services involved with residents and GPs and District nurses visiting a minimum of once a week. Care homes in both the survey and the case study sites could all provide some examples of where they used shared assessments and or notes between practitioners. However, these were 'person' specific. There were no examples where this was present in systems so that information was actively shared between services and across organisations. This situation was often compounded by the hierarchical methods for sharing information within the care homes that could mean it took four informal conversations between different care home staff before health services were asked to visit a resident.

At an organisational level of care there are key features and processes repeatedly identified as supporting improved clinical outcomes and closer working [55, 56]. These include common goals and quality indicators and measures that are shared, documented and accepted as important by all parties involved. Arguably, the infrastructure was in place to support this level of integrated working in the care home with an intranet link to a general practice and access to electronic medical records. In practice however, e records and the intranet were used by staff for discipline-specific record keeping; there was no expectation the records would be reviewed by care home staff or other NHS services to inform care. This was compounded by lack of integration of information within the NHS primary care organisation. The two care homes with intermediate care beds had scheduled joint meetings, care home-based review of residents and use of review tools. Even here there were no links between services, administration and the co-ordination of care was reliant on people not systems. NHS staff concerns about professional liability, and care homes' perceived expectations of the requirements of the regulator (CQC) and of social services (in their role as contract monitors) were all significant barriers to the development of a system that supported the sharing of information.

Despite evidence of an infrastructure that could support information sharing we found no shared organisational outcomes that acted as an incentive to share, plan and review the care that was being provided. The two areas of common interest that emerged as having the most potential for changing, and demonstrably improving how the two sectors worked together were medication and nutrition review. Previous work on continence in care homes and related work on nutrition has demonstrated the benefits of using one issue as the trigger or focus to improve all areas of care (e.g. communication, liaison with specialist services, holistic assessment) ([36, 57]. The study findings suggest that bringing together

staff from primary care and the care home to work together to solve problems of mutual interest is an approach that could be developed further.

9.4 *Mechanisms that link primary care, care homes and secondary care*

Our study focused on how primary health and care homes worked together. We found very few examples of NHS services from different organisations working together to address residents' needs in care homes. Interviews with care home staff and qualitative data from the surveys revealed that the type and quality of linkages across and between hospitals, care homes and primary care influenced how effective integrated care was defined by care homes. Particular individuals were named as examples of positive experiences, for example, a GP or specialist nurse who would visit residents when they requested. Care home managers reported that access to specialist services was particularly difficult often dependent on the relationships care home staff had established with the NHS. When services were reorganised, care home staff had to build up relationships again. This merits further investigation especially examining if boundary-spanning or connecting mechanisms (such as GP, nurse pathfinder roles, informal links with geriatrician, nurses, and the presence or absence of nurses on site) were positive (or negative influences) in the development of integrated systems of care.

Wild et al [58]in their review on improving care in residential homes noted that-institutional transfers are common in older patients after hospital discharge. Responses from the survey in particular highlighted the frustration of care home staff when accessing information from secondary care about residents' treatments and care In the small cohort we followed, older people did experience several care transitions, yet there was minimal evidence of organisational mechanisms in place to expedite that process or reduce its impact on the older person. Again it relied on the individual, in this case care home staff or family, when possible, accompanying residents to hospital and other settings to represent their needs and act as the link between the organisations.

Previous studies in care homes have noted that, contrary to popular perception, not all residents place high demands on NHS services. The overall range of services accessed by the residents in the case study as a whole was limited (maximum 6), and no residents reported access to therapy services. A small number of residents with high dependency needs or in the last few months of life can account for the majority of service use [59, 60]. This general observation was demonstrated in our care home profiles. There was evidence of wide variation in the consumption of secondary health care by care home residents and care home. Most of the resident's conditions appeared to be stable, but a third of the residents who

participated in the case study phase had at least one hospitalisation. The annual costs of this population were high, £4873 (SD 7150), and were driven largely by the hospital use of a small proportion of the residents. However, in one care home where the nursing staff carried out the majority of care provided by district nurses in the other care homes, their role in monitoring resident's health care conditions may have averted hospitalisations, a cost saving for the NHS.

9.5 *Service level integration between care homes and primary care services (Meso level)*

The review, survey and case studies highlighted recurring and persistent themes about how the NHS works with care homes that are not markedly different from research reports and policy documents on health care involvement with care homes published ten years ago([30, 61-63]. The findings also counteracted persistent assumptions by service providers about residents' universally high levels of health services use Szczepura et al [30], summarized the evidence on improving care in care homes with no on-site nursing, and concluded that medical care could be improved by making it more proactive and preventative. There is a heightened awareness of these issues evidenced by the pockets of innovative service delivery models and schemes (e.g. care home linked geriatricians, GPs and specialist nurses) ([37, 64]. The importance of closer working, proactive care, service specification, leadership and integration of different NHS services is uncontested. Evans et al.[65] found from a survey of GPs and care homes that GPs are significantly more likely to structure their workload to include regular visits to a care home when they have larger numbers of registered patients in that home, and suggested that this relationship may have relevance for establishing better care for residents. PCTs' use of enhanced services payments to GPs to take on responsibilities for care home is based on a similar rationale. The limited examples from the case studies and the stakeholder interviews challenge this view. Paradoxically, we found that it was a model of care that could limit access to services and was vulnerable to relationship breakdown and rationing of GP engagement. A focus on a single practitioner or practice with care home responsibilities could also be overwhelming and unsustainable alongside a generalist caseload. Older people in their own homes would always take precedence.

At service delivery level the findings from this study made explicit the need to appreciate the significance and impact of the different culture, professional responsibilities, power relationships and priorities and concerns of the two sectors. How health care services work with care homes and provide support goes to the heart of how health and social care services work together and their often competing ideas of what constitutes good practice [66].

Figure 3. Model of relationships

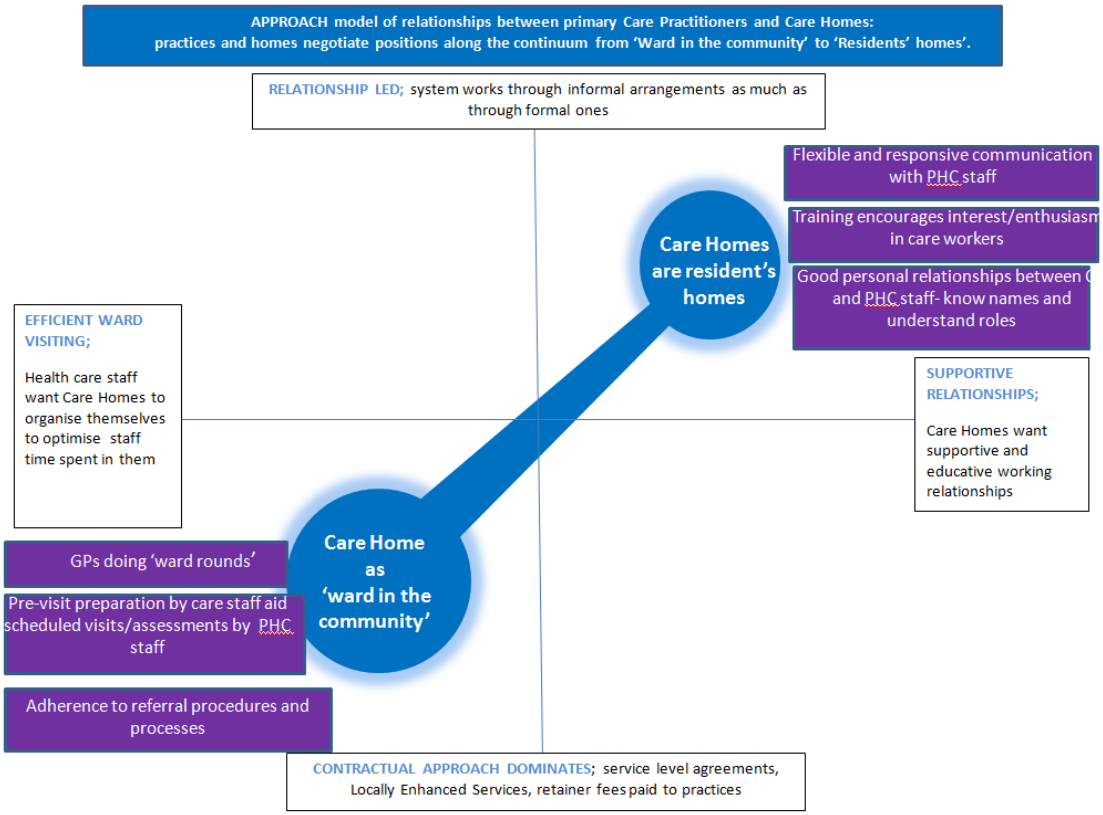
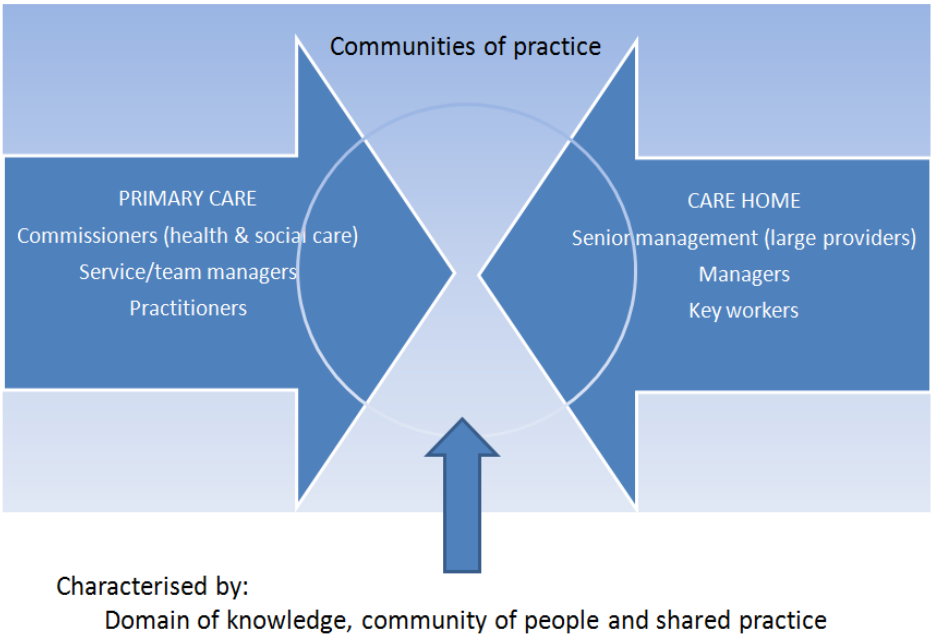


Figure 4 captures how relationships and effective working was described and defined by NHS and care home staff. It represents a continuum of approaches. The integrative processes [2] that enabled staff to meet "in the middle" were, in the main informally negotiated, based on confidence in the staff involved. Informal but acknowledged methods of care co-ordination where there was identification of resident need, boundaries of responsibility and decision making were jointly understood and trusted. Financial incentives, governance processes or the use of shared protocols and assessments either did not shape that process or supported integrated working when care home staff assimilated NHS patterns of working (e.g. programmes for rehabilitation, shared use of end of life tools). It was all predicated on individual services' and staff's ability (and willingness) to engage with that process. Our findings suggest that it is investment in the development and creation of these personal relationships that have the most potential to improve how the NHS and care homes work together.

In the validation event the importance of mutual learning by primary care practitioners and care home staff of each other was identified and consequently the development of a greater understanding or appreciation of each other's world. Figure 5, captures the different levels within which the two parties can meet, from commissioners, service managers, teams and individual practitioners. We propose that one way that can be used to ensure that integration between primary care and care homes occurs is through the development of communities of practice that support this mutual learning.

Figure 4. Communities of Practice and the development of Integrated Working



A community of practice is a social context, a set of relationships amongst people, activities and their environment, within which learning occurs. Communities do not have to be confined to one location but are ordered around three fundamental elements: the domain of knowledge, a community of people with an interest in this domain and the shared practice they are developing focused on this domain of knowledge [67]. A community of practice creates a locus for both the acquisition and creation

of knowledge and as such is both formative and transformative within and beyond its own boundaries. Whilst this study did not aim to identify communities of practice it is possible to identify that there are examples of working between primary care practitioners and care home staff that demonstrate the attributes of communities of practice. It was not possible to identify engagement between primary care and care homes at the Commissioning or Services/team level examples of this type of engagement were seen at the level of the individual practitioners and were identified in the literature review, survey and case studies. It raises the question as to what extent organisational level integration is a prerequisite or even possible for integrated working between the NHS and care homes.

Within the literature there were two studies which entailed care home staff and NHS staff working together to improve continence and end of life care [18, 36]. Both used supporting frameworks to identify actions and share practices. In this study the use of quality indicators and agreed plans of care provided the continuity.

Therefore factors that support integration at the level of the primary care and care home staff include:

- Engagement around resident care that focuses on specific domains of knowledge;
- The opportunity for staff from both sectors to collectively address the issue as they develop shared knowledge and therefore create a distinct social entity;
- The development and improvement of practice, built on shared resources and knowledge that meets the needs of the older person.

It may be that the difficulties of identifying such places of engagement at higher levels of the system are related to the lack of an identifiable entity that is care homes, as discussed in Chapter 7 (Stakeholders). There is no one place to go to engage systemically with the sector or establish contracts for more than an individual or group of care homes. The establishment of care home staff within a building makes the development of communities of practice at this level more possible. However, integrated care in care homes cannot be built solely upon the normative integrative relationships, which form only one element of Rosen et al's [2] elements that support integration, though these are recognised and important. As we saw in the case studies, working that is based only on relationships, disintegrates when personnel move jobs, or services are redesigned and re-organised.

Rosen et al's work incorporates and builds on the elements of the Kodner and Spreeuwenberg [1] model, reinforcing the importance of vertical and horizontal integration. So whilst a relational approach and emphasis is

important this suggests there is still a need to plan and develop some organisational, informational, clinical and financial elements, supported by administrative elements. In this study it was these latter features that were often absent.

9.6 *Clinical Resident level of integration (micro level of integration)*

At the resident level of care access to services and recognition of health care needs was a mediated and complex process. Primary care services were reliant on how care home staff interpreted residents' health status. A process determined by internal care home procedures and a sufficiently robust working relationship with the NHS staff that meant the request was believed. Care home staff could interpret their responsibilities as monitors of a resident's health or not, how health need was defined could also be a negotiated and contested process. It was one that seldom involved joint review or discussion and even more rarely included the resident or a family member.

Studies consistently highlight the importance of social relationships, as well as health in promoting quality of life. We demonstrated the sense of loneliness that some older people may experience whilst living in care. This is resultant, in part, from living amongst 'strangers' or in a community not of their own choosing. It raises the question to what extent the care home as home is experienced by the older person ([68]. There is some evidence that loneliness may have a significant impact on their health particularly in communal settings [69, 70]. Residents also highlighted the problems of generating meaningful social relationships when living in environments where they perceived they had little in common with other residents. Feeling well is not just reliant on physical health, but is closely linked to the extent to which older people can readjust and compensate to threats to their health to maintain a sense of control and achieve personal goals [71, 72]. This emphasis changes the focus of how care is provided and (importantly) whose goals are being addressed. Our data provides rich examples of how care home staff worked with residents and their families to enable the older people to maximise their autonomy and independence under challenging circumstances. For the older person therefore, accessing, receiving and achieving continuity of health care was a co-constructed process [73] that involved care home staff, family members and ultimately NHS professionals. The significance of a mediator (care home staff or relative) who participated in communication and discussions with a range of professionals about residents' health needs was not always acknowledged or addressed by NHS staff. The evidence would suggest there is a need to recognise, and adjust patterns of working accordingly, to ensure that health

care is not "delivered" to individuals in care homes but organised to support the facilitation of care delivery and discussion of residents' priorities and preoccupations with the older person and their preferred representatives.

Resident focused integrated care ideally would fit centrally along the spectrum identified in fig 4. This would require an understanding and valuing of the two disparate cultures of the care home and primary care. We have seen this in practice in the case study phase of the study, where some primary care staff and care home staff have developed good working relationships, based on mutual understanding and respect for each others' knowledge, skills and experience to provide care for residents. In these cases we saw a balance being achieved between efficient visiting and supportive relationships.

9.7 *Conclusions*

One of the objectives of this study was to develop a typology of integrated working useful for service development in these settings. Across all the sites studied there was evidence of what Leutz [40] would call linkage (practitioners working on an ad hoc basis) and co-ordinated care for specific issues (practitioners using mechanisms to support communication e.g. assessment tools but maintaining separate service responsibilities and funding). Where there was full integration (consolidated responsibilities, resources and financing to deliver for the all of a resident's care) it was narrowly defined, time limited and led by the NHS, to the point where care home staff were working for not with the NHS. We did not find sufficient differentiation of approach to enable us to expand on Leutz's framework. While most regard integrated working as a vital objective, few interventions to improve health care delivery have been developed in collaboration with care home staff and/or taken account of the views of residents and their families.

There is an inherent tension when NHS services favour models of care that focus on diagnosis, treatment and episodic involvement, whilst care home providers prioritise on-going support and relationships that foster continuous review of care. The findings suggests this tension can be negotiated through the care home manager's leadership, the quality of the working relationship between NHS practitioners and senior staff, and a focus on specific issues of mutual interest with supporting protocols and guidance. Contexts and individual practitioners that supported co-design approaches and relational styles of working were more able to engage in shared goal setting and review. This however, was not the norm and did not of itself ensure anticipatory care or the involvement of older people. Closer working between staff in the NHS and care homes does not appear to result automatically from financial incentives, shared documentation or the creation of NHS/LA funded beds. Future work to deepen understanding of

health professional views on current and potential health services delivery opportunities and what works best in what circumstances is needed . The absence of the care staff voice and recognition both in conceptualising health care in care homes and also in informing the delivery of health services in this sector also needs to be addressed.

Evident in the review, survey and case studies were enduring patterns of reactive and idiosyncratic health care provision to care homes. Collaborative and arguably, integrated working was achieved independent to how NHS services were organised. In the case study phase two site specific findings of interest were worth noting. The hidden costs to the care home and savings to district nursing services when care homes (controversially) provided nursing care to residents who were not in nursing beds . Secondly, the failure of financial incentives when compared to care home without these incentives to secure dedicated GP time, better access to medical care, good working relationships and increased staff and resident and staff satisfaction with the quality of care.

The level and quality of care provided in homes is often tacit, care agreements between homes and the NHS are very variable. Thus services defined as health - behavioural management, monitoring the effects of therapies, doing routine dressings - are often (but not always) conducted by social care staff or on-site nurses. It is the absence of an active discussion (as opposed to regulatory strictures) about how these decisions are made, who is responsible and how accountability is framed, that allows this variation to persist. The identification of agreed quality indicators in key areas of care may introduce some rigour as proposed by recent European work on care homes [74](European Centre for Social Welfare Policy and Research 2010 Measuring Progress: Indicators for care homeswww.euro.centre.org/data/progress/PROGRESS_ENGLISH.pdf) However, based on the case study findings and the care homes that achieved high service integration for a few residents but not all, it is important the indicators are negotiated and can accommodate or link the need to achieve quality of health care and quality of life.

The costs that fall to the NHS depended in each case on the extent of the responsibilities assumed by the home. Wild et al [58] recommended that a robust accountability, liability and competency framework needs to be identified at a national level to protect both care staff working in residential care and older people. Our findings would suggest that there is a need first, to understand in more depth how the skills present in care homes can be most effectively harnessed without exploiting staff who are not trained or supported to provide health care. This knowledge has the potential to develop a consensus between the NHS and care home providers and make explicit what NHS and care home staff recognise are "appropriate" demands on the NHS, desirable outcomes and in the long term reduce needs for costly interventions, including unplanned hospital admissions.

The NHS Future Forum is recommending integrated care, particularly for frail older people with multiple long-term conditions [75]. Given global financial pressures on health and social care resources [76], the focus on integrated care processes as a mechanism to improve co-ordination, efficiency and value for money of patient care is likely to increase [55]. The lack of shared organisation outcomes (as contrasted with reliance on individual, personal relationship-building) found in this study has implications for the systematic integration of health and social care services, to sustain more stability and quality in care homes residents' living arrangements.. There is a need for a more sophisticated understanding of the tensions between the more continuous input of care homes to health in contrast to more episodic involvement of external health services along with the complexities involved in their more or less successful mediation.

One of the responsibilities of the emergent clinical commissioning groups'(ccgs) is to promote integrated health and social care around the needs of users' [77]. Increasingly, as NHS commissioning relies on independent providers (e.g. Any Qualified Providers) it is likely that commissioners can influence how services work together. Organisational integration (though desirable) appears to be neither always necessary nor sufficient to deliver the benefits of integrated care. What is important is the specification of mechanisms that support relational working and the co-ordination and continuity of care organised around the older person.

9.8 *Study limitations*

The findings and conclusions of the review were constrained by the lack of evidence and the poor quality of the studies; we included all studies types including uncontrolled studies. Uncontrolled studies might be more likely to be biased however; these broad inclusion criteria enabled us to investigate integrated working more widely and identify barriers and facilitators, albeit from a limited number of studies. The information on integrated working was based on how the intervention was described, who was involved and at what level. It is possible that we did not capture the extent of the integration achieved, since we were dependent on the level of detail given by the authors on the respective studies.

Survey work in care homes is difficult to conduct [78-80] and a major limitation of the study is the poor response rate (16%) to the randomised national survey (particularly from some regions), and need for the second (non- randomised) phase of work. A significantly higher response rate was obtained from the national chain (78%), possibly indicating the influence of organisational endorsement. A lower number of services per bed were accessed by residents in the national chain in the six months prior to the survey, and this may reflect that where care homes had nurses on site they provided advice and support reducing demand on NHS services). The

questionnaire was shortened considerably after piloting, but it was not set up with required fields, or to block inconsistent answers, missing items and non-logical responses, and this limited the analysis to some extent. Although homes were invited to ask for a paper version of the survey, (and a small number did), the online method of data collection may have been inappropriate for a sector that anecdotally is seen as having limited online capability. Surveys of physicians have shown lower response rates from online compared to other methods [81]. The study only aimed to survey homes with >25 beds due to the logistical difficulties of covering the large number of smaller residential facilities. The survey sample had a higher proportion of homes in the 3 star (excellent) category than nationally (26% vs 18%), and fewer homes in the 1 and 0 (adequate and poor) categories (12% vs 17%), possibly indicating response bias. The strengths of the study are that the questionnaire was carefully prepared and piloted, the sampling was systematic, reminders and other means were used to try and boost the response rate, and the findings were rigorously analysed using a mix of quantitative and qualitative methods.

The case study phase enabled us to track the care a small group of older people received over one year and to understand the process of care. However, the care homes and the residents were purposively selected and the sample sizes were small. It is likely that there was selection bias in the sample of older people identified, and that they were not fully representative of the care home population although their characteristics were very similar to the national profile. They were oriented to time and place and unusually two residents left their care home to move to sheltered accommodation. There was nevertheless striking similarity in the accounts and preoccupations of NHS staff, residents and care home staff across the sites (irrespective of integrated model studied) that validated the review and survey conclusions.

9.9 *Recommendations*

The study revealed that there were systems and processes in place that had the potential to support integrated working at organisational, service and clinical levels of care. These included established working patterns, relationships of trust, access to joint funding and regular contact with NHS services. They were not however universally recognised or systematically implemented across the two organisations.

Instead of a focus on particular models of integrated working future research should consider the impact of key mechanisms or features of integrated working (e.g. relational approaches to working, organisation of care around the resident, co-design approaches, organisational endorsement and infrastructure, review of care), to improve outcomes of care for older people living in care homes.

The following recommendations are organised to reflect implications for health care and for future research at strategic, service and older person/clinical levels of working:

Implications for health care

At the administrative level existing for a between health commissioner and providers of health care with the regulator and representatives of care homes should work together to agree minimum standards of health care delivery.

At all levels of service delivery there is a need to acknowledge and address the tensions between the more continuous input of care homes to the health care of residents in contrast to the more episodic involvement of external health services and the complexities involved in their more or less successful mediation.

At the service level there is a need for negotiated and ongoing discussion, between care homes without on site nursing and primary care providers that addresses the need for clinical support, acknowledges their respective priorities and makes explicit roles and responsibilities when providing health care to residents.

At the commissioning and service level of care there is a need to map provision and existing ways of working with care homes, improve data systems on activities and costs and how effectiveness is measured to support review of equity of provision and access to services for older people in care homes.

At the service and resident level promote closer working between , NHS and care home providers through focusing on the achievements and shared learning of problem/topic specific initiatives to improve service delivery and health outcomes e.g continence, nutrition and end of life care.

At the resident level of care health care, professionals need to consider as an integral part of their work in supporting frail older people how they work with care home staff , include them in decision making and provide ongoing support and training.

At the resident level of care health care practitioners and care home staff need to consider how to encourage working relationships between care homes and community-based health care providers that recognise that the identification of need (and care provision) is a mediated process between the resident, care home staff and the visiting health care professional.

Implications for future research

- There is a need to develop and test shared information systems that provide a minimum data set for residents and are accessible to NHS and care home staff.
- Research to develop a better understanding of the issues and the kinds of multi-level relationships which may be needed to support integrative processes more evenly across the sectors and geographical areas.
- To explore if the creation of communities of practice that have NHS and care home staff as members can improve service delivery and quality of care for older people living in care homes.
- To test different methods that incentivise the development of relationships between care homes and NHS services at the provider and organisational level of care and agree minimum standards for residents' access to NHS services.
- At the resident level of integration test methods of referral, assessment and care that involve the resident and their chosen representatives as part of the assessment and care planning process.

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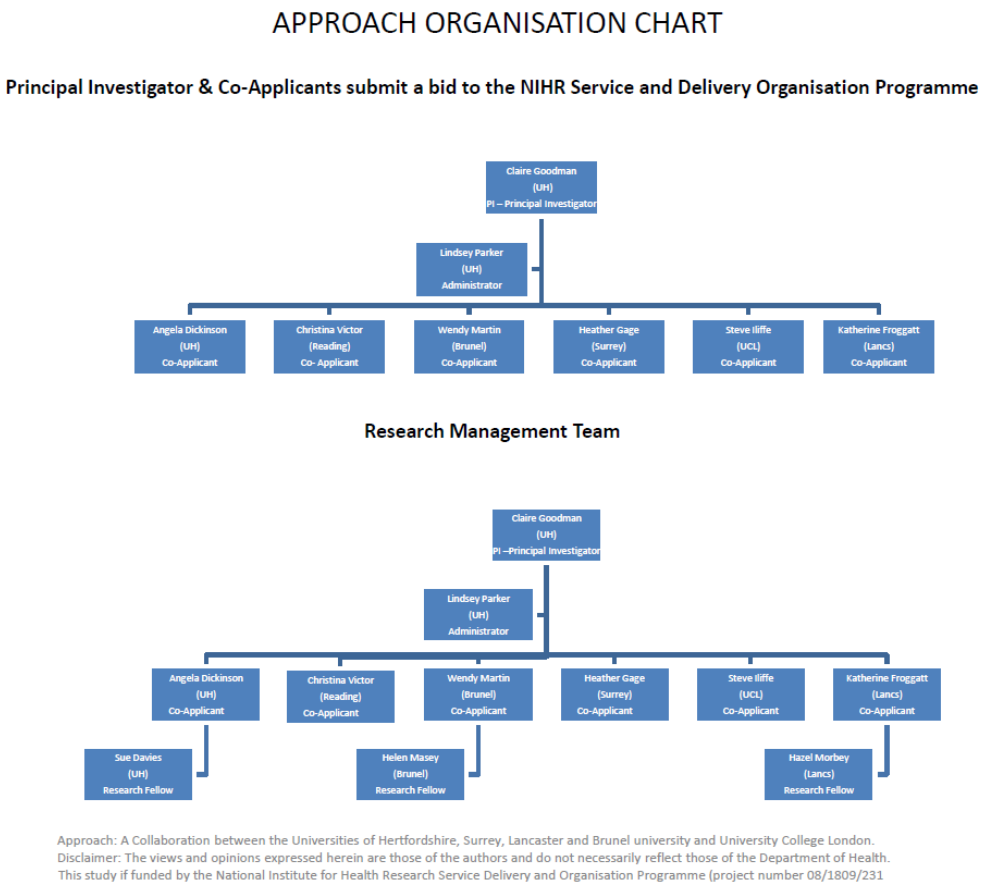
Appendix 1 Organisational chart, Involve article

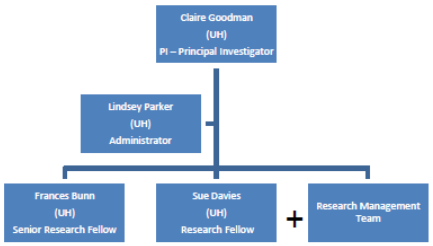


I

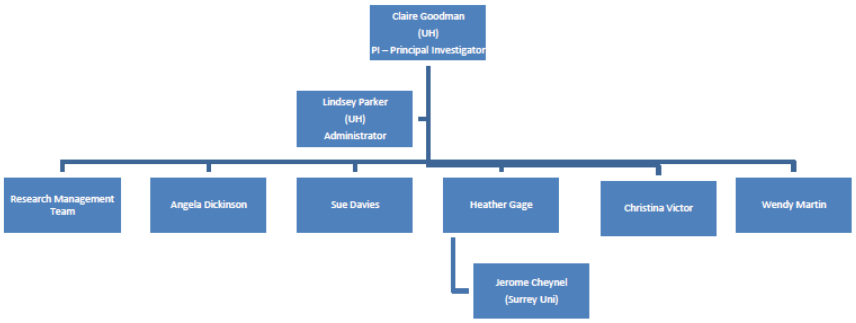
Approach Steering Committee

Approach Study – Operational Structure

Phase 1: Systematic Review



Phase 2: Survey



Approach: A Collaboration between the Universities of Hertfordshire, Surrey, Lancaster and Brunel university and University College London.
Disclaimer: The views and opinions expressed herein are those of the authors and do not necessarily reflect those of the Department of Health.
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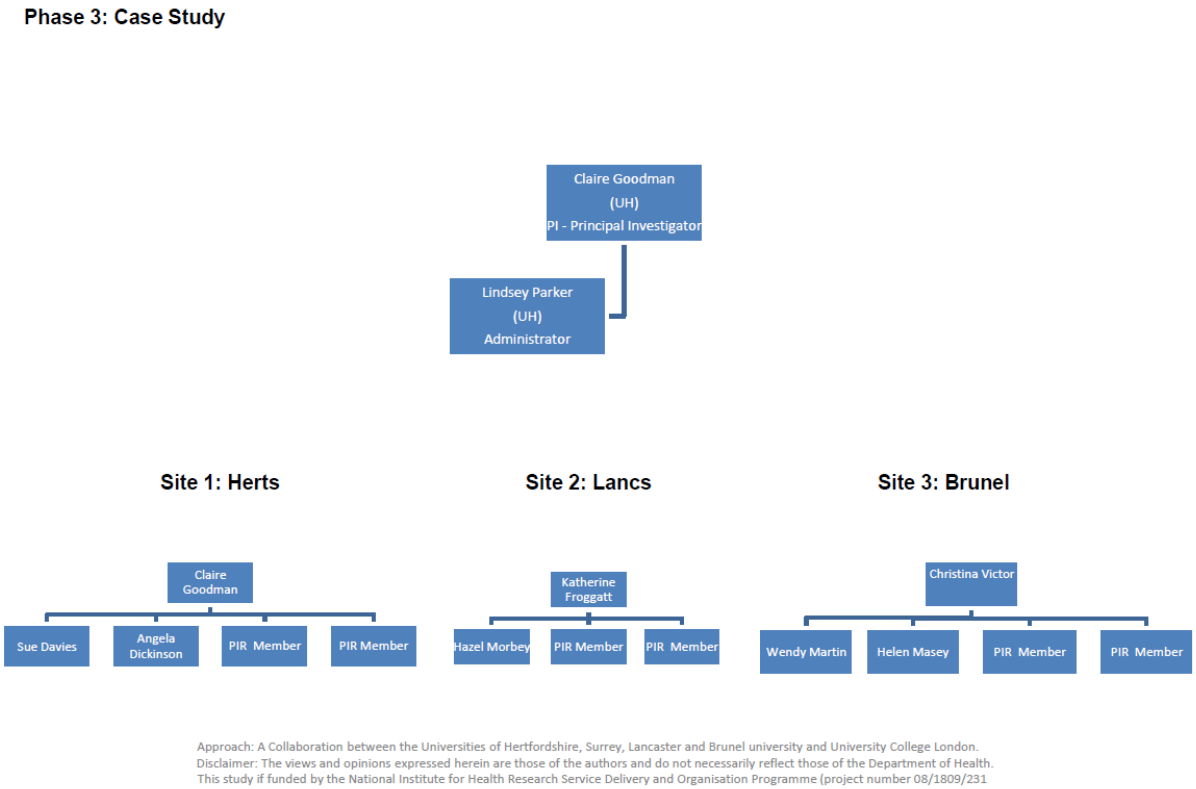

Making sense of study steering groups: the Approach study

About the project

Approach was a three-year National Institute for Health Research Service Delivery and Organisation (NIHR SDO) funded study on integrated working between care homes for older people and primary care professionals, which has recently been completed. The study was complex in that it had two phases each with two components: in phase one, a systematic review of the research literature and a national care home survey; and in phase two, six care home case studies and a validation meeting to discuss the findings.

How and why I became involved in the project

The University public in research group (PIRG) was contacted to see if anyone was interested in taking part. I volunteered as my wife had been into several different homes for respite care over many years and I felt that my experience with this would be helpful to the study. I had no previous experience of similar studies.

My role in the project

Public representation was an integral part of the project at the case study phase and also within the study steering group which met twice a year. I was the public representative on the steering group from the University of Hertfordshire Public Involvement in Research (PIR) Group; I also attended the Validation event at which the study findings were fed back to care home experts so that recommendations for the future health care of care home residents could be made to commissioners.

The benefits of being involved

As a member of the study steering committee, I gave my views as a carer and member of the public, on those aspects of the study which the team required input with for example, feedback on summaries of the emerging findings from the systematic review and survey. We were also asked for our opinion on a proposed change to the data collection. In the case study phase in care homes, the study team felt that it might be more appropriate to interview relatives individually rather than in a focus group, as had been planned in the original proposal. The committee were asked to give their opinion on this, and I was happy to agree to this change as I felt it was a much more sensitive approach. This change was subsequently approved by the ethics committee. From my observations of the group, I am confident that the other members saw the benefit of having a lay member on board. They respected my contributions, I had an impact on changing some of the views in the group and I did not feel that my presence as a public representative was tokenistic.

Challenges and difficulties

Researchers took it for granted that all those sitting on steering groups were familiar with the role of committees, the way the project operated, who is involved, and how communication is maintained. I commented: "Different people seem to come and go to meetings." I suggested an organisational chart be devised to describe the structure of the Approach study to include the different management groups, who was involved and how they knitted together. The resultant chart was a valuable tool for me and is subsequently being used in another study on Falls in which I am involved, and would be of value, I am sure, in other studies.

Terminology was also problematic: for example, the word 'steering' did not explain the function of the group and eventually I realised it meant 'advisory'. A big difference in my book! The steering group have now

become more aware of the importance of using less jargon when including public representatives and will incorporate this into any future studies.

Advice to others

If you get the opportunity to contribute to research I would say 'Go for it'. My advice for researchers is that they should always have in mind the need to use everyday language. Definitely be aware of the dreaded acronym, it might be someone's initials. I learned that listening for starters is preferable to thinking that you can influence everyone immediately. Find your feet, but don't be afraid to challenge and do it well!

John Willmott - University of Hertfordshire PIR group.

For further information on the Approach study please contact:

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Appendix 2 Systematic review tables

Table 1. Studies included in the systematic review of integrated working between care homes and health care services:

First Author, Year Title Study design	Research Question/ aims and objectives	Study population, setting and country of study	Sample size/ number of participants: Include power calculation if available	Description of intervention/ Study design	Main outcome variable(s)/ Areas of focus for qualitative studies	Main findings/ Conclusions
1.King, 2001 **Multidisciplinary case conference reviews: improving outcomes for nursing home residents, carers and health professionals** *Controlled study*	To determine whether multidisciplinary case conference reviews improved outcomes for nursing home residents and its impact on care staff.	**Population:** Older people in nursing homes **Setting:** 3 nursing homes **Country: Australia**	245 older people But only 75 residents were reviewed	Weekly case conference reviews, one review per resident, over 8 months attended by GPs, clinical pharmacist, senior nursing staff and other health professionals. Multidisciplinary discussion of all aspects of a resident's care to make recommendations and devise a management plan for the resident. Reviews were led by GPs with data collection by the pharmacist. Baseline and endpoint comparisons were made between residents who were reviewed and those who were not.	Resident outcomes included: medication use, administered medications and weekly cost, health status and quality of life. Carer outcomes were based on resident interaction, workload or personal /professional satisfaction.	• There were no significant reductions in medications orders, cost and mortality. • 40% of the recommendations benefited residents, measured through their health status and quality of life. 26% of the recommendations benefited care staff, but no details were given. • Multidisciplinary case conferences were seen as beneficial to patients and carers. Their future use was recommended.
2. Llewellyn-Jones, 1999 **Multifaceted shared care intervention for late life depression in residential care: randomised controlled trial.** *RCT*	To evaluate the effectiveness of a population based multifaceted shared care intervention for late life depression in residential care.	**Population:** Older people 65 years + with depression and no or low cognitive impairment **Setting:** Residential facility living in self care units and hostels not nursing homes (equivalent to residential care in UK) Residents were stratified and randomised to intervention or control **Country: Australia**	220 older people No power calculation	The shared care intervention included: 1. Multidisciplinary consultation and collaboration 2. Training of gps and carers in detection and management of depression 3. Depression related health education and activity programmes for residents. The control group received routine care.	Geriatric Depression Scale	There was a significant reduction in adjusted depression scores for residents in the intervention group. Multidisciplinary collaboration, staff education, health education and activity programmes can improve depression in older people in residential care.
3. Opie, 2002 **Challenging behaviours in nursing home residents with**	To test whether individually tailored psychosocial, nursing and medical interventions to	**Population;** Nursing home residents with severe dementia rated by staff as having frequent,	102 older people entered the study, (99 completed the 4 week trial, 2 RIPs 1	Residents selected on basis of CMAI scores and assigned to early or late intervention groups. Consultancy team with training in psychiatry, psychology and nursing	Frequency and severity of disruptive behaviours and assessment of change by	There was a slight reduction in the daily observed counts of challenging behaviours.

dementia: a randomised controlled trial of multidisciplinary interventions. *RCT*	nursing home residents with dementia will reduce the frequency and severity of behavioural symptoms.	severe behavioural disturbances. **Setting:** 42 Nursing homes **Country: Australia**	hospitalisation)	met weekly for 30 minutes, to discuss referrals and formulate individualised care plans which were presented to nursing home staff to implement. Plans were reviewed at one week. 3 categories: medical, based on medication review, nursing, based on ADLs, and psychosocial including environment, sensory stimulation. The control was normal care, residents acted as their own controls by being in the early or late intervention groups.	senior nursing staff. Tools included: Cohen-Mansfield Agitation Inventory (CMAI) which assesses frequency of 30 behaviours over previous 14 days Behaviour Assessment Graphical System (BAGS) which records a combined frequency and disruption score every hour for 24 hours.	Individualised, multidisciplinary interventions appear to reduce the frequency and severity of challenging behaviours in nursing homes
4. Schmidt, 1998 **The Impact of Regular Multidisciplinary Team Interventions on Psychotropic Prescribing in Swedish Nursing Homes** *RCT*	To evaluate the impact of regular multidisciplinary team interventions on the quantity and quality of psychotropic drug prescribing in nursing homes Aim was to improve prescribing through better teamwork amongst physicians, pharmacists, nurses and nursing assistants	**Population:** Long term residents, 42% dementia, 5% psychotic disorder, 7% depression **Setting:** 33 Nursing homes **Country: Sweden**	1854 residents In 15 experimental homes and 18 control homes	Regular multidisciplinary team meetings over 12 months to discuss individual residents drug use. Training was provided for pharmacists but not for other staff. Control homes provided normal care.	Baseline and 12 month post resident medications	After 12 months the intervention group showed an improvement in the prescribing of hypnotics only. Prescribing practices can be improved through better teamwork between health care and nursing home staff using clinical guidelines.
5. Vu, 2007 **Cost-effectiveness of multidisciplinary wound care in nursing homes: a pseudo-randomized pragmatic cluster trial** *Pseudo RCT*	Trial to test the hypothesis that trained pharmacists and nurses working in collaboration with a wound treatment protocol would improve the wound healing and save costs.	**Population:** 176 residents with leg or pressure wounds **Setting:** 44 high care nursing homes **Country:** Australia	Based on an assumed improvement in the healing rate from 15% to 30% , 108 wounds per arm were required to have an 80% chance of detecting a two-fold increase in healing rates at a significance level of 5%. To adjust for clustering this number was increased to 151 in each group.	Residents in the intervention arm received standardised treatment from a wound care team comprised of trained community pharmacists and nurses. A standard treatment protocol was developed based on the colour, depth and exudate method for assessing wounds and the group's clinical and academic experience. They met weekly to discuss any new wounds and treatment options within the protocol. Both nurses and pharmacists received training on wound healing and management.	Treatment recommendations, frequency and detail of dressing changes, measurement and photos of wounds, SF36, Assessment of Quality of Life index , Brief Pain Inventory – measures wound pain, total estimated cost of treatment per wound including, staff time, training, wound care products and waste disposal.	During the trial more wounds healed in the intervention than in the control group but this was not significant. The mean treatment cost of wound healing was significantly less in the intervention group. Standardised treatment by a multidisciplinary wound care team cut costs and improved chronic wound healing in nursing homes.
6. Crotty 2004 **An outreach geriatric medication advisory service in residential aged care: a randomised controlled trial of case conferencing.** *Cluster RCT*	Evaluate the impact of multidisciplinary case conferences on the appropriateness of medications and on patient behaviours in residential care	**Population:** residents with medication problems/challenging behaviours **Setting:** 10 High- level aged care facilities **Country: Australia**	154 residents recruited with 54 in control, 50 in intervention, 50 in within facility control group 5 facilities randomised to the intervention and 5 to the control Staff nominated 20 residents for the intervention and 10 for the control, based on 2 criteria: Residents with a difficult behaviour they would like advice on, those prescribed 5+ medications An effect size based on patients aged 65 + with polypharmacy of 0.9 in the MAI between the intervention and control groups (power 0.9, type 1 error of 0.05) would be detected with 28 residents in each group	2 multidisciplinary case conferences chaired by the resident's GP, a geriatrician, pharmacist and residential care staff held at the nursing home for each resident. All facilities received a half day workshop on using the toolkit for challenging behaviour All residents had their medication chart reviewed pre and post intervention by an independent pharmacist using the MAI	Assessed at baseline and 3 months Primary outcome the Medication Appropriateness Index (MAI) Nursing Home Behaviour Problem Scale for each resident	There was a significant improvement in appropriate medication in the intervention group compared with the control group. Resident behaviours were unchanged after the intervention.
7. Joseph 1998 **Managed Primary Care of Nursing Home Residents**	To measure the rates of hospital use and mortality of nursing home residents who	**Population:** older long term residents of nursing homes enrolled in Medicare HMO	307 nursing home residents	Primary care by accessible interdisciplinary team including physicians, nurse practitioners, and nursing home staff supported by clinical guidelines, continuous	Demographics, mortality, hospital days, minimum data sets	Integrated working between doctors, nurse practitioners and nursing home staff can reduce nursing home

Cohort study	received their primary care from practitioner-physician teams.	**Setting:** 30 nursing homes in Southern California **Country: USA**		improvement techniques and increased availability of clinical services at the nursing homes.		resident's hospital use.
8. Kane 2004 **Effect of an Innovative Medicare Managed Care Program on the Quality of Care for Nursing Home Residents** *Controlled study*	To assess the quality of care provided by Medicare HMO targeted specifically at nursing home residents , employing nurse practitioners to provide additional primary care to the physicians.	**Population:** Long stay nursing home residents **Setting:** Nursing homes **Country: USA**	44 Evercare homes 44 control homes 2 control groups a) other residents in same homes not enrolled in Evercare b) residents in homes in same geographical area that did not participate in Evercare	Evercare model of managed care using nurse practitioners to provide additional primary care over and above that provided by physicians.	4 aspects of quality: mortality, preventable hospitalisations, quality indicators, derived from the Minimum Data set and changes in functioning.	The Evercare mortality rate was significantly lower than the control-in group but not the control-out group. The Evercare residents had fewer preventable hospitalisation s the difference was significant for one of the control groups.
9. Goodman 2007 *Controlled study*	To assess whether clinical benchmarking can be incorporated into care homes for older people with the support of NHS primary care nursing staff	**Population** Older people in residential care homes **Setting:** 7 residential care homes (6 +1 pilot home) **Country: UK**	46 Care home staff and 154 older people from 6 residential care homes 12 district nurses from 6 district nursing teams in 3 PCTs.	3 intervention care homes used Essence of Care benchmarking in relation to resident's bowel care, joint implementation for all residents by care home staff working together with senior district nursing staff over six months. Regular benchmarking meetings to discuss, plan and implement specific aspects of bowel related health promotion and continence care that would be suitable for residents. DN led bowel care training sessions for other care staff in the care homes. Non- intervention care homes received usual care from their district nursing teams	Main outcome variables were bowel related problems captured in a bowel diary recorded for residents pre and post intervention and related hospital admissions, medication and continence product use, time spent on bowel related activities, staff satisfaction and turnover.	Clinical benchmarking could be utilised in care homes as part of everyday working with district nurses and used few resources. However, commitment by both parties and mutual trust was necessary for the process to be successful. Bowel care was complex and challenging for care staff especially where older people were cognitively impaired. There was no significant reduction in bowel related problems but some evidence of improved documentation and appropriate prescribing.
10. Szczepura, 2008 **In-reach specialist nursing teams for residential care homes: uptake of services, impact on care provision and cost-effectiveness.** *Economic evaluation*	Evaluation of a dedicated nursing and physiotherapy in-reach team (IRT)	**Population:** older people in care homes **Setting**; 4 residential care homes **Country: UK**	131 residents	IRT gives 24 hour cover 7 days a week – a specialist team offers support and onsite care for up to 15 beds for specialist nursing care to prevent transfer to hospital or nursing home. It also supports care home staff through health training up to NVQ level 3.	Cost of the service Number of referrals to the service Reasons for referral/visits by team Hospitalisations and nursing home transers avoided	IRT resulted in savings through reduced hospitalisations, early discharges, delayed transfers to nursing homes and illness recognition. Introduction of an in-reach team was at least cost neutral. It also benefited the care home staff through training which enhanced the quality of care and reduced the transfer of residents to other care facilities.
11. Proctor, 1998 **An observational study to evaluate the impact of a specialist outreach team on the quality of care in nursing and residential homes** *Quantitative - non-participant observation*	To assess the applicability of a training and support programme for care staff in nursing and residential homes on the quality of staff-resident interaction	**Population:** Older people considered by staff to have problems in terms of behaviour , social functioning or psychiatric symptoms **Setting:** 5 residential homes , 1 nursing home **Country: UK**	12 residents – 2 from each home 51 care home staff	Staff training over 6 months included 1. Seminars provided by a multidisciplinary team including old age psychiatrists, nurses, doctors and OTs. 2. A behavioural approach to care planning to help staff plan and implement care plans for individual residents. Training was given by a psychiatric nurse with weekly visits to staff	Resident behaviour and staff contact was recorded through non-participant observation prior to the training, 3 and 6 months post Activities recorded were based on QUIS – Quality of Interactions Schedule (Dean et al, 1993)	There was a significant increase in the proportion of time that staff spent in positive interactions with residents (direct care $p<0.002$, social contact $p<0.05$) and levels of resident activity increased ($p<0.001$).
12. Knight, 2007 **All-Wales integrated care pathway project for care homes** *Process evaluation/audit*	To facilitate the implementation of ICP into care homes through negotiation with local palliative care providers to improve the care for dying patients	**Population:** Older people in nursing homes **Setting:** 29 nursing homes in Wales **Country:** UK	130 older people pre-intervention, 133 post intervention	Introduction of an integrated care pathway for dying patients in care homes. Other support: • Education subgroup • ICP education pack • Teaching sessions • Syringe driver training • Matron forums • Informal training /support	Pre and post ICP audit of dying patient's notes to measure their quality. Pre- audit highlighted poor communication, symptom control, and lack of staff end of life care education.	The re-audit indicated an improvement in recording end of life care. ICP use in the care homes had increased from 3 to 31% in one year. Recording of events and documentation remained poor.
13. Mathews, 2006 **Using the Liverpool Care Pathway in a nursing home** *Process evaluation/ Audit*	Aim to illustrate how collaborative working in a nursing home using the Liverpool Care Pathway(LCP) can enhance end of life patient care and improve palliative care education	**Population:** Older people resident in a nursing home **Setting:** 1 nursing home **Country: UK**	150 residents with 50 bed contracted out to the NHS for end of life care	Pilot study to introduce LCP into a nursing home. LCP discussed with GPs, pharmacist and ambulance service. Trained nursing staff received 3 hours of palliative care training including using LCP. Followed by implementation of the LCP for patients.	Focus on improving documentation and symptom control of patients	An audit of the first 10 patients on the LCP showed an improvement in documentation and assessment of symptoms. Staff felt that the training should be extended to health care assistants. A

						steering group was also set up to discuss the pathway and training needs.
14. Doherty, 2008 **Examining the impact of a specialist care homes support team** *Qualitative*	To examine the work the work and perceived impact of a dedicated care homes support team Aim of the care homes support team was to enable staff to manage the health and social care needs of residents to avoid unnecessary admission to hospital	**Population:** Older people in care homes **Setting:** 29 Care homes ?residential **Country: UK**	19 care home managers, 13 CHST including specialist older peoples nurse, pharmacist, GP , and Senior managers in PCT interviewed 32+ participants interviewed	Intensive component:: 5 care homes CHST promoted practice development through action plans focusing on staff identified needs Extensive component: 29 homes where CHST acted as a resource in terms of information sharing and networking but no development working	Processes, working methods and outcomes of the care home support team	Statistical analysis did not support the effectiveness of the care homes support team, but the qualitative data showed the impact of the team through empowering staff, increased quality of life and access to services for residents and professional development for staff.
15. Hasson, 2008 **The palliative care link nurse role in nursing homes: barriers and facilitators** *Qualitative*	To explore link nurses' views and experiences regarding the development, barriers and facilitators to the implementation of the role in palliative care in the nursing home	**Population:** Older people in nursing homes **Setting:** 33 nursing homes **Country: UK**	33 nursing homes 14 link nurses in 3 focus groups	Link nurse initiative – 3 phases over 3 years: 1.Training needs or nurses and nursing assistants assessed 2. Palliative care educational programme for staff and identification of link nurses identified in nursing homes 3. Evaluation of link nurses by nursing home staff	Topics in focus groups included; link nurse preparation, barriers and facilitators to delivery of education in the home	The link nurse system had the potential to improve palliative care in nursing homes. Facilitators included external and peer support, monthly meetings and access to information. Barriers included the transient workforce and a lack of preparation for the role.
16. Avis 1999 **Evaluation of a project providing community palliative care support to nursing homes** *Qualitative*	Evaluation of project to extend 'hospice standards' of palliative care to nursing homes	**Population:** 231 Nursing home residents **Setting:** Nursing homes with registered palliative care beds **Country: UK**	2 Questionnaire surveys of 39 & 43 matrons of nursing homes, at 6 months and at the end of the project 35 Interviews with local stakeholders	Project was implemented by a nurse advisor and a peer support group of 6 district nurses who delivered the service to nursing homes. Nursing home staff made referrals to the team who responded by visiting and assisting in assessments and care plans for residents. 1st phase involved assessment of services required by nursing homes identified by matrons. Focus on 3 areas: advice on individual care problems, training and support on	Interviews explored participant's understanding of the project, their perceptions of issued involved in providing palliative care, benefits, limitations for staff and residents. Questionnaires were used to rate project performance, access, response time, liaison, benefits and limitations of	The project helped to overcome the barriers to care between NHS services and the independent sector. Care home isolation was decreased through assistance with individual care and better access to specialist advice and training.

						steering group was also set up to discuss the pathway and training needs.
14. Doherty, 2008 **Examining the impact of a specialist care homes support team** *Qualitative*	To examine the work the work and perceived impact of a dedicated care homes support team Aim of the care homes support team was to enable staff to manage the health and social care needs of residents to avoid unnecessary admission to hospital	**Population:** Older people in care homes **Setting:** 29 Care homes ?residential **Country: UK**	19 care home managers, 13 CHST including specialist older peoples nurse, pharmacist, GP , and Senior managers in PCT interviewed 32+ participants interviewed	Intensive component:: 5 care homes CHST promoted practice development through action plans focusing on staff identified needs Extensive component: 29 homes where CHST acted as a resource in terms of information sharing and networking but no development working	Processes, working methods and outcomes of the care home support team	Statistical analysis did not support the effectiveness of the care homes support team, but the qualitative data showed the impact of the team through empowering staff, increased quality of life and access to services for residents and professional development for staff.
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Table 4. Quality review scores for qualitative papers.

Study	*Scope/ purpose*	*Design*	*Sample*	*Data collection*	*Analysis*	*Reliability/ validity*	*Generalisability/ transferability*	*Credibility/ integrity/ plausibility*	*Ethics approval*
Avis 1999	~	-	-	-	-	-	-	~	-
Doherty 2008	~	+	~	-	~	-	-	+	+
Hasson 2008	+	+	+	+	+	+	~	+	+
Hockley 2005	+	+	~	~	-	~	~	+	+

Scoring key:

+ Fully or mostly scores 1

- Not at all

~ Partly scores 0.

Table 5. Results from RCTs and controlled studies

Study ID	Outcome	Main results at follow up (+) = positive effect, (-) = negative effect, (0) = no significant effect
Crotty 2004 RCT		Follow up at 3 months (NB – two control groups – one external and one within the facility (results presented for external control grp only))
	Appropriate prescribing (medication appropriateness index)	Change MAI score (+) Mean score (95% CI) Intervention 4.10 (2.11-6.10), Control 0.41 (-0.42-1.23), Difference p=0.004
	Nursing home behaviour problem	Change NHBPS (0), Mean score (95% CI) Intervention 3.9 (-2.7-10.5), Control 1.2 (-9.1-11.6), P=0.440
	Mortality	Mortality (0) No differences between groups (p=0.304)
Goodman 2007 (non randomised		Follow up at 6 months
	Bowel related problems	Normal bowel patterns (+)

controlled study)		Intervention – significant increase in normal bowel patters, control grp – little change
	Medication and continence related product use	Prescription of laxatives (0) Increase in both groups but no statistically significant differences between groups p=0.159
	Dependency (Barthel index)	Dependency (+) Mean change score p=0.002 Intervention -0.02 (SD 3.1), Control -1.84 (SD 3.7)
	Bowel related hospital admission	1 admission in intervention grp, none in control (n=120)
King 2001 (non randomised controlled study)		Follow up at 1 month. Data collected on 184 residents (75 reviewed, 109 not reviewed).
	Medication prescribed	Changes in medication prescribed – mean (SD) (0) Intervention -0.35 (2.56), Control -0.03 (1.90) P=0.37

		Evercare rate significantly less than for control-in group but was slightly higher than control-out group (non significant)
	Preventable hospitalizations	Rates of preventable admissions lower in Evercare than for either control but only significant when compared to control-out. No differences in hospitalization rates overall. (0)
	Functional change	No significant differences in ADLs between Evercare and either control. (0)
Llewellyn-Jones 1999 RCT	Geriatric depression scale (score of ≥ 10 defined as depressed)	Follow up after 9.5 months Depression Unadjusted MD (0) -0.76 (-2.09, 0.57) Adjusted difference in change score (+) Multiple linear regression analysis Intervention group 1.87 improvement on scale compared to control group (95% CI 0.76, 2.97) p=0.0011
Opie 2002 RCT (poor		Follow up at one month

study design)	Frequency & severity of disruptive behaviours (Behaviour Assessment Graphical System and counts of certain behaviours)	Frequency of disruptive behaviour (0) ANOVA revealed no statistically significant changes BAGS scores (0) No significant between group differences Assessment by staff No data reported on between group differences. Staff reported that the frequency of target behaviours had decreased in at least one behavioural category for 75% residents and that severity had decreased in at least one category for 60%.
Schmidt 1998 RCT Involves pharmacists	Proportion of pts with any psychotropic drug (from lists of residents prescriptions) Proportion of residents with two or more drug classes (polymedicine) Proportion of residents with	Follow up at 12 months Any psychotropic drug use (0) RR 0.97 (95% CI 0.92, 1.03) Two or more drug classes (0) RR 1.02 (0.92, 1.13) Two or more drugs in same class

	therapeutic duplication (two or more drugs in same class)	RR 0.92 (0.76, 1.10)
	Number of drugs prescribed	Number of drugs prescribed (mean) 2.08% versus 2.20% Significant increase in average number of drugs prescribed in control before to after. No change in experimental homes.
	Proportion of residents with non recommended drugs (as defined by Swedish guidelines)	Non recommended hypnotics (+) RR 0.45 (0.35, 0.58) Non recommended anxiolytics (0) RR 0.96 (0.79, 1.16) Non recommended antidepressant (0) RR 0.67 (0.44, 1.03)
	Proportion of residents with acceptable drugs (as defined by Swedish guidelines)	Acceptable hypnotics (+) RR 1.46 (1.13, 1.89) Acceptable anxiolytics (0) RR 1.19 (0.97, 1.45) Acceptable antidepressant (-)

		RR 1.34 (1.07, 1.68)
Vu 2007 (Pseudo RCT) Involves pharmacists		Follow up at 20 weeks
	Percentage healed	Healed (0) – but baseline wound severity greater in intervention group Intervention 61.7%, control 52.5% p=0.074
	Mean time to healing	Time to healing (mean days) (0) Intervention 82.0 (69.1-94.9), Control 101.1 (84.5-117.6), P=0.095
	Total pain relief (Brief pain inventory)	Pain relief – BPI score = 0 (+) Intervention 38.6%, control 24.4% p = 0.017
	Costs	Mean treatment costs (+) Reduction in mean treatment costs of 357.7 Australian dollars when training costs included p=0.004

Protocol for a Systematic Review

The effectiveness of integrated working between care home staff and NHS practitioners

Aims and objectives

- To review the effectiveness of integrated working between care home/nursing home staff and health care practitioners and evaluate their impact on the health and well being of older people in care homes.
- To describe and evaluate interventions that aim to promote or facilitate integrated working between care home/nursing home staff and health care practitioners and evaluate their impact on the health and well being of older people in care homes.
- To identify barriers to integrated working between care home/nursing home staff and health care practitioners and identify factors needed to achieve meaningful integration and partnership working.
- To investigate the extent to which contextual factors, such as location, service providers, resources, shared infrastructures and professional roles influence the sustainability and effectiveness of integrated working.

Inclusion criteria

Types of studies

For evaluating the effectiveness of the interventions we will focus on RCTs. However, if as if likely, there are insufficient RCTs we will widen the inclusion criteria to include all studies that include some element of evaluation. For example: non randomised controlled trials, before/after studies with a prospective control, uncontrolled before/after studies and observational studies. However, studies without a control will be used to describe and catalogue interventions rather than evaluate effectiveness. In addition, to identify barriers to integrated working, we will include process evaluations and qualitative studies. We will also search for action research but these studies will be treated as a separate group and not included in the main review.

Types of intervention

The review will include interventions that are designed to develop, promote or facilitate integrated working between care home or nursing home staff and health care practitioners and will include all residents and staff. We will also include studies that compare integrated care with non integrated or 'usual' care.

The working definition of integration used for the review has been taken from a recent report by the Nuffield Trust (Rosen and Ham 2008). They define integration as 'a single system of needs assessment, commissioning

and/or service provision that aims to promote alignment and collaboration between the cure and care sectors. The goals of integration are to enhance quality of care, quality of life, patient outcomes and efficiency in the use of resources'.

The types of integration may include:

Micro-level: close collaboration between different professionals and teams

Meso-level: organisational or clinical structures and processes designed to enable teams and/or organisations to work collaboratively towards common goals (e.g. integrated health and social care teams)

Macro-level: integration of structures and processes that link organisations and support shared strategic planning and development (e.g. merged provider organisations that span health and social care services)

Evidence of at least one of the following characteristics of integrated

working should be present for a study to be included in the review:

- Clear evidence of joint working
- Joint goals or care planning
- Joint arrangements covering operational and strategic issues
- Shared or single management arrangements
- Joint commissioning at macro and micro levels

Interventions that involve staff going in to provide education or training to care home/nursing home staff will be included as long as there is some indication of joint working or collaboration. However, we will exclude studies where staff are employed specifically for the purpose of the study without consideration of how the findings might be integrated into practice (i.e. project staff introduced for a limited time to deliver a specific intervention).

Types of participants

Residents will include older people with cognitive impairment and multiple complex health needs. The types of staff will include care home staff (qualified and unqualified) and primary health care workers including GPs and district nurses.

Types of outcomes

Outcomes of interest will include:

- Health and well being of older people (e.g changes in health status, quality of life)
- Outcomes related to service use (e.g. number of GP visits, hospital admissions)
- Cost

- Process related outcomes (such as changes in quality of care, increased staff knowledge, uptake of training and education and professional satisfaction)

Studies that include none of the above outcomes will be excluded.

Identification of studies

To identify studies for the review we will search the following electronic databases: Medline (PubMed), CINAHL, BNI, EMBASE, PsycInfo, DH Data, Kings Fund, Web of Science (WoS incl. SCI, SSCI, HCI) and the Cochrane Library incl. DARE. In addition we will use 'lateral searching' techniques such as checking reference lists of relevant papers, and using the 'Cited by' option on WoS, Google Scholar and Scopus, and the 'Related articles' option on PubMed and WoS This is particularly recommended when searching for studies on complex interventions (Greenhalgh et al 2005). The electronic search strategy will be developed by the Information Scientist, RW, with input from the rest of the project team. Searches will be limited to published and unpublished English language studies. There will be no date restrictions.

As we are also including linked process evaluations, action research and qualitative studies we will not use any methodological search filters. In addition, although our primary focus is on UK studies, the searches will not be restricted by country or type of health care system.

Methods

Study Screening

Electronic search results will be downloaded into EndNote bibliographic software and, where possible, duplicates deleted. Two reviewers will independently screen all titles and abstracts against the predefined inclusion criteria and check for agreement. Full manuscripts of all potentially relevant citations will be obtained and these will then be screened independently by two reviewers using a screening form with clearly defined criteria. The first stage of screening will involve identifying all studies which meet the criteria for intervention, participants and type of methods. These studies will then be separated into UK and non-UK, with the UK based studies forming the basis of the review. Non-UK studies will be referred to if there are too few UK studies, or if themes arise from the UK studies that we wish to explore further or validate in non-UK studies. Any disagreements will be resolved by consensus or by discussion with a third reviewer.

Data Extraction and Critical Appraisal

For studies that meet the inclusion criteria data will be extracted onto a pre-designed, and piloted, form. Data extracted will include:

- Type of intervention (including aim, content, mode of delivery, intensity and duration)
- Type of provider (including position, age, gender & race)
- Type of setting (nursing home/residential home)
- Type of control
- Type of participants (including age, sex, race)
- Type of outcomes
- Type of study design
- Level of integrated working (e.g. micro, meso, macro)

Data will be entered into a specially designed database similar to those used by the researchers on previous reviews. We will assess the methodological quality of studies using criteria based on those of the Cochrane Collaboration and the National Institute for Health and Clinical Excellence (Higgins 2006, NICE 2006). For randomised controlled trials this will include: allocation concealment, blinding of outcome assessment, intention to treat analyses, losses to follow up and whether groups were balanced at baseline; and for controlled before/after studies: baseline measurement reported, protection against contamination and blinded assessment of primary outcome. Qualitative studies will be assessed using an adapted version of the ODPM quality assessment checklist (Spencer et al 2003). Other study designs (for example uncontrolled studies) will not be formally quality assessed but, because of the poorer quality of these studies, they will be used descriptively rather than for a formal evaluation of effectiveness.

Analysis

We will present a detailed tabular summary of the characteristics of studies, methodological quality of studies and, if appropriate, results. This will include data on research question, methods, participants and intervention. It is anticipated that there will be substantial heterogeneity in the types of intervention, setting, participants and outcomes. It is, therefore, unlikely that pooling studies in a meta-analysis will be appropriate. Instead we will report results narratively. Where possible, that is where data are available in the paper, dichotomous outcomes will be presented as relative risks (RR) and continuous data as mean differences (MD). Both will be presented with 95% confidence intervals. Data in the evidence tables will be presented with an indication of whether the intervention had a positive effect (+), a negative effect (-), or no statistically significant effect (0).

In addition, we will document and refine a typology of integrated working models and identify relevant outcome measures. If suitable qualitative studies are identified we will extract themes which will be used to generate a list of potential barriers and facilitators to integrated working.

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Appendix 3 National care home survey

APPROACH SURVEY

WELCOME TO THE APPROACH National Care Home Survey and opportunity to win PRIZE of £100 M&S vouchers.

We are inviting you to participate in this study by completing an on-line questionnaire, which should take approximately 15-20 minutes to complete.

There are five sections:

Section A: Primary health care services
Section B: How you work with the NHS
Section C: Experiences of integrated working with the NHS
Section D: Information about your care home
Section E: Care home staff

We have tried to design the questionnaire to be as easy as possible to complete. Most of the questions just ask you to tick a box. Comment boxes have been provided should you wish to add further information to your answer.

All completed questionnaires are anonymous and will be treated with the strictest confidence. Any information given through which your home could be identified will be removed or changed.

Your views are important and we hope that you will take the time to complete the questionnaire. If you would like to discuss any aspect of the study, please do contact me.

We really appreciate your help with this study, and to show our appreciation there is an opportunity to be entered into a prize draw to win £100 of vouchers for Marks and Spencers.

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APPROACH SURVEY

SECTION A: The following questions are looking at the primary health services your care home receives and how the NHS works with you.

1. Do you CURRENTLY have more than one GP practice working with the care home?

- ◯ Yes
- ◯ No

If yes, how many practices work with your care home?

2. If you pay a retainer to your main GP practice, please tick the amount below

- ◯ No retainer paid
- ◯ Less than £1,000 per year
- ◯ £1000-£4,999
- ◯ £5,000-£9,999
- ◯ £10,000-£14,999
- ◯ £15,000-£19,999
- ◯ £20,000-£24,999
- ◯ £25,000 or over
- ◯ Don't know

Any comments

3. Do you pay more than one GP practice a retainer?

- ◯ Yes
- ◯ No

Comments

APPROACH SURVEY

4. What services do you get from the GP practice you have most contact with?

	Always	Occasionally	Never	Don't know
Visits individual residents when they are unwell	◯	◯	◯	◯
Telephone advice when residents are unwell	◯	◯	◯	◯
Reviews the medication of ALL residents	◯	◯	◯	◯
Reviews the medication of INDIVIDUAL residents	◯	◯	◯	◯
Refers residents to specialist services (e.g. geriatrician)	◯	◯	◯	◯
Provides advice on keeping ALL residents healthy	◯	◯	◯	◯
Provides advice on keeping INDIVIDUAL residents healthy	◯	◯	◯	◯
Offers training and advice to staff	◯	◯	◯	◯

Any comments

5. Do any GPs undertake regular (at LEAST fortnightly) 'clinics' located in the care home?

◯ Yes

◯ No

Please give details

6. Are residents able to self-refer to the GP 'clinic' in the care home?

◯ Yes

◯ No

◯ Not applicable

Any comments/ further information

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APPROACH SURVEY

7. Do other health care professionals hold drop in type surgeries in the care home (e.g. nurses, chiropodists, physios)?

◯ Yes

◯ No

If YES, Please give details

8. Which of the following health and social care professionals have visited the care home in the LAST SIX MONTHS? Please tick all that apply

	We have NOT received this service in the LAST SIX MONTHS	On a resident by resident basis ONLY	Provides a designated service to the whole care home	We pay for this service	We support residents to attend services OUTSIDE the care home.
District Nurse	☐	☐	☐	☐	☐
Pharmacist	☐	☐	☐	☐	☐
Chiropody/podiatry	☐	☐	☐	☐	☐
Practice Nurse	☐	☐	☐	☐	☐
Community Matron	☐	☐	☐	☐	☐
Older people's nurse specialist (e.g. Tissue viability/diabetes)	☐	☐	☐	☐	☐
Health visitor	☐	☐	☐	☐	☐
Care home support team	☐	☐	☐	☐	☐
Community psychiatric nurse/mental health team	☐	☐	☐	☐	☐
Old age psychiatrist	☐	☐	☐	☐	☐
Clinical psychologist	☐	☐	☐	☐	☐
Dietician	☐	☐	☐	☐	☐
Continence Team	☐	☐	☐	☐	☐
Dentist	☐	☐	☐	☐	☐
Optician	☐	☐	☐	☐	☐
Hearing aid services (audiometry)	☐	☐	☐	☐	☐
Hospice Team	☐	☐	☐	☐	☐
Marie Curie service	☐	☐	☐	☐	☐
Macmillan nurse/specialist palliative care nurse	☐	☐	☐	☐	☐
Consultant geriatrician	☐	☐	☐	☐	☐
Speech and language therapist	☐	☐	☐	☐	☐
Occupational therapist	☐	☐	☐	☐	☐
Physiotherapist	☐	☐	☐	☐	☐

Page 4

APPROACH SURVEY

Intermediate care team	☐	☐	☐	☐	☐
Falls prevention activities/Exercise co-ordinator	☐	☐	☐	☐	☐
Admiral Nurse	☐	☐	☐	☐	☐
Other (please state below)	☐	☐	☐	☐	☐

Any comments

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APPROACH SURVEY

9. Of those services that have visited the care home in the last SIX MONTHS, please tick all that apply

	NOT APPLICABLE	The frequency of visits depends on individual residents	We have a named contact for this service	We meet to discuss working together for particular residents	We meet to discuss working together for ALL residents
GP	☐	☐	☐	☐	☐
District Nurse	☐	☐	☐	☐	☐
Pharmacist	☐	☐	☐	☐	☐
Chiropody/podiatry	☐	☐	☐	☐	☐
Practice Nurse	☐	☐	☐	☐	☐
Community Matron	☐	☐	☐	☐	☐
Older people's nurse specialist (e.g. tissue viability/diabetes)	☐	☐	☐	☐	☐
Health visitor	☐	☐	☐	☐	☐
Dietician	☐	☐	☐	☐	☐
Care home support team	☐	☐	☐	☐	☐
Community psychiatric nurse/mental health team	☐	☐	☐	☐	☐
Old age psychiatrist	☐	☐	☐	☐	☐
Clinical psychologist	☐	☐	☐	☐	☐
Continence services	☐	☐	☐	☐	☐
Dentist	☐	☐	☐	☐	☐
Optician	☐	☐	☐	☐	☐
Hearing aid services (audiometry)	☐	☐	☐	☐	☐
Hospice Team	☐	☐	☐	☐	☐
Marie Curie service	☐	☐	☐	☐	☐
Macmillan nurse/specialist palliative care nurse	☐	☐	☐	☐	☐
Consultant geriatrician	☐	☐	☐	☐	☐
Speech and language therapist	☐	☐	☐	☐	☐
Occupational therapist	☐	☐	☐	☐	☐
Physiotherapist	☐	☐	☐	☐	☐
Intermediate care team	☐	☐	☐	☐	☐
Falls prevention activities/Exercise co-ordinator	☐	☐	☐	☐	☐
Admiral Nurse	☐	☐	☐	☐	☐
Other (please state below)	☐	☐	☐	☐	☐

Any comments

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APPROACH SURVEY

10. Do you use shared documents with any of your NHS colleagues mentioned above, e.g. care plans and notes.

- ◯ Yes (Please go to question 11)
- ◯ No (Go to question 12)
- ◯ Don't know

11. If yes, which colleagues do you share notes/care plans etc with? (Please list)

- ☐ GP
- ☐ District Nurse
- ☐ Pharmacist
- ☐ Older people's nurse specialist (e.g. diabetes, tissue viability)
- ☐ Community psychiatric nurse/mental health team
- ☐ Care Home Support Team
- ☐ Intermediate care team
- ☐ Dietician
- ☐ Geriatrician
- ☐ Macmillan Nurse/specialist palliative care nurse
- ☐ Other (please specify below)

Other (please specify)

12. We do learning and training together with NHS colleagues.

- ◯ Weekly
- ◯ Monthly
- ◯ Every now and again
- ◯ Rarely
- ◯ Never (Go to question 14)

Comments

APPROACH SURVEY

13. Which NHS staff do you do learning and training with? (Please list)

- [ ] GP
- [ ] District Nurse
- [ ] Pharmacist
- [ ] Older people's nurse specialist (e.g. diabetes, tissue viability)
- [ ] Community psychiatric nurse/mental health team
- [ ] Care Home Support Team
- [ ] Intermediate care team
- [ ] Dietician
- [ ] Geriatrician
- [ ] Macmillan Nurse/specialist palliative care nurse
- [ ] Other (please specify below)

Other (please specify)

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APPROACH SURVEY

14. Please tick which of the following you use when working with the NHS

	Not sure what this is	Use this for all our residents when appropriate	Use sometimes	Never use it
Integrated care plans with NHS staff e.g. continence care	◯	◯	◯	◯
Assessment tools/shared decision support tools e.g. MUST (nutrition screening tool)	◯	◯	◯	◯
Protocols for addressing behaviour	◯	◯	◯	◯
Dementia assessment tool	◯	◯	◯	◯
Essence of Care	◯	◯	◯	◯
Advance care plans for end of life care	◯	◯	◯	◯
Gold standard framework (GSF)	◯	◯	◯	◯
Liverpool care pathway	◯	◯	◯	◯
Single assessment process	◯	◯	◯	◯
Medication review policy	◯	◯	◯	◯
Infection control protocols	◯	◯	◯	◯

Any comments

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APPROACH SURVEY

SHARED FINANCIAL ARRANGEMENTS

By NHS we mean GP services as well as other professionals such as district nurses, occupational and physiotherapy etc.

15. Please could you indicate if you receive extra PAYMENT FROM THE NHS (in addition to care home fees) to provide any of the following

	Don't know	Paid for individual residents	Paid to keep beds available in the care home	Arrangement has been in place for less than 6 months	Care home does not provide this service
NHS funded respite care beds	◯	◯	◯	◯	◯
NHS funded palliative end of life beds	◯	◯	◯	◯	◯
NHS funded continuing care	◯	◯	◯	◯	◯
NHS funded rehabilitation	◯	◯	◯	◯	◯
NHS funded beds to reduce hospital bed use	◯	◯	◯	◯	◯
NHS funded day care	◯	◯	◯	◯	◯

Any comments

16. Please indicate how the following services are paid for in your care home?

	NHS	Local authority/social care	Mixed - some residents pay others paid by LA or NHS	Private (individual resident pays)	Part of care home organisation
Podiatry/chiropody	☐	☐	☐	☐	☐
Physiotherapy	☐	☐	☐	☐	☐
Occupational therapy	☐	☐	☐	☐	☐
Speech and language therapy service	☐	☐	☐	☐	☐
Palliative care support	☐	☐	☐	☐	☐
Care home support team	☐	☐	☐	☐	☐

Any comments

APPROACH SURVEY

17. Of the NHS services you work with, who do you have the best working relationships with?

- [ ] GP
- [ ] District Nurse
- [ ] Pharmacist
- [ ] Older people's nurse specialist (e.g. diabetes, tissue viability)
- [ ] Community psychiatric nurse/mental health team
- [ ] Care Home Support Team
- [ ] Intermediate care team
- [ ] Dietitian
- [ ] Geriatrician
- [ ] Macmillan Nurse/specialist palliative care nurse
- [ ] Other (please specify below)

Other (please specify)

18. What would you like primary health care services to provide for your care home that you are not currently getting?

19. What would help you to work more closely with the NHS?

APPROACH SURVEY

Integrated working can be defined as close collaboration between professionals and teams (in this case your care home and the NHS) to deliver timely, efficient and high quality care.

The following questions look at the ways that integrated working with the NHS may have affected your care home.

By NHS we mean services such as GP, district nursing, occupational and physiotherapy etc.

IF THIS DOES NOT APPLY TO YOUR CARE HOME, PLEASE GO TO QUESTION 23.

20. Are there any NHS professionals or teams that work with the care home in an integrated way? (current or previous)

◯ Yes (Please give details below)

◯ No (Go to question 23)

Please give further details

21. Integrated working (as described above) between the NHS and my care home has:

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know
Not made the residents more aware of available services	◯	◯	◯	◯	◯
Provided a wider range of choice of services to older people	◯	◯	◯	◯	◯
Improved access to preventative care for residents	◯	◯	◯	◯	◯
Had no effect on resident's quality of life and well-being	◯	◯	◯	◯	◯
Improved the speed of response from primary health care	◯	◯	◯	◯	◯

Any comments

APPROACH SURVEY

22. Integrated working between the NHS and my care home has:

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know
Provided opportunities to discuss resident's care together	◯	◯	◯	◯	◯
Led to greater continuity of service provision	◯	◯	◯	◯	◯
NHS staff are reluctant to share information with us	◯	◯	◯	◯	◯

Any comments

23. To what extent do you agree with each of these statements about working relationships between the NHS and your care home?

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know
NHS staff provide enough support to help us work effectively	◯	◯	◯	◯	◯
NHS staff respect care home staff knowledge and experience	◯	◯	◯	◯	◯
Working with NHS staff takes up too much time	◯	◯	◯	◯	◯
Sometimes working with the NHS feels like they're monitoring us	◯	◯	◯	◯	◯

Any comments

APPROACH SURVEY

24. To what extent do you agree that the following factors present BARRIERS to integrated working with the NHS for your care home? Please tick one response per statement

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know	Not applicable
It's difficult to know who in the NHS we can ask for advice/information	☐	☐	☐	☐	☐	☐
Care home staff don't have enough say when working with NHS staff	☐	☐	☐	☐	☐	☐
There is a lack of trust between the care home and the NHS	☐	☐	☐	☐	☐	☐
Staff don't stay long enough to get to know NHS staff	☐	☐	☐	☐	☐	☐
It is important to have a named person we can contact	☐	☐	☐	☐	☐	☐
Staff don't stay long enough to get involved in training with NHS staff	☐	☐	☐	☐	☐	☐
We cannot work together well because of different priorities	☐	☐	☐	☐	☐	☐

Any comments

25. Are there any other BARRIERS that affect integrated working with your care home. Please state

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APPROACH SURVEY

The following section asks you about your care home:-

26. Which Care Quality Commission region is your care home based in?

- ◯ East Midlands
- ◯ Eastern
- ◯ London
- ◯ North East
- ◯ North West
- ◯ South East
- ◯ South West
- ◯ West Midlands
- ◯ Yorkshire and Humberside

Please insert the first part of your postcode

27. How many beds does your care home have?

28. Which of the following categories of registration does your home provide beds under? Please tick all that apply.

- ☐ Non-specialised
- ☐ Dementia care
- ☐ Intermediate care
- ☐ Hospice
- ☐ Respite
- ☐ Step down
- ☐ Step up
- ☐ NHS Beds
- ☐ Elderly frail
- ☐ Other (please specify)

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APPROACH SURVEY

33. Please indicate the outcome of most recent inspection for your care home (Care quality commission) Please select one

- ◯ ***
- ◯ **
- ◯ *
- ◯ Zero stars
- ◯ Not known

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APPROACH SURVEY

About the current staffing in the care home

34. How many full time staff do you have who work with you in the care home (including night staff)?
Please insert the number

Managers	
Care staff NVQ2 and above or equivalent	
Care staff without NVQ2	
Activity co-ordinator	
Students on placement	

35. How many part time staff do you have? Please insert the number

Managers	
Care staff NVQ2 and above or equivalent	
Care staff without NVQ2	
Activity coordinator	
Students on placement	

36. Have 50% of your staff achieved NVQ2 or above?

◯ Yes

◯ No

Any comments

THANK YOU VERY MUCH FOR TAKING THE TIME TO COMPLETE THIS SURVEY.

YOUR VIEWS ARE REALLY IMPORTANT.

IF YOU WOULD LIKE TO BE ENTERED INTO THE PRIZE DRAW FOR A £50 MARKS AND SPENCER'S VOUCHER PLEASE GIVE YOUR CONTACT DETAILS BELOW. YOUR DETAILS WILL NOT BE USED FOR ANY OTHER REASON AND WILL BE REMOVED BEFORE ANY ANALYSIS OF THE SURVEY INFORMATION.

37. Please give your name, email / phone number for the draw:

Appendix 4 Ethics protocol

APPROACH: Analysis and Perspectives of integrated working in PRimary care Organisations And Care Homes – Protocol Version 3 (includes resident's T4 interview amendment)

1. INTRODUCTION

An increasing emphasis on improving the quality of care and avoiding unnecessary hospital admissions for older people living in care homes has led to multiple initiatives to promote integrated working between care homes and health services. These range from NHS funded beds in care homes, specialist support teams, shared care planning and documentation and individual practitioners working with care home staff to improve care.

This study aims to make explicit what is known about developing integrated working between health and care home providers, assess the consequences for older people and develop a typology of integrated working that can inform future service development and research in these settings.

2. STUDY AIMS AND OBJECTIVES:

2.1. Aims and objectives:

1. To review the evidence from research of the effectiveness of different approaches and support tools used to promote integrated working between NHS services and care home staff.
2. To identify how integrated working is interpreted, organised and implemented in care homes across England, and at what cost.
3. To identify patient and organisational outcomes arising from integrated working between NHS services and care homes that reflect the priorities, experiences and concerns of older people that live in care homes.
4. To evaluate interventions that support integrated working between NHS and care home staff, and their impact on patient and organisational outcomes, including cost and effective use of resources.
5. To describe facilitators and barriers to integrated working between care home staff and health care practitioners.
6. To develop a typology of integrated working between health services and care homes

Approach: A collaboration between the Universities of Hertfordshire, Brunel, Lancaster, Surrey and University College London.
Funded by the National Institute for Health Research Service Delivery and Organisation Programme (project number 08/1809/231).
Disclaimer: The views and opinions expressed herein are those of the authors and do not necessarily reflect those of the Department of Health
Approach Protocol V3- 26-07-11

This protocol and submission for ethical review refers to objectives 3 to 5. Objective 1 has been addressed through a systematic literature review and objective 2 through a national care home survey that was reviewed and supported by the University of Hertfordshire Ethics Committee.

3. BACKGROUND

Recent research would suggest that how problems and services are defined by the health service does not always reflect the way that older people and care home staff define health needs and the types of health care they would like (Evans 2008). One experimental study that involved NHS staff working with care home staff to improve continence care demonstrated the benefits of a shared structured approach to help challenge and change established patterns of service delivery improve information exchange and integrate systems of care (Goodman et al 2007). Kodner and Spreeuwenberg (2002) argue that a patient/person centred integration of health and social care services should incorporate a coherent set of methods and models that can engage with the different levels of organisation, management, funding and clinical care within and between the two sectors. For the purposes of this study we have defined integration between care homes (residential) and NHS services as occurring on 3 levels:

Micro-level: Close collaboration between NHS professionals and care home staff for the benefit of individual patients/older people
Meso-level: Organisational or clinical structures and processes designed to enable teams and or organisations to work collaboratively towards common goals, for example, integrated health care plans, shared frameworks and protocols for use by both care home and NHS staff
Macro-level: Integration of structures and processes that link organisations and support shared strategic planning and development such as NHS beds in care homes

It is not known to what extent these different levels of integration have been achieved with care homes, through for example, access to joint funding, undertaking shared planning and needs assessment, co-location of services, joint training, case management, shared clinical records and decision support tools. Furthermore, within integrated working, little is known about how roles, responsibilities, relationships, resource use, governance and desired outcomes are negotiated between care homes and NHS organisations.

Phase one of this study involved a systematic review of the evidence and a national survey of care homes. The findings from the literature review indicated that there were few studies on integrated working, and that

the majority were conducted in nursing homes rather than residential care homes. Moreover, although there was evidence of integrated working between health care and care homes at the micro level, there was minimal evidence of models of care that extended beyond the individual patient focused encounter.

These findings were reinforced by the national care home survey, also conducted in phase one, which found that few care homes had NHS funded beds, less than half were using shared documents with the NHS, and that only 25% of the participating care homes engaged in integrated working, most commonly on a individual basis using shared documentation and assessment tools with health care professionals, such as District Nurses, and General Practitioners.

Through in depth case studies in three geographically dispersed settings phase two aims to provide a detailed description of how integrated working is understood, implemented and experienced by older people, the care home staff, and primary health care practitioners who work with them.

4. METHOD

4.1 Research approach

Using a multiple case study and mixed method approach this study aims to consider, in depth, the experience, over time, of older people, care home staff, and health care professionals involved in different models of integrated working. We are also interested to discover the extent to which factors, such as geography, multiplicity of service providers, and resources influence the sustainability and effectiveness of different models of integrated working.

We will recruit six case study sites (care homes) across three different geographical areas. The study sites will represent diversity of geography, population, and levels of structural integration in health and social care economies. Data collection will focus on how NHS services work with the care homes (process) and the impact this has on both the staff involved and the older people (outcomes).

To understand the impact of the integrated working arrangements on resident's experience over time, and ensure their experience is central to the case study, we will track a purposively selected sample of residents (n= 7) from each care home over one year, (42 residents in total). Sampling criteria will include older people in receipt of health care services, those at risk of hospital admission and those with complex needs.

We will document (including where possible people with dementia) their access to and use of health care services, continuity of care and involvement in decision-making. Residents and their key care workers (including health care staff) will be interviewed regularly over the period of a year. At the same time, their case notes will be reviewed to identify any key events, assessment and support tools used, frequency of contact with health care and service uptake. This data will show if integrated working makes a difference to the process of care, residents' health needs and functional ability, their quality of life and use of services including unplanned hospital admissions, length of hospital stay and transfers to nursing home care. We will carefully monitor the resources involved in maintaining integrated working, and estimate the costs of different approaches and systems of working. We will use interviews, focus groups and documentary review to complement the older person's experience and obtain a detailed understanding of the context of the care homes and services that work with them. In addition, to tracking the resident's care, in each of the six care homes we will undertake the following:

- Up to two focus groups with care home and health and social care staff (e.g. GPs, community nurses, AHPs, charity providers and pharmacists) (n= 10-15)
- Up to two individual face to face interviews with family carers/relatives (n=12 in total)
- Documentary review of care home and PCT related documentation (e.g. shared protocols/assessment/care planning, joint funding agreements, integrated pathways and service level agreements)
- Interviews with key stakeholders e.g. PCT manager, practice based commissioner, local older person representative group (up to n=3)

The case studies will establish how integrated working influences the process and networks of care available to the older person from different organisations. Patient and organisational outcome measures will focus on how patients' health needs and functional ability are supported through integrated working, its effect on quality of life and wellbeing, continuity of care, staff satisfaction, use of resources, services and the costs of implementation. The cross case comparison will enable us to establish how priorities and outcomes are defined, key achievements, and distinguish between those that are common to all settings and those that are context specific. It will also enable a comparison of the costs and effectiveness of different organisational arrangements.

4.2 Recruitment

Six care homes in three geographically dispersed areas (North West England, East of England, London) will be purposively selected to become the case study sites. Care homes will be identified in the following ways:

- Consultation with the relevant PCT to identify the different services they offer care homes
- E-invitation through care home networks
- On line searches to identify care home related initiatives between the NHS and care homes in the nominated geographical areas.
- Self identification through invitations to care homes that participated in the national care home survey in phase one of the study

Consequently there will be two potential modes of recruitment, if the care home is recruited initially then the health care professionals who are the main providers of care for the older people will be identified and approached after the PCT has been contacted. This is the most likely scenario for care homes that have micro integration with health care professionals. Alternatively, if recruitment of the care home is via a particular NHS innovation at a higher level of integration, such as an intermediate care team, then they will be asked to identify a care home they work most closely with. Overall across the care homes, the sampling criteria will reflect a spread of approaches to integrated working identified from the systematic review and national survey, that reflect (as far as is possible) the categories developed by Kodner and Spreeuwenburg (2002) as previously outlined.

The six care homes will be recruited on the basis that they provide a spectrum of the different levels of integration that are currently operating in this sector. Care homes that are integrated at the micro level will have all or some of the following features:

- Evidence of integrated working between care home and NHS staff on a patient by patient basis
- A working relationship that is perceived to be good between both parties
- Some shared documentation in use
- Care home staff and NHS staff know each other by name and have established methods of exchanging information about patients
- Some joint assessment in use

Care homes with higher levels of have integration may include at least two of the following:

- Joint funding and service level agreements between care homes and NHS providers
- Joint planning/ evidence of meetings that are extra to patient specific discussions
- Service provision to the care home that is care home wide (e.g. regular clinics, health promotion initiatives)
- Shared education and training offered across the care home
- Shared documentation/frameworks of care that are used routinely for residents of the care home
- NHS funded beds within the care homes
- Evidence of joint case finding, review of patient/older people needs and anticipatory care

Size and ownership of the home may affect their ability to engage successfully in integrated care, so both smaller (20-30 beds) and larger (30+) care homes will be included in the sample.

The findings from phase one demonstrated that care homes could provide some examples of integrated working at the micro level. However, even at the individual patient level of care there was a wide range of intensity and involvement. For example, in terms of the level of care home contact and support provided by health care services; the interventions ranged from one month up to three years and staff training ranged from as little as three hours on one topic to that which was ongoing. It may only be possible to recruit care homes which are integrated at the micro level but if so, recruitment will aim to capture the different degrees of intensity and involvement across them.

4.2.1 Public representative involvement

Each study site will recruit two public involvement representatives (PIR) who have a particular interest in care homes for older people. Their main role will be to support the researchers in the case study phase this may include all or some of the following activities depending on the time they are able to commit to the study;

- To provide feedback on the content and presentation of study paperwork including information sheets and consent forms for older people and consultees.
- To assist with and provide support for the researchers to give study information to both care home staff and older people in the care home at Approach 'coffee mornings'.
- To give out information sheets to older people resident in the care home, explain the study to them and ask their permission for the researcher to discuss it in more detail with them.

- To support the study researchers when consenting older people for the study by giving them additional explanations and information as necessary. (The researcher will obtain written consent if the older person decides to take part).
- Reflective diaries, for those PIR members who would like to keep them, to document their experiences of involvement in the study.
- To give feedback on anonymised interview transcripts for the analysis
- To be involved in facilitating focus group sessions with family and relative groups
- To assist the researchers in feeding back the study findings to the care homes.

This approach to public involvement has been used before in a previous care home study. It was found that the involvement of older people with an understanding of what it was like to live in a care home were a valued source of peer support and helped to ensure that the process of recruitment and consent addressed the questions and priorities of the older people.

4.2.2. Recruitment of care homes

Care homes will be recruited as outlined in 4.2 and will be invited to participate on the basis that:

- The care home is registered to provide care for older people including those with cognitive impairment
- The care home is within an hour's journey of one of the three bases.
- The care home does not have onsite nursing care (care homes with mixed provision may be included in the study, in which case we will recruit participants who have been assessed as not requiring nursing care), and will work with the residential unit only
- Both smaller (20-30 beds) and larger (30+) care homes will be included

Regardless of how they are identified initially, recruitment will follow the same process. After an initial meeting between the care home manager and members of the study team, for interested care homes, separate meetings will be set up with care home staff and residents to outline the study, what it involves, give them information sheets and answer any queries. Following these meetings the care home manager will be asked to confirm whether or not the care home has decided to participate, permission may also need to be sought from the care home organisation it belongs to. However, the research staff will work closely with the care homes to ensure that they endorse the recruitment process for care home staff and older people for their particular care home.

4.2.3. Recruitment of Older People

All the residents of each care home will be given the opportunity to express an interest in taking part in the study either directly, or through consultee assent where they do not have the capacity to consent themselves. Ultimately, seven residents will be purposively selected so that they represent a range of health care service use either high, medium or low, some of whom may be able to consent themselves and others for whom consultee assent will need to be sought. Where care homes have been identified via a particular NHS innovation, the focus will be on recruiting those older people who are receiving care from this team. Regardless of how they are recruited all residents will fit the following criteria:

Inclusion criteria

- They will be in receipt of health care services e.g. district nursing , falls prevention
- They will have complex health and social care needs
- They will have the capacity to understand and consent to participate in the study (including those who can consent in the moment), OR they will have a consultee who can be approached for their assent if they are not able to consent in the moment but fit the study criteria
- They are anticipated to be resident in the care home for the coming year

Exclusion criteria

- Too unwell to participate
- Cannot speak English and an interpreter is not available in the participant's language
- They do not have the capacity to consent to participate in the study and do NOT have a consultee who can be approached for their assent (i.e. when the consultee is the older person's legal representative rather than a relative, friend or person who knows them well through regular contact)

In situations where an older person has been formally assessed, and it is documented that they do not have the capacity to consent or take part in an interview, but they fit the study criteria, we will ask the older person's consultee (e.g. a relative) if based on their knowledge of the older person that they would want to take part in the study were they able to consent. The care home manager will be asked to write to the consultee about the study and they will be asked to assent to enrolment of the resident concerned. The researcher will contact the consultee to seek their written support for the older person's participation in the study. In the event that a consultee cannot be identified, then the person with dementia will be excluded from the study. If consultee assent is given then the researcher will review the resident's care notes but will not approach them directly for any reason.

For older people who have the capacity to consent themselves, recruitment will be based on a staged process previously used in care home research (Evans 2008) that intends to minimise pressure on individuals to take part and provide opportunities for discussion with others.

Stage 1: Initially introductory meetings will be held in the care homes to explain the study to residents and interested relatives, (e.g. specially organised coffee mornings or as part of a residents' forum meeting).

Stage 2: The researcher and or PIR representative will visit those residents who fit the study inclusion criteria and have expressed an interest in the study to give them some information about the study and establish whether they meet the inclusion criteria for the study. They will work closely with the care home staff to ensure that only those residents who have expressed an interest in taking part and who have the capacity to consent will be approached directly. A member of the care home staff will be asked to introduce the researcher and or PIR member to each older person who has indicated they may wish to participate in the study. A time will be agreed with each older person as to when they are available, and their intermediary as required, to discuss the study. The care home staff will *not* be involved in the recruitment process, however they may be present if the older person requests it. If on explaining the study to the resident, the researcher and or PIR representative feels that they are not able to comprehend and agree to what it involves, then consultee assent will be sought. This will be assessed by asking the older person to clarify their understanding of the study and what taking part in it would mean for them.

Each older person will be given an information sheet and consent form, and will be given at least 48 hours to consider the information before further contact by the researcher. They will be encouraged to discuss their involvement with a family member or key staff member.

Stage 3: At the second meeting the researcher will ask all residents who decide to take part to sign a consent form following which they will be interviewed, or a further meeting will be arranged to do the interview. Those who consent to their notes being reviewed, will also have their care home notes reviewed as close to the first interview as possible. It will be made clear from the start that a decision to take part in the study is entirely voluntary, and that they can leave the study without their care being affected in any way.

All of the older people in this study have complex needs, and will include people who may be vulnerable, have communication or recall difficulties and may tire easily. At every stage verbal consent to continue will be obtained and the opportunity offered to defer or shorten the time for involvement in the study. Those who have special communication needs will be interviewed using communication aids (e.g. talking mats) if

appropriate. There is no dedicated funding for interpreters, but should this be necessary we will allocate funds to arrange it, or ask family members where possible to support their relative's participation in the study.

4.2.4 Recruitment of care home staff

Following the initial meeting to explain the study to the staff as a group, give out information sheets and answer queries, those staff who have expressed an interest to participate in the focus groups will be approached individually so they can be given further information and voice any questions. They will be given at least 48 hours to decide whether or not they want to participate. Care home staff will be asked to sign a consent form endorsing their agreement to take part and their permission for the focus group to be recorded, but it will be emphasised that participation is purely voluntary and that they can change their mind at any time without giving a reason. Where some members of the group do not agree to the interview being recorded only notes will be taken.

Care home staff will also be recruited individually to participate in the study if they are identified as being a key worker for any of the older people who have been recruited and are having their care tracked over the period of a year. These key workers will be approached and the tracking process will be explained to them. Every four months they will be invited to take part in an interview with the researcher to update them on the health status of the resident concerned, the health services they have received and any hospitalisations or changes in their condition. Where the key worker decides not to participate in the tracking process, the care home manager will be asked to identify another member of staff to participate. However, all staff will be made aware that their participation is voluntary and that they can leave the study at any time.

4.2.5 Recruitment of Health Care Professionals

Health care professionals may be approached either prior to or following identification of the care homes they are working with. Once an individual or team has expressed interest in participating, information about the study will be sent out to the relevant professionals. The research team will then arrange to meet with the potential participants, either as a group or as individuals, to discuss the study and answer any questions. If the team or individual health care professional decides to take part, they will then wait a minimum of a week before seeking practitioners' individual written consent to participate. All health care professionals will fit the following criteria:

- In current post for at least a year

- Act as the main contact for the care home they work with
- The service will have been going into the care home in question for at least six months
- They will perceive themselves to have a good working relationship with the care home

If the health care professional is recruited initially then they will be asked to suggest two or three homes that they work with in an integrated way and have a good working relationship with, one of which will be recruited to the study.

4.2.6 Recruitment of Key informants/stakeholders

To complement the data collected from the older people and direct providers of integrated care, we will recruit up to three key informants/stakeholders in each of the three sites to provide an organisational perspective on the different levels of integrated working. In each site letters of invitation with information about the project will be sent to stakeholders such as commissioners of older people services, managers of older people services and charities/voluntary organisations that provide services (e.g. advocacy services) to older people through working with health and social care. These will then be followed up with a telephone call and the offer of a meeting to explain the study and gain consent to take part in an interview lasting no longer than 30 minutes.

4.2.7. Recruitment of Family/relatives

Family members and relatives of older people were invited to attend the initial meeting with residents to give them information about the Approach study and were also given an information sheet outlining the study. At the initial meeting family members of residents were informed that a focus group would be conducted to gain insight into their perspective on integrated working between care home staff and health care professionals. Those who expressed an interest were asked to contact the researchers for further information. Individual residents were also asked if they had a relative who might like to take part in a group interview. A member of the research team will contact relatives to explain that we will be conducting individual interviews with them now rather than holding a focus group. The reasons for this change to the study will be discussed and any queries they have will be answered. They will be given at least 48 hours to consider whether or not they would like to participate after which they will be consented individually. However, it will be impressed upon them that taking part is voluntary and that they can drop out at any time without giving a reason. The interview will be held in a private room within the care home or the host university depending on which is more convenient for the participants. It will be conducted by one

researcher but a PIR group member may be present if the participant requests it, and will be recorded unless they have any objections in which case the researcher will take notes.

5. Data collection

5.1. General

Multiple sources of evidence are needed to provide a full picture of how the different models of integrated working are implemented and experienced across the three study sites by care home staff, health care professionals and older people resident in the care homes. By triangulating a range of data sources it will be possible to demonstrate which characteristics of integrated working are specific to certain circumstances and which are transferable and can be shown to achieve different types of outcomes for older people. Basic information will be collected on each care home including size, geographical location, GP services received, rating from the last Care Quality Commission inspection. The last Annual Quality Assessment will also be requested from each care home. Overall, this study will mainly use qualitative data collection methods including face to face interviews, focus groups, notes reviews, documentary review and field notes, as well as validated measurement tools for assessing the health and quality of life of older people resident in care homes.

Data collection will be undertaken as follows:

a) **Three interviews with each older person, at baseline and every four months over the period of one year, to establish their health and social care status, their perceived well being, their needs and care received from both health care professionals and care home staff and how they perceive integrated working between them. There will be no interview at Time 4 unless there is a change in resident's condition and or health care, in which case interviews will be conducted with them and or the care home and health care staff involved in their care.**

b) Four reviews of each older person's care home case notes including, demographic information, care plans and ongoing updates, at baseline and every four months, over the period of one year to establish their care, planned and ongoing, health care services received including any hospitalisations and any changes in their health status and needs.

c) **Three interviews with each older person's key worker in the care home at baseline and every four months over the period of one year, except time 4, to establish the care given, any**

changes in health status, and the key worker's experiences and perceptions of integrated working with primary health care staff.

d) Three interviews with the health care professional supporting the older person in the care home, at baseline and every four months, over the period of one year except Time 4 unless circumstances change (see 5.1a), to establish the care given, including plans, assessments and referrals, any changes in their health status, and the health care professional's experiences and perceptions of integrated working with care home staff.

c) Review of the key documents and tools that are shared by the care home staff and health care professionals such as care pathways, shared notes and assessment tools, to establish the structural and organisational context of integrated working.

d) Stakeholder/key informant interviews: To gain an organisational understanding of how integrated working operates between primary health care services and care homes, semi-structured interviews will be conducted with up to three key stakeholders such as commissioners, managers and voluntary sector representatives, for each care home

e) Up to two separate focus groups will be held per care home with care home staff and health care professionals e.g. GPs, community nurses, allied health professionals (n= 5-10) to investigate their collective experiences of integrated working and their perceptions of its barriers and facilitators.

f) Individual interviews with up to 3 family carers and relatives per care home, to get their experiences and views of integrated working between care home staff and health care professionals.

5.2. Data Collection: Older People

For those older people, who have the capacity to consent themselves and agree to it, they will be interviewed in a private room within the care home three times over a year, at months 1, 4, and 8. Interviews will also be conducted at month 12 if there has been any change in their condition and or their care. As the research is being conducted with frail older people who may tire easily, the interviews will last for a maximum of 30 minutes or less if it is apparent that the older person is tiring. Wherever possible information about the personal characteristics, use of health care resources and ability to complete activities of daily living will be collected from their care notes. Interviews will focus on

- Their perception of their health, (this will include a structured Quality of life measured by 5 short questions using the Euroqol EQ5D)

- The amount of support they need from the care home staff with their activities of daily living
- The health care services they have received and their awareness of the range of services provided to the care home
- How they define their priorities for their health and care
- What indicators/measures they use to assess if care received is effective
- How they think that care home staff and health care professionals work together
- How satisfied they are with the health care services they are receiving

For those residents who agree to it, their care home notes will be also be reviewed four times, at months 1,4, 8 and 12, over the period of a year to coincide with their interviews. The following data will be collected:

- Demographic information
- Health conditions
- Medication
- Use of aids and equipment including continence products
- Hospital admissions
- Health care professionals involved in their care, for which condition, frequency of contact, planned care, location of consultation i.e. care home or hospital outpatients
- Care plans
- Any shared assessments/care planning between care home staff and health care professionals in use
- Activities of daily living – level of support residents need with these using the Barthel scale

This data will reveal how older people are referred to the different health care services, the range and intensity of activities undertaken to support their care, and how effective the integrated working is over time, as measured by outcomes and by the older people themselves, the care home staff and health care professionals (outcomes are likely to include quality of life, continuity of care, access to care, maintenance of function, satisfaction with care and health improvement). It will also identify preferred practitioners and key drivers for the different levels of integrated working (e.g. GP organisation, patient expectations, policy initiatives, workforce capacity, location), as well as how the autonomy and organisation of the different models shape priorities and outcomes.

5.3. Data Collection: Care home staff

Care home staff who are acting as key workers for the older people who consent to participate in the study, will be interviewed face to face at months 1, 4, and 8 to coincide with the older people's interviews over the period of a year (see 5.1a). The aim of these interviews is to establish:

- The amount of support the older person needs with their health and social care needs.
- How often they see the primary health care professionals that come into the care home and for what conditions
- How information is documented and fedback in relation to the older person's health care needs, treatment and any changes in care
- How the health care professionals and the care home staff work together, and any support and training they receive from them or would like to receive
- What facilitates and or hinders integrated working with the health care professionals
- Staff satisfaction

As outlined previously, one focus group will be conducted with up to 10 care home staff of differing levels of experience and seniority. This will be facilitated by two members of the research team and will be recorded if the group consents to this unanimously otherwise only notes will be taken. The interview will be conducted in a private room in the care home at the convenience of the staff, using a semi-structured format that will focus on:

- Their definition and experiences of integrated working with health care professionals that go into the care home such as GP, District Nurses and AHPs.
- It will look at the level of contact they have, how they communicate and feedback information about the older people receiving care
- The referral process, use of shared paperwork, notes and tools for care,
- What level of support they give then including both formal and informal training,
- Perceived facilitator and barriers to integrated working with health care professionals.

5.4. Data collection: Health Care Professionals

Health care professionals whose caseload includes the seven residents participating in the study will be interviewed face to face at months 1, 4, and 8, and month 12 (only if circumstances change see 5.1a), either face to face or by telephone depending on which is more convenient for them.

The interview will establish their professional backgrounds, training, workload, funding, and how they work together with the care home. We will investigate their perception of the focus of their activities with the older person and the extent and mechanisms of their integrated working with the care home staff to achieve their care, support or treatment objectives. In addition we will investigate how they evaluate the effectiveness of integrated working and reflect on their experience of integrated working in relation to the relevant older person and the care home staff and their personal job satisfaction.

Through interviews, care plans and notes review we will aim to establish:

- How the older person is identified as needing the service
- How the older person's needs are assessed and care is planned, and to what extent the care home staff are involved with this
- The time different team members, working within a model of integrated working, spend in relation to the older person's care, the skills and knowledge needed and range of activities this involves

In addition, health care professionals will be invited to participate in a focus group will be conducted with up to 10 others of differing levels of experience and seniority. This will be facilitated by two members of the research team and will be recorded if the group consents to this unanimously, otherwise only notes will be taken. The interview will be conducted in a private room at a location which is convenience for the health care professionals. A semi-structured interview format will be used to focus on their experiences of working with older people and care home staff and their definition of integrated working. In particular, it will look at:

- The level of contact that they have with care home staff
- How they communicate and feedback information about the older people receiving their care
- The referral process, use of shared paperwork, notes and tools for care
- What level of support they give care home staff including both formal and informal training
- Perceived facilitators and barriers to integrated working with care home staff

5.5 Data Collection: Relatives/Family members

Family members attending initial meetings about the study were asked if they would like to be part of a focus group to gain insight into their perspective on integrated working between care home staff and health care professionals. Following a change in protocol those who were interested will be invited to take part in an individual interview face to face, and will be given an Approach information sheet outlining the study. A

member of the research team and or the PIR representative will meet with relatives individually to discuss the study and answer any queries. They will be given at least 48 hours to consider whether or not they would like to participate after which they will be asked to sign a consent form individually. However, it will be impressed upon them that taking part is voluntary and that they can drop out at any time without giving a reason. The interviews will be held in a private room within the care home or the host university depending on which is more convenient for the participants and will be conducted by one researcher.

5.6. Data collection: Health and Social Care Key informants/stakeholders

Semi structured interviews with up to three key informants/stakeholders e.g. the local Care Quality Commission, representatives of local carer/relative organisations and older people advocacy services (e.g. Age UK) in the three study sites will provide an organisational perspective on the organisation and effectiveness of the different levels of integrated working that are operating between health care professionals and care homes. Interviews will be recorded and undertaken face to face or as a booked telephone interview depending on the individual's preference Questions will focus on

- Their knowledge of the different ways that health care professionals work together to improve care for older people in care homes
- How the history of service provision within their organisation informs current approaches to integrated working for older people in care homes.
- What they perceive from an organisational perspective as supporting or inhibiting older people receiving effective care through integrated working
- How they define effectiveness of integrated working
- What indicators/measures they use to assess if care received is effective
- How they think that care home staff and health care professionals work together

6. Analytical Synthesis

All interviews will be recorded, transcribed and analysed using NVivo software. Organisational, operational and quality review documents will be analysed through the same framework and using the same software. Statistical data from validated assessment tools, and information on the older persons use of services, and the professional diaries on service activities will be entered onto an SPSS database. The findings generated from the integrated working in the six study sites will be brought together in two units of analysis:

1) The site where the different modes of integrated working are situated.

2) Cross case comparisons looking at how the different contexts and mechanisms affect the outcomes for the older person.

To enable comparison and the development of an explanatory model, analysis will then be undertaken within and across sites. Qualitative data analysis will be undertaken using NVivo and thematic content analysis to identify key themes and common experiences and priorities of care. Data from the case studies will be analysed to describe the features and impact of integrated working on the outcomes. The analysis of outcomes will be guided by the findings of phase one but is likely to be categorised as outcomes for the older person, the care home staff, and the health care practitioners' roles, and include the older person's understanding of their care, access to services, clinical outcomes and satisfaction. Outcomes for the health care system will include: transparency of care, service utilisation and staff resources used as a result of integrated working. Outcomes of interest for the integrated health care professional are: job satisfaction, intensity of time involved in integrated working, barriers and facilitators to integrated working with care homes.

7. Economic Evaluation.

The resource implications of different approaches to integrated working with care homes will be documented and costed, including the health and social care services delivered and hospitalisations. The contribution of care home staff and health care professionals will be compared across models and sites in a cost consequences framework. This will incorporate the perspectives of the health care services, older people, and care home staff. HG has experience of leading on the economic evaluation in complex studies that involve both care homes and health care providers.

8. ETHICAL ISSUES

- **Anonymity and Confidentiality**

  All participants and study sites will have a code number and no names or identifying details will appear on any data collection forms, analysis or draft and final reports. During data collection only the research team will have access to the names and contact details of participants and these will be kept in a password protected computer. All participants will be guaranteed anonymity in written reports and summaries of data analysis. A summary of the findings will be sent out to participants for their comments prior to publication and dissemination. Care home findings will be reported collectively, and any wording that may potentially identify individual care homes and or their staff will be removed or modified.

- **Consent**

  It is possible that health care professionals, older people and care home staff may feel obliged to take part. They may feel that refusal to participate may adversely affect their relationships with their employer or the services involved in providing their care. In introducing the study to the possible participants, care will be taken to ensure no one feels coerced or obliged to take part. The information sheets stress that participation (or not) in the study will not affect the care they receive or their relations with other people in their organisations. At each stage of the recruitment process, the researchers will re-iterate that participation is voluntary.

- **People with cognitive impairment/limited understanding**

  The research team has extensive experience of working with people who find consent and participation in research difficult, perhaps because of problems of cognition, confusion, illness or fatigue. For people with cognitive impairment the approach will be informed by the key principles set out in the Mental Capacity Act that assumes that all adults are capable of giving or refusing consent unless proven otherwise and that the best interests of the person who lacks capacity are paramount. It is, therefore, an assumption of the study that patients who experience short term memory and cognition problems can consent in the moment. It is the responsibility of the researcher on each occasion to review the study aims with the participant and confirm that they are still willing to participate in the study, ensuring that they are not alarmed or distressed by the experience (Dewing 2002). The study is informed by the principles of inclusionary research whereby every effort will be made to enable people that wish to, to participate, even if that means alternative methods of communication and data collection need to be found.

  At the initial stage of consent the researcher will ensure that the participant is given full and appropriate opportunity to have the study explained to them in a way that best meets their individual needs. If there is an intermediary, such as a family member or key worker, with whom the older person particularly relates, the researcher will ensure that this intermediary is present and able to explain and, if necessary to interpret any areas of concern or lack of understanding. It is possible that during the 12 months of data collection the older person may lose capacity to consent through mental deterioration or terminal illness. In this situation we will approach the older person's consultee for their assent, and ask if based on their knowledge of them they think that they would want to continue to participate in the research. In this situation the research team would continue to track the care the

older person receives through reviewing their care notes (assessments, care plans etc) and interviews with the different professionals and care home staff who work with them.

- **Risk**

  There is a risk that by expressing their needs and experiences some older people may become distressed, confused or concerned. If this should happen any serious issues will be communicated to the professional who they identify as knowing them best and being most involved in their care. There is some risk that involvement in this study may affect resident care and outcomes by older people providing or expressing information of which care home staff were not previously aware, or through the disclosure of risk. At all stages the researcher will make clear that they cannot be involved in providing care in any way. However if any risk (e.g. evidence of elder abuse, inadequate care, acute health need) is disclosed, procedures are in place to address this that reflect the care home, PCT and university guidance and procedures. This is outlined in the Approach protocol for establishing and dealing with bad practice.

- **Public involvement group**

  All the PIR group members will have honorary contracts with their respective universities, including a criminal records bureau check. They will work closely with the researchers and will meet regularly for training and support to ensure they are fully aware of their role in the case studies, familiar with the care home environment and issues that may arise when working with older people in care homes.

- **Vulnerable patient group**

  This research will be conducted with a diverse group of people who are ill, easily tired and who may be vulnerable for a number of reasons. All participants will be treated with dignity and respect at all times. The researchers are experienced in working with older people who have problems of this nature. Data collection procedures and participant responses will be monitored carefully and reviewed by the research team throughout the study. The wellbeing and support of participants are of paramount importance to the study.

9. THE RESEARCH TEAM

The multidisciplinary research team brings together academics and practitioners from nursing, social work, general practice and health economics. The team has worked on a series of research studies, both together

and independently, that focus on older people with complex needs living in care homes and community settings. These have included funded work on inter professional working in: care homes, activity promotion, team working across health and social care, the use of new technologies, case management and shared assessment processes across health and social care to improve care to older people, multi professional networks for the delivery of care to people with long term and disease specific conditions. The Public Involvement in Research Group (PIRG) has a membership across the PCTs, and the voluntary sector and is working closely with INVOLVE. The PIRG will be contributors to the research design and execution. Members from this group will be involved in the Steering Group for this project and bring to the proposal experience of having been recipients of health and social care services , working with older people's groups, and involvement on other studies that focused on older people including care homes and project management.

10. DISSEMINATION

The findings from this study will inform commissioners and providers of services in their decision making about which models of integrated working between health care services and care homes are most effective for which groups of older people and in which contexts. It will make explicit the managerial processes and tools that enable better integration of care delivery between health care professionals and care homes, and demonstrate the ongoing support and training required to achieve meaningful outcomes for the older person and the service. This study anticipates the increasing involvement that GPs, PCTs LAs will have in commissioning services for local communities from a range of public, private, and third sector organisations.

Dissemination of preliminary findings for consultation and the final report will initially be through the participating study sites, following a report to the SDO and the organisations of the different practitioners, teams and agencies that are involved in the study. This will be done through workshop events, e alerts and network meetings.

The study report will be available on the participating institutions' websites. The research team and Steering Group will disseminate findings nationally through their involvement with bodies such as Help the Aged, Age Concern, Alzheimer's Society, National Care Home Research and Development Forum, PCRN, Better Government for Older People and relevant research networks.

Findings will be presented in professional and peer reviewed journals and at conference events across the relevant disciplines.

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Appendix 5 Resident's profiles, Visios, economic costs

Approach study – case study phase - Resident profiles:

Resident profiles:

	1	2	3	4	5
Demographics	83/Female/Irish	95/Female/White British	101/Male/White British	84/Female/White other	87/Female/White British
Long term conditions	COPD, Hypertension, Osteoporosis, Anxiety with depression, anaemia, agrophobia, neck and back pain, benzodiazepine dependence, Dyskinesia	Stroke, dementia, colostomy, asthma, confusion,	leg ulcer osteoarthritis, chronic anaemia, sciatica	Type 2 diabetes, hypertension, macular degeneration, diabetic retinopathy, sciatica, panic attacks, Anxiety with depression.	Alzheimer's Disease, Hypertension, hip replacement following a fall.
Dependency level	Low	Moderate	Total	Low	Moderate
Cognitive impairment	No documented diagnosis, vascular dementia in care plan, she is in dementia bed.	Yes ? type - in dementia bed	None according to assessment prior to admission	Short term memory loss MSQ -9 on admission	Alzheimer's Disease
Time in care home	39 months	39 months	22 months	47 months	7 weeks
Place admitted from and reason	Transferred from a home that closed.	?	Transferred from a home that closed. Respite /general frailty	?	Hospital/ Rehab following hip fracture after fall.
Acute illness last 3 months	Swollen blister on foot, hip pain	None	None	?uti, oedema? cause, breast abnormality, fall.	Hip pain, fungal infection
Primary health care professionals seen in last 3 months	GP - Referred to physio by GP but no notes re: visit Optician x1 visit Chiropodist x1 visit	Care review by DN Refused chiropodist visit Optician 1 visit Outpatient's appt for colostomy care	• DN -12 visits • TVNS referred by DN • GP – 1 clinic • Ophthalmology OP – 1 visit	GP – 11 visits (7 clinic, 4 home visits) Rehab team 1 visit DN – 2 visits Day hospital for general check up Chiropodist 1 visit	11 visits from physio for rehab 2 home visits from GP; 1 for hip pain, 1 for fungal infection Social worker ? number of visits
PHCP identified for Approach	GP	GP	DN	GP/Physio	Physiotherapist from rehab team
Medications	22	12	9	13	12
Equipment/Aids		Zimmer frame	Zimmer frame, reclining chair (own)	Zimmer frame, wheelchair	Zimmer frame, continence pads at night

Site 1 Care Home 2 Resident profiles:

	6	7	8	9	10
Age /Gender	80/Male/Asian other	96/Female/White other	81/Female/White British	79/Female/Asian other	85/Female/White British
Long term conditions	?hypertension, ?depression, ?frequency	Diabetes type 2, Heart disease – pacemaker, oedema, falls, confusion, memory loss	Heart disease, emphysema, osteoarthritis, hyperthyroidism, glaucoma, falls, urinary incontinence, pain in hip which is inoperable	Lymphatic leukaemia in remission, cataracts, hearing impairment, prolapsed uterus, hypertension, arthritis	Falls, registered blind, eczema, hypertension In hospital currently
Dependency level	Very low – goes out independently	Severe	Moderate	Very low	Low needs help due to poor eyesight
Cognitive impairment	None	Can be confused and forgetful at times	None	None	None
Length of time in care home	11 years	16 months	5 months	24 months	2 months
Place admitted from and reason	Another care home ?reason	Not coping at home, unable to get the right level of support to return home	Home – housebound as no lift so became isolated and depressed – not safe at home GP suggested residential care	Home – breakdown in carer support, depression, frailty and weight loss	Home - previously in rehab unit of the home following a fall. Unable to cope at home.
Acute illness last 3 months	Dental abscess	Chest pain	Hypertension, eye infection, sob	None	Skin rash
Primary health care professionals seen in last 3 months	GP – 1 visit to surgery – referred to cardiologist Dentist – 3 surgery visits	DNs – 14 visits to change dressings on legs ? problem GP – 1 visit	GP – 1 visit, 1 phone call raised BP referred to DN	? no contact with primary care	GP – 2 home visits, 1 phone call Private chiropodist
PHCP identified for Approach	GP	DN	GP/DN	GP	GP
Number of medications	1 (seven months ago decided to stop all medication with GPs agreement. Was on 5 medications now only eye drops)	6	10	3 (self medicating)	6
Equipment/Aids	Zimmer frame	Zimmer frame, wheelchair, Pads	Zimmer frame, continence pads at night		Zimmer frame, stick, raised toilet seat, pads

Resident profiles:

	11
Age /Gender	83/Female/White British
Long term conditions	Osteoarthritis, heart disease
Dependency level	Very low
Cognitive impairment	None
Length of time in care home	17 days
Place admitted from and reason	Hospital for rehabilitation following a hip replacement
Acute illness in last 3 months	One episode of pain following surgery
Primary health care professionals seen in last 3 months	Dedicated Rehab team: Physio - 5 visits OT – 1 visit Community Nurse – 5 visits
PHCP identified for Approach	Community nurse/ physio (from rehab team)
Number of medications	7
Equipment/Aids	Zimmer frame/sticks

Resident profiles:

R37 notes only from T2

	12	13	14	15
Age /Gender/ethnicity	89/Female	73/Female	83/Female	85/Female
Long term conditions	CCF, TIA, atrial fibrillation.	Renal failure.	Vascular dementia. Leg ulcers (both legs).	Diabetes T2. Vertigo. Depression & anxiety.
Dependency level	18 – Low.	13 - Low.	14 – Low.	18 – very low
Cognitive impairment	No.	No.	Diagnosed prior to admission.	No.
Length of time in care home	3 months.	59 months.	36 months.	3 months.
Place admitted from and reason	Moved from another home in the Abbeyfield group to be nearer to her daughter who is active in her support and care.	From own home. Unable to manage on her own.	From hospital. Reason not recorded.	From sheltered housing. Wanting more security and staff available.
Acute conditions in last 3 months	None, but had sore gum and visit from dentist to adjust dentures.	None	Infection of leg ulcer site.	Fall x 1.
Primary health care professionals seen in last 3 months	Dentist x 1 visit. Referred to nutritionist.	Gp x 1 visit. (Day patient dialysis 3x weekly.)	DN visits every other day for dressings to both legs.	GP x 1.
PHCP identified for Approach and details of contact	DN – for B12 injections.	? GP	DN.	? GP
Number of medications	7	14	11 + dressing packs	7
Equipment/Aids	Zimmer frame. Continence pads.	Zimmer frame. Leg calliper.	Zimmer. Continence pads.	Walking stick.

Resident profiles/cont:

	16	17	18
Age /Gender/ethnicity	94/Female	95/Female.	93/Female.
Long term conditions	Hypertension. Sciatica.	Heart disease.	Macular degeneration. Diverticulitis. IBS.
Dependency level	12 - Low	13 – Low.	14 - low
Cognitive impairment	No	No.	No.
Length of time in care home	9 months.	8 months.	25 months.
Place admitted from and reason	From hospital. Reason not recorded.	From own home. No reason recorded.	Moved from another home in the Abbeyfield group to be nearer to her daughter.
Acute conditions in last 3 months	Urinary tract infection.	None.	None.
Primary health care professionals seen in last 3 months	GP x 6 re: hip pain, ? UTI, incontinence. DN x 4 for pv medication.	DN x1 wound on foot. GP x1 cold symptoms. Referred to continence team.	GP x 1 visit.
PHCP identified for Approach and details of contact	DN & continence team.	DN.	Continence team.
Number of medications	11	12	12
Equipment/Aids	Zimmer frame. Continence pads.	Zimmer frame. Continence pads.	Walking sticks x2. Continence pads.

Site 2 Care Home 4 Resident profiles/cont:

	23	24	25
Age /Gender/ethnicity	72/Male	87/Female	89/Female.
Long term conditions	Arthritis, asthma, prostate problems, mental health.	Irregular heartbeat, colostomy, angina.	Stroke, Short term memory loss, Vertigo.
Dependency level	20 – Very low.	20 – Very low.	
Cognitive impairment	No.	No	Short term memory loss.
Length of time in care home	5	6 months.	15
Place admitted from and reason	From local nursing home to accompany wife with nursing needs.	From daughter's home. Previous respite.	Not recorded.
Acute conditions in last 3 months	None.	None.	None.
Primary health care professionals seen in last 3 months	GP x2 for sleep disturbance, depression, behaviour. Optician.	GP x7 for abdominal and stoma pain.	GP x3 cough, swollen lip, vomiting.
PHCP identified for Approach and details of contact	GP.	GP.	Dietician.
Number of medications	7	11	6
Equipment/Aids	None.	None.	Continence pads.

1. **Resident profiles:**

	26	27	28
Age /Gender	F/81	M/85	M/73
Long term conditions	Alcohol dependency	Visual impairment Long term memory problems(primarily only has a poor very short term memory)	Parkinson's, high blood pressure, stroke, persistent bilateral cellulitis and oedema, visual impairment, angina, CVA 2001
Dependency level	17 Very low, can go out independently but sometimes uses a wheelchair and has one person helping outside.	13 Very low	16 Low
Cognitive impairment	None	Not assessed – memory problems but not confused.	Not formally assessed, but some noted (primarily due to Parkinson's?)
Length of time in care home	4 years 6 months	5 years 3 months	7 years
Place admitted from and reason	Own home – inability to self care/risk of falls (alcohol related)	Hospital following fall Inability to cope and self care at home alone.	Hospital following fall, and becoming too unwell to live alone.
Acute illness last 3 months	Fall (alcohol related) – minor bruising	None	Cellulitis exacerbation/injury to leg following minor fall.
Primary health care professionals seen in last 3 months	1 x GP Chiropodist x 1	None	4x GP, plus 1 phone call 18x DN –to dress legs
PHCP identified for Approach	Optician Chiropodist GP (refused)	Optician	GP (refused but may do T2) DN
Number of medications	6	0	7
Equipment/Aids	Walking stick Wheelchair for some occasions when going out if feeling unstable	Walking frame (does not always use this)	Rotaframe wheeled walker Wheelchair for outside

Site 3 Care Home 5 03.02.11

Resident profiles: continued

	29	30	31
Age /Gender	F/86	F/88	F/83
Long term conditions	Postural hypertension, CVA, osteoporosis, dyspepsia dyspragia, insomnia, short term memory loss, history of falls	Osteoarthritis, visual impairment (registered blind), poor mobility, IHD(?)	COPD, heart disease, postural hypertension, anaemia, brain atrophy (shirt/long term memory loss), history of falls, left eye cataract (operation 2009)
Dependency level	15 Very low	12 Moderate	14 Low
Cognitive impairment	Can be forgetful, not formally assessed	None recorded	Short and long term memory loss, some confusion
Length of time in care home	1 year 3 months	1 month	5 years 6 months
Place admitted from and reason	Hospital following fall and fracture of neck of femur. On admission was frail, history of falls, confusion, insomnia and weight loss	Hospital following undiagnosed illness and general deterioration (panic attacks, inability to cope, generalised weakness, reduced mobility, unsteadiness, anxiety, visual impairment)	Hospital Unable to cope alone at hope because of health problems
Acute illness last 3 months	None	None	UTI
Primary health care professionals seen in last 3 months	1x chiropodist	None	GP x3 (UTI) Optician x 1,
PHCP identified for Approach	Optician Chiropodist	Optician	GP (refused)
Number of medications	8	None yet recorded	10
Equipment/Aids	Zimmer frame	4 wheeled walker with seat	4 wheeled walker with seat

	32
Age /Gender	F/93
Long term conditions	Angina pectoris, Acute myocardial infarctions, high blood pressure, osteoarthritis Memory lapses. Registered blind: cataract(refused cornea replacement), macular degeneration, hearing loss (refuses aids). Anxiety attacks due to memory loss. Hip replacement 2005, right shoulder fracture 2005.
Dependency level	13 Low
Cognitive impairment	Memory lapses and loss
Length of time in care home	18 months
Place admitted from and reason	Hospital following a fall. History of falls, had become vulnerable and afraid.
Acute illness last 3 months	None
Primary health care professionals seen in last 3 months	Optician x1, Private audiologistx1, Chiropodist x 1
PHCP identified for Approach	Optician Chiropodist
Number of medications	6
Equipment/Aids	Zimmer frame

	33	34	35
Age /Gender	F/66	F/88	F/96
Long term conditions	Congenital absence of corpus callosum, diabetes (T2 insulin dependent), brain injury from a fall affects long term memory, asthma, anaemia, IODM (?)	COPD, high blood pressure, osteoarthritis, recurring UTIs, epiphora, cataract left eye, anaemia. Anxiousness panic attacks	Stroke 2008, Registered blind, asthma, anxiety. Fractured right neck of femur 2010.
Dependency level	17 Very low	18 Very low	12 Moderate
Cognitive impairment	Memory, perception and understanding	Confusion and memory	None
Length of time in care home	6 months	2 years 9 months	4 months
Place admitted from and reason	Tf from another care home to be closer to friends and church. Unable to live alone - cognitive disability & chronic health problems. Depression/Isoldation risk, memory problems. Impaired swallow reflex (weight loss). No immediate family (	From hospital, following fall and fracture of neck of femur (right). Slow recovery, poor mobility, confusion and difficulty making informed choices. Lonely and afraid of going home (associated this with falls). Generally frail and elderly.	Hospital following fall and fracture to right neck of femur. Unable to cope alone at home, afraid of falls.
Acute illness last 3 months	UTI	UTI	Bronchial infection, UTI
Primary health care professionals seen in last 3 months	Daily visit from DN to administer insulin Diabetes nurse x2– ongoing review and care GPx2 UTI	GP x 3 (pain in hip, UTI)	Physiotherapist x 2 – advice and exercises GPx4 med review/follow up, bronchial infection, UTI.. Chiropodist x 2
PHCP identified for Approach	DN, Diabetic	Dentist	Physio, Dentist, Chirpodist
Number of medications	6	13	13
Equipment/Aids	Has zimmer but rarely needs to use it	Zimmer frame	Zimmer frame

	36	37 RIP	38
Age /Gender	F/87	F/90	F/81
Long term conditions	Parkinson's disease, Breast Cancer 2005,Nervousness, Giddiness and dizzy spells, osteoporosis, dyspepsia, small pyloric ulcer	Psychotic depression	Stroke disabled left side (1974), Hypertension, osteoporosis, chronic gastritis, frequent falls. Bilateral pubic rami fracture. Left arm immobile, problems with back. Sight problems and chronic cough when supine being investigated.
Dependency level		18 Very Low	15 Low
Cognitive impairment		Psychotic thinking can alter perceptions	None
Length of time in care home	13 months	6 years 8 months	1 month
Place admitted from and reason	Hospital, following fall. Becomes confused and anxious at times, felt unable to cope alone.	From hospital – relapse in psychotic depression, low in mood, suicide attempt. Lack of self care.	From rehabilitation unit following hospital admission for fall & bilateral pubic rami fracture Lack of confidence, help needed to mobilise at night, no suitable care package at home
Acute illness last 3 months	None	RIP following bronchial/generalised infection	None
Primary health care professionals seen in last 3 months	None		DN x 5 - change of morphine patch for shoulder pain GP x 2 re pain. Physio re assessment, advice and exercise.
PHCP identified for Approach	Dentist		DN
Number of meds	13	8	10
Equipment/Aids	Zimmer frame	Zimmer frame	Walking stick

	39 RIP
Age /Gender	F/80
Long term conditions	Diabetes mellitus (non-insulin dependent), hypothyroidism, hyponatremia, cataracts, anaemia. Problems mobilising except for short distances.
Dependency level	15 Low
Cognitive impairment	
Length of time in care home	4 years 6 months
Place admitted from and reason	From hospital. Needs assistance with self care, and sometimes with mobility. High risk of falls.
Acute illness last 3 months	RIP (stroke) 2011
Primary health care professionals seen in last 3 months	
PHCP identified for Approach	
Number of medications	11
Equipment/Aids	Zimmer frame

Services received by residents over time

High Level User Site 1 care home 1

Key

Resident 01: Female 83 years

COPD, hypertension, dementia, anxiety, osteoporosis, pain, anaemia, dyskinesia, knee replacement

Resident 39 months, transferred from another care home.

Low dependency, mild cognitive impairment, 21 medications

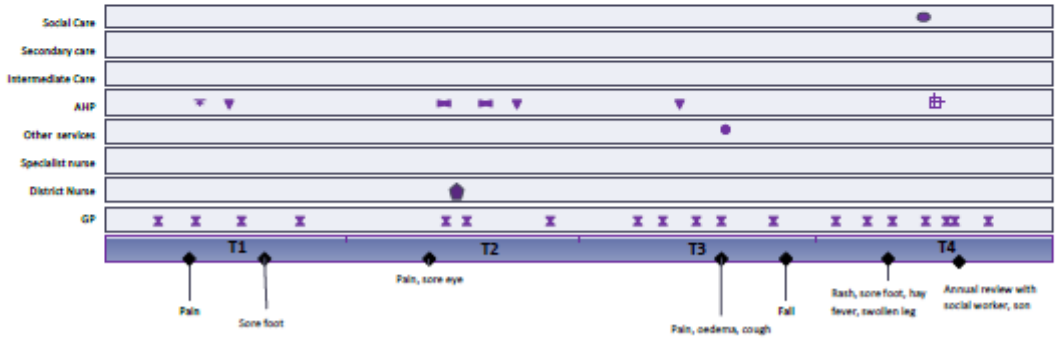
Family involved in care

GP
District Nurse
Practice Nurse
Diabetes Nurse
Continence nurse
CPN
Memory team
Social worker
Paramedics
Tracker nurse
Tissue viability nurse
Phlebotomist
lymphodema nurse specialist
Geriatrician
Intermediate care
Care home nurses
Psychiatrist
Physiotherapist
Physio assistant
Occupational Therapist
Chiropodist NHS
Chiropodist private
Dentist
CH staff
Relative/friend
Dietitian
Optician
Audiology
Outpatient appointment
Day Surgery
Hospital admission
CH sends sample to surgery
A&E

Purple (dark) = Service visits resident in care home

Orange (pale) = Resident visits service

Involvement of Health and Social Services



Services received by residents over time

High/Medium Level User Site 1

Care home 1

Resident 03: Male 101 years

Osteoarthritis, sciatica, chronic leg ulcer, anaemia

Resident 22 months, transferred from another care home.

Total dependency, 9 medications

Key

- GP
- District Nurse
- Practice Nurse
- Diabetes Nurse
- Continence nurse
- CPN
- Memory team
- Social worker
- Paramedics
- Tracker nurse
- Tissue viability nurse
- Phlebotomist
- Lymphodema nurse specialist
- Geriatrician
- Intermediate care
- Care home nurses
- Psychiatrist
- Physiotherapist
- Physio assistant
- Occupational Therapist
- Chripodist NHS
- Chiropodist private
- Dentist
- CH staff
- Relative/friend
- Dietitian
- Optician
- Audiology
- Outpatient appointment
- Day Surgery
- Hospital admission
- CH sends sample to surgery
- A & E

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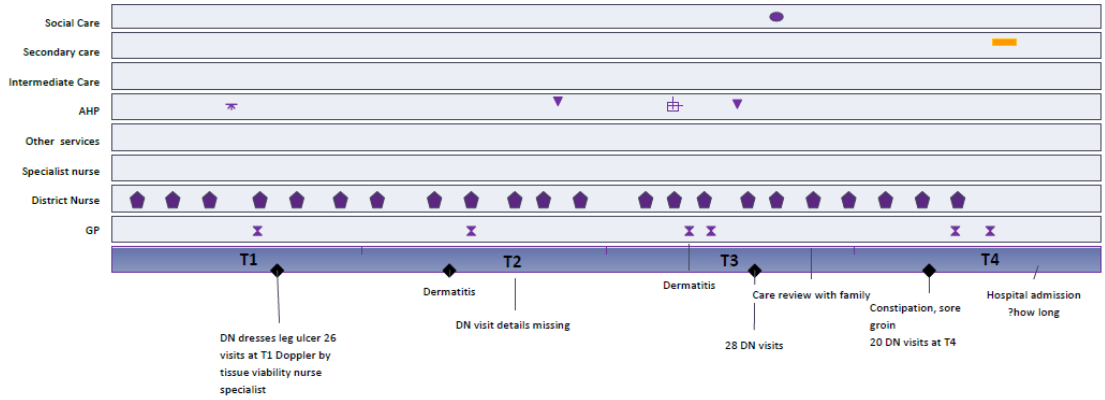
Involvement of Health and Social Services



Services received by residents over time

Low Level User Site 1 Care home 2

Key

Resident 07: Female 96 years

Diabetes, heart disease, falls, oedema, incontinence, memory loss and confusion, pacemaker

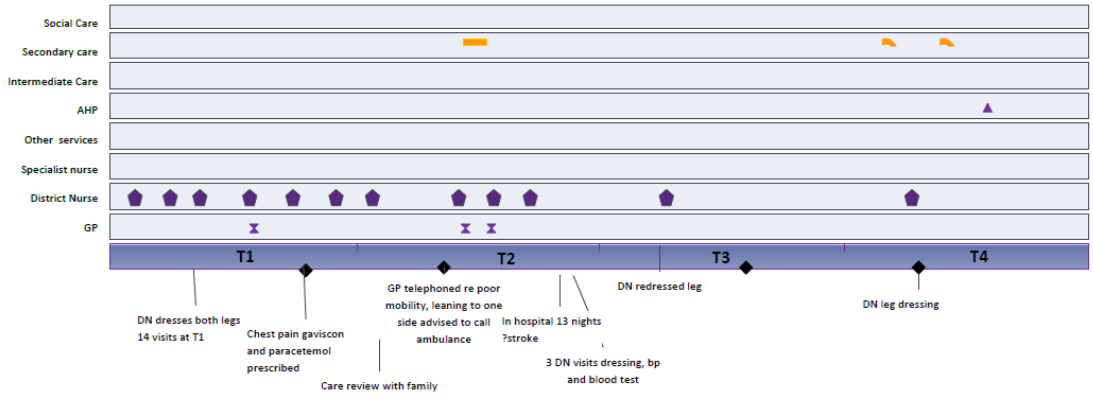
Resident 16 months, admitted from home, unable to cope after hospital admission for chest infection.

Barthel severe, 6 medications

GP
District Nurse
Practice Nurse
Diabetes Nurse
Continence nurse
CPN
Memory team
Social worker
Paramedics
Tracker nurse
Tissue viability nurse
Phlebotomist
Lymphodema nurse specialist
Geriatrician
Intermediate care
Care home nurses
Psychiatrist
Physiotherapist
Physio assistant
Occupational Therapist
Chripodist NHS
Chiropodist private
Dentist
CH staff
Relative/friend
Dietitian
Optician
Audiology
Outpatient appointment
Day Surgery
Hospital admission
CH sends sample to surgery
A & E

Purple (dark) = Service visits resident in care home
Orange (pale) = Resident visits service

Involvement of Health and Social Services



Services received by residents over time

Medium Level User Site 2
Care home 3

Key

Resident 18: Female 93 years

Macular degeneration, diverticulitis, IBS

Resident 25 months, transferred from another home to be near daughter.

Low dependency, no cognitive impairment, 12 medications

- GP
- District Nurse
- Practice Nurse
- Diabetes Nurse
- Continence nurse
- CPN
- Memory team
- Social worker
- Paramedics
- Tracker nurse
- Tissue viability nurse
- Phlebotomist
- Lymphodema nurse specialist
- Geriatrician
- Intermediate care
- Care home nurses
- Psychiatrist
- Physiotherapist
- Physio assistant
- Occupational Therapist
- Chripodist NHS
- Chiropodist private
- Dentist
- CH staff
- Relative/friend
- Dietitian
- Optician
- Audiology
- Outpatient appointment
- Day Surgery
- Hospital admission
- CH sends sample to surgery
- A & E

Purple (dark) = Service visits resident in care home

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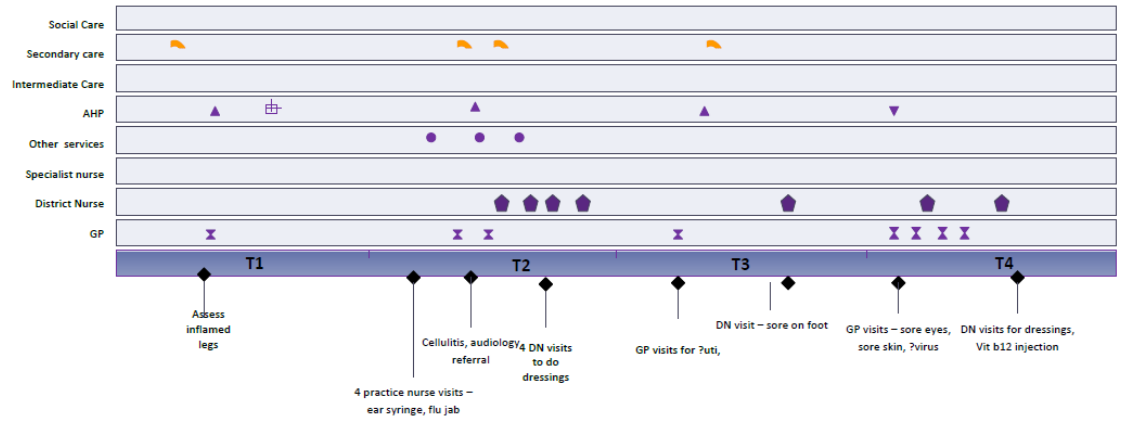
Involvement of Health and Social Services



Services received by residents over time

Medium Level User Site 2

Care home 4

Resident 19: Female 92 years

High cholesterol, mild cognitive impairment

Resident 20 months, transferred from own home unable to self care

Moderate dependency, mild cognitive impairment, 12 medications

Key

GP
District Nurse
Practice Nurse
Diabetes Nurse
Continence nurse
CPN
Memory team
Social worker
Paramedics
Tracker nurse
Tissue viability nurse
Phlebotomist
Lymphodema nurse specialist
Geriatrician
Intermediate care
Care home nurses
Psychiatrist
Physiotherapist
Physio assistant
Occupational Therapist
Chripodist NHS
Chiropodist private
Dentist
CH staff
Relative/friend
Dietitian
Optician
Audiology
Outpatient appointment
Day Surgery
Hospital admission
CH sends sample to surgery
A & E

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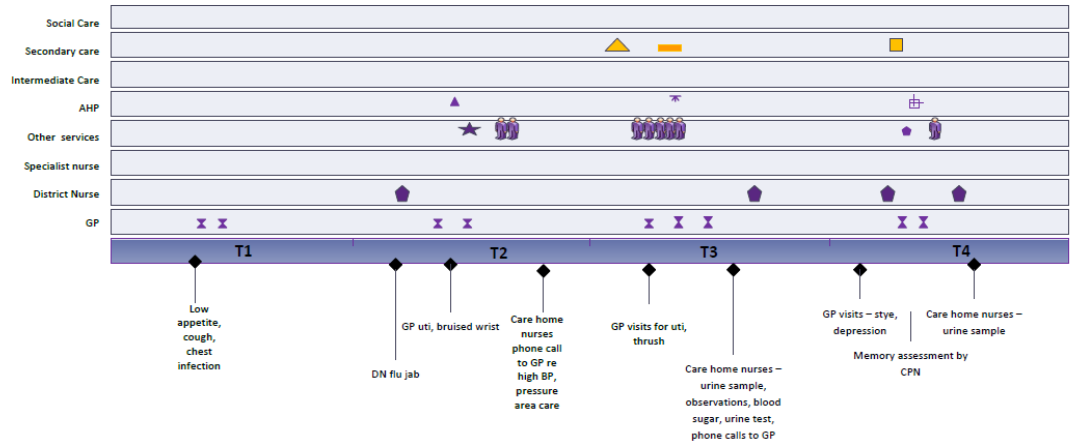
Involvement of Health and Social Services



Services received by residents over time

Low Service User CH5

Resident 27: Male 85 years

Visual impairment (glaucoma, cataract), little long term memory and poor only very short term memory. Tendency to neglect self care unless aided. Dry skin, foot problems needing 3 monthly chiropody.

Resident 5 years, referred from hospital after a fall and inability to cope and self care at home.

Low dependency, no cognitive impairment, 0 medications at study start.

No direct family involvement, but in contact with sister.

Key

- GP
- District Nurse
- Practice Nurse
- Diabetes Nurse
- Continence nurse
- CPN
- Memory team
- Social worker
- Paramedics
- Tracker nurse
- Tissue viability nurse
- Phlebotomist
- Lymphodema nurse specialist
- Geriatrician
- Intermediate care
- Care home nurses
- Psychiatrist
- Physiotherapist
- Physio assistant
- Occupational Therapist
- Chripodist NHS
- Chiropodist private
- Dentist
- CH staff
- Relative/friend
- Dietitian
- Optician
- Audiology
- Outpatient appointment
- Day Surgery
- Hospital admission
- CH sends sample to surgery
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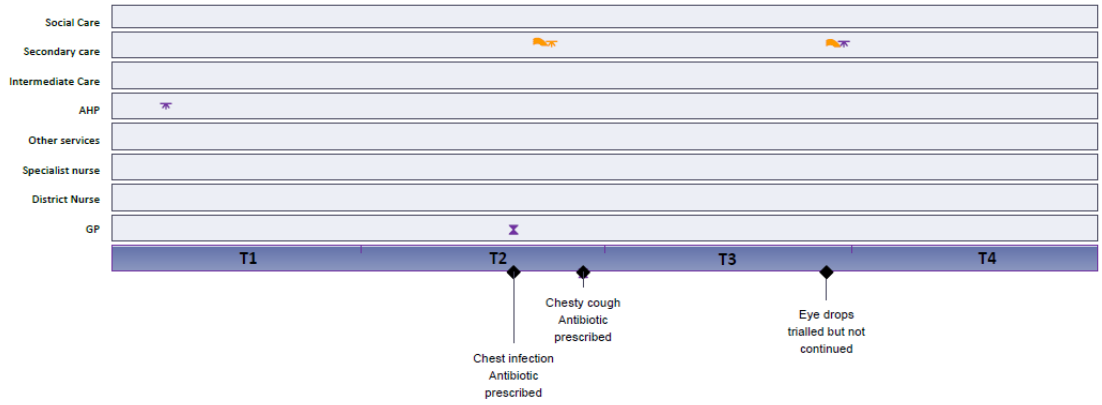
Involvement of Health and Social Services



Case study exemplars

Anne is an 81 year old lady, resident for 1 months at study start.

Admitted from a rehabilitation unit following a fall and bilateral hip fracture. Requested admission due to lack of confidence to cope alone and no suitable care package possible at home. Has sight problems and a chronic cough, disabled left hand side due to CVA in her 50's, osteoporosis, chronic gastritis and pain in legs, hips and shoulder. Her family visit frequently and are active in her care,. If she needs health care she expects a member of staff to notice. or sill talk to a senior care worker.

On admission had moderate depression, medium dependency, could do some self-care activities herself but needed help, due to LH side weakness. Pressure sore risk is medium, low falls risk, moderate manual handling risk, high risk of malnutrition. These scores all improved during the year. 10 medications T1, 10 T4.

Health and Social Care accessed

	T1	T2	T3	T4
Events	Pain, scalp itching	Pain, possible depression.	Pain Fall, no injury	1 fall, UTI, mild depression diagnosed
Health care	GP 1 visit: scalp problem, ! phone call re meds change DN, 9 visit:, pain relief patch	GP: CH discuss possible depression during usual weekly visit to home.	GP – I phone call, one discussion during weekly visit: need for physiotherapy	GP – 1 visit, UTI, sample sent to surgery for UTI. DN – 4 visits: dressings and review following fall Audiology – 2 appointments(routine) Fracture/pain clinic – 1 visit: assess pain Physiotherapist – 3 visit – assess and mobilise CPN visit re depression Ambulance called after fall 2 night hospital admission following fall
Other	Social work assessment	Improving confidence. Refusing chiropody. CH staff monitoring possible depression	Improve mobility and mood CH tried to refer directly to physiotherapy – GP now has to do o	Voluntary bereavement counsellor visits 3 times

Needs expressed by resident

Pain T1, T2, Mobility T1, T2, T3, Grieving T1, T2, Eye care T1, Foot Care T2, T3, Physiotherapy T1, T2, T3

Contact with family T1, T2, T3, Care from care home T2, T3, Relationships with CH staff T3

Resident perspective I've got the tablets here, I get up, I some help to get up from the toilet and to go back to bed. At night, I get pain and need help. There's some people there are really kind, some not, I got in their way, you can't have this , we can't do that and all like that so why I can't stay in bed, why do I need their help?T1 No, we got the exercises but I need to do the physiotherapy up and down by myself, especially walking, to keep walking very often, you can't sit for half an hour, you need to be standing up T1 She feels much better living in the care home than she did at home because she does not have to worry about falling, and she needs people to help her with washing and dressing every day. She like having her meals cooked and enjoys talking to two ladies who have become her friends. T2 notes The nurse she is just for the patch when it is on my shoulder. The others I do not need. The chiropodist is bad and I do not need him. ***How about another chiropodist?*** No, he is not necessary because my daughter she is looking for my toesT3 It is all good and I am well apart from the physiotherapy. I need this for moving better and feeling better. The girls here help me but they do not know all of this thing I need. .T3	**Relative perspective (T2)** She has… really gone down hill in the last year and since my Father died, it is like seeing someone get old in rapid motion. She is proud and strong and fights everything but I think she is in a lot of pain all of the time. I still feel sad though, very very sad because she is so changed and I worry about her even though she is safe here and they care for her very well, and I cannot look after her even though I want to. I am doing her feet now, and I like that she lets me do that because it is something practical and loving to do that she won't let anyone, anybody you know none of them here do so it is a special thing for me. Mum has asked, and she sees the doctor quite frequently and she says she has told the doctor and the nurse, but they haven't helped with it and she is lost and can't do lost and doesn't know what to do to get the physio so she gets depressed about that sometimes and tells me that if she can't have it her pain won't go away so she must really really have it I think but I don't know how. To be honest I am not sure if anyone notices that because she is so quiet and determined to be strong and get on with her moving despite all of it.
Care home perspective She has been quite difficult sometimes, very demanding on the care staff and complaining and wanting their attention, but I think she's another one we are getting to know. She's a lovely lady, very …switched on like…but so quiet and obviously got lots of pain and problems moving. Help her with her personal care and dressing but she tries really really hard with everythingT1 Cause (pain patches) is a controlled drug we're not allowed to have anything do with it at all. But it seems to help her, yeah, it does it seems to help cause that pain she had was distressing her badly.T2 she does like her peace and quiet and does still have problems with needing to move and stand and being uncomfortable sitting down too long. I want her to see a physio soon, when she agrees to it. T2 She's had two falls since she's been here now and they've been quite recently and she's been becoming very unsteady, that's my observations, I think now we need to do something about it. One fall it's, okay, okay, you know, we'll just observe you, but two falls now and that's, but that's how I work.T3	**Primary Care** Perspective (District Nurse) She is quite a sparky lady despite being so quiet, she knows what she wants and is determined to get there. I think, maybe having lived with disability for a number of years makes her that way.T2 The patches seem to have helped her but I am still concerned about her pain levels and lack of mobility. I plan to talk to the GP about that.T2 I saw her in passing a week or so ago and am worried that she seemed a little low, I know that the staff here are worried about that too and so will suggest she is assessed formally.T3

Cath is an 88 year old lady, resident for 1 month at study start.

Admitted from hospital following undiagnosed illness, general deterioration in health and well being. Unable to cope at home, generalised weakness, panic attacks and reduced mobility. Is registered blind, osteoarthritis, particularly in her shoulders, ischaemic heart disease and had poor mobility on admission. Her family visit most days and are supportive. When needing health care she asked the care home manager or a senior member of staff first, but asked her daughter to speak on her behalf when having

Needs assistance with anxiety and mobility, also for staff to be aware of her visual impairment.

Low risks for nutrition, falls, skin integrity. No significant continence problems but wears light pads for security (daughter buys as she doesn't like the NHS supplied -pads). Uses a privately bought 4 wheeled walker/seat. 7 medications T1, 4 T4

Health and Social Care accessed

	T1	T2	T3	T4
Events	Eye test	UTI	Sore/blistered toe Diarrhoea UTI	Audiology appointment means ears need to be checked for wax
Health care	Optician	Eye clinic (follow up to opticians) Urine sample sent to GP GP calls home and prescribes antibiotics Chiropodist visits once	GP visits re diarrhoea, takes urine sample, UTI diagnosed GP call s twice re it is and prescribes antibiotics DN visits twice to follow up on GP after UTI Chiropodist visits re sore toe	CH refers to DN re earwax/removal Change to podiatrist visits twice and treats/gives aids Audiology – new aids provided
Other	Daughter buying preferred continence pads No end of life plan – resident not yet ready to discuss			Social work review – all well. Family happy to keep buying continence pads and are maintaining/will replace walker Family will buy loop system for Cath's TV End of life plan now in place

Needs expressed by resident

Feeling safe T1, T3 Eye care T1, T2
Anxiety/ panic attacks T1, T2, T3
Pain relief T1 Sleep T2 Foot care T3
Digestive problems T3 UTI T3

Relationships with CH staff T1, T2, T3
Care from care home T3 Contact with family T1, T3 Relationships with other residents T3 Finances T1

Resident perspective

I didn't want to come here at first, I hated being in a home. It's like being farmed out, put away. I thought my family would forget me, and I hated all these old people here. But now I am very glad indeed, very glad, and I have some lovely friends here, very lovely kind people.T2

I wish I knew what the reason was (for panic attacks), yes, I do wish they could tell me that.
Do you take anything for them or have you seen anyone about them?
I do have something that helps me sleep better, but that doesn't always work, like last night. T2

Well, you do, you have a lot of care from everybody here, from all the people and nurses here, but then you'll have the main one… care, like the head of them, so I suppose you ask anybody and then they go to the head one, yeah. T1

I've got my daughter or my son-in-law, I've got friends, I had five people in here the other day *(laughs)*.

The special thing is that they don't treat you like some old person waiting to die and I was worried they would do that. I remember how it was with my mother and that was awful. But here they talk to you like an equal, or like a superior sometimes. They show a lot of respect. T3

(Care worker) came in with the doctor sometimes so I think he knew what was going on that way. I would imagine they do discuss things but I don't know anything about it. They should do though, if they don't and they must do or how would the nurses here know about what the doctor wants them to do? T3

Relative perspective

It had become very difficult to help Mum because she was alone at home and having this awful anxiety. Then she got so low, like ill but they couldn't see what it was, you know? It was horrible for her and us and this massive strain for everyone when she came here to start with, but a relief at the same time. We all got upset but now she is settled everything is much, so improved.

The health care she gets seems fine, and they get her sorted here most of the time, they notice what she needs and call in someone if she is poorly. I think the only thing was the chiropody, the foot lady who seemed to give more problems than she solved. Mum was upset about that but she did not want to tell (Manager) because she didn't want to get people into trouble. So I had a quiet chat and (Manager) was lovely about it, we didn't need to have worried at all, we discussed everything and they have sorted it all out and got someone else for Mum to see.

I think they probably share information, and there is her care plan from the social obviously, but it seems to be low key, no big deal. I think they talk to the doctor or chiropodist or whoever and the nurses and carers here know what they are doing too. It's what you expect in a place like this, if it is doing it's job. They get on with it, everyone is polite, positive and realistic even with the difficult people here as far as I can see. They get on and do their job.

Care home perspective

Because she is new to us we are still getting to know her and slowly assessing her. We do a full assessment, or (Manager) does, before and when they arrive, but that usually alters as they settle in. But yeah, yes, she is a very anxious lady, she has panic attacks and is very unsteady on her feet so she needs a lot of help and emotional support from us. T1

She will need to see the eye specialist sometime but she seems ok mostly, her problems are really mainly her physical mobility and her peace of mind. T1

This quarter (she) has had a few problems with a sore toe, which has been seen by the chiropodist and also dress by careworkers. It seems to be improving now. She has seen the GP 3 times with digestive and diarrhoea problems and because of a UTI, and the DN dropped by after this a couple of times at the request of the GP to see how she was getting on. The DN did this when visiting another resident on her caseload in the home. T3

Her care needs are slightly less than they were, but she needs the comfort of knowing she has careworkers at hand should she feel unstable when moving, or panicky or distressed. Her family are going to talk to her about end of life plans and care as she is uncomfortable talking about this with care home staff. T3

Primary Care Perspective (GP)

(She) is an elderly lady with several health problems including heart failure, blindness and osteo arthritis. She is, however generally stable and according to his notes he seldom sees her apart from her annual check up, which he does at the home. He has not seen her since she was admitted to the care home, but she was a frequent patient before this. He may go to review her health in the next month or two, probably when he has another patient to see in the home.T1

She has had a UTI this period but he has not been to visit her. The care home sent the surgery a urine sample and the diagnosis was confirmed by telephone. The GP then arranged for a prescription to be delivered to the home by the community pharmacist. He believes this method off communicating about and handling this kind of infection in residents is most effective. He said that care home staff are knowledgeable and experienced enough to detect a possible UTI and to differentiate this form other causes of illness. Thus if they determine it is appropriate to send a sample for analysis it saves time and financial resources both for the home and the surgery, and can lead to a faster medical input to the patient. He trusts the surgery always to ask for an appointment if this is needed and says their judgement in such matter is excellent.T2

Eleanor is an 89 year old lady, resident for 3 months at study start.

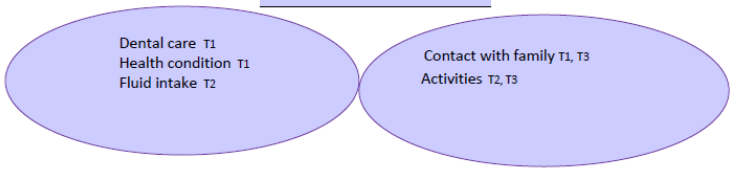
She moved from another home in the care home group to be closer to her daughter. Originally admitted to a care home from hospital, after becoming unwell and unable to manage in own home. Has congestive heart failure, atrial fibrillation, anaemia and transient ischaemic attacks. Her daughter visits most days and is active in her support and care. If she needs health care she would usually tell her daughter, but would tell a member of staff if necessary – her trust in being able to do so increased over the course of the year..

Low risks for nutrition (decreasing after T1) but needed prompting to drink in T3. falls, Wears light continence pads (daughter buys them for her), and is self-caring in this, as she is in all her personal care. Uses a zimmer frame for mobility13 medications in T1, 9 in T4

Health and Social Care accessed

	T1	T2	T3	T4
Events	Weight loss noted	Unwell, flushed, UTI? Sore inverted nipple	UTI	Not noted
Health care	GP visits once –blood pressure assessed, medication changed District Nurse visit : pressure areas Continence team assessed her Referred to nutritionist Dentist once	GP visits 4 times: check for illness, sore nipple treated, B12 injection, flu jab District Nurse – B12 injection Physiotherapist	GP visits 4 times: antibiotics prescribed for UTI twice, one check for allergic reaction to antibiotics, check on breathing problems (no action). District Nurse visits once – B12 injection Podiatrist once	District Nurse visits twice– Dressing to skin Podiatrist once

Needs expressed by resident



Resident perspective

I think to myself, well hey when you get to ninety, I can't believe it, all my family had gone before seventy, you see, all of them. T1

Well when I was at home… I didn't mix a lot and my daughter wasn't keen. She used to be a nurse, she said I wasn't prone to getting flu, but now I'm here, mixing, she says have it, so I've had a flu jab as well.T2

I think when I came from the hospital I was very weak and I didn't realise how weak I was, because once or twice I've slid off my bed, even now I can't get back, you know, I haven't the strength. So the other week I slid off my bed and I couldn't get up, so I had to shuffle round on my bottom to any bell pushers for the nurse to come.T2

My daughter does my feet, because the last time I had them done, I don't think they have him now, but he cut them too short, my feet, down the side. Well I thought it should be more that, straight acrossT2

They said something about you get free pads if something or other, I don't quite understand that either, but I buy my own, my daughter gets me them.T2

Well you have a nurse coming in every morning to make the bed and what not *(coughs)* and if I wanted *(coughs)* sorry, *(coughs)* if I wanted to I could tell her, or, and she would tell the desk…T3

Relative perspective (T4)

I think mum is in charge of that information and that's where it should be, you know, mum will say to me that she needs, or she'll mention it herself… it hadn't been part of her care plan…all we needed to do was mention it and then it was activated, but with mum key to it, and that's the bit that was important

If she's not felt so energised, or she wants a meal in her room, then that's, that's, they've responded. There has been a couple of times since she's been here that she felt a bit, she wasn't right, and the surgery came in

I think…out of, sort of respect, for the age of the person that actually they don't have to be part of the whole surgery and the waiting there and what have you. But it's…also… very important that Mum continues to get out of the home, and she's not a person that wants to be part of the group activities, she's joining them here, which is quite, which is brilliant

Mum has gained more independence, has now become independent … and it changed our relationship with mum, we became much more relaxed and less worried about her care of herself, so we could get on with other matters

Care home perspective

Well my role is like her weight, making sure she doesn't go below the weight before a dietician has to be involved.. T1

I do a monthly review… I actually talk to her and her daughter, if her daughter's here. T1

I think (continence pads) are on prescription now because I know her daughter was buying them I think T1

She seems to need a bit more help getting her clothes out… ready for the next day, she can't manage it as well as she did, but she still dresses herself, nought's changed with bathing, but the eating, she's not drinking enough and tends to not eat as much. T2

There was a…medication change,…due to her hurting her ankle and (home noticed) that she'd got problems with blood clotting… she was obviously on it too long.T2

Primary Care Perspective (clinical support worker, continence team)

Integrated working with this home … means support…when they need advice about how to manage continence with residents. It means working as a team with the care home or care home manager because I need information and I support them to get that information for me,…ultimately that's the goal, you know, to get as much information about this patient T1

Do you know what a lot of the time I don't actually get to see, meet the patient if there's dementia involved, you know, I will just work with the carer or the care manager……But in the case of (this resident) I did actually deal with her on a face to face basis. T1

I have been asked to on one occasion write in their notes about what I did, what time I arrived in the day book sort of thing because that's how they actually communicate, ah pass on communications between themselves so I was actually, but I never usually, just the one occasion I've been asked to do that, yeah. T2

ECON 1: Unit costs

Item	Unit cost(£)	Comment
GP visits	120.00[1]	Per home visit
District Nurse /Community Nurse visits	23.50[1]	Average of DN (£20) and CN (£27)
Practice Nurse visits	20.00[1]	Per home visit
Specialist Nurse visits	27.00[1]	As Community Nurse
Care home nurse consultations	10.00[1]	Based on GP practice nurse clinic consultation
Mental health nurse visits	20.00[1]	As GP practice nurse home visit
Physiotherapist visits	47.00[1]	Per home visit
Dietician visits	47.00[1]	Based on physiotherapist
Chiropodist visits	20.00[1]	Per home visit
Dentist visit	120.00[1]	Based on GP home visit
Optician visit	47.00[1]	Based on Physiotherapist home visit
Psychiatrist home visits	117.00[1]	Weighted average, consultant services
Paramedics transfers (Ambulance)	223.00[1]	Average of all paramedic services
Inpatient community hospital	99.50[1]	Per day, based on weekly average
Inpatient acute hospital	346.00[2]	Weighted average per day
Hospital outpatient visit	136.00[1]	Weighted average
A&E	97.00[1]	Weighted average
Day hospital	119.00[1]	Weighted average
Voluntary /Crossroads	100.60[1]	Based on paid care assistant (estimated 4-hour)

Notes: Services were no utilisation was reported are not included.
All unit costs include overheads, qualifications, staff (GP), capital overheads
[1] L. Curtis. Unit costs of health and social care 2010. www.pssru.ac.uk ; [2] Local hospital data;

Appendix 6 Validation event supporting documents and DROM

APPROACH: Analysis and Perspectives of integrated working in PRimary care Organisations And Care Homes

What does 'good health care' look like for older people living in care homes?

BRIEFING PACK

CONTENTS:

Approach: A collaboration between the Universities of Hertfordshire, Brunel, Lancaster, Surrey and University College London.
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APPROACH: Analysis and Perspectives of integrated working in PRimary care Organisations And Care Homes

What does 'good health care' look like for older people living in care homes?

Expert validation meeting Monday 31st October Room 2 Friends House, Euston *with online access for care home staff, residents and primary health care participants*

Event schedule 11.00 am – 3.00 pm:

1. **Welcome, introductions and structure of the day** Dr. Katherine Froggatt 11.00 – 11.*10*

2. **Enabling the NHS to work more effectively with care homes** Clive Bowman Bupa 11.10- 11.30

3. **Video feedback from resident's interviews. Comments and observations from experts based on pre- meeting preparation** *11.30-12.00*

4. **Overview of Approach:** Prof. Claire Goodman 12.00-12.30

- What evidence is there for the effectiveness of different models of health care services working with care homes?
- What is the range of service provision to care homes and how much does it cost?
- What is the primary health and social care professional's experience of providing services to care homes, and resident's and their relative's experience of receiving them?

Break for lunch 12.30 -13.00

5. **Expert group response to Approach findings** 13.00-14.00

   Break into 3 expert groups representing the NHS, care homes and social services in order to validate the findings, and how this evidence can be used to shape commissioning.

6. **Feedback and recommendations - current health and social care context including the 'Caring for our future' consultation and 'any qualified provider' initiative.** Prof. Steve Iliffe 14.00-15.00

2. Validation meeting objectives:

The main aim of the meeting is to give a small group of experts, who commission, provide and or receive health care services in care homes, the opportunity to discuss the relevance of the Approach study for the area of care that they represent. This will enable us to:

- Test the emerging findings
- Inform the recommendations that will be made as part of the final report for the commissioning and delivery of primary health care services to care homes.
- Feed the results of the day into the current consultation on social care integration.

3. Pre-meeting preparation:

At the beginning of the day you will be asked to share, based on your experiences, and respond to the following questions:

- **What are the two main issues that influence 'good health care' in care homes?**
- **What works well in the provision of primary health care services to care homes?**
- **One aspect you would change in order to improve primary health care provision to care homes?**

4. Meeting organisation.

The meeting will be facilitated by members of the Approach study team and will be chaired by Dr. Katherine Froggatt. In the morning, participants' priorities for NHS and Care home integration will be shared and these will be considered in relation to a presentation on the Approach findings. In addition to those present there will be online participation from care homes and health care professionals who have contributed to the study.

Prof. Claire Goodman will provide an overview of the findings from the systematic review, national care home survey and case studies of individual care homes. For the following discussion you will be allocated to one of three groups representing care homes, the NHS, and social services.

These groups will be asked to discuss the following:

- To what extent do the groups agree/disagree with the findings?
- Which findings are considered to be the most important?
- What information is missing and what needs further research?

Prof. Steve Iliffe will bring together the expert responses and recommendations for future primary care provision and organisation for care homes. This will be used to inform the final report recommendations and be submitted as evidence to the Department of Health consultation on social care integration.

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A post meeting summary will be circulated after the event. We are also planning to make a podcast available to care homes and health care professionals who contributed to the study but were unable to attend the Validation Meeting.

5. APPROACH STUDY – BACKGROUND

In England, long term care for older people is mainly provided by care homes. Older people in care homes have their everyday care and support needs met by care home staff, but often need access to a range of health care services. When services are difficult to access or not available, they are more likely to experience unplanned hospital admissions, avoidable health problems, transfers to nursing homes and uncertainty about their care The need for closer integration between health and independent providers of care for the oldest old is a response to a belief that this will help to reduce inefficiency, improve residents' quality of life and control costs. Little is known about how care homes and the health service work together and if different approaches achieve different results for older people. **In this study, 'care home' refers to homes that provide personal care only (not nursing homes, unless stated otherwise).**

Approach is a 3 year study funded by the National Institute for Health Research (NIHR) Service Delivery and Organisation funding stream. The study aims to clarify what is known about integrated working between primary health care and care home providers, assess its impact on the care of older people and develop recommendations to inform future service development. It considers the different models of service delivery that are being used to enable integrated working between care homes and the NHS across England, the evidence for their effectiveness and at what cost.

WHAT IS INTEGRATION?

There are multiple definitions of integration used in relation to health care; this study used Kodner and *Spreeuwenberg's definition:*

A coherent set of methods and models on the funding, administrative, organisational, service delivery and clinical levels designed to create connectivity, alignment, and collaboration within and between the cure and care sectors..to enhance quality of care and quality of life, consumer satisfaction and system efficiency for patients cutting across multiple services, providers and settings.

Kodner D. L., Spreeuwenberg C. **Integrated care: meaning, logic, applications, and implications – a discussion paper.** *International journal of integrated care*. 2002 2(1) **1 – 6**.

This definition recognises that integration can work at different levels within and across different organisations including: funding, administrative, organisational, service delivery and clinical.

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APPROACH: Analysis and Perspectives of integrated working in PRimary care Organisations And Care Homes

APPROACH - PHASE ONE:

- **A systematic review** of research studies on integrated working between health services and care homes. Seventeen studies were included in the review, out of the 1633 identified through database searching.
- **A national survey** of care homes across England to establish the focus, range, type and level of integrated working that exists where health services work with care homes (195 care homes). Care home managers completed an online or paper survey which included sections on:

➢ Type and frequency of health services received by the care home

➢ How the NHS worked with the care home including use of shared documentation, joint training and NHS payment for services

➢ Manager's views on and experience of integrated working including facilitators and barriers

➢ Care home specific information such as the number of places, registration and staffing levels

APPROACH - PHASE TWO:

- **Case studies** 6 care homes based in 3 geographically diverse areas within England. We selected the care homes on the basis that they had different levels of integrated working with primary care services including:

➢ *2 care homes that had on site intermediate care beds funded by NHS and Social services respectively.* Residents in these beds received additional care from a dedicated multi-professional team of nurses and therapists. One of the care homes had electronic records, an intranet connection to the GP practice, a twice weekly GP clinic in the care home, and support from an NHS appointed care home nurse specialist.

➢ *2 care homes that worked closely with specialist health care services* (continence and nutrition) in addition to the usual primary care support.

➢ *2 care homes that received primary care support from a GP practice and linked district nursing services.* In one of the care homes, the GP ran a weekly clinic.

We tracked the care of a sample of residents (39 in total), for a year to record the health and social care support they received, and their experience of it. Information was collected through interviews with residents, relatives, the care home staff and health care professionals who worked with them, reviews of their care home notes as well as focus groups with care home staff and primary health care professionals. This was to establish how integrated working influences the process and networks of care available to the older person from different organisations. Patient and organisational outcome measures focused on how resident's health needs and functional ability were supported through integrated working, its effect on their quality of life and wellbeing, continuity of care, staff satisfaction, use of resources, services and the costs of implementation.

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SUMMARY OF KEY FINDINGS:

1. Findings from the review of the research:

- Limited evidence of integrated working in practice; any integrated working focused on individual residents, rather than on the care home population as a whole, resulting in little impact on the review and support for residents' overall health care.
- Only one study had evidence of care home staff and resident's involvement in the design and implementation and only two had consulted staff on their perceived training needs.
- A small number of studies had achieved integration at the level of service delivery for example, through the use of dedicated health care teams working with care homes. These interventions included ongoing training and support for care home staff which helped to sustain the interventions, and in some cases led to decreased hospitalisations.
- Care home staff expertise in working with older people was not recognised or valued by health care staff

2. Findings from the national care home survey:

- Majority of care homes worked with at least 2 GPs (30% with at least 5); a minority paid retainers (7 %).
- Main issues that care homes had with GPs related to visits, setting up regular clinics and medication reviews.
- Care homes received a wide range of services (mean number was 14), but 47% had received no palliative care services in the previous 6 months despite the national end of life programme and other initiatives to support end of life care in care homes. Specialist nursing services were also difficult to access.
- The pattern of service provision replicated a survey conducted 10 years ago but contrary to our expectations, health care input to care homes appears to have diminished.
- Two thirds of the care homes believed they worked in an integrated way with the NHS but only 50% reported they had joint training with NHS colleagues, of those 70% reported using shared documents but this often meant completion of NHS documents by care home staff; most notably MUST (Malnutrition Universal Screening Tool).

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3. Findings from the case studies:

- Findings suggested that the key features of integrated working were not shaped by the model of health care delivery, but by the relationships with individual primary care staff and their style of working with care home staff.
- It could not be assumed that allocating a single GP practice to work with a care home, or the presence of funded NHS beds encouraged continuity of care, a population based approach to care or distinctive patterns of integrated working.
- Older people saw their health care and health needs as mediated by care home staff (and their relatives). They understood the quality of health care in terms of their day to day social relationships and their ability to be involved in or influence decision making for example in medication decisions and access to services. There were a few interesting examples of residents challenging the quality of primary health care received
- Care home staff wanted flexible support, advice and information on how they should be providing care. Health care professionals wanted care home staff to follow correct referral procedures and protocols, and align their working practices more closely with the priorities of health care.

The findings raised fundamental questions about how the NHS understands its role with independent providers of care and the need to consider what should characterise services regardless of the chosen service model (i.e. dedicated teams, greater GP involvement, use of financial incentives). Overall, the study suggests that there is a need to develop certain features within existing models of service delivery. What these features might be will be part of the discussion on the day.

The Approach study team are:

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Prof. Steve Iliffe, Co-investigator, *University College London.*

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