

# National Evaluation of the Department of Health's Integrated Care Pilots

FINAL REPORT: FULL VERSION

RAND Europe, Ernst & Young LLP

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## Preface

This document is the final output of an evaluation of the 16 DH Integrated Care Pilots (ICPs). It provides an account of the evaluation activities conducted, the data collected and the analyses completed. Based on this we identify key findings and conclusions about the processes and outcomes seen within the pilots during the evaluation. The evaluation was conducted by a team from RAND Europe and Ernst and Young LLP, with additional statistical analysis provided by the RAND Corporation and The Nuffield Trust.

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## Acronyms and glossary

A&E	Accident and Emergency department
CCF	Congestive cardiac failure
CCP	Co-operation and Competition Panel
COPD	Chronic obstructive pulmonary disease
CVD	Cardiovascular disease
DH	UK Department of Health
DNA	'Did not attend'. Refers to patients missing health or social care appointments
Deep Dives	Term for four pilots chosen for in depth case study: Cumbria, Nene, Norfolk and Principia
EMRs	Electronic medical records
Difference-in-difference analysis (DiD)	A quantitative analysis designed to measure the effect of an intervention, comparing the outcome before and after the intervention, but taking into account any changes that may have occurred in a control population; sometimes abbreviated to DiD
HES	Hospital Episode Statistics
HMO	Health Maintenance Organisation
ICO	Integrated care organisation. An entity formed from previously separate care providers or an organisation created to provide integrated services. (Some sites use this interchangeably with ICP where their intervention involved such a partnership.)
ICP	Integrated care pilot(s)
KPI	Key performance indicators
LISI	Low income scheme index
Living Document	A template consisting of eight questions/subject areas that all 16 sites amended, tracking their progress at six points throughout the pilot period
MDT	Multidisciplinary team. A team of clinicians from various professions and/or focuses, e.g., a practice nurse, speciality nurse, GP, and a consultant who formally collaborate
MESG	DH Measures and Evaluation Steering Group. This group was set up to oversee the ICP evaluation programme through the evaluation design and data collection phases
NPO	Non-participant observations
NRC	National Reference Costs
PARR	Predicting and Reducing Re-admission to Hospital. PARR is a predictive risk model to identify individuals at high risk of re-admission to hospital. Sometimes called PARR+ or PARR++ when additional parameters are introduced into the model.
PbC	Practice based Commissioning. Policy enabling groups of GPs to take on 'virtual budgets' from the PCT to direct purchasing of chosen services
PbR	Payment by Results. Policy through which providers are paid by service provided using a national tariff
PCT	Primary Care Trust. Regional care purchasing bodies in England
p-value	Throughout this report we make reference to 'p-value'. It tells us the likelihood of the statistical data being a result of chance. We use it in order to avoid making unfounded claims about the significance of our observations. Selecting a significance level is a matter of convention but usually a p-value of less than 0.05 is said to be statistically significant
QIPP	The Quality, Innovation, Productivity and Prevention programme is a national Department of Health strategy involving all NHS staff, patients, clinicians and the voluntary sector. It aims to improve quality and delivery of NHS care while reducing costs to make £20bn efficiency savings by 2014/15.
QOF	Quality and Outcomes Framework. Policy that makes a proportion of GP practice payment dependent on meeting clinical, patient experience, and management targets
SDO	Service Delivery & Organisation. This is an initiative of the NHS National Institute for Health & Research to improve quality, effectiveness and accessibility of the NHS.

Acronyms and glossary

TCS	Transforming Community Services. A national policy that included the requirement for PCTs to legally separate their purchasing and provision functions with regard to primary and community care services.
TUPE	Transfer of Undertakings Protection of Employment
Virtual ward	An intervention in which a group of patients are tracked and cared for in their homes with same attention as though they were in a hospital ward; involves individual case management and usually multidisciplinary team meetings

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# **Executive summary**

# Executive summary

In this Executive summary we briefly outline the approach we took to this evaluation and the contents of each chapter. First, we provide a summary of our key messages, the main limitations to the data, and the implications for policymakers.

## Key messages

- While much of the wider literature focuses on ‘models’ of integrated care, we found that Integrated Care Pilots (ICPs) developed and implemented a loose collection of ‘integrating activities’ based on local circumstances. Despite the variations across the pilots, a number of aims were shared: bringing care closer to the service user; providing service users with a greater sense of continuity of care; identifying and supporting those with greatest needs; providing more preventive care; and reducing the amount of care provided unnecessarily in hospital settings.
- Most pilots concentrated on horizontal integration – e.g., integration between community-based services such as general practices, community nursing services and social services rather than vertical integration – e.g., between primary care and secondary care.
- Integrated care led to process improvements such as an increase in the use of care plans and the development of new roles for care staff. Staff believed that these process improvements were leading to improvements in care, even if some of the improvements were not yet apparent. A range of other improvements in care were reported by pilots following local evaluations. We have reported these but they lie beyond the scope of the national evaluation.
- Patients did not, in general, share the sense of improvement. This could have been because the process changes reflected the priorities and values of staff (a so-called professionalisation of services); because the benefits had not yet become apparent to service users (‘too early to tell’); because of poor implementation; or because the interventions were an ineffective way to improve patient experience. We believe that the lack of improvement in patient experience was in part due to professional rather than user-driven change, partly because it was too early to identify impact within the timescale of the pilots, and partly because, despite having project management skills and effective leadership, some pilots found the complex changes they set for themselves were harder to deliver than anticipated. We also speculate that some service users (especially older patients) were attached to the pre-pilot ways of delivering care, although we recognise this may change over time.
- A key aim of many pilots was to reduce hospital utilisation. We found no evidence of a general reduction in emergency admissions, but there were reductions in planned admissions and in outpatient attendance.
- The costs of implementing change were varied and individual to each pilot. We found no overall significant changes in the costs of secondary care utilisation, but for case management sites there was a net reduction in combined inpatient and outpatient costs (reduced costs for elective admissions and outpatient attendance exceeding increased costs for emergency admissions).
- Can the approach to integrated care found in these pilots improve quality of care? We conclude that it can if well led and managed, and tailored to local circumstances and patient needs. Improvements are not likely to be evident in the short term.

- Can the approaches to integrated care found in these pilots save money? Our conclusions concur with those of Ovretveit (2011) – not in the short term and certainly not inevitably. However, we found evidence that the case management approaches used in the pilots could lead to an overall reduction in secondary care costs.
- Echoing the views of Powell Davies and colleagues<sup>ii</sup> (2006), it is noted that the most likely improvements following integrated care activities are in healthcare processes. They are less likely to be apparent in patient experience or in reduced costs.

### **Important limitations to our findings**

- The ICPs stated that they enjoyed considerable support from their status as DH pilots, and, in addition, they were provided with project management support and formative feedback from the evaluation team. For these reasons we should be careful about assuming that lessons learned from the evaluation would apply to establishing integrated care more widely.
- The pilots built on existing practices, then learned, adapted and abandoned some things and seized new opportunities. Any before-and-after study is limited by the emergent and changing character of the interventions.
- Much of the qualitative data used here was sourced from interviews, surveys and structured feedback from the sites. It is inevitable that such data will be subjective and, on occasion, may be designed to present the best impression, though we do not believe this was generally the case.
- The reduction in secondary care costs that we demonstrated in case management sites needs to be balanced against the cost of delivering new services in the community, which were not measured in this study.
- The quantitative evaluation was limited to survey data from staff and service users and comparison of outcomes with data from matched controls. Attribution of changes (or lack of them) to the intervention is less secure in this design than, say, a randomised controlled trial.

### **What results mean for decision-makers**

- The scale and complexity of delivering integrated care activities can easily overwhelm even strong leadership and competent project management. While it may seem obvious in theory that integrating activities should be scaled to match local capacity, this was not always the case in practice. In some cases, enthusiastic local leadership produced expectations that were difficult to realise in practice. Changes to practice often took much longer to achieve than anticipated.
- The focus on the needs and preferences of end users can easily be lost in the challenging task of building the organisational platform for integration and in organising new methods of delivering professional care. Using performance metrics focused on the end user and strengthening the user voice in the platform for integration might avoid this.
- When developing integrating activities there is no one approach that suits all occasions, and local circumstances and path dependencies will be crucial in shaping the pace and direction of change. Integration is not a matter of following pre-given steps or a particular model of delivery, but often involves finding multiple creative ways of reorganising work in new organisational settings to reduce waste and duplication, deliver more preventive care, target resources more effectively or improve the quality of care.

<sup>i</sup> Ovretveit J. *Does Clinical Coordination Improve Quality and Save Money?* London: Health Foundation, 2011.

<sup>ii</sup> Powell Davies G, Harris M, Perkins D, Roland M, Williams A, Larsen K, et al. *Coordination of Care within Primary Health Care and with Other Sectors: A Systematic Review*. Sydney: Research Centre for Primary Health Care and Equity, School of Public Health and Community Medicine, UNSW 2006.

- Similarly, although the needs of the individual ICPs were due to local circumstances, there were some very common challenges reported, similar to those of more general organisational change (see Chapter 7). Individual organisations looking to implement service integration initiatives should take time up front to prepare for these challenges and create back-up plans to address them. We also recommend that the NHS as a whole should work to enable local, transitional changes (e.g., through giving organisations temporary relief from regulations restricting health or social care staff employment, or competition regulations, where strong cases are made).
- Of the approaches used in these 16 pilots, the case management focus adopted by six sites looked to be the most promising in terms of reducing secondary care costs. However, the reductions in costs were in elective admissions and outpatient attendance, rather than in emergency admissions as had been anticipated.
- General conclusions about integration are limited by the nature of these particular interventions, especially their focus on integrating community-based care as opposed to, for example, integration between primary and secondary care (which was the focus of only a minority of pilots).
- Although there are no pre-given steps, we believe that there is a common set of questions that should be asked when delivering more integrated care. These questions are identified in our proposed structured approach to planning and decision-making, which is summarised in our 'route map'.

### **The Report**

This report is the final output of a two-year, real-time evaluation of the Department of Health (DH) Integrated Care Pilots (ICPs). It is designed to be of interest to the DH and other policymakers, staff involved in supporting the implementation of the pilots and other organisations looking to develop similar initiatives designed to integrate segments of healthcare and/or health and social care.

## Chapter 1. Introduction

The 2008 NHS Next Stage Review<sup>iii</sup> (Darzi Review) articulated the need for previously fragmented services to be better coordinated and integrated in order to provide supportive, person-centred care that would facilitate earlier and more cost-effective intervention. This was reinforced in the White Paper *Equity and Excellence: Liberating the NHS* and has received further attention more recently with changes to the Health and Social Care Bill. These include the NHS Commissioning Board, economic regulator Monitor, clinical commissioning consortia, and health and well-being boards all being given duties to promote better integrated care.

The programme of ICPs was a two-year DH initiative that aimed to explore different ways of providing integrated care to help drive improvements in care and well-being. Organisations across England were invited to put forward approaches and interventions that reflected local needs and priorities, and 16 were chosen for participation (see Table 1).

**Table 1: The 16 initiatives selected to participate in the programme**

Pilot	Main integration focus / client group
Bournemouth & Poole	Structured care for dementia
Cambridge Assura	End of life care
Church View, Sunderland	Older people at risk of admission
North Cornwall	Mental healthcare
Cumbria	People at risk of admission (self-management)
Durham Dales	a) Rapid access medical assessment clinic with reclassification of acute hospital as community hospital b) Moving services closer to home c) Fuel poverty intervention d) Improved transport to services e) Older people's mental health
Nene (Northamptonshire Integrated Care Partnership)	People at risk of admission to hospital (long-term conditions)
Newquay	Structured care for dementia
Norfolk	Long-term conditions
North Tyneside	Falls in over-60s
Northumbria	Chronic obstructive pulmonary disease (COPD)
Principia, Nottinghamshire	a) People at risk of admission b) COPD
Tameside & Glossop	a) People at risk of cardiovascular disease (CVD) b) People with CVD
Torbay	a) Prevention of admission of older people to hospital b) Enhanced discharge planning c) People in nursing homes with COPD/ congestive cardiac failure (CCF) d) Services for low-level dementia
Tower Hamlets	Structured care for diabetes
Wakefield	Substance misuse

The ICP programme was led by the DH with programme management support and pilot liaison provided by an independent provider of programme management services for most of the programme's lifespan. The ICP evaluation was managed by Ernst & Young LLP (EY), while RAND Europe carried out the evaluation itself in collaboration with the University of

<sup>iii</sup> Darzi A. *High Quality Care for All: NHS Next Stage Review Final Report*. London: Department of Health, 2008.

Cambridge. Together, EY and RAND comprised the national ICP evaluation team that additionally subcontracted the Nuffield Trust to provide analyses of hospital utilisation data.

The evaluation combined both formative and summative elements. The formative approaches included written feedback on Living Documents, evaluation team participation in regional events, teleconferences on evaluation matters with sites, feedback on the quantitative data set collected by each ICP, one-to-one telephone discussions where appropriate; and sharing evidence of good practice. The summative elements are described in this report.

## Chapter 2. Existing evidence on integrated care

There is a lack of common definitions of concepts underlying integrated care. As a consequence, a plethora of terms have been used, including 'integrated care', 'coordinated care', 'collaborative care' and many others. Thus, integration in healthcare is not likely to follow a single path and variations will be inevitable. We describe a number of theoretical frameworks that have been used to describe the type, breadth, degree and process of integration.

Evidence suggests that the problems associated with a lack of integrated care take many forms. In particular, as the population ages, healthcare systems are increasingly less well equipped to respond to the needs of increasingly older patients suffering from multiple chronic conditions and who require a combination of regular primary care support with both predictable and unpredictable specialist care.

A review of the literature suggests three important conclusions:

- There is no single 'solution' to integrating care. Success is likely to depend on the context in which the integration is introduced, not just the initiative itself.
- Interventions designed to integrate care are likely to improve processes of care and users' experience of care.
- Such interventions are much less likely to reduce costs.

In a recent review, Ovretveit (2011) concluded that the answer to the question 'Does clinical coordination improve quality and save money?' was 'Yes, it can', but that the answer depended on the approach used, how well it was implemented and the environment in which it was introduced, including the financial environment. In our view, this conclusion holds for a broad range of approaches to providing integrated care.

Despite uncertainties revealed in the literature, the need for integrated care maintains very high appeal, and much effort has been put into learning from other countries (Rosen et al., 2011)<sup>iv</sup> and providing guidance to the NHS on approaches that could be used (Ham et al., 2008<sup>v</sup>; Lewis et al., 2010<sup>vi</sup>; Ham and Curry, 2011<sup>vii</sup>).

<sup>iv</sup> Rosen R, Lewis G, Mountford J. *Integration in Action: Four International Case Studies*. London: Nuffield Trust, 2011.

<sup>v</sup> Ham C, Glasby J, Parker H, Smith J. *Altogether Now? Policy Options for Integrating Care*. Birmingham: Health Services Management Centre, University of Birmingham, 2008.

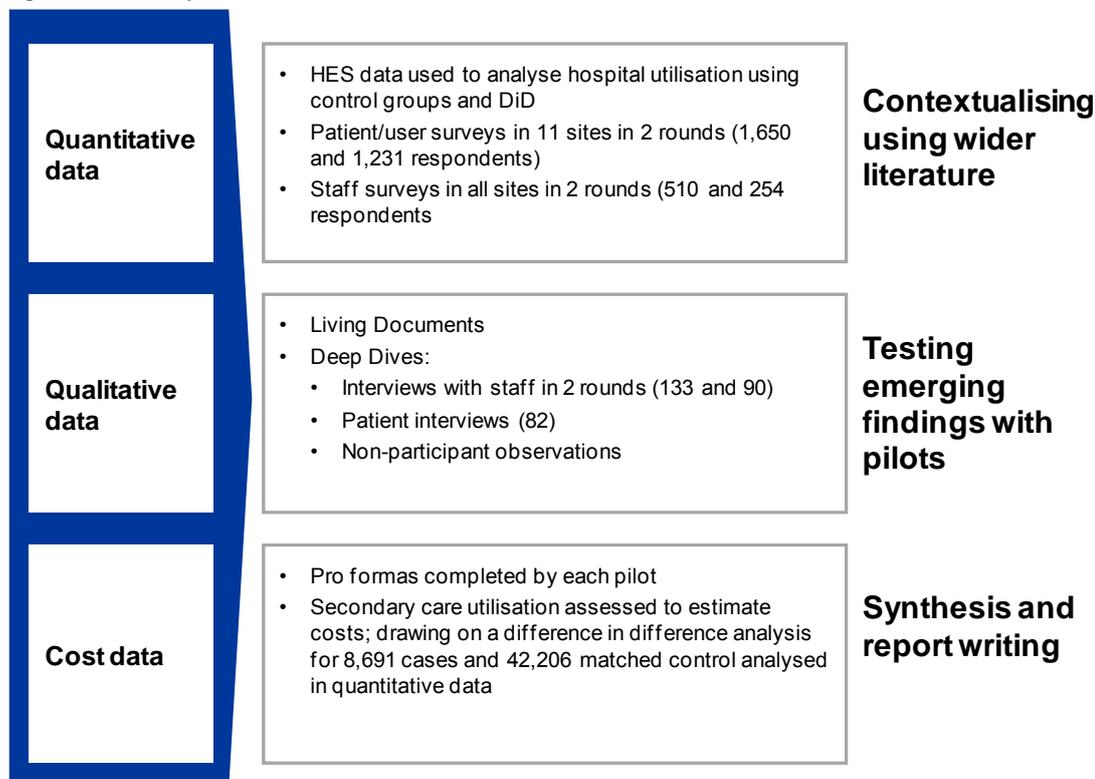
<sup>vi</sup> Lewis R, Rosen R, Goodwin N, Dixon J. *Where Next for Integrated Care Organisations in the English NHS?*. London: Kings Fund and Nuffield Trust, 2010.

<sup>vii</sup> Ham C, Curry N. *Integrated Care. What is it? Does it Work? What Does it Mean for the NHS?* London: Kings Fund, 2011.

## Chapter 3. Data and methods

The evaluation used a combination of quantitative and qualitative methods. These are summarised in figure 1 below.

**Figure 1: Summary of methods used in the evaluation**



The quantitative components included analysis of hospital utilisation data from Hospital Episode Statistics (HES), surveys of patient/service user experience collected from 11 sites, and surveys of staff collected from all 16 sites. Questionnaires were administered at two time points: for a cohort of patients/service users in autumn 2009 and autumn 2010, and for staff in summer 2010 and spring 2011. For patients, the quantitative evaluation sought to measure changes before and after an intervention had been received, while for staff, it sought to measure changes over time from early to late in the intervention period. Difference-in-difference regression analyses were used to analyse hospital utilisation data for 8,691 cases and 42,206 matched controls, and McNemar's – test allowing for clustering – was used in the analysis of data from staff and patient/service-user surveys.

Qualitative data were collected in two ways: through a structured, free-form questionnaire referred to as a Living Document, which all 16 sites completed quarterly with support from the evaluation team, and interviews and direct observation in a smaller selection of 'Deep Dive' sites. We carried out 133 semi-structured face-to-face interviews with staff members in six sites in autumn 2009 and 90 interviews in four sites in autumn 2010, as well as conducting 82 patient interviews across five sites in spring 2010. Changes in funding of the programme part way through the evaluation meant that a second round of patient interviews was not feasible, as had been originally planned. Non-participant observations (NPO) of various board meetings were carried out alongside the interviews in both rounds.

The evaluation included an analysis of costs and other resources required to develop and run the pilots. The cost estimation aimed primarily to identify categories of cost and the scale of resources required for each category for the first 12 months of pilot operation. We developed a pro-forma template, which was sent to all sites for one-time completion (January 2011), allowing us to understand their perceptions of the additional costs involved in developing and implementing the piloted activity. In addition, estimated changes in cost were based on

changes in secondary care utilisation from HES data using 2008/09 Payment by Results tariffs. Activity not covered by the tariffs was costed using the National Reference Costs (NRC). If neither tariff nor NRC were available, the activity was costed as the average tariff for the specialty under which it was delivered.

## **Chapter 4. About the pilots**

This chapter summarises the approaches taken by the 16 Integrated Care Pilots. Approaches to integrated care and the activities varied greatly, although most were based in primary care and most involved multiple partner organisations. Details of the integrated care activities in each of the 16 pilot sites are outlined, including details of conditions and populations targeted, intended interventions and organisations involved.

Integration as a concept was not rigidly pre-defined for the pilot sites (indeed a degree of experimentation was encouraged), and subsequently there were differences in chosen approaches to integration. A few sites attempted full-scale organisational integration (macro-level integration), but this was often difficult within the confines of NHS regulations. The commonest type of activity, implemented in almost all sites, involved integration of practitioners working in different organisations (meso-level integration). A small number of sites focused on integration within their organisation to improve coordination of patient care (micro-level integration). Most pilots concentrated on horizontal integration – e.g., integration between community-based services, such as general practices, community nursing services and social services – rather than vertical integration – e.g., between primary care and secondary care.

## **Chapter 5. Main findings of the evaluation**

This chapter summarises data from six sources: staff interviews, Living Documents, patient/service user questionnaires, staff questionnaires, HES including data on outpatient and inpatient utilisation, and the results of local evaluations submitted by sites.

Outcomes included improved teamworking especially for staff closely involved in the piloted activity, with improved communication both within and between organisations. By the end of the pilot, 51 per cent of staff working closely with the pilots reported that communication within their organisation had improved and 72 per cent reported that communication had improved with other organisations, compared to 1.4 per cent who reported that communication either inside or outside of their organisation had got worse. Integration with social care remained a problem in many sites, and fewer than half of staff members surveyed thought that their patients received care that could be described as a 'seamless service' by the end of the pilot period.

Staff, especially those closely involved in pilots, reported changes to their work patterns with 62 per cent of this group reporting an increased depth and 84 per cent an increased breadth of their job. Sixty-four per cent of staff closely involved in the pilots had taken on greater responsibility, and 64 per cent reported that they had a more interesting job. There was a need for additional training for these new roles, but less than 30 per cent of staff felt they had increased support for training. Some were critical of the lack of formal training.

A range of improvements to care for patients were described in staff interviews, Living Documents and local evaluations. In the second staff survey, 54.3 per cent of respondents thought that the care of their patients had improved over the previous year, compared to 1.1 per cent who thought it had got worse. Fifty per cent of respondents to the second staff survey had seen improvements in care that they attributed to the pilot, though 37 per cent thought it was still too early to tell.

Responses to surveys from patients and service users were more mixed. Following the interventions, respondents across all sites reported receiving care plans more frequently

(round 1: 26 per cent; round 2: 34 per cent,  $p < 0.01$ <sup>viii</sup>) and care that was better coordinated when they were discharged from hospital (e.g., 'knew who to contact about your treatment after you left hospital'; round 1: 71%; round 2: 80 per cent,  $p = 0.03$ ). However, patients and service users also found it significantly more difficult to see the doctor and nurse of their choice following an intervention, and they reported being listened to less frequently. They also reported being less involved in decisions about their care (round 1: 59 per cent; round 2: 54 per cent,  $p = 0.03$ ). These differences were in general more evident in sites focusing on case management for at-risk patients.

Across all sites (8,691 cases and 42,206 matched controls), we found a significant 2 per cent increase in emergency admissions for pilot patients, with a reduction in elective admissions and outpatient attendances by 4 per cent and 20 per cent respectively. In case management sites (3,646 cases and 17,311 matched controls), we found a significant increase of 9 per cent in emergency admissions in the six months following an intervention and a reduction in outpatient attendances and elective admissions by 22 per cent and 21 per cent respectively. The increase in emergency admissions was unexpected and may have been due to imperfect matching of cases and controls. Sensitivity analyses suggest that, while we cannot be sure that sites increased emergency admissions, we are confident that they did not in general achieve their aim of reducing emergency admissions.

A preliminary analysis suggests that three-quarters of the reduction in elective admissions in case management sites was associated with fewer elective admissions for cancer in general, and for chemotherapy in particular. The impact of these changes on costs is reported in Chapter 6.

## Chapter 6. Efforts and inputs

In this chapter we focus on the effort that was required to establish integrated care initiatives and the consequences in terms of costs of secondary care utilisation. We identify the costs incurred in the pilots in terms of:

- set-up/one-time costs (labour)
- set-up costs (non-labour)
- costs carried over from previously existing services (non-labour)
- running costs (new labour)
- running costs (continuing/existing labour)
- running costs (non-labour).

We estimated these costs for each of the 16 pilot sites, but note that project and finance managers in sites had great difficulty at times in estimating what were the costs associated with the introduction of integrated care. As a result, some of the estimates have a large element of uncertainty. We give case examples that illustrate the ways in which costs and effort were incurred in individual pilot sites and suggest that these are more revealing than aggregate estimates.

Introducing new services generally requires an up-front investment and very few sites included in their original proposal an aim to make cost savings in their largely primary or community-based organisations within the time period of the pilot. However, several sites aimed to reduce the use of secondary care.

Notional secondary care costs were estimated from our analysis of HES data in Chapter 5 by applying the set of mandatory and indicative tariffs used in England for the reimbursement of

<sup>viii</sup> For those unfamiliar with the meaning of p-values, please see Acronyms and glossary.

inpatient and outpatient care (2008/09 Payment by Results tariffs). Activity not covered by the tariffs was costed using the NRC. If neither tariff nor NRC were available, the activity was costed as the average tariff for the specialty under which it was delivered. The difference in difference analysis for individual pilot patients across all sites (excluding Torbay<sup>ix</sup>) shows significant increases on costs for emergency admissions, balanced by significant reductions in costs for elective admissions and outpatient attendances, leading to a non-significant reduction in overall secondary care costs (£37 per patient/service user,  $p = 0.36$ ). For case management sites, there was a significant 9 per cent reduction in overall secondary care costs in the six months following intervention (£223 per patient/service user,  $p = 0.01$ ).

## Chapter 7. Facilitators and barriers to success

Through interviews with staff in Deep Dive sites and through review of Living Document submissions we identified facilitators and barriers to the success of the Integrated Care Pilots in meeting their individual objectives. The barriers and facilitators identified could often be seen as two sides of the same coin, e.g., good management/poor management. We did not expect to find a single and simple shared set of facilitators and barriers across the range of pilots and variety of staff consulted. Nevertheless, a number of common themes emerged, many of which would be common to any major organisational change:

- Strong leadership was repeatedly cited as key to the success of pilots. Existing personal relationships between individuals also helped pilots to make rapid progress.
- The larger and more complex the intervention, the harder it was to implement the desired changes. We infer from the Living Documents that the scale and complexity of the integrating tasks were often greater than anticipated. This varied from site to site.
- Values and professional attitudes were of great importance to the success of pilots, with shared values, a collective communicated vision, and efforts to achieve widespread staff engagement cited as strong facilitating factors. Where key staff groups were not engaged (e.g., GPs), it was difficult to make progress. It was much easier to make progress where staff could see clear benefits that would result from the changes proposed and where they felt involved in the development of new services.
- Changing staff roles presented challenges. Where individual staff roles or professional identity was threatened, this was a barrier to integration. If education and training specific to the changed service was provided, this increased the chance of success. Changes to staff employment involving TUPE (Transfer of Undertakings Protection of Employment) regulations were a major barrier to change.
- Unrelated organisational changes were a particular challenge, as was the bureaucratic nature of NHS and local government processes. Information technology was commonly cited as a barrier to change. Financial constraints, such as unexpected budget changes, were also major barriers.
- Some barriers related to national policies, processes or legislation. For example, the financial structures of primary care, secondary care and social care in England make it a complex, time-consuming and sometimes impossible task to pool budgets for joint initiatives.

## Chapter 8. Discussion and conclusions

There is a challenge involved in making judgements about heterogeneous and emergent activities in a changing environment. Not only did the ICPs themselves adapt and change, but the changing wider context, including NHS and social care reforms, introduced a range of confounding factors. Furthermore, pilot status brought with it a degree of legitimacy and

<sup>ix</sup> Torbay is excluded from individual patient analysis of emergency admissions and costs, as patients were not identified as being part of the pilot until actually admitted to hospital.

national support that coincided with a palpable energy from local leaders. Care would need to be taken before assuming that any of the approaches would generate a similar sense of purpose and enthusiasm if rolled out without pilot status.

The evaluation reveals that integration is a way of managing the problems associated with specialisation and organisational differentiation. Specialisation in particular has driven improvement in healthcare for much of the twentieth century while organisational differentiation is an effective way of recognising the need for accountable bodies that have manageable tasks. 'Integration' is not an alternative to 'specialisation'. Rather, integrating approaches should be seen as adaptable models of care combining specialisation and standardisation with personalisation and integration.

We identified a set of 'integrating activities' that broadly describe the steps that the pilots went through in trying to provide better integrated care. These were:

- building governance and performance management systems
  - agreeing and setting standards to apply to formerly detached groups of staff
  - establishing protocols for sharing information about service users
  - establishing shared key performance indicators KPIs
  - establishing new lines of accountability
  - developing balanced scorecards to support strategic decision-making.
- making and developing the local business case for integrated care
  - showing how more integrated services would have better results, e.g., describing how a 'typical' patient would have a different life
  - using modelling tools to show where the costs and savings would lie
  - developing a monitoring framework to demonstrate the continuing benefits of integrating activities.
- changing attitudes and behaviours
  - providing strong leadership that can keep refreshing the message, with self styled 'champions' making the case
  - engaging staff, service users and wider stakeholders in the process of change
  - encouraging more responsibility by staff and reducing 'blame culture'.
- developing the necessary infrastructure (including information technology)
  - identifying and developing the infrastructure required to deliver care in new ways
  - establishing new ways of meeting and sharing, e.g., multidisciplinary team meetings
  - ensuring that integrating activities do not proceed more quickly than infrastructure allows
  - identifying the legal and technical limits to electronic information sharing.
- establishing supportive financial systems and incentives

- aligning incentives with new ways of delivering care
- establishing joint budgets, or hard budgets
- establishing how budget holders will be held to account under the new arrangements
- ensuring that joint responsibility does not dilute accountability.

Staff experiences of carrying out their projects were largely positive. Most staff members interviewed were enthusiastic about their pilot's progress and its potential for future impact, though some participants expressed disappointment that their pilot had not lived up to initial high expectations in the scope of new activities or the changes actually implemented. Indeed, it was the case that a number of major planned initiatives, sometimes critical to the pilot's plans, could not be implemented. Most often these were innovations that required major structure change or changes in financial arrangements.

A majority of staff who had direct patient contact thought that care for their patients had improved over the previous year, but we also note that over a third of staff in the second survey round thought it was too early to tell whether their pilot had improved care for patients. This emphasises the length of time that it took for several pilots to introduce their planned interventions – it is very difficult to produce rapid change in a system as complex as health and social care.

In contrast to staff experiences, patient/service-users' experience of care was mixed following interventions, with more care plans and better coordination following hospital discharge, but less continuity of care, poorer communication from professionals and less involvement in decision-making. We speculate on a number of possible explanations for this, including disruption in staffing leading to frail older people having to accustom themselves to new staff and new routines, and the process of care planning 'professionalising' care rather than increasing engagement of patients and service users in their own care.

We found no evidence for the anticipated reduction in emergency admissions for patients who received an intervention. We have no means of determining whether the continuing volume of admissions was appropriate or not. Balancing the unanticipated persistence of emergency admissions, we found reductions in outpatient attendances, which we suggest may have been due to moving services into primary care settings, an aim of several of the sites. Reasons for the observed reduction in elective admissions (especially in chemotherapy for cancer) are less clear. Taking these changes together, we found no significant impact of the pilots on secondary care costs.

Integrated care activity throughout 16 pilot sites has to date resulted in changes to the delivery of care that have led to improvements in staff experience and organisational culture. The interventions had high appeal to staff involved, and we hypothesise that, if continued, they may bring about improvements in outcomes relating to patient care and longer-term cost savings.

Chapter 1

# Introduction

# 1. Introduction

## 1.1 Summary

This document is the final output of a two-year, real-time evaluation of the DH Integrated Care Pilots (ICPs). It is intended to provide information about the evaluation activities conducted, the data collected and the analyses completed, in addition to evaluators' conclusions about the processes and outcomes seen within the pilot period. It will be of interest to the DH and other policymakers, staff involved in supporting the implementation of the pilots, and other organisations looking to develop similar initiatives designed to integrate care. In this first chapter, we describe the background and policy context of the ICP programme, and introduce the national evaluation.

## 1.2 Background

The rising number of people with long-term and/or multiple health problems has led to increased demands on primary and secondary healthcare, as well as on social care agencies. The 2008 NHS Next Stage Review (Darzi Review) articulated the need for previously fragmented services to be better coordinated and integrated in order to provide supportive, person-centred care that would facilitate earlier and more cost-effective intervention. These interventions should benefit the individual, their carers, the wider system of health and social care and, ultimately, society as a whole.<sup>1</sup> Integrated care has been identified as one way of addressing changing and growing demands for healthcare. Although some evidence (often short term and disease specific) suggests that integration of care will produce clear benefits,<sup>2</sup> there remain significant gaps in the evidence base and we have yet to understand the full dynamics of more widespread and long-lasting efforts of such initiatives.

When the ICP programme started in April 2009, integrated care was high on the national healthcare agenda following the Next Stage Review. In the year that followed, the concept remained both a focus of academic research and a policy interest of all three main UK political parties.<sup>3</sup> The DH continued to provide support for local care integration beyond the 16 pilots with practical tools and recommendations for commissioners planning such services, particularly for people with long-term conditions.<sup>4, 5</sup> The question of how much policy emphasis to place on the concept arose again in July 2010 when the coalition government published a White Paper setting out plans for reforming the structure and funding flow within the NHS (*Equity and Excellence: Liberating the NHS*).<sup>6</sup> Following a national consultation and feedback from the NHS Futures Forum report, the bill was amended with a renewed emphasis on integration, including requirements for the NHS Commissioning Board, economic regulator Monitor, clinical commissioning consortia, and health and well-being boards to promote the integration of healthcare and health with social care. This will coincide with the current Principles and Rules for Co-operation and Competition becoming legally binding. The Co-operation and Competition Panel (CCP), still responsible for 'preventing anti-competitive behaviour', will become part of Monitor.<sup>7</sup>

The background to this evaluation, therefore, identifies integrated care as an important issue for policymakers. However, the background is also one of considerable uncertainty about the best way to secure the anticipated benefits of integrated care or, indeed, whether integrated care is the right way forward for the NHS. This report aims to reduce this uncertainty.

## 1.3 About the Integrated Care Pilots programme

The programme of ICPs was a two-year DH initiative that aimed to explore different ways of providing integrated care to help drive improvements in care and well-being. Organisations across England were invited to put forward approaches and interventions that reflected local needs and priorities, and 16 were chosen for participation. To be successful, sites were required to put together proposals with local partners and with the support of the Primary Care Trust (PCT) within a few months. This may have encouraged potential pilots to emerge that were less radical and more consensual than would otherwise have been likely. Be that as

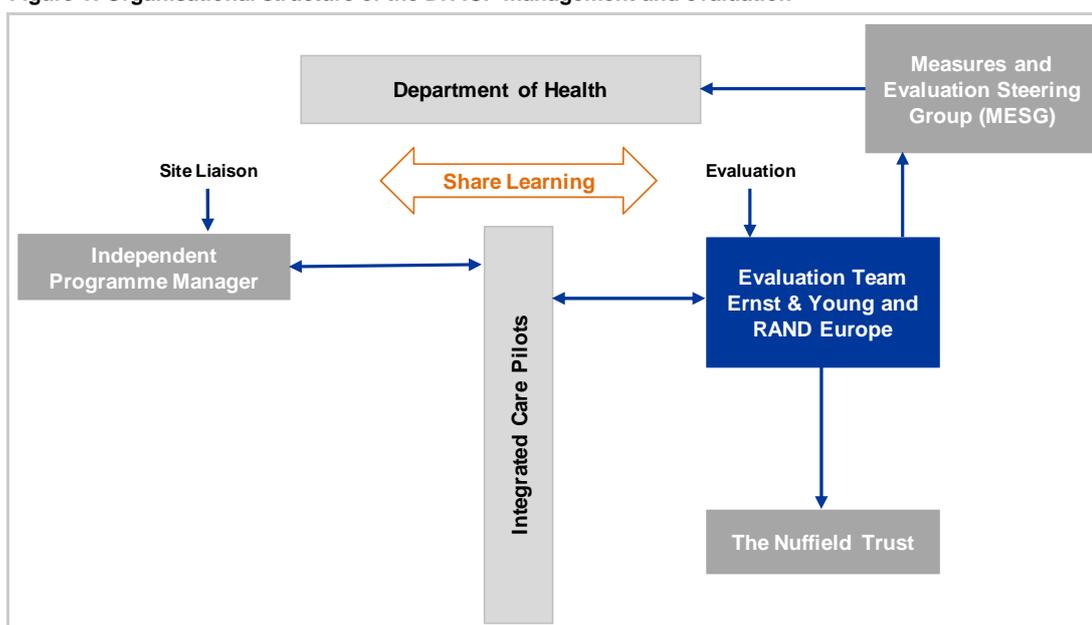
it may, the approaches to integration among the pilots selected aimed to achieve integrated care without fundamentally challenging the institutional architecture of health and social care. More precisely, they mostly aimed to explore how to deliver integrated care within the existing organisational boundaries. As we shall see, in the cases where these boundaries were challenged, the pilots faced fundamental barriers. Chosen sites reflected a variety of targeted populations and conditions. Table 1 outlines the 16 ICPs and the focus of their intervention(s). Each is presented in more detail in Chapter 4.

**Table 1: The 16 initiatives selected to participate in the DH ICP programme**

Pilot	Main integration focus / client group
Bournemouth & Poole	Structured care for dementia
Cambridge Assura	End of life care
Church View, Sunderland	Older people at risk of admission
North Cornwall	Mental healthcare
Cumbria	People at risk of admission (self-management)
Durham Dales	a) Rapid access medical assessment clinic with reclassification of acute hospital as community hospital b) Moving services closer to home c) Fuel poverty intervention d) Improved transport to services e) Older people's mental health
Nene (Northamptonshire Integrated Care Partnership)	People at risk of admission to hospital (long-term conditions)
Newquay	Structured care for dementia
Norfolk	Long-term conditions
North Tyneside	Falls in over-60s
Northumbria	Chronic obstructive pulmonary disease (COPD)
Principia, Nottinghamshire	a) People at risk of admission b) COPD
Tameside & Glossop	a) People at risk of cardiovascular disease (CVD) b) People with CVD
Torbay	a) Prevention of admission of older people to hospital b) Enhanced discharge planning c) People in nursing homes with COPD/ congestive cardiac failure (CCF) d) Services for low-level dementia
Tower Hamlets	Structured care for diabetes
Wakefield	Substance misuse

The ICP programme was led by the DH with programme management support and site liaison provided by an independent provider of programme management services for most of the programme's lifespan. This is important to note in relation to understanding the transferability of lessons from this evaluation because the 16 pilots enjoyed a level of political support from the DH and project management support from an independent provider of programme management services that might not be available for later efforts to deliver more integrated care. The ICP evaluation was managed by Ernst & Young LLP (EY), while RAND Europe carried out the evaluation itself. Together, EY and RAND comprised the national ICP evaluation team that additionally subcontracted the Nuffield Trust to provide analyses of hospital admissions data. The evaluation team was also expected to provide feedback and support to the pilots and this role is described in the following section. The DH Measures and Evaluation Steering Group (MESG) oversaw the evaluation and provided both external viewpoints and additional support. All key steps in the evaluation were discussed and agreed with the MESG. Figure 1 shows the organisational structure of the ICP management and evaluation.

Figure 1: Organisational structure of the DH ICP management and evaluation



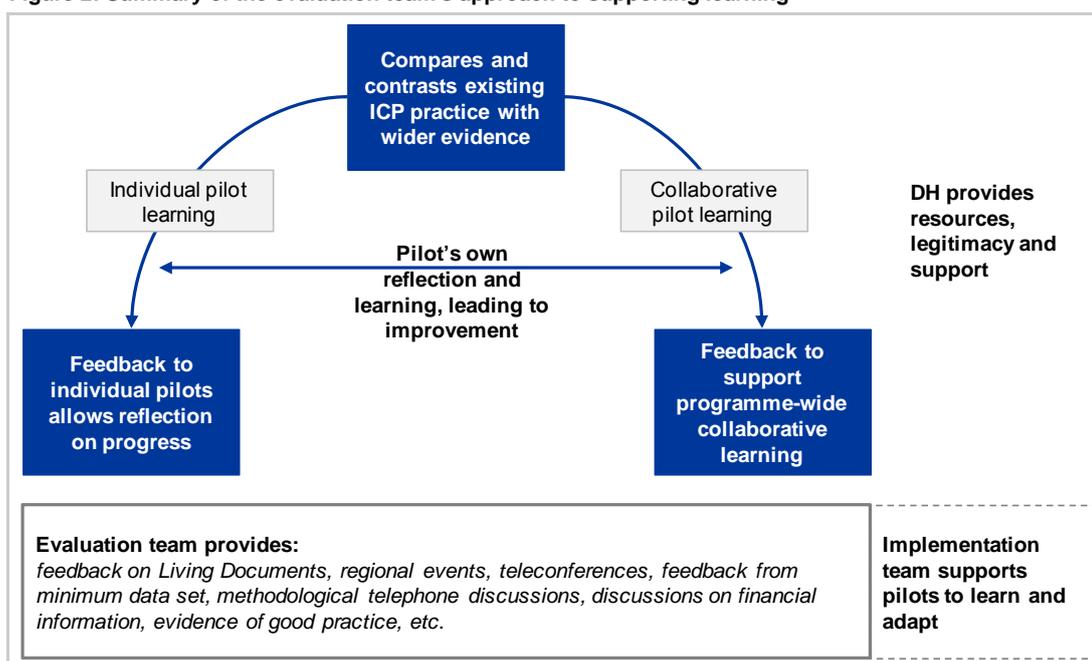
## 1.4 About the ICP evaluation: significance and what it seeks to achieve

As described further in the next chapter, the belief that integrated care can deliver efficient and effective improvements in health and social care had arguably outstripped the modest evidence to support this. The DH therefore determined that an evaluation would be conducted alongside the programme to establish and support the ICPs. The evaluation presented is significant for its three key features – it was to be formative, summative and in real time.

The first feature of the evaluation was that it had to have a formative dimension: it should deliver, during the life of the programme, a steering or corrective role. The evaluation itself had to pay attention to the processes in the pilots, but also be able to provide a description of how the evaluators influenced the pilot. The role of the 'embedded evaluator' was therefore built into the design of the ICP scheme and into the design of the evaluation. One aspect of this role was the evaluation team's communication with the pilots to: clarify pilots' goals and surface different focuses chosen by sites; understand the different approaches to integration taken by other ICPs; understand how different approaches function in their different contexts; identify successful (and less successful) activities associated with these approaches; and locate the activities within the wider evidence base, encouraging reflexivity and learning.

To support such learning, a variety of tools were used, including: written feedback on Living Documents; evaluation team participation in regional events; teleconferences on evaluation matters with sites; feedback on the quantitative data set collected by each ICP; one-to-one telephone discussions where appropriate; and sharing evidence of good practice. Our approach is summarised in Figure 2.

Figure 2: Summary of the evaluation team's approach to supporting learning



The second feature of the evaluation was that it should provide summative conclusions that address the following key evaluation questions: What resources were required? What was done with these resources? What were the consequences? Was it 'worth' it? A third important feature of the evaluation is that it took place in real time. As opposed to a post-hoc evaluation, this has allowed us, along with the pilots, to incorporate changes in the wider evidence base, policy context, and local circumstances. In particular, the wider context of public finances has changed, and pilots that may have been conceived in times of anticipated plenty were being delivered in a context of financial constraints. Consequently, and unsurprisingly, evaluation questions also evolved in recognition of these changes. More detail on the methods underpinning the evaluation is given in Chapter 3.

## 1.5 About this report

Regarding sources and citations in this report, individuals are not named and we have taken every effort to preserve confidentiality of staff members and patients who contributed to our evaluation. Instead we group people into the following descriptions:

- manager – includes administrative as well as service managers
- team leader – usually leader of a team of clinicians, sometimes nurses, sometimes social care, often mixed integrated teams
- healthcare professional – includes GPs, nurses, and other clinical healthcare staff
- social care professional – includes social workers, occupational therapists and other staff employed by local authorities
- lay or other participant – includes patient representatives, voluntary services providers or other interviewees.

Additionally, for some sites we use quotes from more than one staff member within the same job category, and for these we provide an additional identifying number (e.g., Manager 2, site 04, interview) to distinguish sources from one another.

In order to protect staff anonymity, 'Deep Dive' sites are referred to by numbers 1 through 5 when presenting quotes. Although we do not evaluate piloted activity on a site-by-site basis, sites are often referred to by name elsewhere in the document (with the exception of staff interview attributions) in order to enhance usability of the findings.

We begin this report with an update on the evidence available on integrated care (Chapter 2), and then explain the methods of the evaluation (Chapter 3) and each of the pilots' aims and activities (Chapter 4) in more detail. Chapter 5 describes outputs and outcomes of pilot activity, while Chapter 6 assesses the associated inputs and costs. Chapter 7 explains facilitators and barriers, while Chapter 8 presents our conclusions. Each chapter begins with a summary of its contents. Throughout the report we refer to various appendices, which are presented as separate attachments.

Chapter 2

# **Existing evidence on integrated care**

## 2. Existing evidence on integrated care

### 2.1 Summary

There is a lack of common definitions of concepts underlying the practice and analysis of integrated care. As a consequence, for over a decade a plethora of terms have been used including 'integrated care', 'coordinated care', 'collaborative care' and many others. These long-running discussions have not been resolved. Thus, not only are there different ways to analyse integrated care but delivering integration in healthcare is unlikely to follow a single path and variations are likely to be important. Consequently, we take care to avoid confusing and inaccurate generalisations about the merits or otherwise of 'integrated care' as though there was some fundamental agreement about its meaning. In this chapter, we describe a number of theoretical frameworks that have been used to conceptualise the type, breadth, degree and process of integration.

The problems to which integrated care is thought to be a solution take many forms. However, there are some intuitively likely and widely agreed issues where greater integration is expected to deliver benefits. In particular, as the population ages, healthcare systems are proving increasingly ill equipped to respond to the needs of increasingly older patients suffering from multiple chronic conditions and who require a combination of regular primary care support with both predictable and unpredictable specialist care.

Despite the limited evidence base, the need for integrated care maintains very high professional and popular appeal, and much effort has been put into learning from other countries (Rosen et al. 2011)<sup>8</sup> and providing guidance to the NHS on approaches that could be used (see for example: Ham et al., 2008<sup>9</sup>, Lewis et al., 2010,<sup>10</sup> Ham and Curry, 2011<sup>11</sup>).

This chapter provides an overview of how 'integrated care' has been conceptualised in the literature, its purpose and aims, as well as a summary of the evidence on the outcomes attributed to integrated care initiatives to date. This overview is based on comprehensive reviews that have been published elsewhere (see, for example, Ovretveit, 2011,<sup>12</sup> Nolte and McKee, 2008,<sup>13, 14</sup> Davies, 2008,<sup>15</sup> Fulop, 2005<sup>16</sup>). It is important to situate the findings from this evaluation within this wider body of knowledge.

### 2.2 What is integrated care?

For some time, the concept of integrated care has been widely but variously used in many ways in different health systems. A decade ago, Kodner and Spreeuwenberg (2002) commented:

... integrated care has many meanings, it is often used by different people to mean different things. It is most frequently equated with managed care in the US, shared care in the UK, transmural care in the Netherlands, and other widely recognised formulations such as comprehensive care and disease management.<sup>17</sup>

Today, a key challenge remains the lack of common definitions of underlying concepts. As a consequence there is a plethora of terminologies, such as 'integrated care', 'coordinated care', 'collaborative care', 'managed care', 'disease management', 'case management', 'health/social care service-user-centred care', 'chronic care', 'continuity of care', 'seamless care' and others. Consequently, there is no common framework through which to examine integrated care or to compare and contrast experiences. In this evaluation we anticipated that there might be distinct and easily differentiated models of integration emerging, but, like the wider literature, rather than crisp and distinguishable models we found a set of overlapping integrating activities that were tailored to the specific local circumstances of each pilot. We suggest, therefore, that the conceptual elasticity of analyses of integrated care is less a product of confused thinking and more a result of the polymorphous nature of the practice of integrated care itself. Thus, integration in healthcare is not likely to follow a single path and we should anticipate variations among the pilots. However, to provide some way of locating

the pilots in the wider evidence base, the section below gives some examples of what different approaches to integrated care look like in practice.

### 2.2.1 What might models of integrated care look like in practice?

The literature reviewed offers a range of examples of how integrated care might be adopted in practice. Some of these examples are outlined below to highlight the variety of initiatives that fall under the integrated care umbrella:

- Customised integration and disease management – this strategy focuses integrated medical delivery ‘on high cost and chronically ill patients’. These patients take up a disproportionate share of medical expenditures and are ‘the most appropriate candidates for care models that are integrated around specific disease or individually tailored to address a complex set of conditions’ (Burn et al., 2002, p. 136).<sup>18</sup>
- Co-location of care – ‘joint venture collaborations in industry often rely on co-location of personnel to achieve coordination of activities. That is, personnel from one firm relocate their offices to the other firm; the intent is to foster greater interaction, learning and mutual adjustment’ (Burn et al. 2002, p. 137). Structural efforts are required to co-locate personnel. This in turn requires changes in teamwork processes and the delivery of care to facilitate improvements (Burn et al., 2002, p. 138).<sup>18</sup>
- IT-integrated healthcare – this method of integrated care relies principally on information technology. It can make use of a number of advances in IT such as ‘electronic medical records (EMRs), personal digital assistants, digital imaging/storage/retrieval, automated drug and supply dispensing, beds with built-in electronic patient charts, remote patient monitoring, electronic transmission of patients’ physiological data, and robotic surgery’ (Burns et al., 2002, p. 138).<sup>18</sup>
- Patient integrated healthcare – this model ‘empowers individuals and gives them incentives to coordinate their health information and serve as their own gatekeeper’ (Burns et al. 2002, p. 138).<sup>18</sup>
- Shared information among professionals from different sectors – this model uses ‘greater sharing of patient information among health and social care professionals to facilitate the treatment of patients in a coordinated fashion, minimise data storage costs and reduce problems that result from separate information systems’ (Lloyd and Wait, 2006, p. 14).<sup>19</sup>
- Standardised communication protocols and formats – these are used to facilitate and improve communication between health and social care professionals and to enable a more seamless and integrated care process (Lloyd and Wait, 2006, p. 14).<sup>19</sup>
- Single assessment processes incorporating multidisciplinary assessment – ‘single assessment processes reduce the number of assessments that a patient undergoes and provide a central point of information from which to coordinate care’ (Lloyd and Wait, 2006, p. 14).<sup>19</sup>
- Single access points to care – this model aims to reduce the number of ‘access points’ of care for users, ideally to a single access point in order to reduce the number of professionals and organisations that patients have to deal with (Lloyd and Wait, 2006, p. 14).<sup>19</sup>

### 2.2.2 Conceptualising integrated care

The conceptualisation of integrated care often encompasses four key elements: (a) the types of integration (e.g., functional, organisational, etc.); (b) the breadth of integration (i.e., vertical or horizontal); (c) the degree of integration; and (d) the process of integration (i.e., structural, cultural, social). These elements are described in turn in this section.

## Different types of integration

The literature refers to four main types of integration (Nolte and McKee 2008, p. 71, citing Shortell et al., 1994; Simoens and Scott, 1999; Delnoij et al., 2002).<sup>14, 20-22</sup>

- **Functional integration** – the extent to which key support functions and activities such as financial management, human resources, strategic planning, information management and quality improvement are coordinated across operating units. According to Contandriopoulos et al., its purposes are ‘to create a common, explicit structure that will allow the integrated system to make decisions (divisions of tasks, responsibilities and recourse) that are consistent with the clinical project; obtain and distribute the financial resources (the creation of economic incentives) within the system to coordinate their actions and lastly to implement and use an information system that reflects the range of the system’s activities so as to assist decision-makers and enable the system to adapt to the changing context and needs by encouraging stakeholders to adopt an introspective attitude towards their practice’ (Contandriopoulos et al., 2003, p. 19).<sup>23</sup>
- **Organisational integration** – the creation of networks, mergers, contracting or strategic alliances between healthcare institutions. This type of integration can be achieved through mergers or structural changes or through contracts between separate organisations (NHS Confederation, 2006, p. 4).<sup>24</sup>
- **Professional integration** – joint working, group practices, contracting or strategic alliances of healthcare professionals within and between institutions and organisations.
- **Clinical integration** – extent to which patient care services are coordinated across the various personnel, functions, activities and operating units of a system. This type of integration will include the following consideration: ‘at the clinical team level, is care for patients integrated in a single process both intra- and inter-professionally through, for example, the use of shared guidelines along the whole pathway of care?’ (NHS Confederation, 2006, p. 4).<sup>24</sup>

In addition to these types of integration, Fulop et al. add **two elements or processes of integration** that they describe as crucial to determining the success of integrated interventions.<sup>16</sup> These are *normative integration*, where shared values play a key part in coordinating and securing collaboration in the delivery of care, and *systemic integration*, where rules and policies are coherently implemented at the various levels of the organisation.

## Breadth of integration

These types of integration can occur in ways that have been described as horizontal integration or vertical integration, commonly termed breadth of integration.<sup>20-21</sup> *Horizontal integration* links services that are on the same level in the process of healthcare, e.g., general practice and community care, and that facilitate organisational collaboration and communication between providers. *Vertical integration* brings together different levels of care (e.g., primary, secondary and tertiary) under one management umbrella.

## Degree of integration

Another important ‘layer of integration’ to consider is the degree of integration. Integrated care can be realised either as full integration or collaboration.<sup>14, 25</sup> Leutz describes a continuum that starts with health organisations developing ‘linkage’ (providing information on request and ensuring follow-up from other agencies, for example), ‘coordination’ (good discharge-planning, bidirectional reporting and so forth) and ‘integration’ (multidisciplinary teams, pooled budgets and so forth). Leutz argues that full integration is most appropriate for users with high levels of need (Leutz, 1999, p. 84).<sup>25</sup>

Full integration takes place when ‘the integrated organisation is responsible for the full continuum of care (including financing)’ whereas collaboration ‘refers to separate structures where organisations retain their own service responsibility and funding criteria’ (Nolte and McKee, 2008, p. 71, citing Leutz, 1999).<sup>14, 25</sup> Leutz dissociates coordination from full

integration because 'rather than better coordinating services and benefits of existing systems, the fully integrated program gains control of resources to define new benefits and services that it controls directly' (Leutz 1999, p. 88).<sup>25</sup> On the other hand, coordination is taking place when 'explicit structures and individual managers are installed to coordinate benefits and care across acute and other systems', coordination operates largely through 'the separate structures of current systems' (Leutz 1999, p. 85).<sup>25</sup> The third 'degree of integration' referred to by Leutz is 'linkage'; this dimension is described as 'the most appropriate way to identify new needs and to begin integrating services for many persons with disabilities who have both mild and moderate impairments and stable medical and functional conditions that are unlikely to destabilise and thus to require urgent attention' (Leutz 1999, p. 84).<sup>25</sup>

Furthermore, different models of integrated care will make use of different **integration processes**. These are defined as (Nolte and McKee, 2008, p.71, citing Fabbriotti, 2007):<sup>14, 26</sup>

- Structural integration (also referred to as organisational integration by the NHS Confederation, 2006, p. 4)<sup>24</sup> – the alignment of tasks, functions and activities of organisations and healthcare professionals.
- Cultural integration (also referred to as normative integration by the NHS Confederation, 2006, p. 4)<sup>24</sup> – convergence of values, norms, working methods, approaches and symbols adopted by the various actors. It is 'intended to ensure consistency between the collective system of stakeholders' representations and values and at the same time, the organisational methods of integrated system and the clinical system' (Contandriopoulos et al., 2003, p. 20).<sup>23</sup>
- Social integration – the intensification of social relationships between the various actors and integration of objectives, interests, power and resources of the various actors.

## 2.3 Why is it argued that integrated care is needed?

The number of people with chronic illnesses is growing, with a particularly rapid rise in the number of those with multiple health problems. Multiple health problems are most common among older people who are also rapidly increasing in number in the population. An estimated two-thirds of those who have reached pensionable age have at least two chronic conditions.<sup>27</sup> Nor is this a problem limited to the UK the World Health Organization estimates that 60 per cent of all deaths worldwide result from chronic conditions such as heart disease, stroke, cancer, respiratory diseases and diabetes.<sup>28</sup>

These issues are coupled with the fact that over the past 50 years healthcare systems have been focusing on strengthening acute care sectors to respond to the needs of patients suffering from life-threatening conditions such as heart attacks.<sup>29</sup> Thus, healthcare systems may not be well equipped to respond to the needs of increasingly older patients suffering from multiple chronic conditions and who require a combination of regular primary care support with both predictable and unpredictable specialist care. The goals of care for those with chronic and/or disabling conditions are not to cure (as is the case for acute conditions), but to enhance functional status, minimise distressing symptoms and prolong and enhance quality of life through secondary prevention. It is clear that these goals are less likely to be achieved through traditional approaches to care that focus on individual diseases and are based on a relationship between an individual health/social care service-user and a single health/social care professional.

Thus, current health systems amplify the potential for care fragmentation between different professionals and care organisations. As Shaw et al. observe, fragmentation of patient care can happen at different levels and tends to be in terms of the 'structural and cultural isolation of generalist from specialist medicine, or adult social care from health care, which often results in patients experiencing discontinuity of care when they are transferred from home to hospital, or vice versa'.<sup>30</sup> Thus, coordination of care is at the heart of the problem. Service users value coordination of their care, seeing it as an important component of overall quality, especially when they have chronic and/or disabling health problems and complex needs.<sup>31</sup>

Yet service delivery has developed in ways that have tended to fragment care within and between sectors, through, for example, structural and financial barriers dividing providers at the primary/secondary care levels and at the health and social care interfaces; distinct organisational and professional cultures; and differences in terms of governance and accountability.<sup>32</sup> Therefore, the complexity of needs arising from the nature of multiple chronic conditions, in combination with increasing frailty in old age in particular, involving physical, developmental, or cognitive disabilities, with or without related chronic illnesses or conditions, requires the development of delivery systems that bring together a range of professionals and skills from both the cure and care sectors to meet those needs.

## 2.4 What are the aims of integrated care?

The overarching aim of integrated care is to improve outcomes, especially for those with (complex) chronic health problems, by overcoming issues of fragmentation through the linkage of services of different providers along the continuum of care. Ultimately, integrated care initiatives aim to drastically change or continue to change the focus of healthcare systems from 'the episodic treatment of acute illness events to the provision of a coordinated continuum of services that will support those with chronic conditions and enhance the health status of defined populations'.<sup>33</sup>

Powell-Davies et al. summarise the potential benefits available to patients as a result of more integrated care compared with the use of multiple providers. They also highlight the challenges and barriers attempts to integrate care are faced with:

Utilization of multiple providers increases the likelihood that health care will be fragmented with over-utilization of medications, multiple avoidable hospitalizations, and medical errors leading to poor outcomes. Improving care coordination provides an opportunity to reverse these costly and adverse outcomes, although efforts to do so have far to go and are overwhelmed by the relative paucity of measures of coordination, uncertainty about what to do, and lack of national alignment of efforts.<sup>15</sup>

Service providers, on the other hand, could potentially achieve benefits in terms of cost savings, reductions in length of hospital stays, reductions in unnecessary hospital admissions and decreases in the number of admissions to long-term care,<sup>34</sup> all of which are highly context dependent.

However, although better coordination and integration of care have an apparent appeal and could create a range of potential benefits for both service users and providers, the available evidence on the effectiveness of different forms of integration or coordination of care remains uncertain.

## 2.5 Does integrated care improve outcomes?

A review that analysed the outcomes of initiatives designed to coordinate or integrate care was carried out by Powell Davies in 2008.<sup>15</sup> This review identified and analysed 85 primary studies that focused on coordination of care within primary care or between primary care and other services. An overview of this analysis is provided in Table 2.1 below. As is shown in the table, the review identified and clustered these primary studies into six focuses of intervention: changed relationships between service providers; coordination of clinical activities; improving communication between service providers; support for clinicians; information systems to support coordination; and support for health/social care service users. It is interesting to note that of the 85 studies reviewed and analysed, more than half focused on improvements in communication or communication systems between care providers. Hence, 56 of the 85 studies focused on improving communication between service providers and 47 out of 85 studies focused on information systems to support coordination. On the other hand, only about 22 per cent of these studies focused on supporting health and social care service users through education, reminders and assistance in accessing care.

**Table 2: Summary of the evidence on the effectiveness of interventions to improve coordination in healthcare**

Main focus of intervention	Proportion (%) of studies with positive outcome for health	Proportion (%) of studies with positive outcome for health/ social care service-user satisfaction	Proportion (%) of studies with positive outcome for cost saving
<i>Changed relationships between service providers</i> Structured relationships between service providers including co-location, case management, multidisciplinary teams or assigning health/social care service users to a particular PHC provider (33 studies)	19/29 (65.5%)	8/12 (66.7%)	2/12 (16.7%)
<i>Coordination of clinical activities</i> Using structured arrangements for coordinating service provision between providers, including joint consultations, shared assessments and priority access to another clinical service (37 studies)	19/31 (61.3%)	4/12 (33.3%)	3/15 (20%)
<i>Improving communication between service providers</i> Interventions designed to improve communication between service providers, e.g., case conferences (56 studies)	26/47 (55.3%)	12/22 (54.5%)	3/21 (14.3%)
<i>Support for clinicians</i> Interventions include support or supervision for clinicians, training (joint or relating to collaboration), and reminder systems (33 studies)	16/28 (57.1%)	8/14 (57.1%)	1/12 (8.3%)
<i>Information systems to support coordination</i> Using information systems to support the coordination of care, including care plans, decision support, pro formas, health/social care service-user held or shared records, shared information or communication systems, and a register of health/social care service users (47 studies)	23/38 (60.5%)	7/19 (36.8%)	2/13 (15.4%)
<i>Support for health/social care service users</i> Interventions include education, reminders and assistance in accessing care (19 studies)	6/17 (35.3%)	3/6 (50.0%)	1/7 (14.3%)
All studies	36/65 (55.4%)	14/31 (45.2%)	5/28 (17.9%)

Source : Powell Davies et al. (2008)

As shown in Table 2, the 85 interventions aimed at integrating or coordinating were more likely to produce positive patient health outcomes (in 55.4 per cent of cases) than an increase in service-user or patient satisfaction (in 45.2 per cent of cases) and they were least likely to produce cost savings (only 17.9 per cent showed cost savings). In addition, the fact that positive outcomes can be associated across the different focuses of intervention presented in the table serves to highlight that there is a variety of interventions for integrating or coordinating care that might secure positive outcomes in terms of patient outcomes, patient satisfaction or cost savings. Nonetheless, what this analysis has shown is that overall cost savings are least likely to be associated with integrated care interventions compared with these other two outcomes. We would also highlight a finding that resonates with our own – that the coordination of clinical activities appears more likely to deliver health benefits than improvements in user satisfaction.

Mattke et al. conducted a systematic review of studies on disease management initiatives (which could also be viewed as falling under the umbrella of integrated care) published between 1990 and 2005.<sup>35</sup> Their review covered 317 unique studies and concluded that although there was some evidence that disease management initiatives can improve the

quality of care for patients, their effects on costs was uncertain. In fact, the review found that the evidence that such initiatives reduce utilisation of health services was inconclusive, with the exception of initiatives targeting patients with congestive heart failure, where hospitalisation rates declined, and patients suffering from depression, where the use of outpatient care and prescription drugs increased as a result. Thus, the impact on costs and utilisation of health services of these initiatives appear to be highly dependent on the diseases being treated and whether these conditions tend to be associated with unnecessary high-cost treatment (as is the case for congestive heart failure) or with under-treatment (as with depression) prior to integrated care or disease management initiatives.<sup>35</sup>

Kodner and Spreeuwenberg (2002) also argue that cost savings are difficult to achieve through integrated care initiatives:

Savings from integration are only a 'hope'. The total costs of integrated care – including outlays for staff and support systems, services, and start-up – must be carefully defined, tracked and calculated before we can make pronouncements on the strategy's cost-effectiveness<sup>17</sup>

### **Evidence on the cost of integrated care in the UK**

As described above, previous reviews suggest that integrated care interventions are more likely to produce positive health outcomes and to improve patient/user satisfaction than to reduce costs. Despite this, cost reduction is often cited as an aim or potential outcome of efforts to integrate care.<sup>36</sup> In addition, given the variety of initiatives that can fall under the umbrella of integrated care with their diverse range of aims, target population, size of intervention group and context,<sup>37</sup> it is hardly surprising that it is very challenging to assess the potential of integrated care to reduce costs across multiple integration strategies and different types of costs (staff and support system costs, service costs and start-up costs as categorised by Leutz, 1999).<sup>25</sup> Evidence on the costs of integrated care across these integration strategies in the UK is very limited. Through our systematic search for relevant articles<sup>x</sup>, only five papers that discussed any costs of integrated care initiatives were identified. Two of these papers are based on observations from the same study in Darlington, UK in 1985–1986, which focused on the provision of community-based services for 101 frail elderly people discharged from long stays in hospital.<sup>38-39</sup> These studies concluded that some cost savings had been achieved, along with a reduction in hospital days. Even though two of these five studies point to cost effectiveness as a result of integration, it would be too simplistic to generalise the finding of these studies, which represent a single initiative and are highly context-specific.

As will be explored further in Chapter 6, defining and monitoring these costs is often a challenge in itself.

## **2.6 Conclusion**

Whilst there are an increasing number of articles published on integrated care, there is currently no overarching definition and the term is often used interchangeably with others such as 'coordinated care' or 'disease management'. Thus, the concept of integrated care is fluid and highlights the fact that a broad range of initiatives are brought under its umbrella. This only serves to compound a number of issues, including that of assessing the added value of integrated care generally and its potential benefits for both patients and professionals, as well as the potential cost savings it can engender. Since there is no single definition of the concept and there is great flexibility in how it can be done in practice (e.g., from having regular multidisciplinary meetings and communications with professionals from different organisations about patients, to actual physical co-location of care), it is not surprising that the evidence regarding its success, defined in terms of patient satisfaction, improved patient outcomes and cost savings, is difficult to assess and highly dependent on the context of these interventions (e.g., the features of the healthcare system in which they

<sup>x</sup> For our review of the literature on the costs of integrated care in the UK, we searched for relevant articles using Google Scholar and the following key words and terms: 'integrated care cost', 'organisational integration' AND costs health, 'organisational integration' AND costs health, 'integrated services' health UK cost OR costs, 'integrated services' health UK cost OR costs, 'integrated services' health UK cost OR costs, chronic disease management cost OR costs 'UK' and 'Service coordination' health UK cost OR costs.

are introduced, government policy, information systems holding patient records, financial systems, the patient groups targeted, etc.) in which the integration is introduced and not just on the initiative itself.

As highlighted in this chapter, there is little evidence to date that integrated care initiatives will reduce healthcare costs except for some specific conditions, such as congestive cardiac failure, and evidence on the relative value of different forms of integration and coordination of care delivery remains uncertain. These conclusions are reinforced by a recent review by Ovreteit (2011),<sup>12</sup> which concluded that the answer to the question 'Does clinical coordination improve quality and save money?' was 'Yes, it can', but that the answer depended on the approach used, how well it was implemented and the environment in which it was introduced (including the financial environment).

Despite uncertainties revealed in the literature, the need for integrated care has very high appeal, and much effort has been put into learning from other countries<sup>8</sup> and providing guidance to the NHS on approaches that could be used.<sup>10-11, 38</sup> The prize of avoiding over-utilisation of medicines, preventing unnecessary hospitalisations, and reducing medical errors through better integrated services remains important, and in principle, achievable. Securing this prize remains challenging, and in the following chapters we not only establish progress made towards this by the pilots, but also suggest lessons for improving the chances of achieving these goals.

Chapter 3

# Data and methods

## 3. Data and methods

### 3.1 Summary

The evaluation used a combination of quantitative and qualitative methods.

The quantitative components included analysis of hospital utilisation data from Hospital Episode Statistics (HES0), surveys of patient/service user experience collected from 11 sites, and surveys of staff collected from all 16 sites. Questionnaires were administered at two time points separated by one year: for a cohort of patients/service users in autumn 2009 and autumn 2010, and for staff in summer 2010 and spring 2011. The quantitative evaluation sought to measure changes before and after an intervention had been received for patients, and early and late in the intervention period for staff.

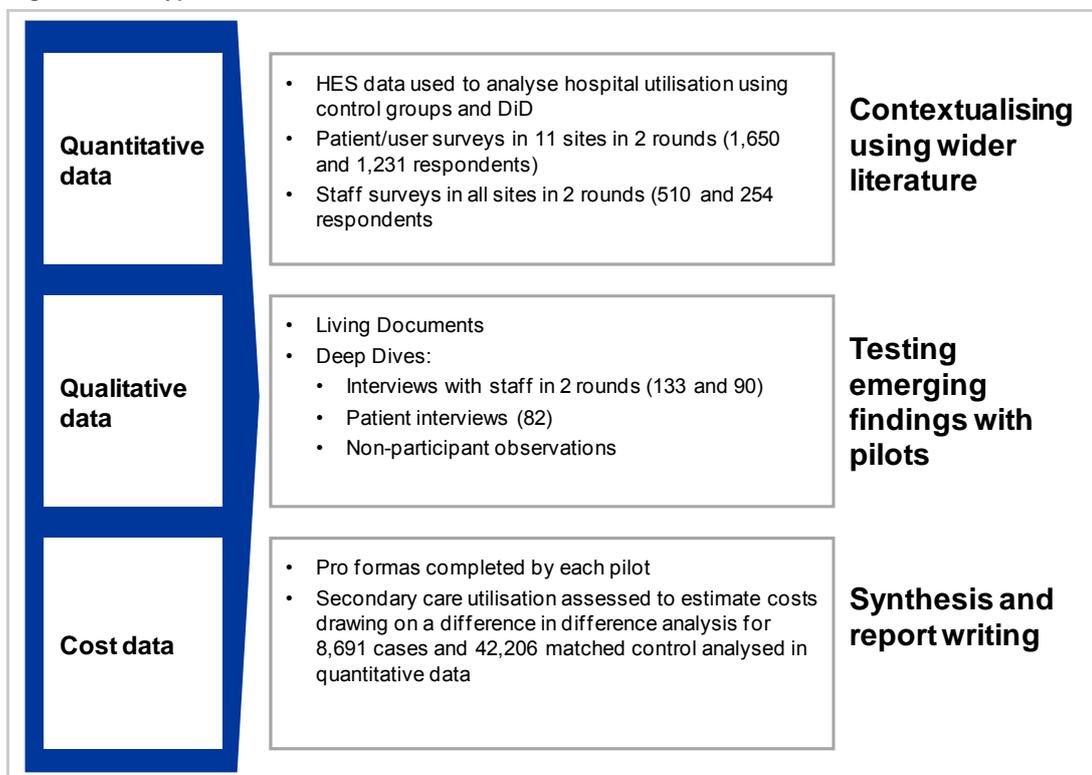
Qualitative data were collected in two ways: through a structured, free-form questionnaire referred to as a 'Living Document', which all 16 sites completed quarterly with support from the evaluation team, and interviews and observation in a smaller selection of six Deep Dive sites. We carried out 133 semi-structured face-to-face interviews with staff members in six sites in autumn 2009 and 90 interviews in four sites in autumn 2010, as well as conducting 82 patient interviews across five sites in spring 2010. Government funding restrictions prevented a second round of patient interviews that had been planned. Non-participant observations (NPO) of various board meetings were carried out alongside the interviews in both rounds.

The evaluation was enhanced by an analysis of costs and other resources required to develop and run the pilots. The cost estimation aimed primarily to identify categories of cost and the scale of resources required for each category for the first 12 months of pilot operation. We developed a pro-forma template sent to all sites for one-time completion (January 2011), allowing us to understand their perceptions of the additional costs involved in developing and implementing the piloted activity. We also estimated changes in costs based on changes in utilisation from HES.

## 3.2 Introduction

The methods used might be presented schematically as in Figure 3 below.

**Figure 3: Data type and use in the evaluation**



The three-year evaluation took a mixed-methods approach to study design and data collection. Rather than a separate study following the pilot activities from a distance, this evaluation was guided by the aim of delivering an ‘embedded evaluator’, through which evaluation activities are a distinct strand within the wider pilot programme, helping to co-produce the programme delivery (see protocol, Ling et al., 2010 in Appendix A).<sup>40</sup> Thus, we evaluated progress with piloting activities at the 16 sites at the same time as the interventions were themselves being implemented.

The mixed design combined a controlled before-and-after study of quantitative data, a cross-sectional study of cost estimates, and qualitative studies of experiences in all pilots. This approach was supported by various methods of data collection and analysis:

1. Systematic qualitative data collection from all 16 sites through a semi-structured Living Document completed regularly by each pilot and reviewed with feedback from the evaluators.
2. In-depth case studies of a sub-section of six sites called Deep Dives, which involved data collection through interviews with staff and patients/services users, non-participant observation of board meetings, and document review.
3. Analysis of person-level data on secondary care utilisation from the HES database.
4. Patient/service-user surveys.
5. Staff surveys.
6. Analysis of completed pro-forma cost estimate templates from the pilot sites.

In brief, the quantitative component aimed to compare secondary healthcare utilisation for patients receiving the integrated care pilot interventions against a control group, as well as comparing experiences of staff and patients before and after the intervention(s). To distinguish the 'before' from the 'after' for patients, we considered the intervention to have started at the point when patients were recruited or received the intervention, based on the date the pilot recorded an individual patient as having received an intervention (as opposed to the start of funding or recruitment of staff, etc.). The 'after' date was broadly defined as one year later, though, because of delays in many pilots starting up, we analysed patient questionnaires providing at least two months had passed between the start of the intervention for that patient and the date of the questionnaire. We recognise, and discuss in the conclusions in Chapter 8, that this might not have provided enough time for the full effects of the intervention to be experienced by patients. However, this schedule was not under the control of the evaluation team. We have assumed that the impacts on staff of changed ways of delivering services would be identified sooner and would be more visible. The cost estimation aimed to identify the categories of costs incurred and estimate the scale of resources required for each category throughout the various sites, thus enabling a better understanding of how much the approach might cost if it were implemented elsewhere. To simplify the cost estimation, we captured costs for a pilot's initial investment and its operation for one year only. Costs data were also collected on health service utilisation from HES data.

Finally, the qualitative component of the evaluation aimed to identify the approaches taken to integration by the 16 sites, the barriers and facilitators to success, and the context and mechanisms by which change did or did not take place (Ling et al., 2010).

Methods and the data sourced from them are presented in Table 3.

**Table 3: Data and sources**

Subject	Data source	Comments
Staff views	Staff interviews Living Document Staff surveys	Staff interviews in Deep Dive sites only Living Document completed for each site on six occasions Staff questionnaires sent out at two points, one early and one late in the evaluation
Patient/service-user views	Patient/service-user surveys	Questionnaire analyses before and after an intervention
Hospital utilisation (emergency admissions, elective admissions, A&E attendance, outpatient attendance)	Data from HES	Case-controlled analysis of utilisation patterns for six months before and six months after the start of an intervention Practice-based data analysed to look for change over the two years of the pilot scheme

This research design served to tailor the evaluation to the different aims of the 16 sites, which were not known at the time the evaluation team was appointed (Ling et al., 2010), and also to answer the many evaluation questions of interest set out in the initial protocol (see Appendix A for more detail).

### 3.3 Quantitative data and analysis

The three elements of quantitative data collection included:

- hospital utilisation data from HES
- patient/service user experience data from surveys (collected from 11 sites where the standard questionnaire designed for the evaluation was relevant to enrolled patients/service users)
- staff experience data from surveys (collected from 16 sites).

### 3.3.1 Hospital Episode Statistics

An overall approach to HES analysis of secondary care data is provided here. Appendix B provides more detail on the approach used for data linkage, formation of control groups, and the difference-in-difference estimation method.

#### Individual patient-level analysis

We aimed to compare hospital use of patients/service users who had received an intervention in the ICP sites with that of control groups of patients. Specifically, we aimed to compare numbers of emergency and elective inpatient admissions, outpatient attendances, visits to accident and emergency departments, and length of hospital stays between these groups. We also compared the number of admissions due to ‘ambulatory care sensitive conditions’, which are conditions that in principle may be preventable by good quality primary care. Hospital activity was assessed over the six-month period following the start of the intervention for patients and was based on the date the pilot recorded an individual patient as having received an intervention (as opposed to the start of funding or recruitment of staff, etc). We did not collect hospital utilisation data for Wakefield or North Cornwall because these sites did not aim to reduce admissions for the range of conditions that we studied.

Analysis can be conducted at the individual level or population level. The latter was achieved through practice-level analysis which compared rates of hospital activity between the general practices with patients in pilots and other patients in non-pilot practices in England. The individual patient-level analysis required patient-level data on hospital activity spanning a period of several years. Such data are used for routine operational purposes within the NHS, and collated within a national data set (the HES). However, access to person-level electronic data for health services research is protected by certain controls because of concerns for each individual’s rights, consent and ownership.<sup>41</sup> We adopted a data linkage approach, which meant that the evaluation team could conduct these analyses without access to identifiable patient data, with the NHS Information Centre for health and social care acting as the trusted third party for the linkage.

One of the key challenges in undertaking analyses of changes in hospital use for complex interventions relates to the selection of patients by virtue of recent use of health services. Groups of patients with recent hospital admissions have a natural tendency to experience fewer admissions in the future, even without an intervention, due to a statistical phenomenon called regression to the mean.<sup>42</sup> While a simple before-and-after comparison of hospital use in these patients could reveal significant reductions in hospital use, a portion of this change might have happened anyway in the absence of any intervention. Our approach was to adjust observed patterns of hospital use for the expected number of future hospital admissions using the outputs of a predictive risk model<sup>43</sup> and to use a difference-in-differences analysis<sup>xi</sup> to identify changes in patterns of utilisation comparing intervention patients with individually risk-matched control patients.

The matched control group was drawn from areas of England not participating in the Integrated Care Pilots. It consisted of individuals from the routine operational data sets who appeared to be similar to the patients receiving one of the pilot interventions, but who did not receive an intervention themselves. The primary variable that we required to be similar between pairs of control and intervention patients was the predictive risk score, but similarity was also sought in terms of age, sex, recorded diagnoses of major disease groups, prior hospital use, and characteristics of the area of residence, such as levels of deprivation (see Tables B1 and B2 in Appendix B for details of matching). Observed trends in secondary care use for intervention patients were then compared to expected trends from the control groups.

The inherent threat to validity in a matched control approach is that, although intervention and matched control groups may be similar in every way that can be observed, there may nevertheless be unobserved systematic differences between the groups. This is known as

<sup>xi</sup> A difference-in-differences analysis is designed to measure the effect of an intervention, comparing the outcome before and after the intervention, but taking into account any changes that may have occurred in a control population.

'unobserved confounding'. Appendix B describes in more detail the approach used for data linkage, formation of control groups and the difference-in-differences approach and regression methods used in the analysis of secondary care data for individual patients. It also describes the approach we took to address the problem of cases being incompletely matched to the controls. In this analysis we simulated the effect of an unobserved confounding variable to estimate the possible bias that could have arisen from incomplete matching of cases and controls.

### **Practice-level analysis**

While the person-based analysis will give the most direct measure of the effectiveness of the interventions, it is still of interest to see if the effect of the intervention can be seen at the practice level. For this we have separately used the number of elective admissions, the number of emergency admissions, the number of ambulatory care-sensitive conditions, the number of outpatient attendances, and the number of A&E attendances recorded in HES aggregated at practice level. For each practice the data were aggregated into 14 age-by-gender groups (age groups 0–4, 5–14, 15–44, 45–64, 65–74, 75–84 and 85+). Practices that received an intervention as part of the ICP scheme were compared to a random selection of half of all other practices in England. This comparison was made for the two years following intervention (12 months from 1 April 2009 and 12 months from 1 April 2010), and a greater effect in the second year was expected. Note that due to the unavailability of data, the A&E attendances analysed are only for 11 months in the final year.

The analysis performed was a longitudinal regression analysis using four years of data (two years prior to and two years following the intervention) employing a difference-in-difference methodology. The regression analysis controlled the following covariates: list size for each year under study; patient age and gender profile; list size per full-time equivalent GP; mean deprivation score; patient ethnicity profile; practice scores on the Quality and Outcomes Framework; disease prevalence (from the Quality and Outcomes Framework); mean years since qualification of GPs; the proportion of GPs who qualified in the UK; and the Low Income Scheme Index (LISI) score. The random effects were included so that the underlying admission rate in each practice was accounted for and so that this rate could change year on year. This was achieved by fitting an unstructured covariance matrix. An interaction term between year (following intervention) and intervention group allowed us to assess the effect of the intervention in the two years following intervention. Practices with fewer than 1,000 patients in any year were excluded from the analysis, as were all data from individual practices prior to any practice list size changes of more than 10 per cent in any one year.

### **3.3.2 Patient/service-user questionnaires**

We created a survey instrument to assess the experience of patients/service users in 11 of the 16 pilots (questionnaire reproduced in Appendix C). For five pilot sites it was not appropriate to collect patient information using this questionnaire because of the nature of the intervention and/or the population group targeted by the intervention (e.g., some pilots were focusing on end-of-life care). These sites were excluded from this part of the evaluation.

Questionnaires were administered at two time points with one year in between: autumn 2009 and autumn 2010 (follow-up was repeated on the same sample of patients/service users). The questionnaire was developed using planned outcomes identified by pilot sites in their applications to join the scheme. A number of domains common to most pilots were included. The survey comprised 26 questions covering communication with primary care doctors and nurses, organisation and coordination of care, care planning, assessment of care from social services, arrangements following discharge from hospital, frequency of certain critical events (e.g., notes unavailable, test duplicated, wrong medication, wrong dose of medication, no follow-up arrangements after hospital discharge), and type and frequency of recent health or social care provider.

Whenever possible we drew on existing validated instruments to select items to represent the identified domains, taking several questions from the English National GP Patient Survey, which is currently sent annually to 5.5 million randomly sampled patients ([National Evaluation of the DH Integrated Care Pilots](http://www.gp-</a></p>
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patient.co.uk). Cognitive interviews with volunteer patients in Cambridge tested the questionnaire for construct validity before distribution.

### Sampling

Sites identified a sample of up to 500 patients to ensure sufficiently large numbers to detect a large intervention effect. We planned to take a random sample in sites, expecting more than 500, but the identified populations did not exceed this number in practice, and several small pilots identified 200 or fewer patients for inclusion. In these cases we sampled all patients who had received an intervention. For sites identifying patients/service based on their risk profile (rather than presence on a disease register), respondents were sampled sequentially until the target of 500 was reached or until 31 March 2010 (a priori endpoint for enrolment). Table 4 below provides the total numbers of completed questionnaires at different stages of survey and rates of response.

**Table 4: A summary of survey process and response rates to patient questionnaires**

Number of questionnaires sent in round 1	2,995 (100%)
Number of questionnaires returned in round 1	1,650 (55%)
Number of questionnaires returned in round 2	1,231 (41%)
Number of questionnaires returned in both rounds	1,197 (40%)
Number who returned both rounds of the questionnaire AND had received an intervention at least two months before the second survey	700 (23%)

We excluded service users who had been identified by sites as eligible patients, had completed questionnaires for the first round, but who had not received an intervention by the time of the second survey. This led to a significant reduction in the number of responses available for analysis (Table 3.2). There were substantial differences in the numbers of responses from service users available for analysis from individual sites.

Unlike those answering the staff questionnaire, patients/service users were asked about their care in general and not about the impact of the pilot as they may have been unaware of the existence of the pilot. Therefore for patient/service user questionnaire results we report solely the responses of 700 service users who responded to both rounds of the survey and were documented by the sites as having received an intervention. For all patients/service users, the site identified the start date of its intervention.

Power calculations showed that detection of a small effect would require a sample of 2,500 patients and that small effects would therefore only be detected if we pooled data across sites. We therefore pre-specified sites with similar interventions where we planned to pool data. One subgroup analysis consisted of sites identifying patients at high risk of admission and who received some sort of intensive case management (Church View, Cumbria, Nene, Norfolk, Northumbria and Principia). A second subgroup pooled these sites together with sites aimed at people with dementia who also received intensive case management (Bournemouth and Poole, and Newquay).

### Data analysis

We used SPSS v19 to analyse the data from the 'before' time point (autumn 2009) and 'after' time point (autumn 2010). We transformed the data into categorical variables for analysis to overcome the problem of low variation in some variables and dichotomised the response variables by coding the top response category (e.g., excellent or very good) as 1 and all other valid response items as 0.<sup>xii</sup> Using STATA v12 we performed McNemar tests to test for differences between paired proportions of patients responding in a particular way in 'before' and 'after' rounds of the patient survey. These analyses were performed on the whole dataset as well as subsets of sites that were pooled (as above). We also carried out separate analyses on subsets of patients whose self-reported health did not change between two

<sup>xii</sup> As part of sensitivity analyses, we also experimented with coding the top two response categories (e.g., very good and good) as 1 and then the rest as 0. The results were not in general sensitive to the method of coding.

rounds of survey and patients whose health changed (typically deteriorated) over the same period. We adjusted the standard errors of McNemar tests for clustering of patients within sites, though this made little difference to the conclusions.

There were relatively more patients from Cumbria than from other sites in the case management group: We therefore conducted analyses for case management sites with and without patients/service users from Cumbria. These analyses are not included in this report, but they did not alter the overall conclusions.

A number of questions in the survey were taken from the National GP Patient Survey in order that we could compare changes in the Integrated Care Pilots to changes occurring more generally. These analyses were carried out for people over 65 completing the GP Patient Survey in 2008/09 and 2009/10, the most recent available datasets available to us.

### 3.3.3 Staff questionnaires

Survey data was collected from health and social care staff in all 16 pilots using a questionnaire administered in summer 2010 (early in the intervention) and spring 2011 (towards the end of the intervention). The questionnaire consisted of 24 questions on: personal experience of the piloted activity (e.g., changes to role, activities and work practices); views about health and social care quality received by patients/service users; communication within and between participating organisations as well as with other health and social care staff; experiences of teamworking, job satisfaction and ability to deliver high-quality care; and as information on individual background and demographic characteristics (questionnaire reproduced in Appendix D).

#### Sampling

The targeted sample was 50 members of staff per site, although some sites identified a slightly smaller number. Each pilot site had a designated project manager who assisted in identifying the sample of staff participating in their pilot, providing a list of two groups:

(A) members of staff formally associated with the pilot (in administrative or direct contact roles with service users), including all new appointees to the project and staff formally seconded full time or part time to the pilot, and

(B) members of staff not formally associated with the pilot, but whose work might be influenced in some way by pilot activity, such as GPs, community nurses or social workers.

Group A was expected to include between 5 and 15 staff members per site, while group B in some cases exceeded the targeted number of 50. In such cases we randomly sampled the relevant number of staff from the second group so as to make a total of 50 for distribution.

We followed the same staff cohort for the repeated distribution of the questionnaire in spring 2011. Any new staff who had joined group A were included in the second round, though in practice there were few of these. We also noted any staff that moved between groups A and B between survey rounds, although again such changes were rare. Table 5 below provides the total numbers of completed questionnaires at different stages of staff survey and the response rates. The numbers of questionnaires returned from the 16 sites were fairly similar, and analyses conducted with and without allowing for clustering of responses within sites suggested that the findings (e.g., particularly positive or negative ones) were not dominated by the results from any one site.

**Table 5: A summary of survey process and response rates to staff questionnaires**

Number of questionnaires sent in round 1	776
Number of questionnaires returned in round 1	510 (66%)
Number of questionnaires returned in round 2	354 (46%)
Number of questionnaires returned in both rounds	350 (45%)

## Data analysis

We used SPSS v19 to analyse the data from the 'before' time point (summer 2010) and 'after' time point (spring 2011). We transformed the data into categorical variables for analysis to overcome the problem of low variation in some variables and dichotomised the response variables by coding the top response category (e.g., excellent or very good) or two top response categories as 1 and all other valid response items as 0.

Using STATA v12 we performed a McNemar test to test for differences between paired proportions of staff members responding in a particular way in 'before' and 'after' rounds of the staff survey. As the number of staff responding from each site was small, we analysed the data aggregated from all sites. We adjusted the standard errors of McNemar tests for clustering of patients within sites, though this made no difference to the conclusions.

## 3.4 Qualitative data and analysis

We collected qualitative data in two ways. The first was through a structured, free-form questionnaire referred to as a Living Document (LD), which all 16 sites completed quarterly with support from the evaluation team. We also collected more detailed qualitative data in a selection of sites (Deep Dives), initially six and then four (following DH funding cuts in summer 2010). This was done using semi-structured, audio-recorded interviews with staff and with patients/service users, document review and non-participant observation of staff meetings.

### 3.4.1 Structured written feedback from all sites (the Living Document)

The LD required all pilots to complete and submit a standard template at six time points to assess learning and evolution of site management and thinking over time (Table 6). It provided a useful way to understand the progression of motivations, internal analyses, experiences and expectations of those leading the pilots. A wide range of stakeholders' views were expected to be represented in LD responses, although a lead person at each site was designated to collate responses into a single completed document for each submission.

**Table 6: Data collection time points for Living Documents**

Living Document Time Point (T)	Pilot month * and date
T1	month 3 (July 2009)
T2	month 6 (October 2009)
T3	month 12 (April 2010)
T4	month 18 (October 2010)
T5	month 24 (April 2011)
T6	month 29 (September 2011)

*NOTE: \*Start date (T0) for pilots was April 2009*

The LD template consisted of a series of eight broad questions, covering:

- development of the pilot, information, questions on background, purpose and context
- identification of the main people and organisations involved, and their roles in implementing the pilot
- intended processes, and processes that had been implemented to date
- outputs and outcomes achieved to date
- general perception of progress to date and description of what had facilitated/prevented progress

- assessment of project sustainability
- attribution of changes to specific initiatives relating to the pilot, in the context of other health policy initiatives
- resource implications of piloted activity.

Data collected from each submission round were analysed by theme, with formative feedback provided to each site.

Comments on the content of each LD were inserted within the document itself to indicate where more detailed information could be provided in future submissions. Evaluator feedback focused on achieving comprehensibility and completeness of the LD rather than on 'success' of the pilot to date. In addition, we produced a thematic report as a single summary document sent to all sites after each round of data collection. All the LDs were read again by the task leader to identify common themes in preparation for the all-site thematic review. To ensure important themes were not missed, the site-specific summary comments were then re-read along with the all-site thematic review. The last LDs completion did not produce a thematic review due to project timing. These thematic analyses served as the focus of discussions at learning events (conferences and teleconferences addressing issues of relevance to pilots), to provide a general update on ICP programme progress and to stimulate learning and discussion within and between pilots.

### **3.4.2 Diving deeper: in-depth case studies of selected sites (Deep Dives)**

To understand what works, why, and in what contexts, we selected a small number of pilots for in-depth case study (referred to as Deep Dives). The first half of the evaluation used six Deep Dive sites (Principia, Torbay, Norfolk, Northamptonshire Integrated Care Partnership (Nene), Cumbria and Church View), which were reduced to four (Principia, Norfolk, Nene, and Church View) due to cuts in the funding of the evaluation in summer 2010. The reasons for (albeit reluctantly) selecting Cumbria and Church View were pragmatic but different, Church View was very atypical of approaches to integration and Cumbria had faced unanticipated formal challenges to their preferred approach. Selection of Deep Dive sites was purposive, aiming to reflect the range of approaches in the pilots and an ability of the site to support a more detailed evaluation. Criteria included: pilot activities that had the potential for high impact if implemented nationally; activities considered to be particularly innovative; interventions for which the evidence was lacking; and, ensuring the sample of Deep Dives contained a variety of intervention focuses and target populations.

Additional data were collected in Deep Dive sites through semi-structured interviews with staff and patients/service users, document review and non-participant observation. This richer set of qualitative data on each site's context added meaning to the other data sources of the evaluation. Although the cost estimation was originally planned to focus on the Deep Dives for data collection, our approach was altered to include all 16 sites using a separate cost-specific template (see Section 3.5 below).

#### **Semi-structured interviews**

We performed 133 semi-structured, face-to-face interviews with staff in six sites in autumn 2009 and 90 interviews in four sites in autumn 2010, as well as conducting 82 patient interviews across five sites in spring 2010. Changes to the funding of the evaluation prevented the second round of patient interviews that had been planned. The interviews aimed to provide a deeper understanding of attitudes and experiences than revealed by the questionnaires, and the focus of questions varied for different respondents (see Table 7 below). In principle, interviews with patients/service users focused primarily on understanding the patient experience/journey with a short-term perspective, whereas staff interviews focused primarily on uncovering the intended logic of the intervention.

**Table 7: Focus of interviews by interview group**

Interviews with patients/service users and carers	Interviews with staff
Health status	Understanding of pilot objectives and their development
Type of providers seen and views of them	Interactions with other professional groups and with other organisations within the pilot
Experiences of care, including best and worst thing about their care, and any perceived changes <sup>1</sup> to care	Experience of delivering care (where applicable)
Overlap between services (e.g., repeated tests)	Understanding of implications of wider care system and national policies
Communication between healthcare providers	Sense of 'cost' of being involved in the pilot (personally or as an organisation) in terms of time and resources

*Note 1. We planned a second round of patient interviews before funding was reduced.*

Staff were identified for interviews by the project manager of each Deep Dive site, while we identified patients for interview from returned patient questionnaires, which invited respondents to tick a box if they were willing to be contacted for a more detailed discussion about their care. All interviews were audio-recorded, anonymised, transcribed and coded in NVivo 9 software (QSR International). A common structure for analysis and reporting of interview data was agreed in advance. A codebook specific to patient and staff interviews was developed through an iterative process of (1) selecting potential codes according to the relevant interview guide, (2) coding a small sample of interviews and developing any new codes, (3) discussing in team plenary and reorganising the codebook with new codes, (4) revising the codebook in light of team discussions, and (5) (re-)coding all interview data using the final codebook. Data was analysed according to emerging themes relating both to practical issues reported and to the subjective judgements of interviewees, resulting in a site-specific thematic report that was further analysed to produce a high-level synthesis report.

Patient interview data were organised along the themes of patient experience, professionals, treatment and services (views of them, valuing approaches of professionals, and services not seen), communication between professionals, experience of the pilot, and negative and positive views of care. Themes for organising staff interview data included: the pilot (previous experience of integration, current activities, training, relationships), perceptions and understanding of integrated care, perceived effects and outcomes, facilitating factors, challenges and barriers, reflections on pilot success or failure, and the future of the pilot and integrated care. As there were two rounds of staff interviews, the focus of reporting data from the second round of interviews aimed at highlighting change over the pilot's lifetime.

### **Non-participant observation**

Non-participant observation (NPO) was used to observe interactions among staff involved with piloted activity in the Deep Dives. Issues of interest included cross-professional working relationships, management processes and underlying issues of consensus and possible conflict. NPO took place during each round of staff interviews, with a researcher observing one meeting at each participating Deep Dive site. These meetings took place in non-clinical settings where the pilot representatives interacted, such as internal team meetings or external events designed to promote stakeholder understanding or involvement. Selection of events was opportunistic and determined in collaboration with each Deep Dive site.

Our observations lasted on average 2–3 hours and ethnographic field notes were written up, describing the behaviour of groups and sub-groups, as well as the observers' reflections on the meeting as a whole. We informed event participants of our intention to observe at the start of the event and explained how the data would be used in the evaluation. Given the small number of sites, we took care to anonymise both the site and individuals involved in a given event, and excluded data that could be traceable to a particular person. NPO data served to enhance the staff interview material used to produce site-specific thematic reviews. Thus, the NPO data provided context for understanding the evolving relationships among pilot staff and a fuller perspective on the local context.

### 3.5 Cost estimation

Given inevitable uncertainties surrounding precision of costs, the cost estimation aimed primarily to identify categories of cost and the scale of resources required for each category, for the first 12 months of pilot operation. We developed a pro-forma template (Appendix E) that was sent to all sites for one-time completion (January 2011), allowing us to understand their perceptions of the additional costs involved in developing and implementing the piloted activity. The five questions in the template covered the following cost categories:

1. added labour costs of involving/hiring new staff for pilot involvement
2. additional labour costs of involving existing staff in pilot activities
3. new set-up or fixed costs
4. products and services carried over from existing services
5. additional running costs to keep the project resourced.

For each question, sites were also asked to describe the level of confidence they had in the accuracy of their answers to 1–5 above. We corresponded with sites where no accurate data were available in order to agree upon a reasonable average or estimate, and noted the reasons why data were unavailable. Completed templates were analysed by calculating totals for each site by cost category and then summing together the totals from each to produce an estimate of (a) the overall investment costs (e.g., the one-time, set-up costs associated with preparing the foundation for the new processes or interventions); and (b) operation for one year. As sites were so varied in nature of interventions and scope that it was not possible to group the cost data from sites in a meaningful way in order to determine what could be concluded about the start-up and running costs of similar types of integration approaches/activities. While the pro-forma cost estimation template was the main source of data, we also drew on all relevant data sources collected above (i.e., completed LD, staff questionnaires and interviews) in order to triangulate and, where useful, illustrate the template information.

For the analysis of secondary care utilisation comparing patients/service users with controls, notional costs of care were estimated from HES data by applying the set of mandatory and indicative tariffs used in England for the reimbursement of inpatient and outpatient care (2008/09 Payment by Results tariffs). These assume a stay of a certain number of days (the trim point), and allow hospitals to charge a pre-specified amount for each additional excess bed day. Costs were not adjusted for the regional costs of providing care, and so were effectively a weighted activity measure that allowed robust comparison of the magnitude of care received for control and participants. Activity not covered by the tariffs was costed using the National Reference Costs (NRC). If neither tariff nor NRC were available, the activity was costed as the average tariff for the specialty under which it was delivered.

### 3.6 Local metrics

Sites also provided a range of local metrics designed to address aspects of their intervention that were locally relevant and might not be captured in the national dataset. These were agreed in advance with sites (two per site). Some results are given in Chapter 5, with a full summary in Appendix F.

Chapter 4

# About the pilots

## **4. About the pilots**

### **4.1 Summary**

This chapter summarises the approaches taken by the 16 Integrated Care Pilots. Approaches to integrated care and the activities varied greatly, although most were based in primary care and most involved multiple partner organisations. Details of the integrated care activities in each of the 16 pilot sites are outlined, including details of conditions and populations targeted, intended interventions and organisations involved.

Integration as a concept was not rigidly pre-defined for the pilot sites, and subsequently there were differences in chosen approaches to integration. A few sites attempted full-scale organisational integration (macro-level integration), but this was often difficult within the confines of NHS regulations. The commonest type of activity, implemented in almost all sites, involved integration of practitioners working in different organisations (meso-level integration). A small number of sites focused on integration within their organisation to improve coordination of patient care (micro-level integration).

### **4.2 Introduction**

In this chapter we present a summary overview of each ICP site including conditions and populations targeted, intended interventions and organisations involved. We then explore some of the organisational approaches to integration taken by the pilots in order to develop and implement these interventions. Please see Appendix G for full site overviews, including activity completed during the duration of the pilot.

### **4.3 Interventions and integrating activities**

Activities and approaches to integrated care chosen by the 16 ICPs varied greatly. Still, some commonalities could be seen. Common to nearly all sites was that piloted activity was based around or heavily involved primary care. GPs in England serve as gatekeepers to the rest of the health system and provide care for registered populations. As a result, they provide a useful level at which to implement connecting or coordinating activity. Most pilots involved multiple partner organisations, both within and external to the NHS. Table 8 provides a summary of the most common conditions targeted and organisations involved in the interventions across the 16 pilot sites.

Sites varied in the populations and conditions targeted, with some focusing on a single condition, but most focusing on a range of conditions. Most sites adopted some approach that identified populations – the risk in question varied between sites, with the commonest being people at risk of emergency hospital admission. The chosen interventions varied, but a common feature was use of an integrated or multidisciplinary team, with implementation strategies varying from regular meetings between different professionals involved with same patients, to a single, multiprofessional team working within the same building. The virtual ward (a forum in which a patient who is not present is discussed, often by a number of professionals from different specialities) was implemented in a number of sites. Methods by which patients were identified for admission, processes for operating virtual wards and the level of intensity of additional patient care varied between sites. Most commonly, virtual wards were maintained through a key worker or case manager who visited patients and reported back to other clinicians involved in the patient's care through multidisciplinary team (MDT) meetings. Other variations of case management were also used, including one in which a primary professional was assigned to coordinate care for a patient or a group of patients across organisations.

**Table 8: Integration activities undertaken by ICPs**

Site	Populations/conditions targeted								Collaborating organisations			
	Elderly	Long-term conditions	Falls prevention	Dementia/ Mental Health	End of life care	COPD	Co-morbidities	Other	Secondary care	Private sector	Social care	Third sector
Bournemouth and Poole	•			•					•			•
Cambridge					•		•		•	•		
Church View	•						•		•			
Cumbria (South Lakeland)	•	•					•		•		•	
Cumbria (Cockermouth)	•	•					•				•	•
Cumbria (Maryport)	•	•					•				•	•
Durham Dales	•			•		•	•	•				•
Nene	•	•			•		•		•		•	•
Newquay	•			•						•	•	
Norfolk	•	•	•				•				•	•
North Cornwall				•					•			•
North Tyneside	•		•						•			•
Northumbria						•			•			•
Principia		•				•	•		•			
Tameside and Glossop								•	•			
Torbay	•		•	•	•	•	•		•			
Tower Hamlets		•					•				•	
Wakefield								•		•		•

## 4.4 Site descriptions

### **Bournemouth and Poole**

Bournemouth and Poole's pilot activity focused on developing a new model of care delivery for older people with dementia. This entailed development of low-level (or grass roots) case finding for people with early memory loss, including provision of information (e.g., available local services), earlier 'signposting' to alert people of symptoms both in themselves and in others, and easier access to the intervention. The second development was an integrated 'intermediate care' community team, which provided a single point of access to multiple health and social care assessments, decision support through Life Diaries (offered to all medically fit patients under the care of the integrated team), and integrated information systems so that health and social care team members could access each other's records (using an agreed data-sharing protocol).

The site describes the ICP as a GP-led model, entailing collaboration between GPs, public sector organisations and third-sector services. The primary partners were: NHS Bournemouth and Poole, Borough of Poole Council, Alzheimer's Society, Faithworks, Dorset Healthcare Foundation Trust and Poole Hospital Foundation Trust. Single line management of the community-based integrated care team was provided by Bournemouth and Poole Community Health Services.

### **Cambridge**

The Cambridge ICP focused on coordination of end-of-life care. It aimed to identify patients in the last year of life and improve the use of end of life tools to proactively plan their care; ensure patient preferences for care are met through actively involving all stakeholders in the appropriate use of these tools; and improve the services required in the community to support patients nearing the end of life. The pilot's key objective was to enable people to be cared for and die in the place they chose. Led by Assura Cambridge LLP and NHS Cambridgeshire (PCT), the ICP described itself as a 'provider-driven partnership' between these organisations, Cambridge University Hospitals NHS Foundation Trust and Cambridgeshire Community Services (NHS Cambridgeshire provider arm). A Project Management Board led implementation of seven work streams.

The ICP's intended interventions were the development of a tool to identify patients who expressed a preference of where they wished to die, and the means to capture whether this was achieved; a peer-to-peer educational package for GPs and their team on managing patients at the end of their life; and support for delivery of wider, whole system changes (e.g., the expansion of Hospice at Home, roll-out of just-in-case bags – containing palliative medication for use with sudden or unexpected deterioration in the patient's health). The ICP also intended to formalise the structural arrangement between all partner organisations so that they became a legal entity. Although a number of the planned interventions were introduced, including training for practice staff and roll-out of just in-case bags, it did not prove possible to increase available community services as planned.

### **Church View, Sunderland**

The Church View intervention took the form of organisational integration between Church View Medical Practice and City Hospitals Sunderland Foundation Trust, with all practice staff, including GPs, becoming employees of the Trust. The clinical focus of the pilot was on the management of older patients with a high frequency or predicted high frequency of hospital admissions. Although separate locations were maintained, staff contracts and other internal processes were transferred to the Trust. New services provided included: virtual ward rounds with an integrated team consisting of a consultant, GPs, community nursing and social services; individual care planning for patients, involving summary care records that were shared with the team; and use of a combined predictive model to identify patients for admission to the virtual ward, focusing on those who are at risk of being admitted to hospital, as well as current frequent users of services.

The provision of integrated primary and secondary care services was intended to enable holistic care rather than treatment from a range of individual clinicians. Specifically, the pilot aimed to, remove current organisational barriers to provide seamless, personal services; improve communication between primary and secondary care; ensure full utilisation of the resources available to GP and hospital staff; and improve overall patient experience.

### **Cumbria**

Cumbria's pilot focused on system change through bringing together general practice and community services to deliver higher quality care to all residents. The aim was to reduce inappropriate hospital admissions by providing high-quality care in the community – particularly for the older population and for those with long-term conditions. The project covered three project sites: Cockermouth, Maryport and South Lakeland. Budgets were devolved from the PCT to each of the three pilot sites to enable them to commission and provide effective integrated services tailored to meet the needs of the communities.

### **Cockermouth**

Work in Cockermouth involved the design of new premises specifically for the ICP to provide a range of services, including: a children's centre, NHS dentistry, a diagnostic centre (with point-of-care laboratory, X-ray, ultrasound, CT, MRI), co-located voluntary services (e.g., Age Concern, Alzheimer's support), community hospital beds, and a teaching centre. Three GP practices merged to form one integrated primary care practice to operate from the new premises. Patients identified as at risk of hospital admission using PARR model combined with local analysis of hospital utilisation data (CHIPS system). Virtual wards were set up to enhance case management of patients at high risk of admission, with emphasis on self-care, increased support and information for people with long-term conditions.

### **Maryport**

This sub-pilot entailed provision of various integrated services through a planned ICP management takeover of Maryport Group GP Practice, PCT provider staff, and Social Services. This was intended to increase the provision of services closer to home, with a particular focus on older people at risk of unscheduled admission (identified as above). Maryport also planned development of a rehabilitation centre for older people.

### **South Lakeland**

South Lakeland focused on providing integrated services for older people. This sub-pilot aimed to form a GP commissioning collaborative to bring together all primary care practices with shared objectives, vision and values, and an integrated clinical information system. The original plan was to bring together community nursing and therapy services as well, within a social enterprise structure, but this was deemed to breach competition regulations as commissioners and providers would have been operating within the same organisation. It also planned integration of a hospital minor injuries unit with the GP out-of-hours service, but this was not achieved because of difficulty liaising with the contract holder for out-of-hours care.

### **Durham Dales**

The Durham Dales site was a large-scale project with eight work streams targeting a range of service users and conditions. It had various aims including prevention of disease, reduction of emergency admissions, improved access for patients in rural areas and reduction in health inequalities. In 2009, the Bishop Auckland General Hospital had a change in status so that it would no longer provide acute consultant beds. From this, two work streams were developed; the implementation of a GP practice-based unit providing immediate triage and onward referral, and a consultant-led Rapid Access Medical Assessment Clinic. Other workstreams included: shifting services out of hospital to a community-based setting; provision of transport to acute and community-based services; identification of those at risk of fuel poverty and subsequent referrals to HotSpots advice centres; increasing clinician awareness and identification of dementia; promotion of a vascular screening programme across Durham Dales; and the creation of a rural mental health service directory.

The ICP model was described as a 'managed provider network', with partners including Durham Dales Practice-Based Commissioning Cluster (lead organisation), NHS County Durham and Darlington (PCT), Tees, Esk and Wear Valley NHS Foundation Trust, County Durham and Darlington NHS Foundation Trust, NHS County Durham and Darlington Community Health Services Trust, Durham County Council, North East Ambulance Service and third-sector organisations.

### **Nene, Northamptonshire**

The pilot at Nene involved six work streams that focused on different conditions and services, mostly for people with chronic conditions, older patients and those at risk of hospital admission. The integrated care organisation, Northamptonshire Integrated Care Partnership (NICP), was originally a collaboration between the local practice-based commissioning group (Nene Commissioning, lead organisation) and NHS Northamptonshire (PCT) Provider Services. It is now a Community Interest Company including patient representation, Northamptonshire County Council social services, Kettering General Hospital Foundation Trust, Northampton General Hospital Trust, Northamptonshire Healthcare Foundation Trust, East Midlands Ambulance Trust, Age Concern, Northamptonshire Out-of-Hours Service and NHS Northamptonshire.

The primary work streams involved activity surrounding ProActive Care (PAC) – a case management programme that identified patients at high risk of hospital admission and tracked these patients through virtual wards. Clinicians initially identified at-risk patients, subsequently supplemented by PARR++ modelling. Personalised care plans were provided to reduce the risk of admission and provide more choice to patients regarding end-of-life care. Other work streams included medicines management for all patients aged over 65 years and on four or more medicines; well-being/depression management for patients with long-term conditions; and rapid access services and a care coordination centre for patients at the end of life and their carers.

### **Newquay**

The integrated care project in Newquay aimed to develop a scalable and replicable integrated care pathway for dementia. This entailed de-coupling dementia from the traditional secondary care-based Older People's Mental Health Services. Dementia was seen as a long-term condition best managed through integrated and preventative case management in primary care. The primary intervention was the development of a virtual dementia team drawn from health and social care organisations and anchored around GP practices to provide and directly commission care to all patients registered on a local GP's dementia register. The service model was based on case management of long-term conditions. Other new services included a specialist community memory clinic for accessible assessment and diagnostics in a non-mental-health environment; and a specialist dementia liaison service to the community hospital and dementia-registered care homes. The project also attempted to increase GP knowledge and awareness of dementia and increase GP ability and confidence in early detection and diagnosis.

Partner organisations included NHS Cornwall and Isles of Scilly PCT (including Community Health Services Team, district nurses and the Community Hospital), Newquay Practice-Based Commissioning Group and three GP Practices, Cornwall Partnership NHS Trust (Community Mental Health Team) and Cornwall Council (Directorate of Adult Care and Support).

### **Norfolk**

The aim of the Norfolk integrated care pilot (Norfolk Integrated Care Network) was to establish a series of integrated, local health and social care teams comprising GPs, community health staff and adult social care staff in order to provide cohesive, pro-active and personalised care for vulnerable and older people. The pilot consisted of six sub-pilots across Norfolk, covering a wide mix of rural and urban areas, each with different socio-economic characteristics. Three of the six pilots were included in the national evaluation. Norfolk Integrated Care Network was jointly funded by, and involved joint working between, Norfolk PCT and Norfolk County Council, and, in some sub-pilots, voluntary sector partners.

The integrated teams in Norfolk identified their target populations through use of a combination of clinical judgement and a predictive risk tool (PARR) to identify people at risk of unplanned hospital admission, developed common assessment processes and provided patients and service users with a key worker or case manager as a primary contact point. Joint assessments by health and social care staff were carried out with patients placed on a shared case list. A few teams had an integrated care liaison officer who was provided with access to multiple IT systems containing patient data and referrals, and who could relay this information quickly to relevant health and social care colleagues. Health and social care staff were co-located in a few sub-pilots. Monthly multidisciplinary meetings at GP practices were the primary means through which the teams discussed individual patients with primary care staff. In one sub-pilot social workers spent one day a week in GP surgeries. Additionally, two sub-pilots included rapid response teams – groups of health and social care clinicians who have been taught generic care skills in order to respond to patients within four hours, with the aim of preventing hospital admission.

### **North Cornwall**

The North Cornwall pilot focused on integrating adult (18+ years) mental healthcare for patients of the 10 GP practices within the North Cornwall PBC group. The project integrated the mental health services delivered by the affiliated GP practices with those available through Cornwall Foundation Trust (secondary mental health and social services provider), Outlook South West (primary care Improving Access to Psychological Therapies provider), and third-sector organisations. The integration was achieved primarily through forming virtual teams with representatives from these organisations, and the development of a single agreed-care pathway across organisations from prevention through to treatment and discharge. The management of the virtual teams was carried out at GP practice level, with practice managers ensuring that monthly meetings were arranged. User and carer involvement was intended to be significant in developing new, related services.

The aims of the pilot were to improve access to and choice of mental health services through increasing the availability of information about the services available and making it clear where self-referrals are applicable; deliver clinical benefits and improved social functioning for patients; and improve process efficiency through reducing waiting times and enabling faster recovery.

### **North Tyneside**

The project focused on improving the quality of life for patients at risk of falling, reducing the incidence of falls and, hence, reducing the number of patients who would have an unplanned admission to hospital. The piloted intervention had two main phases: (1) identification of high-risk patients through reviewing medical records for those over the age of 59 with one or more defining criteria; and (2) provision of community-based, rapid-access falls and syncope assessment clinics, and a network of community-centred strength and balance training classes in partnership with the voluntary sector. These services were initially limited to those GP practices willing to participate in the pilot, but became available to the whole of the population of North Tyneside over 59 years of age.

The six participating organisations were: Norprime Ltd (a GP-owned primary care provider), Newcastle upon Tyne Hospitals Foundation Trust (currently the provider of specialist falls and syncope services to the region), Age UK North Tyneside (a third-sector provider of care for older people), NHS North of Tyne (the commissioner for all healthcare services in North Tyneside), North East Ambulance Service (provider of ambulance services in North Tyneside), North Tyneside Local Authority Social Services, and STARS (a third-sector organisation championing and supporting patients with blackouts).

### **Northumbria**

This project consisted of community implementation of agreed best-practice pathways for people with moderate to severe COPD, and involved care planning and increased self-management support. This entailed identification of at risk-patients, based on past history of hospital admissions or exacerbations or poor lung function (FEV1<60%) and a shift of specialist care into primary/community care settings, involving a named key worker

(community or practice nurse) for each patient; key workers undertaking two initial visits for care planning and self-management planning plus proactive, regular follow-up and reactive contacts following exacerbations or hospital attendances/admissions; a single standardised assessment of disease severity and review of therapy; use of patient-held records; and use of a single care plan by all care providers – including out-of-hours, secondary and social care. The aims were to improve patient experience and satisfaction, improve health-related quality of life and to reduce hospital admissions and A&E attendances.

Northumbria Healthcare NHS Foundation Trust was the lead agency and took responsibility for overall running of the project. Other partners included North Tyneside North West PBC Group (GP practices and GP Commissioning), British Lung Foundation North of England (aids in developing care plans, and is an expert resource on patient engagement and experience issues), NHS Newcastle & North Tyneside Community Health (community nursing provider pre-TCS), North Tyneside Council (adult social care/reablement services), NHS North of Tyne (PCT) and Northern Doctors Urgent Care (out-of-hours provider).

### **Principia, Nottinghamshire**

This integrated care pilot focused on management of patients with long-term conditions at high risk of admission. The Principia ICP encompassed two work streams – virtual community wards, and an integrated clinical pathway for people with severe COPD. The community wards service was provided to patients, registered with participating GPs, who were aged over 18 years and at risk of hospitalisation, or with complex chronic care needs. These were identified by clinicians and by the use of PARR++ modelling. Primary interventions were cross-provider communication and collaboration through discussion of patients at regular MDT meetings, case management and proactive care planning. The COPD work stream entailed establishment of a community specialist team, which worked to identify patients at high risk of admission who would benefit from a case management approach. This involved intensive assessment followed by close monitoring and proactive management of the patient's condition, through nursing interventions and pulmonary rehabilitation. Integration with secondary care within the COPD work stream took the form of shared identification of appropriate patients, support for early discharge and a consultant from secondary care running a clinic in a GP surgery.

The piloted activities were run by a social enterprise organisation, Principia Partners in Health, founded in 2006. Principia designed and delivered local health services in Rushcliffe, a borough of Nottinghamshire, on behalf of the NHS. The company brought together 16 general practices, community health staff, patients and the public to ensure health services are designed around the specific needs of the local population. It worked in partnership with East Midlands Ambulance Service, Nottinghamshire County Council Adult Health and Social Care, Nottingham University Hospitals NHS Trust, Nottingham Emergency Medical Service (GP out-of-hours provider), Community Health Partnerships (DH-owned investment and management company) and NHS Nottinghamshire County.

### **Tameside and Glossop**

The piloted projects at Tameside and Glossop aimed to change behaviour in people at risk of cardiovascular disease (CVD), as well as reduce morbidity and mortality for people with established CVD, improve patient experience and reduce both emergency admissions and visits to outpatient clinics. This involved the implementation of two new services, one for primary CVD prevention and one for secondary CVD prevention. The Primary Prevention Service aimed to provide a seamless path for those patients who were identified by information on GP systems as being at 20 per cent or greater risk of developing CVD. These patients were invited to book an appointment for an assessment at their GP practice or a local pharmacy. They were then supported in developing a personal action plan, which might include smoking-cessation advice and weight management or exercise programmes. The Secondary Prevention Service aimed to reduce mortality and morbidity, increase and improve self-care and optimise management for people with diagnosed CVD. This involved patient identification using GP registers shared with other clinicians (to enable opportunistic assessment of patients). Patients were also supported through personal action plans as above, patient information sessions and medicine-use reviews at pharmacies. The focus of

the pilot changed from pharmacies to GP surgeries during the course of the pilot because of people's reluctance to attend these services at pharmacies.

These piloted projects were run collaboratively by NHS Tameside and Glossop (PCT, lead organisation), the PCT provider arm, local GPs and pharmacists, patients, local authorities, Collaboration for Leadership Applied Health Research and Care (CLAHRC Manchester), and Tameside Hospital NHS Foundation Trust.

### **Torbay**

Torbay was the only site with an existing and comprehensive history of an integrated approach to care, although through the pilot it was able to further develop integrated care. Integrated care in Torbay took the form of various linked interventions to provide seamless care for older people with complex co-morbidities. Multiple work streams were carried out, focusing on, among other things, redesign of Rapid Access to Care for the Elderly clinics and the development of a community-based geriatrician service. These were designed to prevent hospitalisation for patients at immediate risk of admission. Other interventions included adding a hospital discharge coordinator and community physiotherapist to an existing multidisciplinary A&E team to provide a more holistic assessment of patient needs; a hotline for GPs to contact geriatricians directly, and geriatricians working two days a week in community clinics; an end-of-life care training programme for staff in all nursing homes in Torbay; telecare services for patients with COPD; and dementia-focused Memory Cafés. The ICP at Torbay was a provider network with four primary partner organisations: Torbay Care Trust, Torbay Council, South Devon Healthcare NHS Foundation Trust and Devon Partnership Trust.

### **Tower Hamlets, London**

The integrated care programme in Tower Hamlets aimed to help patients with long-term conditions to manage their own care through integrating health and social care services. It was made up of six work streams, three of which formed the DH ICP pilot. The first, the Primary Care Investment Programme, involved eight geographically defined provider networks focusing on a variety of health and social care functions, and implementation of care packages for long-term conditions – initially diabetes. The second work stream, the Integrated Health and Social Care Programme, aimed to formalise working arrangements between the PCT and London Borough of Tower Hamlets through the re-design of adult health and social care service provision. This included a single point of access to district nursing and social care, and jointly provided prevention, early intervention and re-ablement services, along with longer-term support. The third work stream focused on a wider strategy for local commissioning of joint health and social care services for various long-term conditions. Because of the timing of these various interventions, the evaluation focused on diabetes care.

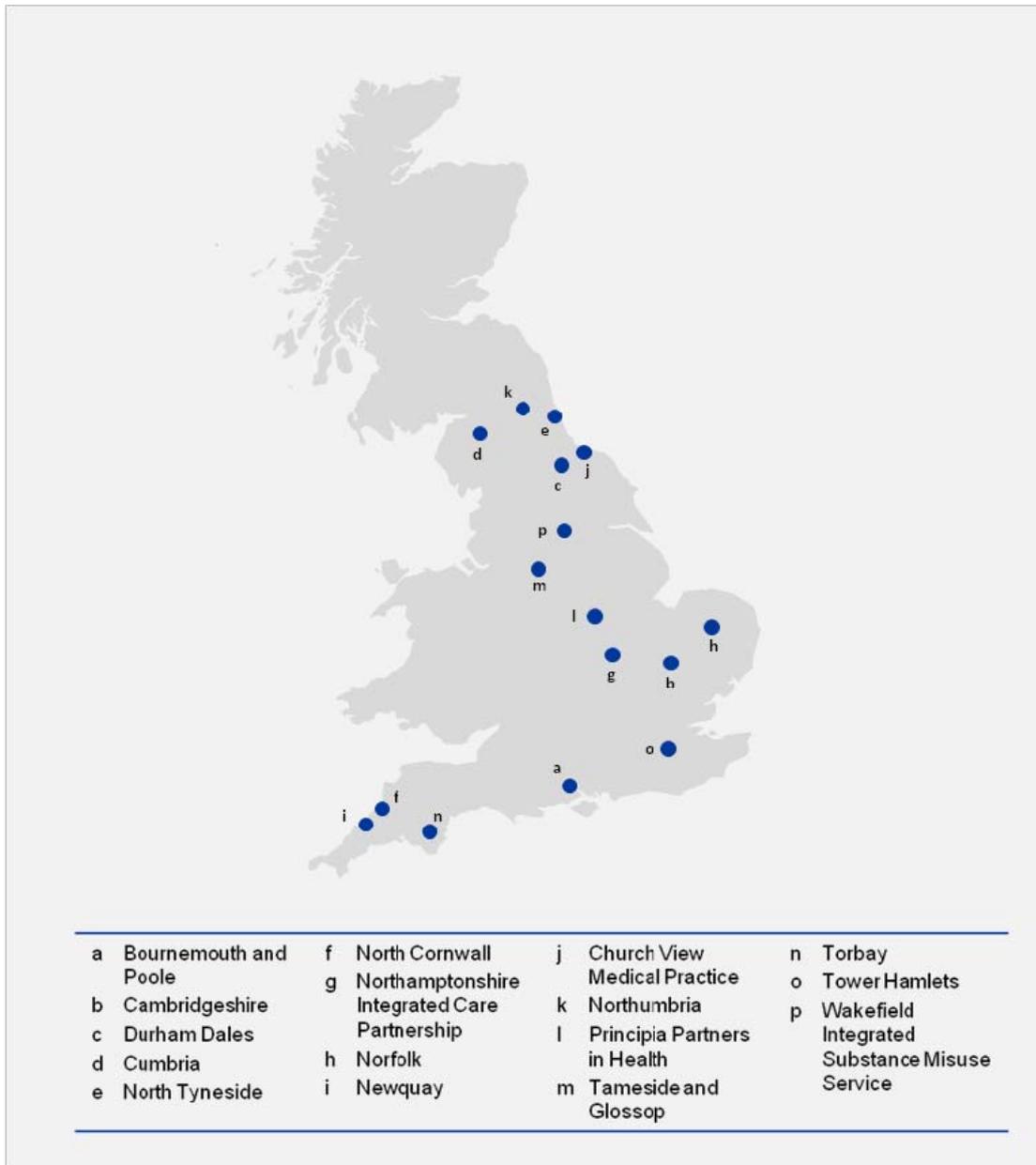
Participating organisations were: NHS Tower Hamlets (PCT, lead organisation), London Borough of Tower Hamlets (local authority), Tower Hamlets Community Health Services (PCT provider arm), the Local Medical Committee, patients/service users and public involvement groups, GPs, and third-sector organisations (e.g., THINK).

### **Wakefield**

Wakefield Integrated Substance Misuse Services (WISMS) was a partnership between organisations within the NHS, local government, third sector, and the private sector (Schering Plough), as well as wider stakeholders, in the management of substance misuse and social re-integration. The ultimate aim of WISMS was to develop an integrated care pathway for those with substance abuse, and a wide range of collaborative activities had been developed in Wakefield over the previous few years. However within the timescale of the ICP the main identifiable new intervention was the development of a 'balanced scorecard', which would be used to feed back information on performance (including patient evaluation) to providers. The scorecard would be used to define an exemplar service for local service users, commissioners and providers, and would provide feedback on the performance of the various contributors. Because of difficulties of combining data from different sources (especially social

care), the balanced scorecard was not rolled out within the timescale of the integrated care pilot period.

**Figure 4: Locations of the ICs**



## 4.5 A note on approaches to integration

In our brief literature review we saw that there is a variety of ways in which integrated care has been conceptualised. Integration as a concept was not rigidly pre-defined for the pilot sites, and subsequently there were differences in chosen approaches to partnership and service change and in the ways these activities were seen to embody integration. To capture these differences we found it helpful to think about the different levels of integration as described in the box below. These levels can be defined in terms of system placement (micro, meso, or macro<sup>37</sup>) or in terms of organisational level (organisational, functional, service, clinical or other<sup>44</sup>) – see box.

### Integration at system level

**Micro-level integration** – Integration within an organisation aiming to improve coordination for individual patients.

**Meso-level integration** – Integration among practitioners working in different organisations, often for benefit of a patient group or defined population.

**Macro-level integration** – Integration of the purchaser with primary and/or secondary care (e.g., HMOs such as Kaiser Permanente or the United States Veterans Health Administration).

### Integration at organisational level

**Organisational integration** – Organisations are brought together by mergers, through structural change, through collectives and/or virtually through formal provider networks (i.e., HMOs).

**Functional integration** – Non-clinical support or back office functions are integrated, such as electronic patient records.

**Service integration** – Different health and/or social services are integrated, e.g., through the formation of multidisciplinary teams.

**Clinical integration** – Multiple care processes are integrated into a single or coherent process within and/or across professions, e.g., through the use of shared guidelines or protocols for care of a clinical condition.

**Other integration** – e.g., informal partnerships, collaboration.

**Table 9: Site approaches to integration**

Site	Organisational integration	Functional integration	Service integration	Clinical integration	Other integration	Macro-level integration	Mesco-level integration	Micro-level integration
Bournemouth and Poole		•	•				•	
Cambridge			•		At the outset ICO did not assume they would deliver a new service within the pilot period. They have instead strived to work within and across partner organisations (and eventually aim to include other parties) to improve the EOL care already provided		•	
Church View	•						•	
Cumbria (South Lakeland)	Originally planned	•				Originally planned	•	
Cumbria (Maryport and Cockermouth)	Originally planned	•				Originally planned	•	
Durham Dales	Originally planned	•					•	
Nene		•	•				•	
Newquay			•				•	
Norfolk	•	•	•				•	
North Cornwall			•				•	
North Tyneside			•	•			•	•
Northumbria		•	•				•	•
Principia: Community Wards			•	•			•	
Principia: COPD			•	•			•	•
Tameside and Glossop			•				•	
Torbay			•	•		•	•	
Tower Hamlets			•	•			•	
Wakefield			•				•	

All the pilots' approaches included change at meso-level, while some included elements of micro-level integration as well. Although a few sites attempted macro-level or organisational integration, this was found to be difficult within the bounds of NHS competition regulations and the Transforming Community Services agenda, which prohibited purchasing and provision functions within a single organisation. Some sites were successful in major organisational change, e.g., the takeover of a general practice by a Foundation Trust at Church View, but others found that NHS regulations prevented them from implementing their plans – for example, Cumbria was one of six PCTs that had initially been given permission to continue to employ provider-side staff, but this was then revoked.

Meso-level interventions included virtual wards or condition-specific community clinics, which pull together professionals from different organisations (e.g., GP practice nurses with district nurses employed by the PCT). This was the commonest type of intervention highlighted in the ICPs. Examples of micro-level interventions include case management initiatives implemented within a single organisation, such as a GP practice, or the provision of a specific service on one site, e.g., the multidisciplinary falls assessment clinic in North Tyneside. Some pilots noted in their programme applications that they based their own approach to integration on work by Kaiser Permanent or other identifiable models.<sup>45</sup> However, more commonly, the ICPs formed their aims and strategies around local needs and changes that they thought would be feasible. Most pilots in fact concentrated on horizontal integration, e.g., integration between community-based services such as general practices, community nursing services and social services; rather than vertical integration, e.g., between primary care and secondary care. Additionally, due to unforeseen reforms to NHS and social care structures during the pilot period, some of the original aims were not carried out. Other pilots did not achieve all their aims simply because it took longer to introduce changes than they had anticipated. We discuss the barriers and facilitators to change in more detail in Chapter 7.

Chapter 5

# **Main findings of the evaluation**

## 5. Main findings of the evaluation

### 5.1 Summary

This chapter summarises data from six sources: Staff interviews carried out for the six selected 'Deep Dives', Living Documents, patient/service user questionnaires, staff questionnaires, Hospital Episode Statistics (HES) including data on outpatient and inpatient utilisation, and the results of local evaluations submitted by sites.

Reported outcomes included improved teamworking, especially for staff closely involved in the piloted activity, with improved communication both within and between organisations. By the end of the pilot, 51 per cent of staff working closely with the pilot reported that communication within their organisation had improved and 72 per cent reported that communication had improved with other organisations, compared to 1.4 per cent who reported that either of these had got worse. Integration with social care remained a problem in many sites and fewer than half of staff members surveyed thought that their patients received care that could be described as a 'seamless service' by the end of the pilot period.

Staff, especially those closely involved in pilots, reported changes to their work patterns, with 62 per cent of this group reporting an increased depth and 84 per cent an increased breadth of their job. Sixty-four per cent of staff closely involved in the pilots had taken on greater responsibility, and 64 per cent reported that they had a more interesting job. The results of the survey also revealed the need for additional training for these new roles, but less than 30 per cent of staff felt they had increased support for training. Some were critical of the lack of formal training.

A range of improvements to care for patients were described in staff interviews, Living Documents and local evaluations. In the second staff survey, 54.3 per cent of respondents thought that the care of their patients had improved over the previous year, compared to 1.1 per cent who thought it had got worse. Fifty per cent of respondents to the second survey had seen improvements in care that they attributed to the pilot, though 37 per cent thought it was still too early to tell.

Responses to surveys of patients and service users were more mixed. Following the interventions, respondents across all sites reported receiving care plans more frequently (round 1: 26 per cent, round 2: 34 per cent,  $p < 0.01$ ) and care that was better coordinated when they were discharged from hospital (e.g., 'knew who to contact about your treatment after you left hospital'; round 1: 71 per cent, round 2: 80 per cent,  $p = 0.03$ ). However, patients and service users also found it more difficult to see the doctor and nurse of their choice following an intervention, and they reported being listened to less frequently and being less involved in decisions about their care (round 1: 59 per cent, round 2: 54 per cent,  $p = 0.03$ ). These differences were in general more evident in sites focusing on case management for patients identified as at-risk.

In analyses of individual patients and matched controls we found a significant increase in emergency admissions in patients from pilot practices, most marked in case management sites. The increase in emergency admissions was unexpected and may have been due to imperfect matching of cases and controls. Sensitivity analyses suggest that, while we cannot be sure that sites increased emergency admissions, we are confident that they did not in general achieve their aim of reducing emergency admissions. There were significantly fewer elective admissions and outpatient referrals in pilot sites. In area level analyses, we found fewer outpatient attendances in pilot sites but no overall change in the pattern of admissions.

The impact of these changes on secondary care costs is reported in Chapter 6. Full details of the quantitative methods used are in Appendix B.

## 5.2 Data collection and analysis

In this chapter we present the main findings of the integrated care pilot evaluation. As noted, our findings are drawn from six main sources:

1. systematic qualitative data collection through the Living Documents
2. in-depth case studies or 'Deep Dives', which involved staff and patient/service user interviews, non-participant observation of board meetings; and document review
3. analysis of person-level data on secondary care utilisation from the HES database
4. patient/service user surveys at two points of the evaluation
5. staff surveys sent at two points in the evaluation
6. results of local evaluations where relevant.

Staff interviews from Deep Dive sites were transcribed and the results are based on thematic analysis of the transcripts. Qualitative data in Living Documents from all sites were analysed using themes that emerged during the course of the evaluation. For staff questionnaires we present results for all 350 staff who completed both rounds of surveys, and for 354 staff who responded to questions in the second survey that asked about changes they had observed over the pilot period. For the patient/service user survey, which was administered in 11 sites in which the questionnaire was relevant, we compare the 'before' and 'after' responses of 700 patients/service users who responded to both rounds of the survey and were documented as having received an intervention at least two months before the second questionnaire. For HES data, we present the results of a difference-in-differences analysis comparing 8,691 cases documented as having received an intervention with 42,206 matched controls, in addition to a practice-based analysis of overall changes in secondary care usage. These approaches to data collection and analysis are all described in more detail in Chapter 3. In addition we draw on patient interviews carried out early in the evaluation, though these were not repeated due to changes in DH funding midway through the evaluation. Detailed results of patient/service user and staff surveys are in Appendix H.

## 5.3 Staff perceptions of the nature of integrated care

The term 'integrated care' was described in different ways by various interviewees and Living Document respondents, with staff giving different interpretations of definition, dimensions, and boundaries. However, there was common agreement about the general aims of the projects and the broad concept of integrated care.

### 5.3.1 Pilots focused on providing a seamless journey of care

Integrated care was often described as providing seamless care or a 'seamless journey of care'. The term was used to convey continuity and coordination of services, often through a single coordinating point for access and referral where patients/service users could be directed to the most appropriate professional through the shortest route, and without duplication of services. In other words, integrated care would improve transitions between care delivered by different organisations, aligning processes wherever possible to improve communications and achieve transparent access to relevant information across organisations.

*What integrated care means to me is that Mrs Brown gets what she needs, when she needs it, in the best place for her, without having to jump through organisational hoops; that's what it means to me. If it doesn't have a positive impact on the Mrs Browns of this world there is no point in doing it. (Manager 3, Site 03, interview)*

The approach to providing 'seamless care' varied across the 16 pilots. Common approaches used to ensure coordinated, comprehensive and efficient delivery of services included:

- Single point of access/referral. Improving services by facilitating access for patients and providing more coordinated services through one point of referral.
- Key worker/case manager approach where staff within and across organisations work together through the coordination of a case manager or key worker, responsible for individual patients, e.g., coordinating care plans, records, medications, appointments, contacts, etc.
- Single pathway where a single assessment and plan is shared and used by all care providers, and communication across organisational boundaries may be facilitated through a patient-held plan.

They [patients] just see their pathway and their particular need as one journey and I suppose in a way it's streamlining the whole of that whether they've got health needs, they've got social care needs, they might have educational needs, they might have employment needs, housing needs it's bringing all that together so that we can find out what is actually going to fit the bill for that person so that they're demanding less from all those different services but their outcomes are a much higher quality whatever those outcomes might be. *Manager 1, Site 03, interview*

### 5.3.2 Improved communication with and across organisations was perceived as key to delivering integration

Integrating care was often described as developing close working relationships both within and across organisations, including with organisations outside the NHS. Staff thought that for integration to be successful, people needed to have: shared goals, mutual knowledge and understanding of these goals, shared values, and shared principles of working together in order to improve communication and effective teamworking. The main approaches that we identified for working together were:

- Virtual teams. A virtual team typically involves staff from different organisations who work together informally through networks and alliances to present a unified service. However, the management and the structure of each organisation participating in the virtual team remain separate. Typically a virtual team met regularly to discuss cases face-to-face.
- Multidisciplinary teams. By working in multidisciplinary teams, professionals have the opportunity to communicate regularly, discuss cases, and jointly decide who is best suited to see a patient/service user.
- Shared information technology. Shared information technology, such as shared electronic records, was a characteristic often mentioned as important to staff in working together across different organisations.
- Co-location. Co-location is when professionals from different organisations sit and potentially work together in the same place to offer a common service. Although co-location was not regarded as essential for integration, it was clearly seen as advantageous. Interviewees often mentioned how co-location could save time and improve communication.

*Part of the problems that we had when all the teams were in separate locations was that you'd have duplication of referrals because we didn't know someone was going out to deal with the patient and that's not a good way of working. (Healthcare professional, Site 01, interview )*

### 5.3.3 Improved patient outcomes was the key objective of integrating care

Staff emphasised that patient/service user outcomes were at the core of their definitions of integrated care. Throughout the evaluation, participating staff repeatedly stated their beliefs that integrated care should be about improving patient experience and access to services. By promoting closer collaboration and coordination across the healthcare system and by developing new flexible services, patients would enjoy improved access, reduced hand-offs, quicker service, and improved flow of information. For some sites, the intended outcomes were overarching concepts rather than specific objectives, for example, those relating to the provision of care closer to home for patients/service users. Other respondents described integrated care in terms of the process outcomes they expected to see, such as reductions in admissions and more coordinated discharges.

## 5.4 Staff experiences of the Integrated Care Pilots

In this section, we draw on a number of sources including staff surveys. The staff surveys include responses from two groups of staff: those closely involved in the pilot, e.g., staff employed specifically for purposes of piloted activity (group A), and others whose work might have been affected by the pilot, e.g., GPs and community nurses (group B). Twenty-nine per cent of staff in group A reported that all of their work related to the pilot, compared to 1 per cent in group B.

### 5.4.1 Communication and teamworking

Most pilots' aims included improving teamworking and communication – both within and across organisations. Some pilots started with good relationships between organisations, while others had a history of poor relationships. Staff interviews and Living Documents strongly suggested relationships between organisations and teams of professionals improved as a result of taking part in a pilot. For example, some of the interviewees felt that working together, pooling resources, and sharing information to improve services had become the 'norm' of the locality. While these improvements were believed to have come about partly through repeated, structured meetings, staff also mentioned the importance of informal contacts in cementing relationships and sharing good practice.

*And referrals to somebody that you know are so much easier, ..., rather than this very impersonal phone call ..., and I think you get an appreciation of one another's workloads and one another's patterns of working and behaviour. (Health professional, Site 04, interview)*

Working together was reported to lead to greater communication and understanding of the roles of other professionals, but it also raised awareness of the availability of services. In fact, some staff members expressed surprise at discovering the range of services available through other organisations. Staff identified improved communication in terms of:

- helping develop new ideas, redesign care pathways, other services
- attracting interest/collaboration from other organisations
- improving services
- leading to better understanding of the needs and concerns of others
- eliminating 'us vs. them' attitudes
- shaping the policy agenda, especially Transforming Community Services.<sup>xiii</sup>

<sup>xiii</sup> Transforming Community Services (TCS) began the process of requiring PCTs to legally separate their purchasing and provision functions with regard to primary and community care services. See: [http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/documents/digitalasset/dh\\_093196.pdf](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_093196.pdf)

Improved teamworking was also evident from the results of staff questionnaires. Staff reported clearer team objectives, closer working, better communication within and across organisations, and regular meetings to discuss improving care. This effect was most marked in staff who were closely involved in the pilot (group A). Only 1.4 per cent of group A staff reported that communication had got worse (same results within and across organisations).

**Table 10: Reported changes to teamworking - Staff questionnaire, second round**

% reporting 'better than since pilot started'	All staff	Group A	Group B
Having clear team objectives	32.6%	50.6%	21.6%
Working closely with other team members	44.5%	59.8%	34.8%
Meeting regularly to discuss how care can be improved	47.3%	62.7%	37.7%
Communication between different parts of my organisation	45.7%	51.4%	37.4%
Communication with other organisations	63.6%	71.6%	53.8%

(n= 354)

Although significantly more staff thought that 'People providing care for my patients work well together', fewer than half thought that their patients received care that could be described as a 'seamless service' or thought there was good communication with other organisations. Neither of these improved significantly during the pilot (Table 11).

**Table 11: Reported changes to teamworking- comparison between two survey rounds**

% responding 'agree' or 'strongly agree'	Round 1	Round 2	Odds ratio	p value
People providing care for my patients work well together	68.0%	77.0%	1.89	0.03
A seamless service is a good description for the care my patients receive	38.0%	42.0%	1.27	0.23
There is good communication with other organisations providing care for my patients	48.0%	55.0%	1.54	0.16

(n = 350)

The importance of senior management in facilitating changes in teamworking was mentioned in interviews and Living Documents by several sites, including the importance of senior management representation on Integrated Care Pilot Boards<sup>xiv</sup> and shared management meetings between participating organisations. Improved relationships were attributed to increased communication and respect for other professions, leading to increased trust between individuals. However, when there was no clear leadership of the pilot, staff reported little sense of the piloted activity as a tangible entity or collective responsibility.

Most of the pilots focused on the integration between primary and secondary care, with social care often playing a marginal role in the wider Integrated Care agenda. In fact, the role of social care in integration had been regarded as unchanged for most sites, and one interviewee felt relationships with social care had actually worsened during the pilot. Some frontline staff highlighted issues in communication with their managers. This was particularly the case when staff roles changed or terms and conditions of employment were altered. There were also a few comments about more difficult relationships, including lack understanding and cooperation from staff in the acute sector.

<sup>xiv</sup> Most of the pilots set up an Integrated Care Board. The Board would mainly oversee the process and the results of the pilot, as well as provide recommendations.

## 5.4.2 Information technology and data sharing

A number of the ICPs, in supporting a multidisciplinary team approach, sought to use information technology to share data between different parties. Information technology in its various forms was mentioned by some staff members as a facilitator to piloted activity, for example, the use of software to identify patients for inclusion in a pilot (e.g., PARR tool<sup>xv</sup>) or computerised patient records being shown on an overhead projector during MDT meetings. In one site, with two GP surgeries, agreement had been reached on the use of the same clinical system so data could be shared more easily.

Others experienced difficulties with information technology in relation to piloted activity but reported that these had been resolved or overcome. Although negotiations were often described as time consuming, some sites had secured data sharing agreements between organisations or agreements that enabled the secure transfer of patient information. Some respondents spoke of frustrations at delays in obtaining access for other professionals to systems; for example, in one site a GP had waited over a year for an NHS email address and in another access for healthcare staff to social care records had been delayed due to a system upgrade.

More commonly, issues surrounding information technology and data sharing were identified as barriers to effective integrated working (see also section 7.3.3). For some there were frustrations at the lack of linked IT between partner organisations, with, for example, district nursing teams, GP surgeries, hospitals and social care teams all running different systems that were not compatible with one another. Some respondents felt that the NHS and other institutions were not designed to integrate electronically.

There seemed to be particular difficulties in a number of sites regarding linking health and social care data. Some respondents mentioned the need to reach a consensus on the best system and to use it across all partner organisations:

*You've got one clinical system there and one clinical system here and they don't talk to each other. It is a ridiculous situation and nobody in the higher levels of the NHS has had the gumption to say 'Stop, we're all going down that route or this route'. Yes there's legal issues and monopolies and all that sort of stuff but if you sit back and think 'Hang on, [community care worker] has been out to see Mrs Blogs – her record is completely up to date, [but] that GP could be making a clinical decision on a not up-to-date record', and it's the same with hospital. (Manager 2, Site 03, interview)*

Yet a few participants felt that technological barriers were only part of the challenge of different professionals sharing patient records and noted that varied approaches to note taking, type of language or abbreviations used meant notes recorded by one professional were not always easily understood by another.

Some staff spoke of how the lack of integrated patient records hindered initiatives such as virtual wards. For example, staff from secondary care were not able to view primary care patient records. Other respondents felt that lack of information sharing meant that different professionals could be requesting the same tests and wasting patient time and system resources. Some staff members felt time was wasted chasing paper copies of patient records as information was not shared electronically:

*I mean we phone up [GP surgery] and ask them to do it and we can wait quite a long while to get the information. Sometimes if you need it urgently it is better to go down to the surgery and just hang around and be a pain in the bum and get it. (Social care professional, Site 01, interview)*

Some sites used software to assist with case-finding patients. In one site the software did not work optimally and some respondents felt this affected the ability to find appropriate patients. In another there was frustration that the technology was not of assistance in identifying patients:

<sup>xv</sup> PARR stands for 'Predicting and Reducing Re-admission to Hospital). PARR is a predictive risk model to identify individuals at high risk of re-admission to hospital.

*I think one of our main barriers is being able to identify a cohort of patients. We're really struggling on that.* (Health Professional, site 06, interview)

Varying levels of use of information technology were evident across different organisations and professional groups prior to the start of the ICPs. In some sites the introduction of information technology approaches were a challenge to professionals not familiar with its use:

*We're on the old fashioned system of people talking to each other you know. And this person... actually left a message on our answer phone saying I've sent you a couple of referrals on System One and we're like, 'How do we get them off?' I've got no idea.* (Healthcare team leader, Site 01, interview)

Some professional groups, such as social workers, hospital employees and community nurses were more familiar with the use of paper than computerised records.

Sharing data between organisations was also identified as a barrier. Several sites mentioned difficulties surrounding who 'owns' patient records and how issues such as the confidentiality of records should be handled. Some noted GPs sometimes acted as blocks to data sharing. Some managers felt there was a lack of national guidance on how to manage such situations and complex arguments, such as the responsibilities of data custodians, were often outside of their areas of knowledge. For one site issues of data sharing meant protracted discussions with each surgery in the area to enable the provider organisation to roll out an integrated care service to patients. Some staff pointed to perceived inadequacies where data were shared, for example, nursing staff having 'read only' access to GP files so they were able to view, but not add to, the patient record.

The degree to which information technology was a barrier or facilitator to sites seemed dependent to a large extent on how much pilots relied on information technology or data sharing in order to achieve the goals of the ICP. For one site, however, data sharing was the central focus of the pilot, and a number of difficulties hindered progress, including obtaining permissions to receive data from some organisations, information governance issues, and problems with the software provider's conditions of use – all of which impacted access by partner organisations:

*The ambition in creating a shared data repository and integrated data analysis across such a wide partnership has been a considerable challenge, made more difficult by the approach we've taken to local data evaluation. These have raised significant Information Governance issues, which will require greater effort to address than was originally anticipated.* (Living document, Site 16)

### 5.4.3 Changed professional roles, staff training and job satisfaction

Through staff interviews, we learned that efforts to integrate care contributed to staff satisfaction in a variety of ways. This was partly through improved mutual understanding of people's roles, responsibilities and challenges, leading to achieving common objectives more readily. However, through the questionnaires, staff also reported changes to their work, including feeling increased depth and breadth of their job; taking on greater responsibility; and having a more interesting job. These changes were more evident in group A, i.e., those closely involved in the pilot, than group B (see Table 12). A smaller proportion also reported that they delegated more tasks to others.

**Table 12: Reported changes to nature of work- staff questionnaire, round 2**

% responding 'agree' or 'strongly agree' (n=350)	All staff	Group A	Group B
The depth of my job has increased	51.5%	62.3%	40.9%
The breadth of my job has been expanded	73.1%	84.3%	62.9%
I now have more responsibility delegated to me	56.4%	63.8%	48.9%
I now delegate more responsibility to others	26.9%	24.2%	27.9%
<b>% reporting 'better than since pilot started'</b>			
Having more support for training	28.9%	30.1%	25.0%
Having an interesting job	42.9%	63.4%	25.0%

Less than a third of staff reported having the opportunity for more training to meet their perceived new responsibilities (Table 12), and there were mixed comments on training in interviews and Living Documents. Staff were often expected to take on new roles and acquire new skills through their involvement in their pilot. Typical skills needed to deliver the pilots identified by staff during the interviews and local evaluation submissions included IT skills and specific professional skills (e.g., training in dementia care, long-term conditions), but also soft skills (e.g., persuasion, communication, presentation skills). However, most staff members said they had not attended any specific training as a result of their involvement in the pilot, with a minority being harsh critics of the lack of formal training. Through the staff interviews and local evaluation submissions we also learned that people had sometimes gained knowledge and skills simply through contact with other professionals. These mainly included better understanding of the health and social care system, but also other soft skills such as learning how to better share information with others. In a few cases interview respondents did not feel they had learnt new skills from participating in the pilot, but that they had consolidated some of their existing skills. In very few cases frontline staff working in healthcare felt that they had been de-skilled, and felt that the skills people had were not being used effectively and could hence be lost.

A range of views was also expressed on whether staff felt more empowered through involvement in the pilot. Some felt empowered by being given greater responsibilities (including for financial decisions), increasing their skills and producing, in their eyes, improved patient outcomes. However, two respondents suggested that their pilot was potentially disempowering if staff did not have the skills and experience required for their new roles. In addition, many staff experienced increased workload as a result of participation, and some felt disempowered in that being overworked had a knock-on effect on some of their other patients.

*No, I think there are issues. I swing between being empowered and then just overwhelmed by the enormous amount of work that is frustrating me. (Health professional, Site 02, interview)*

Integrated care will always involve changes for staff. Some of these may involve stopping processes and activities that were previously comfortable and carrying out new tasks in their place. In turn this might call upon new skills, and staff might benefit from training and preparation for these new tasks. In the case of the ICPs, in addition to these changes to working practices, there were wider changes in the organisational context of health and social care (e.g., Transforming Community Services)<sup>xvi</sup>. Consequently, the view of the health professional quoted above is illustrative of a wider view that while some staff may feel empowered to deliver services in new ways others felt 'overwhelmed'. Indeed, as in the quotation, many staff felt both empowered by new opportunities and anxious about their capacities to deliver change.

## 5.5 Patient care in the Integrated Care Pilots

### 5.5.1 Patient views of care; what patients appear to want from integrated care

Patients were interviewed pre-intervention in five sites about their views of the care they received. This provided us with insights about patient views of the pilot sites just before the interventions began and provides a context to understand both the patient survey results and the belief shown by many staff that they were able to provide an improved service to patients.

Patients had a range of chronic conditions, many with multiple conditions. Most regularly saw their GP and a number praised the speed with which they were able to get an appointment at their GP surgery. Several patients expressed a preference to see a GP known to them due to the complexities of their condition. If integrated care seeks to use a variety of staff other than GPs to support patients then, even if this is 'rational' from the point of view of using resources, it may reduce patient satisfaction with the service. While patients were on the whole pleased with the care provided by primary care, some respondents from across all sites expressed dissatisfaction with inpatient stays in various hospitals; these included

<sup>xvi</sup> Transforming Community Services (TCS) began the process of requiring PCTs to legally separate their purchasing and provision functions with regarding to primary and community care services. See: [http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/documents/digitalasset/dh\\_093196.pdf](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_093196.pdf)

concerns about cleanliness, dissatisfaction with treatment and perceptions of wards as short staffed.

A variety of health professionals were seen by those interviewed, including GPs, practice nurses, specialist nurses, district nurses, occupational therapists and consultants. The range of professionals seen, across different sectors, suggests scope for integrated approaches between professionals. Responses from patients identified some inefficiencies and problems in the current system where patients saw a variety of professionals. Some duplication of roles was identified, for example one patient had two home visits in one day to obtain blood samples by different nurses. A number of patients recalled situations in which they had been confused by contradictory or differing advice on a health complaint by the various professionals involved in their care:

*We are better off on our own ... Because you get one nurse in who'll tell you one thing. Then the doctor comes and changes it. Then another nurse comes... 'oh I wouldn't be taking that in your condition'... and at the end of the day you think, 'Jesus, what should I be doing?' Patient, Site 03, interview*

Some patients described situations in which professionals, with different specialities, disagreed about the most appropriate course of treatment for the patient. Some felt that they had not been provided with appropriate information about their condition, despite seeing a range of professionals. One patient described finding out from a patient information leaflet that their condition was terminal:

*Nobody actually sat me down and said 'listen, you've got this incurable disease blah de blah de blah...' and I think I lost my mind for a good long time. I lost my mind over this. (Patient, Site 04, interview)*

Despite the ill health of those interviewed, few had social workers and only some had additional support from paid carers. A number of patients had previously had carers but no longer did due to difficulties, for example staff changes or the timing of visits. Several patients had been visited by occupational therapists and had adaptations made to their homes.

Many of the ICPs sought to improve communication between different professional groups. Patients described situations in which there had been a lack of communication between different organisations involved in their care; these included: carers not informed when the patient was ready to be discharged from hospital, which led to a prolonged hospital stay; patients' notes missing between organisations; test results not passed to the appropriate professional; and poor communication over a patient case conference, which resulted in not all professionals being aware of the meeting. Some patients were uncertain of the levels of communication between different health professionals. Others believed there was communication, for example because they had received copies of letters between secondary care and primary care.

A few patients felt that different specialities did not communicate and professionals tended to be focused on their area of speciality, with nobody taking a holistic approach to the patient's care:

*When you go to the orthopaedic department the consultant that does the arms won't touch legs. A leg man won't touch the spines, you know the spine man won't touch the hip and you have to be referred back to your doctor who then refers you back to another doctor, another consultant and you try to explain to him mixture between the two, he doesn't want to know because he only does legs, he doesn't do back... But as you can see is a very difficult situation for the white coats as I call them to understand when they don't want to talk amongst themselves even in the same department. It's very difficult. (Patient, Site 01, interview)*

It should be noted that despite identifying difficulties most patients were satisfied with at least some aspects of their care, and praised the treatment they had received and expressed gratitude for the help and support from professionals:

*They've (health professionals) done a lot for me. If it wasn't for what they did and helped me to do and tell me and show me what to do, I wouldn't be sitting here talking to you now.* (Patient, Site 02, interview)

Interviews took place at the start of the pilot and therefore most sites had only just begun pilot activity, and some had not begun at all. Five patients who had experienced a change in care at the time of interview were all positive about these changes. One patient had been on a rehabilitation course, another was now able to see the consultant at the local health clinic rather than at the surgery and one had an assigned case worker. In two cases provision had been made for patients to self-medicate at home with support from professionals:

*... she doesn't go into hospital no more we can keep it in house, you know ... Well she's on antibiotics now whereas before where she used to go into hospital they would pump her full of antibiotics, get rid of the infection, urine infection and then within three weeks it would be back again. So now I have the antibiotics here monitored by (GP surgery), and if she's, you know, like if she starts to go downhill a bit, you put her on the tablets again and we're fine. So we're keeping her at home rather than taking a bed up in hospital you know which is better for all, everybody really.* (Husband of patient, Site 03, interview)

These insights from patients remind us of the complexity of expectations and experiences of patients with chronic conditions and their carers. More streamlined and efficient services might not initially lead to more patient satisfaction if these were seen to limit contact with GPs or with other well-known and trusted professionals. Furthermore any change in service provision or personnel, particularly for those who have been using a service for a long period of time, may be disruptive and for a time difficult to adjust to. If the new systems are to work effectively, it has to be clear who communicates information to the patient and some training might be needed for this to be done well.

## 5.5.2 Changes to patient care

Many staff provided anecdotal reports of seeing positive changes in the care of individual patients.

*My patients, I can only speak for mine, have found it really, really helpful and they feel that there's somebody there to talk for them. But also they feel as if their conditions are being managed and that people are noticing them and they're not just sitting in their houses with nobody taking any notice of what's happening. That somebody is actually talking about them and trying to make things better for them.* (Health professional, Site 05, interview)

Staff reported on positive feedback from patients through letters, phone calls, and on websites. Anecdotal improvements reported included better information for patients, improvements in the provision of palliative care, shorter waiting times, increased patient choice, identifying gaps in patient care and better monitoring of referrals and hospital discharges. However, some respondents felt that, even towards the end of the official pilot period, it was still too early to be able to see changes in patient outcomes. Although most staff thought that patients were more satisfied with their care, others were concerned about a negative impact on other patients, resulting from the shift of staff focus and time to patients included in the pilots at the expense of others who were not.

The staff questionnaire asked those who had face-to-face contact with patients about their views on patient care. In the second round of the questionnaire, marginally more staff 'agreed' or 'strongly agreed' with statements about being satisfied with the care they gave to patients, feeling their role made a positive difference or being able to do their job to a standard they were personally pleased with. However, the percentage of staff 'strongly agreeing' with these statements reduced over the course of the pilot, though none of these differences were statistically significant (Table 13)

**Table 13: Staff views on care for patients - staff questionnaires, rounds 1 and 2**

% responding 'strongly agree'	Round 1	Round 2	Odds ratio	p value
I am satisfied with the quality of care I give to my patients	38.0%	30.0%	0.62	0.06
I feel my role makes a positive difference to patients	46.0%	42.0%	0.76	0.38
I am able to do my job to a standard I am personally pleased with	29.0%	25.0%	0.75	0.28

We also asked whether, over the previous year, care for respondents' patients had improved. Overall in the second survey, 54.3 per cent of staff thought that the care of their patients had improved over the previous year, compared to 1.1 per cent who thought it had got worse. Fifty per cent of respondents to the second survey had seen improvements in care that they attributed to the pilot, though 37 per cent thought it was still too early to tell.

The local evaluations documented a range of improvements in care (for further details of local evaluations, see Appendix F). Improvements were most frequent in measured processes of care and included:

- number of people on dementia registers increased from 131 to 230 (Newquay)
- sixty-five per cent of patients with severe COPD on correct treatment compared to 49 per cent in control practices (Northumbria)
- percentage of people expressing a choice on place of death increased from 3 per cent to 22 per cent (Cambridge)
- percentage of carers of people receiving a community-based service who received specific advice/information increased from 24.6 per cent to 42.1 per cent (Norfolk)
- percentage of patients with controlled HbA1c and controlled blood pressure increased from 24 per cent to 28 per cent (Tower Hamlets).
- 'referral bounce' – i.e., referrals being rejected by one organisation with a recommendation to refer to another – reduced by 90 per cent (North Cornwall)
- lower increase in emergency admissions (1.8 per cent) compared to neighbouring control district (7.4 per cent), and length of stay for older patients reduced by 11.6 per cent compared to a reduction of 7.1 per cent in the control district (Torbay)
- no overall change in the percentage of people dying at hospital (Nene and Cambridge), but a reduction in the percentage of people from nursing homes dying in hospital in Cambridge (12.5 per cent, 11.1 per cent, 8.7 per cent, 8.2 per cent in successive six-month periods).

Although staff believed that patient care had improved and some instances of this had been documented in local evaluations, these improvements in care were less evident from the patient surveys that were used in the national evaluation. Unlike the staff questionnaire, we asked service users in general about their care and not about the impact of the pilot (as they may have been unaware of the existence of the pilot). Therefore for service user questionnaire results we report solely the responses of 700 service users who responded to both rounds of the survey and were documented by the sites as having received an intervention. We excluded service users who were included in the surveys but who did not actually receive an intervention. There were substantial differences in the numbers of service users available for analysis from individual sites. We therefore adjusted for clustering in the analysis, though this made little practical difference to the conclusions. In this chapter we present statistically significant findings. The full results of both patient and staff surveys are shown in Appendix H.

Analysing the whole sample of 700, we found that respondents reported an increase in receipt of care plans, and knowing whom to contact following an admission to hospital. However, they also reported being less involved in decisions about their care, being less likely to see the nurse they preferred, being less in control of their lives and being less likely to have their preferences taken into account by social services/care workers (Table 14).

**Table 14: Summary of service user questionnaire results**

(Full sample 700 respondents to both survey rounds, significant findings presented only, full results in Appendix H)

	Round 1	Round 2	Odds ratio	p value
<b>Care reported to be improving</b>				
Did the doctor or nurse ever tell you that you had something called a care plan?	26.4%	33.8%	2.13	< 0.01
Know who to contact with questions about your treatment after you had left hospital (for those reporting an admission in the previous six months)	71.0%	80.0%	2.0	0.03
<b>Care reported to be getting worse</b>				
Last time you saw a GP, how good was the doctor at involving you in decision about your care (percentage responding 'Very good')	59.4%	53.9%	0.68	0.03
Last time you saw a nurse, how good was the nurse at involving you in decision about your care (percentage responding 'Very good')	59.8%	56.7%	0.80	0.03
How often do you see the nurse you prefer at your GP surgery or health centre? (percentage responding 'always' or 'almost always')	51.4%	42.3%	0.54	< 0.01
I feel in control of my daily life	48.9%	42.9%	0.57	< 0.01
Do you feel that your opinions and preferences are taken into account by social services or your care workers when decisions are taken about what services are provided to you?	53.3%	38.3%	0.47	0.02

The results of the full set of questionnaires also shows that respondents were less likely to report having been admitted to hospital in the previous six months in the second survey. This was an expected result since many patients had been selected for intervention on the basis of recent hospital admissions (patients who have recently experienced a high level of hospital use have a natural tendency to show reductions in use over time, even without a specific intervention, due to regression to the mean). Patients were also less likely to report that they had received physiotherapy in the preceding three months (round 1: 14.3 per cent, round 2: 9.8t, odds ratio 0.57,  $p < 0.01$ ), which may also be a 'regression to the mean' phenomenon.

We considered the possibility that some of these changes might be secular ones associated with deteriorating health in a population of frail older people. We therefore analysed these results separately for those 307 patients who reported no change in disability or overall health and who also reported having control over their lives in both questionnaire rounds. The results of this analysis again show a mixed picture. Compared to the first round, second round respondents were more likely to have a care plan, more likely to think discussions with doctors and nurses were helpful, and more likely to feel they are helped to look after themselves. However, they were also less likely to think that doctors were 'very good' at involving them in their care, less likely to see the nurse they preferred, and less likely to see a GP or practice nurse at home. A separate analysis of people with worsening health over the year between the surveys showed generally fewer positive and more negative changes.

Because of the heterogeneity of the interventions in the pilot sites, we then separately analysed the 460 responses from sites focusing on case management of at-risk patients (Church View, Cumbria, Nene, Norfolk, Northumbria and Principia). The results of this analysis are shown in Table 15.

**Table 15: Summary of service user questionnaire results**

(Analysis restricted to case management sites, 460 respondents to both survey rounds; significant findings presented only)

	Round 1	Round 2	Odds ratio	p value
<b>Care reported to be improving</b>				
Did the doctor or nurse ever tell you that you had something called a care plan?	22.8%	30.5%	2.36	0.01
Had clear follow-up arrangements when you left hospital (for those reporting an admission in the previous six months)	66.0%	77.0%	3.33	0.05
Know who to contact with questions about your treatment after you had left hospital (for those reporting an admission in the previous six months)	70.5%	81.9%	2.4	< 0.01
Given the wrong medicine in the last six months	3.7%	1.5%	0.33	0.03
<b>Care reported to be getting worse</b>				
Last time you saw a GP, how good was the doctor at listening to you (percentage responding 'Very good')	71.4%	66.4%	0.63	< 0.01
Last time you saw a GP, how good was the doctor at involving you in decisions about your care (percentage responding 'Very good')	61.8%	33.9%	0.62	0.02
How often do you see the GP you prefer at your GP surgery or health centre? (percentage responding 'always' or 'almost always')	61.8%	52.6%	0.49	< 0.01
How often do you see the nurse you prefer at your GP surgery or health centre? (percentage responding 'always' or 'almost always')	52.4%	44.8%	0.59	< 0.01
Last time you saw a nurse, how good was the nurse at listening to you (percentage responding 'Very good')	68.9%	66.6%	0.84	0.01
Last time you saw a nurse, how good was the nurse at involving you in decisions about your care (percentage responding 'Very good')	61.4%	58.2%	0.79	0.05
Had any help in your home from social services in the last six months	31.8%	23.3%	0.39	< 0.01
Do you feel that your opinions and preferences are taken into account by social services or your care workers when decisions are taken about what services are provided to you?	53.6%	40.2%	0.48	0.03

There is an increased number of statistically significant changes in this analysis, probably reflecting the homogeneity of these respondents compared to the full sample of 700 respondents, leading to more significant findings in this analysis despite the smaller number of cases. There is again a mixture of findings, with a preponderance of ones in which patients reported less positive experiences. We also repeated this analysis also including sites focusing on dementia (Bournemouth/Poole and Newquay). This gave very similar findings.

The most consistent positive finding in these analyses is an increase in the proportion of patients receiving care plans and improved organisation of care following hospital discharge – these were both objectives of several sites. This is consistent with a number of local evaluations. For example, Nene documented an increase from 8 per cent to 80 per cent in medication reviews completed within a week of discharge, and Tower Hamlets documented an increase from 2.2 per cent to 72.2 per cent in diabetics who had care plans.

The aspects of patient experience that appear to have deteriorated were around continuity of care and communication with doctors and nurses, and having their preferences taken into account by social services/carers. We also found a reduction in help from social services in case management sites, though this may again be a 'regression to the mean' phenomenon as patients were recruited at a time of high need. In the ICPs, we found no significant change to the number of patients reporting a discussion in the past 12 months with a doctor or nurse about how best to deal with their longstanding health problems (odds ratio 1.10, CI 0.84–

1.44). However, when we compared this to changes occurring to responses to this question in the national GP Patient Survey, pilot patients were less likely to report an increase in such discussions (odds ratio 0.62, CI 0.47–0.80,  $p < 0.001$ )

Several sites underwent substantial staff changes as a result of joining the pilot scheme, which may explain some of these results. New roles were created (e.g., case managers), which may have led to a loss of continuity from staff with whom patients and service users were familiar. These changes may also have been responsible for the reported changes in communication, even though it was an aim of several sites to involve patients more in decisions about their care. These aspirations appear not to have been realised.

We did not have sufficient numbers to analyse patient questionnaire responses for each individual site. Most sites had not conducted individual before and after surveys of their patients, but the one that had (Northumbria) failed to show clear improvements during the course of the pilot, albeit against a very high level of overall satisfaction with care. Patients who attended the North Tyneside falls clinic reported very high satisfaction with care, but without any 'before and after' comparison. Four sites (Bournemouth and Poole, Church View, Principia, Tameside and Glossop) had included local patient surveys in their plans for local evaluations but were unable to implement them.

### **5.5.3 Changes in secondary care utilisation**

We found a general perception in staff interviews and Living Documents that the sites had increased efficiency and saved money, including a reduction in emergency admissions, which was claimed by some sites. This was not a consistent finding in our analysis of Hospital Episode Statistics (HES) data.

First we analysed hospital utilisation for all sites together, using a difference-in-differences analysis (DiD) for individual patients receiving an integrated care intervention (8,691 cases and 42,206 controls). Second, we compared patterns of utilisation for all patients registered with practices taking part in the ICPs. The controls for the individual patient analysis were risk-matched individuals identified from the rest of the HES dataset, and comparisons of utilisation were based on six months before and after intervention. Details of the matching are shown in Tables A3 and A4 in Appendix B. This shows that there was generally good matching on the variables used to select controls. However, in the six months following intervention, there were substantial differences in mortality between cases and controls. This suggests that there were additional unobserved factors which meant that the intervention cases were sicker than controls.

For the practice level analysis, the controls were a random half of all other practices in England and analysis was based on annual data by comparing utilisation in 2010/11 with that in previous years. Details of the selection of controls and method of analysis are given in Chapter 3. The results are shown in Table 16.

**Table 16: Changes in hospital utilisation for Integrated Care Pilots**

	DiD analysis (individual patient level)		Practice level analysis*	
	Relative difference	p-value	Relative difference (95% CIs)**	p-value
Emergency admissions	+2% (0.2%, 4%)	0.03	-2% (-5%, +1%)	0.14
A&E attendance	-1% (-3%, +0.8%)	0.26	+9% (-9%, +30%)	0.33
Elective admissions	-4% (-7%, -1%)	0.003	0% (-2%, +3%)	0.79
Outpatient attendance	-20% (-28%, -12%)	< 0.001	-5% (-8%, -2%)	< 0.01

*Notes:*

1. Both analyses exclude Torbay because patients were only identified as 'enrolled' in the pilot in Torbay after admission to hospital. Torbay analyses are presented below in this chapter. Expanded tables including absolute values are shown in Tables A6.i and A6.ii in Appendix B.
2. We present the relative change in year 2 of the pilot, when maximum change would have been expected to occur as several sites only started the intervention part way through the first year of the pilot. Interpretation: a rate ratio of 0.95 can be interpreted as equivalent to a reduction of 5% against that predicted by pre-existing trends.

The individual patient analysis suggests a significant increase of 2 per cent in emergency admissions and significant decrease of 4 per cent and 20 per cent in elective admissions and outpatient attendances respectively. The only significant result in the practice-based analysis is a reduction in the overall rate of outpatient attendance of 5 per cent.

Rather than pilot interventions being associated with fewer emergency admissions, they were associated with an increase in emergency admissions, albeit balanced by reductions in elective admissions and outpatient attendance. The reduction in outpatient attendance was also evident in the analysis of whole practice populations.

These results aggregate data from all pilot sites, and interpretation is difficult because of the very heterogeneous nature of the interventions (e.g., sites focusing on cardiovascular risk screening were not likely to show a reduction in admissions in the timescale of the pilot). We therefore analysed the results separately for predefined groups of pilots with similar types of intervention.

The results of the individual patient difference-in-differences analyses for these groups are shown in Table 17, with statistically significant differences highlighted in the two right hand columns. We excluded Torbay because patients were only identified as 'enrolled' in the pilot in Torbay after admission to hospital and part of their intervention was designed to prevent admission. We present a separate practice-based analysis for Torbay below in this chapter.

**Table 17: Changes in secondary care utilisation: individual patient analysis 6 months before and after intervention**

Difference-in-differences regression analysis (ACS admissions = admissions for 'ambulatory care sensitive' conditions). Analysis excludes Torbay because patients were only identified as 'enrolled' in the pilot in Torbay after admission to hospital.

Measure	Cases			Controls			DiD	Relative difference	p-value
	6 mths prior	6 mths post	Change	6 mths prior	6 mths post	Change			
<b>Sites focusing on case management of patients at high risk of admission (Church View, Cumbria, Nene, Norfolk, Northumbria and Principia) 3,646 cases, 17,311 matched controls</b>									
Non-elective admissions	0.75	0.56	-0.18	0.62	0.39	-0.23	0.046	9%	0.02
A&E attendances	0.67	0.49	-0.18	0.57	0.40	-0.17	-0.016	-3%	0.40
ACS admissions	0.27	0.23	-0.04	0.23	0.16	-0.07	0.024	12%	0.07
Elective admissions	0.64	0.40	-0.24	0.55	0.42	-0.13	-0.107	-21%	< 0.01
OP attendances	2.69	1.97	-0.72	2.51	2.34	-0.17	-0.545	-22%	< 0.01
<b>Sites focusing on dementia (Bournemouth and Poole) 507 cases, 2,476 matched controls</b>									
Non-elective admissions	0.40	0.38	-0.02	0.34	0.28	-0.06	0.042	12%	0.30
A&E attendances	0.32	0.28	-0.04	0.34	0.32	-0.02	-0.021	-7%	0.62
ACS admissions	0.14	0.15	0.01	0.13	0.10	-0.03	0.035	32%	0.17
Elective admissions	0.13	0.13	0.01	0.13	0.16	0.02	-0.016	-10%	0.63
OP attendances	0.85	0.86	0.01	1.07	1.21	0.14	-0.133	-13%	0.21
<b>Site focusing on falls prevention (North Tyneside) 868 cases, 4,323 matched controls</b>									
Non-elective admissions	0.14	0.15	0.00	0.13	0.14	0.01	-0.009	-6%	0.67
A&E attendances	0.19	0.23	0.03	0.19	0.20	0.01	0.013	6%	0.59
ACS admissions	0.06	0.07	0.01	0.06	0.06	-0.01	0.018	32%	0.18
Elective admissions	0.19	0.26	0.07	0.21	0.24	0.03	0.049	23%	0.09
OP attendances	1.85	2.06	0.21	1.78	1.69	-0.08	0.296	17%	< 0.01
<b>Site focusing on primary prevention of cardiovascular disease (Tameside) 585 cases, 2,918 matched controls</b>									
Non-elective admissions	0.08	0.09	0.01	0.09	0.09	0.00	0.014	18%	0.51
A&E attendances	0.14	0.15	0.01	0.14	0.13	-0.01	0.021	15%	0.42
ACS admissions	0.04	0.03	-0.01	0.04	0.04	0.00	-0.016	-34%	0.27
Elective admissions	0.17	0.19	0.01	0.18	0.19	0.00	0.012	7%	0.73
OP attendances	1.38	1.43	0.04	1.38	1.40	0.02	0.019	1%	0.88
<b>Site focusing on management of diabetes (Tower Hamlets) 3,085 cases, 15,178 matched controls</b>									
Non-elective admissions	0.13	0.15	0.02	0.10	0.11	0.02	0.003	2%	0.74
A&E attendances	0.27	0.27	0.00	0.21	0.21	0.00	-0.012	-4%	0.40
ACS admissions	0.06	0.07	0.02	0.04	0.06	0.01	0.006	9%	0.35
Elective admissions	0.13	0.14	0.01	0.14	0.15	0.01	0.001	1%	0.94
OP attendances	1.55	1.58	0.03	1.45	1.45	0.00	0.026	2%	0.65

The main significant findings in Table 17 were for the case management sites. In general, these sites aimed to reduce emergency admissions but we found emergency admissions increased by 9 per cent relative to controls, against a background pattern of no change in emergency admissions for these practices as a whole (rate ratio in year 2: 0.98, CI 0.95–1.01, p = 0.14). However, the apparent increase in emergency admissions could have been

due to imperfect matching between cases and controls (e.g., cases being sicker) and we have some evidence for this because six-month mortality was greater in cases than controls (8.4 per cent cases, 4.8 per cent controls in case management sites, see Appendix B). We therefore simulated the effect of an unobserved confounding variable and showed that a confounder would have to be twice as closely correlated with the outcome as the strongest known predictor of emergency admissions in order to reverse the apparent increase in emergency admissions (see Section 3.3.1 and Appendix B). We conclude from this that, while we cannot be certain that the pilot interventions increased emergency admissions, it is very unlikely that they reduced them.

For outpatient attendances and elective admissions we found that utilisation was markedly reduced in the case management sites, by 22 per cent and 21 per cent respectively. The only other statistically significant finding in Table 17 is a significant increase in outpatient attendance in North Tyneside. This was to be expected as that intervention involved a clinic visit for patients at risk of falls, with potential referral on to other clinics for further investigation.

An analysis of bed-days in the individual patient analysis of case management sites showed a significant overall reduction in bed days used of 14 per cent ( $p < 0.01$ ), relating largely to the reduction in elective admissions.

The individual patient level analysis excludes Torbay because patients were only identified as 'enrolled' in the pilot in Torbay after admission to hospital. For that reason, the appropriate method to assess the impact of the Torbay ICP on admission patterns was the practice-based analysis (Table 18).

**Table 18: Practice-based analysis of secondary care utilisation for Torbay**

	Emergency		Elective		Outpatient		A & E	
	Relative difference (95% CI)	p-value						
1st Year	-4% (-7% to -1%)	0.17	-6% (-9% to -2%)	< 0.01	-6% (-9% to -2%)	< 0.01	-13% (-32% to +11%)	0.27
2nd Year	-7% (-13% to -2%)	< 0.01	-7% (-11% to -3%)	< 0.01	-10% (-14% to -6%)	< 0.01	-17% (-37% to +10%)	0.19

This shows a significant reduction on emergency and elective admissions and in outpatient attendance of approximately 7 per cent, 7 per cent and 10 per cent respectively in the second year of the Torbay pilot. Torbay, the only site in this analysis to show a significant reduction in emergency admissions, introduced two relevant interventions: first, Rapid Assessment Clinics in the Emergency Assessment Unit, and second, Care of the Elderly consultants working in the community. However, more detailed analysis of the Torbay results shows that the reduction in utilisation was most evident among children and young people. Indeed, among older people, the reduction in emergency admissions in Torbay was only significant for people aged 75–84 and not for those aged 65–74 or 85+. We cannot therefore be confident that the changes shown in Table 18 were due to the ICP evaluations. More detailed Torbay results, including an age breakdown of the results, are shown in Tables A6.iii and A6.iv in Appendix B.

Most sites did not report specifically on admission patterns in local metrics. Exceptions included Cumbria, which provided data on reduced emergency admissions but where the change appeared to have occurred before the start of the pilot; Torbay, which provided information on reduced admissions compared to a control district; and Northumbria, which suggested their patients had experienced a 50 per cent reduction in emergency admissions compared to controls, though without any statistical analysis. We found no significant reduction in admissions in Northumbria apart from ambulatory care sensitive admissions, in which there was a near-significant reduction in emergency admissions. A number of sites presented anecdotal evidence of individual cases where the case manager was clear that an emergency admission had been avoided.

The reduction in outpatient attendance may be associated with the stated aim of sites to 'move care closer to home', and anecdotal evidence from the current SDO evaluation of Virtual Wards study suggests that better coordination of community-based care may lead to a reduction in inappropriate use of outpatient care.

The reduction in elective admissions in case management sites (0.11 fewer admissions per head over six months) was less expected. Our analysis indicates that the reduction was mainly among regular rather than day case admissions. A preliminary, more detailed analysis shows that 77 per cent of the change in elective admissions can be explained by fewer admissions with cancer as the primary diagnosis (reduction of 0.085 admissions per head,  $p < 0.085$ ), with admissions for chemotherapy (procedure code X70) making up 23 per cent of the overall reduction in elective admissions (reduction of 0.025 admissions per head,  $p = 0.06$ ). We looked to see whether this could be due to a difference in cancer cases between cases and controls but found an almost exact match between diagnoses of cancer in cases and controls in the previous three years (26.4 per cent cases, 25.2 per cent controls, Table A4, Appendix B) and only a small difference in the length of time that the cancer had been diagnosed comparing cases and controls. Furthermore, in none of the management sites were there specific initiatives to reduce admissions for patients with cancer. We currently, therefore, have no clear explanation for the finding of reduced cancer and chemotherapy admissions among case management sites.

## 5.6 Engagement of staff and sustainability of pilots

It was a common feature of the Integrated Care Pilots that the idea for the pilot had been developed by a small group of enthusiasts, often on the basis of successful local service developments. Often these enthusiasts were clinicians and it was uncommon for there to be widespread engagement of NHS managers and other clinicians at the start of the pilot. A key task for pilot sites was therefore to engage both with management (most commonly PCTs) and with a wider group of clinicians. Here staff reported varying experiences, from close engagement and strong leadership from their PCT, to difficulties in engaging commissioners and managers. Some respondents indicated that this was a particular challenge with the current organisational turbulence within PCTs.

Almost all sites commented on the enthusiasm and commitment of their own staff, but engagement of wider groups was variable.

*Unsurprisingly we have found that where engagement is greatest – most progress has been made! We've also found that engagement has increased once people have begun to experience integrated care and witnessing that colleagues elsewhere are making progress. It's also been important to identify the 'what's in it for me' factor! (Living Document, Site 01)*

We also found a range of views on the likely sustainability of the pilots when there was no longer management and financial support from the Department of Health. In fact, a significant number of pilots were concerned about how the financial pressures throughout the health system were going to impact on the sustainability of the pilot. Sites with large numbers of GPs and, which were actively engaged, were in a better position to engage with local Clinical Commissioning Groups, and this became an important focus towards the end of the pilot period. It was too early to tell whether this will bear fruit in terms of future commissioning plans.

Staff also commented that the external environment had changed radically during the course of the pilots, with an increasing emphasis on reducing costs, whereas improving care had been the main focus of pilots at the start of the process.

*I think that's the challenge, really, for all of us to try and prove that this model of care is or isn't better in terms of quantifiable or financial benefit, and of course we didn't start out on that premise, we didn't start out trying to prove or disprove that it's more financially viable, it was more about quality of care. (Manager 2, Site 04, interview).*

The plans to continue or extend pilot activities beyond the pilot period varied greatly between all 16 pilots. In many sites, the future of many of the ICPs was seen as bound up in future organisational change in the NHS. In all cases the Living Documents clearly report that the pilots have informed wider policies and programmes (e.g., QIPP, Transforming Community Services Long Term Conditions and Falls Management, Tackling Health Inequalities and also Delivering Care Closer to Home) and have been a useful source of evidence for commissioners as Integrated Care is embedded in a wider strategy for future developments in services. To the extent that many of the pilots were led by ideas from visionary clinicians, it will be interesting to see whether the increased clinical focus of commissioning in current NHS reforms gives rise to more initiatives of the type seen in these pilots.

Chapter 6

# Efforts and inputs

## 6. Efforts and Inputs

### 6.1 Summary

In this chapter we focus on the effort that was required to establish integrated care initiatives and the consequences in terms of costs of secondary care utilisation. We estimate the costs incurred in the pilots in terms of: set-up/one-time costs (labour), set-up costs (non-labour), costs carried over from previously existing services (non-labour), running costs (new labour), running costs (continuing/existing labour) and running costs (non-labour).

We estimate these costs for each of the 16 pilot sites, but note that project and finance managers in sites had great difficulty at times in estimating the costs associated with the introduction of integrated care. As a result, some of the estimates have a large element of uncertainty attached. In our view, averages and comparisons between sites may be misleading and we therefore give case examples that illustrate the ways in which costs and effort were incurred in individual pilot sites. Introducing new services generally requires an up-front investment and very few sites included in their original proposal an aim to make cost savings in their largely primary or community-based organisations within the time period of the pilot.

However, a major driver of costs in the NHS is hospital utilisation rates and several sites aimed to reduce the use of secondary care. Notional secondary care costs were estimated from our analysis of HES data in Chapter 5 by applying the set of mandatory and indicative tariffs used in England for the reimbursement of inpatient and outpatient care (2008/09 Payment by Results tariffs). The difference in differences analysis for individual pilot patients across all sites (excluding Torbay<sup>xvii</sup>) shows significant increases in costs for emergency admissions, balanced by significant reductions in costs for elective admissions and outpatient attendances, leading to a non-significant reduction in overall secondary care costs (£37 per patient/service user,  $p = 0.36$ ). For case management sites, similar changes in admissions and outpatient attendances were all statistically significant and led to a significant 9 per cent reduction in overall secondary care costs in the six months following intervention (£223 per patient/service user,  $p = 0.01$ ).

### 6.2 Introduction

In this chapter we focus on the effort that was required to establish integrated care initiatives and the consequences in terms of costs of secondary care utilisation. It is important for decision-makers who are considering developing such projects that they understand not only the potential monetary costs but also the effort necessary so that participating organisations can plan their work accordingly. We begin by discussing the categories of effort that were required to plan and deliver these integrated services. We present these categories through a 'route map' to successful care integration, which was developed through reflection on pilot experiences. We should stress that this map is intended to enable identification of aspects that should be considered – or questions that those delivering more integrated care should ask themselves – rather than to prescribe a rigid course of action.

Subsequently, we discuss the costs reported by the sites and changes in costs associated with secondary care usage based on the HES data analysis reported largely in the previous chapter.

It is important to reiterate some important caveats in interpreting this analysis. The first is that the concept and practice of 'integrated care' varies. These variations concern both the object of integration and its essential components.<sup>46</sup> Variations can also occur not only between localities but also within localities that ostensibly share the same project.<sup>47</sup> Additionally, to some extent the concept and its objectives evolve and adapt over time. This malleability obviously influences what can be said in answer to the question 'What effort is required and

<sup>xvii</sup> Torbay is excluded from individual patient analysis of emergency admissions and costs, as patients were not identified as being part of the pilot until actually admitted to hospital.

what are the financial costs in delivering integrated care?' However, this does not prevent us from making some direct observations.

The second caveat is that, although the concept and practice of integrated care has often been applied to integrating health and social care, the pilots were largely led by, and costs accounted for by, organisations within the healthcare system. We readily acknowledge that our findings regarding required effort are focused particularly on healthcare organisations (when not stated otherwise). This is justified by the balance of activities in the pilots but in other approaches to integration (particularly where social care agencies are involved) this scope would need to be widened.

In the final chapter of this report we will turn to the question of whether care integration programmes are worth implementing when compared with 'business as usual' or, theoretically, other things that could be done with the same resources. For the moment we can note that there are limitations to what is known about both the costs associated with 'business as usual' and the costs of integration, and for both we have drawn heavily upon the judgements of those involved in managing the finances and operations of the pilots. In relation to effort, we can say with some confidence what the pilots have done and what they have told us about the efforts this required. However, the effort required within the 'business as usual' scenario is one that is itself changing in response to national and local policies, new knowledge and practices, changing patient and user expectations, and so forth. Consequently, we will show that integrated care requires significant effort but it is hard to judge how much additional or less effort would have been required to maintain the status quo within the current dynamic environment. In other words, faced with growing problems that the pilots were designed to address (ageing population, more chronic conditions, weakly coordinated general and specialist care, etc), doing nothing was probably not an option.

### **6.3 Categories of effort and the route map to more integrated care**

We began to develop 'categories of effort' from our analysis of the Living Documents following the fourth round of responses. This included both what was reported to be happening and what further efforts were mentioned as being required. These actions could be broadly categorised into:

1. building governance and performance management systems
2. making and developing the local business case for integrated care
3. changing attitudes and behaviours
4. developing necessary infrastructure (including information technology)
5. establishing supportive financial systems and incentives

We presented these categories to a Learning Network event held by the Department of Health on 8 March 2011, and this was seen to be both helpful and resonating with the experiences of participants representing the leaderships of the ICPs. Other studies have developed similar frameworks. For example, a comprehensive, but less specific conceptualisation of delivering improvement in healthcare is provided by Bate, Mendel and Robert's Organizing for Quality,<sup>48</sup> which aims to understand how organisational and human factors interact in complex settings to secure improvements in quality. Based on nine case studies in three different countries, they distinguish six core challenges:

- structural
- political
- cultural
- educational

- emotional
- physical and technological

Our first two categories cover the 'structural and political' concepts introduced by Bates et al.; our third relates to their 'cultural, educational and emotional' categories; and our infrastructure category equates to their 'physical and technological'. Nolte and McKee<sup>49</sup> cover similar territory in grouping the key issues in the processes of care integration into structural, financial and professional aspects. Meanwhile Rundall and colleagues<sup>50</sup> identify the key areas for improving quality in healthcare more generally as being:

- a culture which is already oriented to quality improvement
- supportive managerial and clinical leadership
- support from outside, e.g., financial incentives, organisational support
- high quality information systems.

These categories of effort to enact change in healthcare proposed by various authors all fit comfortably within our route map. The King's Fund and Nuffield Trust (2010) particularly emphasise the importance of new accountabilities and new incentives<sup>51</sup> in facilitating integration, and this resonates with evidence from the ICPs and fits with the first and final route map categories.

In relation to what an ultimate vision for integrated care (the route map 'destination') might look like, the King's Fund (2011) echoes almost exactly the sentiments from ICP sites, saying: 'This model of integrated care would focus much more on preventing ill health, supporting self care, enhancing primary care, providing care in people's homes and the community, and increasing coordination between primary care teams and specialists and between health and social care.'<sup>52</sup>

Below in Figure 5 and in Chapter 8, we provide a visual representation, based on evaluation of the pilots and the wider literature, of the route map that would be relevant for lead decision-makers to follow in planning integrated services. The amount of effort required and likely issues to be faced within each category, however, would reflect local circumstances. The map is intended to be followed from left to right.

Figure 5: Route map to integrated care

	Getting started					System change		Integrated care	
<b>BUILDING GOVERNANCE AND PERFORMANCE MANAGEMENT SYSTEMS</b>	Who is going to do what in the new environment?	What standards will apply to new services or new ways of working?	What are the agreed measures of performance and outcomes?	Who will be held to account, for what, and how will they be held to account?	How will we communicate progress to outside stakeholders?	How will we embed new accountability and responsibilities?	How will integrated management and change services, experiences and outcomes?	How will the accountability arrangements be made to work in newly integrated services?	
<b>MAKING AND DEVELOPING THE LOCAL BUSINESS CASE FOR INTEGRATED CARE</b>	How can more integrated approaches be described clearly and compellingly to multiple stakeholders?	How will integrated approaches deliver more evidence based improvements to health outcomes and patient experiences?	How will more integrated approaches deliver better value for money through lower costs, improved productivity or measurable benefits?	How can data be used to demonstrate the extent of progress and keep forward momentum?		How does monitoring produce learning and adaptation?		How can continuing benefits be communicated to target groups to sustain flexibility, support and momentum?	
<b>CHANGING ATTITUDES AND BEHAVIOURS</b>	What style of leadership is required and how might this change with different stages of development?	Whose behaviour needs to change and how will this be brought about?	Do stakeholders have the necessary skills and capacities to deliver integrated care?	Why should stakeholders support more integrated services?	Do staff and service users know: 1. What our approach to integration is? 2. Why it might improve care? 3. Their role in delivering it?	How will new values become accepted as legitimate?	How will new behaviours and professional roles become accepted as legitimate?	How will new behaviours become part of routine normal practice?	How will the need for specialist care be combined with the need for well coordinate care?
<b>DEVELOPING NECESSARY INFRASTRUCTURE (INCLUDING INFORMATION TECHNOLOGY)</b>	Does the infrastructure currently existing support more integrated working?	How can current infrastructure be adapted or changed to meet the needs of more integrated working?	How can necessary changes to current infrastructure be resourced?	How can necessary changes to infrastructure be implemented?	How can current infrastructure be developed so that it drives integration rather than getting in its way?	How can infrastructure start to drive integration rather than prevent it?	How can infrastructure enable learning and adaptation in delivering integrated care?	How can infrastructure facilitate and sustain changes in the wider environment of health and social care?	How can a new approach to infrastructure support continuous improvement?
<b>ESTABLISHING SUPPORTIVE FINANCIAL SYSTEMS AND INCENTIVES</b>	How can resources be moved to where they are most effective?	How can financial savings be identified in real time?	How can decision makers be shown the financial consequences of their choices?	How can decision makers be shown the non-financial consequences of their choices?	How can decision makers be incentivised if savings are made elsewhere in the system?	How can decision-making move to whole lifecycles analysis for financial decision making and away from activity based funding?	How can financial decisions be integrated so resources follow priorities?	How can a lean system of provision be established where priorities match resource allocation across the whole system?	How can financial systems become resilient to external change?

## 6.4 Costing integrated care

As noted in the background to this report, integrated care is a broad, inconsistently defined concept, and not surprisingly, therefore, the existing literature on such activities report wide variation in costs. Costs of integrated care initiatives are specific to the context, location, service user demographics, and nature and scope of the intervention(s) carried out, among other factors. Unsurprisingly, the highly variable nature of the DH ICPs is reflected in the costs reported by the 16 DH Integrated Care Pilots. Despite these differences, we have seen from responses to both the cost template and Living Documents that the costs to pilots of changing or implementing new services can be placed into five categories:<sup>53</sup>

- set-up/one-time costs (labour)
- set-up costs (non-labour)
- costs carried over from previously existing services (non-labour)<sup>xviii</sup>
- running costs (additional labour)
- running costs (continuing/existing labour)
- running costs (non-labour)

Data collected through the cost template (described in Chapter 3) provides estimates of the pilots' costs within these six categories, and where estimates are given in lieu of actual data, levels of confidence surrounding those estimates were also noted (see Appendix E: Cost Collection Template). The intention in developing this template was to capture the additional financial costs of the ICP activity in each site – those costs incurred by the lead organisations over and above what was being spent otherwise.<sup>xix</sup> It should be noted that more than half of data provided was classified as an estimate, which highlights the difficulty project and finance managers experienced in monitoring costs among multiple partner organisations and in distinguishing which costs were directly related to the integrated activity. The average self-reported confidence levels provided signified that respondents believed estimates to be between 10 per cent and 20 per cent of actual data.

Although costs attributable to specific interventions within a larger health system are difficult to pin down, estimation is a useful exercise to increase staff confidence in doing so and to encourage the NHS and its partner organisation to acclimatise to the practice.

### 6.4.1 Reported costs

Please see Appendix I for full cost data submitted by site.

#### DH funding for programme activity

As part of the ICP programme, all sites were given funding to cover start-up costs, evaluation activity, and other expenses expected due to participation in the national pilot programme. This funding varied by site and ranged from £79,000 for Wakefield to £180,000 for Cumbria, depending on size and scope of the proposed activity. Organisations looking to implement similar evaluation activity alongside a programme of change may want to consider setting aside additional funding for this purpose. DH funding allocation to each site is included in Appendix I.

<sup>xviii</sup> This category represents conceptual costs that would be of interest to other organisations looking to implement a similar activity, but because it does not refer to actual, incremental costs of the ICP, it is not included in overall site cost calculations.

<sup>xix</sup> This approach assumed the status quo and does not attempt to measure the opportunity costs in that the same resources may have been spent on another new project, unrelated to care integration, had the ICP activity not been implemented.

### Set-up costs

Set-up, or 'platform' costs are the one-time purchases or new investments necessary in order to begin a project or service change. These can be further categorised into: costs associated with staff time spent planning or developing the integrated activity prior to implementation (set-up labour costs); and those new costs relating to anything else (non-labour set-up costs) – for example, premises and equipment, training and recruitment fees, or information technology. A third set-up cost category is more conceptual and consists of those non-labour items used for the new project or service, but which have not been directly purchased. These are items that were in use previously by the organisation(s) for some other purpose and are now being used wholly or in part by the project (e.g., a PCT conference room previously used for staff meetings, now used once a week for a specialist clinic that is part of the integrated care intervention). Although they do not represent direct costs, the estimated monetary value of these items is important to note where possible because the function they serve will likely need to be replicated if another organisation aims to cost and implement a similar activity.

In the case of the ICPs, reported set-up labour costs ranged from £2,000 (Newquay) to more than £145,000 (Church View). The variation between sites depended entirely on how much paid staff time was deemed to have occurred prior to the intervention start date. In Newquay, for example, the only given set-up labour cost was for time spent recruiting a project manager, as 'the project was devised through existing resources in place to review, plan and commission appropriate services' (Living Document round 3). The project in Church View, a small pilot attempting vertical integration between a single GP surgery and a local hospital, required a lot of the lead GP and senior hospital staff time for planning and meetings. An average reported cost for set-up labour among all pilots was around £20,000 and commonly consisted of the time needed for a small number of people to hold steering group meetings. However, as mentioned, because the reported range is significant, average figures should be treated with care and should not be used as a planning tool.

Four out of the 16 sites responded saying that it was too difficult to estimate the time spent by various individuals on developing the project, and declined to give an estimate. This should not be taken to imply a lack of financial control but rather it is a consequence of the conceptual uncertainty and unclear boundaries around integrated care noted in Chapter 2. This challenge is also partly due to the fact that by nature, the pilots were continuously evolving (and changing course in some cases) throughout the pilot period, and therefore the boundary between when set-up labour costs end and recurring labour begins is in many cases and to some degree arbitrary. The significance of a set-up or platform-building period is greatly lessened when the platform continues to be built or shifts substantially during implementation. Additionally a few pilots began their integrated care initiatives with pre-existing partnerships or as additions to previous, related projects; therefore, varying levels of existing integration between sites meant varying amounts of planning and development to do.

Similarly, reported non-labour set-up costs also varied significantly, from nothing at Torbay, where considerable integration activity had been going on before the pilot period, to £1,191,000 at Tower Hamlets, which accounted for: new personnel recruitment fees; external assessment of GP network strengths and challenges; a programme to support the networks through changes; legal advisors; and local evaluation costs. The site also set aside a £300,000 contingency to cover any further consultant fees as needed, although this is not included in cost calculations. The other sites' non-labour set-up costs span a range between £1,000 and £100,000 with those on the lower end often covering small information technology upgrades or purchases, and the higher end consisting of refurbishments to buildings and working space. Legal and recruitment fees and new medical equipment were also commonly reported within this category.

### Costs carried over from previously existing services

As mentioned, this category represents theoretical costs that may be actualised should other organisations attempt to develop similar integrated care activity. We review them here in order to cover the types and values of all necessary inputs, but because they are not tangible, incremental costs incurred by the sites, they are not included in total calculations.

Sites found it particularly difficult to identify costs carried over from existing services, either as one-off set-up costs, or as continued running costs. Only four of 16 sites reported anything at all in this category of spend. The difficulty here was because it was nearly impossible for sites to provide a meaningful estimate of these costs, and not because sites were not making use of these kinds of resources for integrated care activities. For example, one site explained the difficulty of estimating the cost of the number of times an ECG machine was used solely for integrated care programme patients, as opposed to other patients. However, that machine was necessary for providing the piloted service and may represent a cost to other interested organisations without current access to an ECG. For this reason it is beneficial that an estimate cost was still provided by the site. Additionally, it is not known whether the ICP programme led to greater use of the machine (and perhaps increased maintenance costs) or decreased use due to greater sharing of test results between GPs and specialists (and presumably reduced costs). The sites providing carry-over costs identified computer systems or software, professional fees, and continued rent of rooms.

### Running costs

Running costs are those ongoing, recurrent costs necessary to maintain the project. These can be fixed (e.g., building rent) or variable (e.g., community matron travel costs). Sites provided ranges where costs varied and we used the average in calculations.

Annual labour running costs for new staff ranged from nothing at all, such as at Tameside and Glossop, where no new staff were hired, to £1,184,700 at Tower Hamlets, a large site in terms of population covered and numbers of participating GP practices. New staff labour costs at Tower Hamlets covered payments to GP network leaders; payments to locums to cover participating GPs attending management meetings; five full- and part-time staff members to run the project centrally; and various administrative personnel to support the GP networks. Other sites' new labour costs varied tremendously, although almost all included a project or programme manager (either full or part time), and one or two administrative staff.

Existing labour costs, or the time existing staff members spent solely on pilot activity, was also a difficult element for sites to quantify. Not only did they need to provide the percentage of a staff member's time devoted to integrated care related activity, they also needed to estimate how much of that time completely replaced what the staff member would previously have been doing otherwise. For example, if part of the pilot entailed a practice nurse, paid by the hour, spending three hours a day reviewing patient histories and checking who is due for a blood sugar check, but prior to the pilot period she would have been spending those three hours in the same GP practice carrying out some other activity that she now no longer does, the ICP labour time can be said to have substituted for previous labour time. If, on the other hand, the three ICP hours were overtime or on top of work the nurse still needs to complete, they need to be factored in as a true added cost of that piloted activity. Local estimates of annual labour costs of existing staff varied from nothing at Church View and Cumbria, as all staff time given to the ICP was considered to replace previous work by 100 per cent, to £915,006 at Nene, which included programme participation payments to GPs and payments to PCT provider services for 'upgrading' community matrons to do Advanced Nurse Practitioner work. The most 'expensive' sites to operate in terms of both labour and overall costs were those with interventions that involved payments to GP practices to cover the extra costs of participating in the integrated care programme. However, as many care integration activities are seen as up-front investments intended to save money in the long run, for example, by reducing emergency hospital admissions or preventing worsening disease, these organisational costs would need to be viewed in the context of the local health system costs over time.

As with all other categories, non-labour running costs varied substantially between sites. Some, such as Cumbria, reported no running costs at all as the intention was to make better use of current resources; while others such as Nene, which consists of a large network of GP practices with multiple workstreams and externally commissioned services, reported annual non-labour running costs in the hundreds of thousands. Common costs reported were staff travel (which was noted to vary up to 20 per cent in some sites), ongoing communications about the project, facilities maintenance, and staff training.

### **Making sense of reported costs**

We had anticipated that by providing structured support with a cost template and further advice, pilots would be able to provide broadly comparable information about the costs they incurred. Through this process we are confident that we have captured the categories of cost involved and this should be very helpful for decision-makers planning to develop more implemented care in the future. However, we are not clear whether the variations in the estimates are an artefact of how local finance officers conceptualise costs or how they collect cost data, rather than a real difference in levels of expenditure. The root of this difficulty is that pilots' aims were specified in general terms of delivering 'seamless care' or 'bringing care closer to home'. The kinds of things that would need to be done to achieve this were well understood and are captured in the route map. However the precise allocation of tasks, and the intensity and duration of these tasks, was never explicit. In part, this is an inevitable consequence of an approach that is necessarily responsive and emergent, and in part it reflects the general conceptual ambiguity around integrated care. However, it also reflects projects that were built on existing activities, or adapted to local relationships, or aiming to seize specific opportunities. This increased the opportunities for adaptation and learning in the ICPs but put limits on what could be said about costs in general. For this reason, we believe it would be helpful to consider specific examples in more detail rather than pursue a spurious notion of average costs. However, we follow these case examples with a focus on the costs associated with one dimension that was common to many pilots – utilisation rates – and this provides a firmer basis for making comparisons.

### **6.4.2 Case examples**

To further explain the types of costs incurred in setting up and operating an integrated care initiative, we present a more detailed look at the costs reported by two pilots: Norfolk and North Tyneside.

#### **Norfolk**

The aim of the Norfolk ICP was to establish a series of fully integrated, local health and social care teams comprising GPs, community health staff and adult social care staff, in order to provide cohesive, proactive and personalised care for vulnerable and older people. One sub-pilot worked on sexual health and falls prevention projects. It was jointly funded by, and involves joint working between the PCT and the county council in order to identify people in need of support and working with them to develop personalised care plans.

The pilot consisted of six 'sub-pilots' across Norfolk, covering a wide mix of rural and urban areas, each with different socio-economic characteristics. The purpose of running multiple sub-pilot projects was to enable each to design their services around the needs of their local communities. The integrated care teams in Norfolk identified their target populations through use of a predictive risk tool, developed common assessment processes, and provided patients and service users with a 'key worker' or case manager as a primary contact point. Joint assessments by health and social care were carried out in one area, and some patients were on a joint caseload between the two. A few teams created the role of an integrated care 'liaison' officer who was provided with access to multiple IT systems containing patient data and referrals and who relayed this information quickly to relevant health and social care colleagues. (See Chapter 4 for site interventions or Appendix G for full site overview.)

The costs reported by Norfolk were as follows:

- Funding received from DH: £110,000

Table 19: Norfolk

Running costs (Non-labour, 12 months)				Estimate of total added cost for 12 months
Value of goods/services carried over		Other		(Set-up plus 12 months operations)
£2,368	Meeting room rental for core groups (4 meetings per year, for multiple groups)	£12,798	Staff travel £500 Training £66.50 (site notes this is a low figure in the first year due to staff taking advantage of courses offered for free, e.g., Health Intelligence for Commissioning, Excel) Marketing and communications £500 (including stationary/usage of 'Integrating Care in Norfolk' logo)	£278,967

Set up costs (prior to first 12 months of operations)				Running costs (Labour, 12 months)			
Labour		Non-labour		New Staff		Existing Staff	
£0	None reported due to difficulty in separating set-up and implementation periods	£88,787	Meeting room. Room given in-kind, but value included in costing.	£12,863	Programme Director (part time) Senior Project Manager Project Manager Project Officer Project Officer (part time)	£51,520	All previously existing staff time devoted to ICP noted to replace previous work by 100%, so it is not included in calculation This number provided represents backfill payments to GPs for attending core group meetings

Combined, this represents an estimated £ 278,967 in added costs for the project, consisting of set-up plus 12 months of operation.

### North Tyneside

The ICP in North Tyneside focused on improving the quality of life for patients at risk of falling; reducing the incidence of falls; and reducing the number of unplanned hospital admissions among this population. The intervention involved case finding; provision of community-based assessment clinics; and development of a network of community-centred, targeted strength and balance training classes in partnership with the voluntary sector. The piloted services were available to the population of North Tyneside over the age of 59 but were initially limited to those listed with GP practices willing to participate in the pilot. During the two years of the pilot period, 34 per cent of the PCT (NHS North of Tyne) population became eligible for inclusion.

The costs reported by North Tyneside were as follows:

- Funding received from the DH: £100,000.

Table 20: North Tyneside

Running costs (Non-labour, 12 months)				Estimate of total added cost for 12 months
Value of goods/services carried over		Other		(Set-up plus 12 months operations)
£7,200	Building rental payments (£600 per month)	£39,360	Various intervention –specific payments to providers	£141,373

Set up costs (prior to first 12 months of operations)				Running costs (Labour, 12 months)			
Labour		Non-labour		New Staff		Existing Staff	
£25,000	This represents time of the lead hospital clinician, lead GP, and project manager, to design the service and ensure the various parties were all in agreement	£15,863	Portable ECG machine CNAP Beat to Beat Blood Pressure Monitor	£19,150	Administrative assistant (part time) and healthcare assistants (for 8 of 12 months)	£42,000	100% substitution of staff ICP time includes: Consultant falls & syncope specialist, Physiotherapist – falls trained  Costs provided here include: Backfill payment for clinicians involved in running of project (£20,000pa); and 40% of project manager time (£22,000pa)

Combined, this represents an estimated £141,373 in added costs for the project, consisting of set-up plus 12 months of operation. The site notes that 20 per cent of project manager's overtime was ICP work, but because this is a salaried position, this time does not appear in actual costs.

### 6.4.3 Anticipated cost savings

It should be noted that a few sites included in their original project objectives the intention to save money in the long term or to maintain current rate of expenditure, i.e., to provide the integrated services with existing resources, therefore with no incremental cost in the long run. However, because any new project involving adding or changing services usually requires an up-front investment, these cost savings were not reported during the relatively short time period of the pilot evaluation (two years at most from site implementation dates).

Some sites noted this difficulty in identifying cost savings in interviews and through the Living Documents. One interviewee spoke about how evaluating costs had fallen in significance among the site's local evaluation priorities due lack of tools to monitor costs and other competing data collection demands on commissioners:

*There were so many other priorities which emerged, particularly in terms of trying to get pace of change within other consortia. I think there were also issues in terms of the internal workings of the PCT which have always been less than perfect in gathering that information together because, as I say, we're only now able to give PCT consortia that finance and activity data in robust form. My perception, when I've spoken to the managers before, they found great difficulty in getting the PCT finance and activity managers to give this a high enough priority to pull it together. Healthcare professional 1, site 01, interview*

Other sites explained that because savings were so unlikely to be seen during such a short period of time, project teams decided to focus local evaluation resources on potential impacts that had a more realistic chance of being observed.

A few sites were able to identify early successes, such as reductions in hospital admissions among patients given piloted interventions, which they could attribute to pilot activity and theoretically consider a cost reduction. For example:

*Clinician engagement has been preserved, and this together with the changes within the community and hospital teams has delivered a 19% reduction in unscheduled admissions and a reduction in PbR [payment by results]. Living Document, site 02*

Northumbria also reported that its local evaluation had found admission rates for patients with key workers (case managers – part of the site intervention) were about half the rate of non-participating patients during the pilot period. Rates of 0.66 admissions per patient were found for those with key workers compared with 1.32 for those without.

Regarding responses to two questions on the staff questionnaire: the total number of staff members who reported working overtime almost every week due to ICP commitments (about 19 per cent) in the early stages of the pilots decreased by 10 per cent after a year of implementation. This could indicate that although initial (most often unpaid) time may be needed to set up the piloted activity, this unpaid labour does not continue as a substantial hidden cost as the care integration activities become further developed. When looked at by staff role, it was clear that this reduction was primarily attributable to those in NHS administration roles (including general managers), who reported an 18.5 per cent drop in the average number of weeks worked overtime after one year of pilot operation.

Some sites found that the interventions were not saving money to date but were achieving other objectives deemed to be more important. In written correspondence shared with the evaluation team, one consultant described the case of an older patient ('EW') with complex comorbidities who had taken part in a piloted intervention over the previous 14 months:

*In summary therefore EW did consume a huge amount of resources. One of the aims of the pilot was to reduce re-admissions and reduce healthcare utilisation. I do not think this did, in this case, but it definitely showed that the resources were appropriately targeted, because this was driven by patient choice, rather than a default option of aggressive treatment. Written correspondence, site 05, April 2011*

#### 6.4.4 Secondary care costs

Building on the individual patient analysis of hospital utilisation shown in Chapter 5, notional costs of care were estimated from HES data by applying the set of mandatory and indicative tariffs used in England for the reimbursement of inpatient and outpatient care (2008/09 Payment by Results tariffs). These assume a stay of a certain number of days (the 'trim point'), and allow hospitals to charge a pre-specified amount for each additional excess bed day. Costs were not adjusted for the regional costs of providing care, and so were effectively a weighted activity measure that allowed robust comparison of the magnitude of care received for control and participants. Activity not covered by the tariffs was costed using the National Reference Costs (NRC). If neither tariff nor NRC were available, the activity was costed as the average tariff for the specialty under which it was delivered. This provides us with more robust data on a substantial driver of costs within the NHS and provides important insights to the cost implications of integrated care. As we will also show, there are limits to the strength of our conclusions arising from the nature of the pilots themselves.

The results of the difference-in-differences analysis for costs of individual pilot patients across all sites (excluding Torbay<sup>xx</sup>) is shown in Table 21.

<sup>xx</sup> Torbay is excluded from individual patient analysis of emergency admissions and costs, as patients were not identified as being part of the pilot until actually admitted to hospital.

**Table 21: Impact of ICP sites on secondary care costs**

Secondary care costs are for six months following recorded date of intervention. Significant results highlighted. Negative figures = cost saving, positive figures = increased cost.

Group	Measure	Cases		Controls			p-value
		pre	post	pre	post		
Case Management	All admissions	£3,001	£2,037	£2,317	£1,510	-157.20	0.06
Case Management	Elective admissions	£1,046	£499	£743	£525	-328.98	< 0.0001
Case Management	Non-elective admissions	£1,956	£1,538	£1,575	£985	171.78	0.01
Case Management	Outpatient attendances	£326	£223	£289	£252	-65.58	< 0.0001
Dementia	All admissions	£1,200	£1,344	£1,078	£946	276.48	0.12
Dementia	Elective admissions	£307	£366	£248	£237	70.42	0.44
Dementia	Non-elective admissions	£893	£978	£830	£709	206.06	0.15
Dementia	Outpatient attendances	£107	£110	£122	£132	-6.68	0.61
North Tyneside	All admissions	£438	£619	£587	£679	88.56	0.40
North Tyneside	Elective admissions	£225	£318	£315	£356	-	-
North Tyneside	Non-elective admissions	£213	£300	£272	£323	36.26	0.60
North Tyneside	Outpatient attendances	£165	£225	£194	£179	75.23	< 0.0001
Tameside	All admissions	£444	£560	£413	£410	118.50	0.23
Tameside	Elective admissions	£298	£399	£217	£237	81.69	0.27
Tameside	Non-elective admissions	£147	£161	£196	£173	36.81	0.53
Tameside	Outpatient attendances	£164	£159	£149	£147	-2.59	0.85
Tower Hamlets	All admissions	£434	£536	£359	£452	9.39	0.83
Tower Hamlets	Elective admissions	£198	£220	£181	£207	-4.38	0.87
Tower Hamlets	Non-elective admissions	£235	£316	£178	£245	13.77	0.65
Tower Hamlets	Outpatient attendances	£168	£170	£162	£161	3.08	0.67
All sites (excl. Torbay)	All admissions	£1,557	£1,223	£1,231	£935	-37.84	0.36
All sites (excl. Torbay)	Elective admissions	£569	£367	£431	£356	-127.03	< 0.0001
All sites (excl. Torbay)	Non-elective admissions	£987	£855	£800	£579	89.19	0.005
All sites (excl. Torbay)	Outpatient attendances	£230	£194	£214	£197	-19.78	< 0.0001
Case management sites	Total cost	£3,328	£2,260	£2,607	£1,762	-222.78	0.01
Dementia sites	Total cost	£1,307	£1,454	£1,201	£1,078	269.80	0.13
North Tyneside	Total cost	£603	£844	£781	£858	163.79	0.13
Tameside	Total cost	£608	£719	£562	£557	115.92	0.26
Tower Hamlets	Total cost	£601	£706	£520	£612	12.46	0.78
All sites (excl. Torbay)	Total cost	£1,787	£1,416	£1,446	£1,133	-57.62	0.18

Across all sites, there were significant increases on costs for emergency admissions, balanced by significant reductions in costs for elective admissions and outpatient attendances, leading to a non-significant reduction in overall secondary care costs (£37 per patient/service user,  $p = 0.36$ ). For case management sites, similar changes in admissions and outpatient attendances were all statistically significant and led to a significant reduction in overall secondary care costs (££223 per patient/service user over the six month period following an intervention,  $p = 0.01$ ).

These costs were calculated from a purchaser perspective. We have not calculated costs from a provider perspective, but it is possible that there were reduced costs for acute trusts in providing care for patients from Integrated Care Pilots.

## 6.5 Discussion

It is key to understanding the cost data presented in this chapter to recognise that we are not evaluating a formal randomised controlled trial, and we should not treat measures of statistical significance as if it were. The study is not powered or scaled to test a null hypothesis regarding costs, and given the heterogeneous nature of the ICPs and the contexts in which they operated, it never could be. Rather we have a pragmatic study of a non-random set of sites. We are confident that the categories of cost have been identified and believe that the route map in particular will be helpful for future local managers. The additional running costs identified here are illustrative rather than an accurate prediction of the costs facing future efforts to provide integrated care. However, the difference-in-difference analysis provides a basis for comparing one important set of costs associated with the pilots (secondary care) with those elsewhere in the NHS.

The wider evidence on integrated care outlined in Chapter 2 might lead us to anticipate that there would be no clear evidence of cost reduction arising from the activities of the pilots, and with the exception of the case management sites, we found this to be the case. Although integrating care does not guarantee cost savings in general, by focusing on the barriers and facilitators faced by these pilots in the following chapter, we show how local and national decision-makers might develop an approach that can maximise beneficial impacts of such interventions while controlling costs.

Chapter 7

# **Facilitators and barriers to success**

## 7. Facilitators and barriers to success

### 7.1 Summary

We identified facilitators and barriers to the success of the Integrated Care Pilots in meeting their individual objectives through interviews with staff in Deep Dive sites and through review of Living Document submissions. The barriers and facilitators identified could often be seen as two sides of the same coin, e.g., good management/poor management. We did not expect to find a single and simple shared set of facilitators and barriers across the range of pilots and variety of staff consulted. Nevertheless, a number of common themes emerged, many of which would be common to any major organisational change and generic. We try to get underneath the more general points in what follows but we might summarise the key points as:

- Strong leadership was repeatedly cited as key to the success of pilots. The absence of it was also cited as a barrier to progress. Existing personal relationships between individuals also helped pilots to make rapid progress but relationships had to be renewed and strengthened reflecting the need for trust and understanding in cross-organisational and multidisciplinary working.
- The larger and more complex the intervention, the harder it seemed to implement the desired changes. This is unsurprising but was not always taken into account in establishing the capacity for delivering and managing.
- Values and professional attitudes were of great importance to the progress of pilots, with shared values, a collective communicated vision, and efforts to achieve widespread staff engagement cited as strong facilitating factors. Where key staff groups were not engaged (e.g., GPs), it was difficult to make progress. It was much easier to make progress where staff could see clear benefits that would result from the changes proposed and where they felt involved in the development of new services.
- Changing staff roles presented challenges. Where individual staff roles or professional identity was threatened, this was a barrier to integration. If education and training specific to the changed service was provided, this increased the chance of success. Changes to staff employment involving TUPE regulations were a major barrier to change (although this was the exception rather than the norm).
- Both information technology resources and the systems, policies and practices within which they were used were commonly cited as barriers to communication and data exchange.

Some barriers related to national policies, processes or legislation. For example, the financial structures of primary care, secondary care and social care in England make pooling budgets for joint initiatives a complex, time-consuming and sometimes impossible task.

### 7.2 Introduction

We identified facilitators and barriers to the success of the Integrated Care Pilots in meeting their individual objectives through interviews with staff in Deep Dive sites and through review of Living Document submissions. The barriers and facilitators identified could often be seen as two sides of the same coin (e.g., good management/poor management), and therefore these issues are best explained by theme.

Many of the barriers and facilitators to integrating care were found to be similar to those of any large scale organisational change. Relevant helpful or hindering factors include quality of leadership at the top and within groups, flexibility and permissiveness of organisational culture, and the availability of resources. Those factors that appeared to be particularly relevant to integrated care initiatives were size of the population targeted and scope of the intervention(s), information technology systems, physician involvement, existence of training for new roles/skills, communication within and between organisations, and organisational

(and staff) stability within partner groups. The ways these issues acted as facilitators and barriers are further explained in this section.

## 7.3 Structure and characteristics of organisations and interventions

The nature of the intervention affected, to a large extent, the interactions between people and organisations involved. For the most part the size and complexity of the intervention determined how much visible progress could be completed within the pilot period. Lead organisations had unique roles in that they were not always in control of the entirety of ICP activity, and this was found to be associated with ease or difficulty of implementation. Integrated information technology systems, including the systems, policies and practices within which they operate, also played a part in helping or hindering integration.

### 7.3.1 Size and complexity of the intervention

All of the pilots attempting to achieve more complex changes report in the Living Documents that the challenge of managing change was greater than anticipated. For example, with Cambridge Assura, planned additional resources were not forthcoming. In Cumbria there were formal and legal challenges preventing an intended new social enterprise being established; in Durham Dales, an external and unpredictable event (swine flu) took management attention away from the ICP. Pilots that introduced simple, single-faceted interventions seemed overall more likely to report success than those involving a range of interventions with multiple components (some ran up to ten separate workstreams). North Tyneside, for example, ran a singularly focused falls prevention service and reported in their Living Document the benefit of having management focused around 'a small central team' with the ability and authority to come to quick decisions and drive the project forward, 'while a steering group [kept] an ongoing overview of the service'.

Where multiple interventions were attempted and many partners were involved, sites reported that the complexity of proposed work made it difficult for organisations to communicate to all involved parties the intricacies of the intervention, including the roles of each participant group. The issue here is not that large-scale complex activities should be avoided but that at the planning stage sufficient time and financial resources should be made available to ensure that mutual understanding extends beyond the core of the project and there is clarity about the allocation of tasks. This is especially the case where the aims were more multidimensional (transforming the way that care was delivered). In contrast, sites where the focus was on one primary intervention reported more progress within the pilot period.

Additionally, pilots that involved multiple organisational partners, for example those spanning primary, secondary and social care services, took longer to implement change in existing work practices. They reported challenges in securing support from more stakeholders, each with their own internal processes and sign-offs needed for related decisions. Some pilots were only just implementing their planned changes towards the end of the pilot period. It should be noted that all the pilots received the support for project management from the provider of independent programme management services and learning events. In the Living Documents, the leaders of the pilots showed themselves to be reflective about management approaches and the challenges they face. Furthermore, the selection process favoured proposals with solid project management plans. Despite this, delivering at pace and to plan in the context of the wider NHS proved challenging and relationships and skills took longer to build than anticipated. In developing further plans for integration, NHS managers should ensure that tasks are scaled according to capacity.

### 7.3.2 Status of lead organisation

Another key factor was the role of the lead organisation. Those pilots that were purchaser-led (i.e., by a PCT or PbC cluster) expressed the view that they had more control over the piloted activity and its evolution compared with those driven by a provider-partnership. This became particularly important with the changes proposed for NHS and social care structure; many purchaser-driven pilots felt they had the ability to plan ahead to ensure the integrated

services could continue to be purchased through the new clinical commissioning consortia. Provider-led organisations were more likely to express concern that continuation of the integrated activity was up to local purchasers.

### 7.3.3 Information technology

Differing information technology systems used in partner organisations caused difficulties surrounding data sharing and communicating across health and social care teams. These systems included EMIS, SystemOne and others.

*So that's a big issue with [nurses] at the moment, because we are having to triplicate our work really. We're having to put it on SystemOne, we're having to write it in the patients' notes and then we're having to go to the GP. Healthcare professional 1, site 04, Interview*

Additionally, partner organisations and, more often, GP practices, were reluctant to share patient data with one other due to privacy concerns.

*We have developed a data sharing agreement which we're about to test, but it's just really cumbersome because they want to have that in place for everything. There's no blanket approval that they can give, so every time you want to share data you've got to fill the data sharing agreement in and get it approved, and there's 16 practices to do that with every time. Manager 1, Site 04, interview*

For Wakefield in particular, challenges with information technology proved more significant than the site anticipated. The original ambition was to create a shared record repository to enable integrated data analysis among multiple partner organisations. However, the site first experienced difficulty obtaining needed data from the Department for Work and Pensions (DWP). Even through the site reported DH engagement, little progress was made in establishing how and by whom at the DWP the needed data would be provided. They reported that the decision was sitting with higher-level executives for some time. Additionally the site attempted to develop a SharePoint intranet to be accessed by all partners, but then discovered Microsoft's licensing policy only allowed statutory agencies to access the intranet site, unless an 'inter-connector' licence is purchased for a cost of £19,000. Attempts to negotiate with Microsoft were not able to provide a workable solution, and at the end of the pilot period, the site was preparing for discussion with NHS Connecting for Health.

## 7.4 Relationships and communication

Staff attributed pilot successes to good existing relationships between individuals and/or organisations. Where these did not exist, pilots often found substantial effort was needed to engage individuals from large numbers of professional groups within a relatively short timeframe. Such engagement required clear communication of what contributions were required of different participants, and the rules governing the partnership and knowledge management. Engagement was more difficult to obtain among pilot sites where there was disagreement over the proposed intervention's benefits. On a similar note, widespread agreement and shared values among participating staff seemed to promote engagement and motivation. Finally, success was more often reported in those pilots where individuals were confident that senior management or a team leader was strongly committed to implementing lasting change.

### 7.4.1 Relationship quality

Pre-existing good relationships between individuals was an important factor in some sites in making early progress with pilot implementation, but the importance of continuous, planned communication between senior level executives in partner organisations was stressed by almost all sites as being necessary for maintaining momentum and jointly addressing challenges in a timely manner. These relationships were often built and sustained through the creation of 'steering groups' that met monthly, and through personal initiative by the individuals involved. Where organisations started off with different priorities, progress was much slower.

Successful inter-professional relationships newly built over the course of the pilots were also attributed to frequent, planned contact and, in some cases, to co-location. In sites where the piloted activity involved the creation of a new integrated team, working together face-to-face in the same building was noted to improve quality and frequency of communication, and to expedite problem-solving through quicker access to the knowledge of a colleague from a different professional group.

#### 7.4.2 Engagement

A number of sites underestimated the difficulty of securing professional engagement across the whole of the pilot area, which sometimes presented a barrier to implementation. Sometimes a particular professional group felt sidelined, or uninvolved with planning the ICP from the beginning.

*So what they did do across the county? They started a model of integrated teams, which only means in surgeries [there are] health professionals, OTs, physios, nurses, operating in a more integrated way. Where is social care in that? So what is integration? (Social care manager, site 01, interview)*

*And in terms of that, if I was being overly critical, not about [the pilot] but the model, I don't think it's embracing social care particularly because it's about a 'ward', and people initially think of clinicians. (Social care professional, site 04, interview)*

In other cases, adverse affects were seen on staff motivation when there was a perceived absence of clear and consistent communication from central pilot leadership and from leaders within organisations about what the work required and what contributions were needed from participants. Staff described feeling thrown into the pilots without gaining enough information beforehand; for example, what it would entail and who in management was involved. Staff reluctance to engage was also seen when individuals were uncertain about what they were allowed to do:

*Some core team members have been hesitant .... probably the biggest factor we have experienced is the 'Do we really have permission to do this?' factor. With this being a multi-organisational project where the work that people do is so visible not only to professionals from their own organisation but to others also, some team members appear to be rather cautious .... so service leads and senior management have been asked to spread the message that the teams have full permission to implement changing practices and are encouraged and supported in doing so. (Living Document, site 01)*

Reluctance to engage was also seen where staff noted fatigue due to constant structural change and policy reform within in the NHS. This finding of varying degrees of engagement was most notable in the many sites where there were plans for major changes in the delivery of care. Where GPs as a group were reluctant to engage, this was described as a strong barrier, if not the strongest barrier, to taking local initiatives forward.

By contrast, staff generally showed the most reluctance to engage with a given pilot when there was uncertainty surrounding the potential benefit of the intervention or where staff felt insufficiently supported in carrying out the pilot's work.

#### 7.4.3 Credibility of piloted activity and shared values

The perceived benefit of a pilot intervention was an important facilitator in gaining staff support for the projects. The interventions that achieved greatest engagement from local health and social care professionals were those that had clear and attainable objectives and clear, explainable links to improvements in patient care. Commitment from individual GPs was also noted as a necessary facilitator, and occasionally as an insurmountable barrier where lacking – not only because GPs serve as links to much of the rest of the healthcare system, but because GP commitment appeared to increase other local staff members' confidence in the pilot. One site commented that 'ongoing inertia and cynicism' resulted in much time having to be devoted to convincing clinicians of the benefits of the integrated service. Another site commented that 'a wholesale change of mindset' by both specialists and GPs was needed to fully implement, in this case, the new role of community geriatricians. We found piloted interventions were more likely to be perceived as successful when they were

seen as natural extensions of ongoing work such as case management of vulnerable patients.

Creating shared beliefs about the meaning and consequences of the work was considered by staff to be critical to the success of the interactions involved in a pilot's intervention. In sites perceived as successful, project leaders as well as staff in multiple partner organisations expressed near unanimous support for and belief in the pilot's work, and in the reasons it should succeed. Where this faith was not as widespread, pilots were noticeably slower, and the number of barriers cited in staff interviews and Living Documents was greater. Thus, agreeing on and communicating a shared perception of integrated care both in general and in relation to the individual pilot's activity was found to be of utmost importance.

#### 7.4.4 Leadership

Both senior and team-level leadership were often mentioned by sites in the Living Documents and interviews, either identifying good leadership as facilitating success or blaming poor leadership for lack of progress. A few staff members identified a 'champion' within teams who would remind colleagues of the benefits of the project and sustain motivation. This role was also sometimes reported across the organisation with regard to the project manager or a senior clinical manager, for example. Staff in several pilot sites noted, too, the importance of having a dedicated project team who devoted time solely to developing the pilot, as other staff had other primary day-to-day responsibilities.

Clinical leadership was mentioned as critical to success in many sites, primarily due to the ability of GPs and other clinicians to engage with their professional peer group regarding the credibility and feasibility of the intervention, and to motivate participation. This was seen clearly in sites such as Nene, where the practice-based commissioning group took on the lead management role, overseeing the organisational partnership and interventions. A downside to more clinically led pilots (as opposed to those that were PCT-driven, for example), was that the leadership team sometimes found themselves unable to take the work forward without purchaser or higher NHS management agreement. This was the case for the Cambridge ICP – a provider-led partnership – where they sometimes felt progress could not be made until the PCT made related commissioning decisions that would impact community services.

### 7.5 Ownership and individual impact

It was important for staff to feel involved and needed in order to create and maintain motivation. This feeling was facilitated through clear role definitions and enabling a sense of ownership of new skill-sets required. Piloted interventions negatively affected staff motivation where there was little formal or informal agreement about division of labour. Staff motivation was seen to increase through training, increased trust and the opportunity to exercise more independent decision-making, and to decrease through activities that 'generalised' staff members and confused professional identity.

#### 7.5.1 Ownership

We found that pilot stakeholders needed to feel as though they were involved, or consulted, in planning and early decision-making stages. Where staff felt the change was being forced upon them, they were less likely to show enthusiasm or support for the new activity. One site explained in a Living Document update:

*The former Chief Executive of the Trust engaged his workforce with a very easy to understand vision. He then enabled the people on the frontline to feel involved in changing the services to ensure that they were most effective. This autonomy and motivation really helped translate a vision into relevant changes and service redesign. (Living Document, site 06)*

This also echoes the need for committed leadership and clear communication. Some pilots required clinicians to adopt new responsibilities that were outside their existing roles (e.g., transferring responsibility for initial assessment away from social workers and towards a generic community care worker) or abandon old ones. The creation of new generic roles seemed to lead to a feeling of loss of professional identity. Some felt that, in creating a team

that carried out multiple assessments or responded to differing types of calls, their previously 'owned' roles and even favourite tasks were redistributed.

*It is a bit mixed, some people really don't want to take on generic skills and say they've gone into this position because they were doing 'x, y and z' and weren't expected to do the other things that have now come on board. (Healthcare professional 2, site 01, interview)*

*Perhaps it's the old values of certain members of staff who don't like ... they see it as ... they've got their own little role, and they don't like to see it spreading out to other people, if that makes sense. You know, that's their job and that's it, type thing, and they're a little bit precious about it, rather than divulging it out to other people. (Healthcare professional 1, site 04, interview)*

## 7.5.2 Staff training

The provision of training or development specific to the service change or integrated care activity was frequently referred to as facilitating change, particularly when the work involved required new or changed roles of participants. Correspondingly, a lack of training sometimes led to staff being unclear whether they were permitted to take on particular tasks or feeling unprepared to take on new roles.

## 7.5.3 Professional vs. patient viewpoint

Another barrier to achieving the objectives pilots set for themselves may have been an over-emphasis on the preferences and assumed knowledge of clinicians, as opposed to those of patients/service users. For example, the Cambridge ICP aimed to increase the number of people dying in their place of choice, which was presumed to be at home ('number of people dying at home as a percentage of all deaths in the pilot' was a local evaluation outcome measure). However, locally collected metrics at the end of the pilot period showed 38 per cent of participating patients who had died, died at home, and 82 per cent had died in the place of their choice. The site remarked in their Living Document: 'This raises the question of whether patients and/or their carers actually choose home as the preferred place of death as promoted in [End of Life] strategies'.

Similarly, Tameside and Glossop's ICP involved implementing a cardiovascular disease (CVD) prevention programme, offering access to assessment and care information through local pharmacies. This was intended for convenience. They found that patient uptake of the service with increased access was lower than uptake of NHS National Health Checks (which include CVD screening), which are available only through GP surgeries. This highlighted that the presumed patient preference may not have been correct or may not have been strong enough to change behaviour. Both sites reported learning from the experience and either made changes to the service or mentioned plans to collect related patient views.

## 7.6 Contextual factors

Staff discussed a number of practical barriers to integrating care that related to the organisational and policy contexts within which the interventions were implemented. These included elements of NHS bureaucracy, regulations governing budgets and employment between care sectors, external reforms, internal reorganisation and personnel turnover, and organisational culture.

### 7.6.1 Public service bureaucracy

Perhaps most common of all frustrations expressed by sites was the amount of time it took to get the new activities started. Some of the practicalities of NHS bureaucracy – necessary chains of managerial approval among multiple organisations and slow decisions about resource distribution – were perceived as unnecessarily time-consuming.

*I do think there are some occasions where things take an inordinate amount of effort to get done, much more than I expected, to be honest. (Manager 1, Site 04, Interview)*

Additionally, there were difficulties when integrated teams encountered differing human resources and legal processes intrinsic to health and social care organisations. Several sites

faced problems in pooling budgets that were historically used for either health or social care, and found money was often tied up within that organisation's spending regulations. Some sites commented that NHS financial regulations prevented partners from establishing a 'whole system of care' (e.g., by merging budgets). Delays occurred especially where changes to staff employment were involved (invoking TUPE regulations). In one case, the national Co-operation and Competition Panel had to rule on the legality of changes proposed in the pilot, and this prevented progress of the originally intended activity.

There was also the additional burden of responsibility related to these interventions having national pilot status, which was to frequently report to stakeholders within the pilot site and to the Department of Health.

## 7.6.2 Resources allocated to the pilot

Issues surrounding financial resources allocated to pilots were discussed frequently. Funding was important in order to backfill personnel seconded to the pilot, but staff often had to complete pilot activity on top of existing workloads. The personal cost to staff of having to take on more work for potential patient benefit at some time in the future created a further difficulty in developing motivation.

*Yes, it's the investment of time as well, not necessarily the money, but just having an open mind to try something different and being prepared to perhaps have to put in a bit of effort at the front end to reap the benefits at the end. And I think that's difficult for staff at the moment when they're struggling to keep on top of their existing workload .. a leap of faith. (Manager 1, Site 04, interview)*

Another site commented through a Living Document:

*Things only progress when the key people involved in the project push things forward and these key people are doing other jobs as well. The need to use internal resources who are already committed to full-time jobs is a key inhibiting factor for delivering any change in the NHS. (Living Document, site 11)*

Staff in some of the sites spoke of working overtime in order to keep pilot activity going, which raises questions about the sustainability of such activity in the longer term.

ICP execution was also seriously affected by outside financial pressures on the NHS that developed during the course of the pilots. For example, Principia lost five key staff posts (six community matrons reduced to three and three community service advisers reduced to one) that were critical to running their community wards. On the one hand, the national financial changes produced a barrier to pilot execution by increasing the tendency of staff to view pilots as successful if they reduced costs, rather than to meet original objectives (most often focused on clinical outcomes). On the other hand, wider financial constraints were seen as supporting the execution of pilots by raising the necessity for integration and a change to working practices.

*It is the only way forward in managing and providing services if we wish to reduce waste and patient frustration. (Living Document, Site 09)*

Unexpected changes to partner organisations' agendas were also mentioned to have impacted the priority and resources given to the ICPs. Durham Dales, as mentioned above, found the swine flu epidemic took much senior executive time and focus away from the piloted interventions.

### 7.6.3 Organisational culture

The realisation of a given pilot's intended changes relied on its ability to modify existing systems and practices and to make new ones possible. This ability was especially dependent on organisational culture and perceptions of professional boundaries. In some cases, staff considered prevailing perceptions that those in different professions had of one another as a true barrier to implementation. New management structures of integrated teams felt foreign to some staff members accustomed to more 'silo-type working', in which, for example, physiotherapists always manage the physiotherapists; district nurses are lead by a nurse, and so forth.

In addition to needing to renegotiate professional boundaries, pilots often found integration activities were hampered by a lack of openness that several staff perceived to inhibit discussion, and which was part of a wider NHS 'blame culture':

*The time required to build relationships and trust, to enable frank open and constructive discussions to take place without feelings of blame and attribution ... as a newcomer to the NHS the blame culture seems to be strong, particularly across organisational boundaries. (Living Document, site 11)*

As a corollary, a couple of sites specifically commented that their pilot had enabled people to move away from such a 'blame culture' and thus make a new culture possible:

*I personally would say that the partnership has achieved considerable success in its short existence especially around increased knowledge of whole-system challenges and opportunities, promoting a no-blame culture and developing a 'we are all in it together' mantra. (Living Document, site 03)*

*We have created a group called Transforming Integrated Care which holds monthly meetings and has representatives of managers from all four organisations. This is again unique and allows mature conversations to be held in a constructive manner, moving away from the silo/blame culture that sometimes impedes such discussions. Living Document, site 06*

One site also reported that an external facilitation had been very helpful in getting two organisations to work together. It is worth reiterating that these approaches to improving joint working are well rehearsed in the wider literature on managing change.

### 7.6.4 Pre-existing state of integration

Another issue that arose through analysis of Living Document and interview data was that those sites with structures or pre-existing resources in place, which could be used with the piloted intervention(s), reported greater successes. This included pre-existing relationships, for example, as seen between the GP practices in Principia that had worked together in the past as part of a PCT commissioning cluster, or organisations that had previous experience with and leadership commitment to integrating services (e.g., Torbay). In these situations, sites were able to secure engagement and communicate through existing networks.

### 7.6.5 Multiple levels of change

Piloted activities were often implemented within contexts that were themselves characterised by change. There were a number of examples of pilots where the partner organisations were undergoing their own internal reorganisation, and in such cases, staff perceived the differing priorities of those organisations to cause progress of the pilot to be slower than it would have been otherwise.

*In terms of the community provider of nursing and therapy services, which underwent a restructuring process, very mixed messages were sent out to the middle managers in terms of how they should engage with [the ICP work], and therefore there were some blocks there. (Healthcare professional 1, site 01, interview)*

Changes in personnel were also identified by many sites as problematic. The most common challenge was departure of a member of staff heavily involved in management of the ICP. Since sites employed relatively small numbers of staff working specifically on pilot initiatives,

they were vulnerable to staff change and the attendant delays caused by recruiting. Towards the end of the pilot period, staff members who left were also less likely to be replaced. In one site, the departure of the lead GP signalled the pilot's end to some staff members, since they could not envisage that:

*... anybody would want to be the driving force behind it after [lead GP] leaves. [Lead GP] would do a lot more work than any of us I would've thought, but I don't know. (Healthcare professional, site 05, interview)*

Other changes at national level had a mixed effect on progression of ICP activity. For some sites, as mentioned previously, national policies such as Transforming Community Services (TCS) were identified as being actively helpful in delivering on the pilots' aims. But for others, the same national policy had inhibited local developments, for example, where local authority budgets were cut substantially and fewer social workers than anticipated were available to be involved in the integrated care project. The negative impact of TCS was most notable in Cumbria. Cumbria was one of six PCTs that had been given permission to continue to employ provider side staff after passage of the policy, but a need for clear separation between commissioning and providing was still required. This problem was overcome by the site through the imminent transfer of provider staff to employment through Cumbria Partnership Mental Health Foundation Trust; however, progress in the Cumbria pilots was significantly slowed down for six months while this alternative arrangement was made.

#### **7.6.6 The dangers of focusing only on capacity building**

It should be readily apparent that exploiting the facilitators and limiting the barriers in delivering integrated care would be a considerable accomplishment. Creating effective teams, communicating the purpose of the project, transforming culture, establishing performance measures, and engaging patients and users are substantial tasks. It was noticeable to us that in Living Documents attention appeared to be focused primarily on building what we called the 'platform' for intervention rather than delivering integrating activities, and we reported this concern back to the pilots. However, we realise that this may be due to a short pilot and evaluation timescale. A sense of achievement in building the platform may explain why we found that towards the end of the pilot period staff were more satisfied and more confident that care is improving than were patients and service users.

### **7.7 Facilitators and barriers to integrating care: conclusions**

We did not find a single and simple shared set of facilitators and barriers across such a range of pilots and variety of staff consulted. However, the recurrent themes discussed here may be useful to policymakers and other organisations looking to integrate services. Delivering integrated care can require multiple preparatory activities, and perhaps most importantly, clear, effective communication across different organisations, service users, staff groups and professions. Integrated care interventions benefit from performance management information and sentinel indicators to both track and communicate progress. They might require not only investment in IT but also changes to the policies and practices around its use. They require maintaining old relationships and building new ones based not on hierarchy but on trust. They often require a shift in organisational culture to accept an altered status quo and some individual risk taking, in addition to staff training in new related skills. Overall they involve new ways of working becoming routine. This all necessitates considerable leadership and management capacity. However, building this capacity is often so demanding and time-consuming that it may come to be seen as an end (or at least an interim end) in itself. In this case there is a risk that the purpose of integrated care – improving patient experiences and outcomes – may be lost in the focus on this interim achievement.

Chapter 8

# Discussion and conclusions

## 8. Discussion and conclusions

### 8.1 Summary

There is a challenge involved in making judgements about heterogeneous and emergent activities in a changing environment. Not only did the ICPs themselves adapt and change but the changing wider context, including NHS and social care reforms, introduced a range of confounding factors. Furthermore, pilot status brought with it a degree of legitimacy and national support that coincided with a palpable energy from local leaders. In addition it brought the support and attention of the evaluation team. Especially at the outset, pilots also received project management support from an independent provider of programme management services. We must take care before assuming that any of the approaches would generate similar sense of purpose and enthusiasm if rolled out without 'pilot status'.

The evaluation reveals that integration is a way of managing the problems associated with specialisation and organisational differentiation. Specialisation in particular has played an important part in improving in healthcare for much of the twentieth century, while organisational differentiation is an effective way of recognising the need for accountable bodies with manageable tasks. 'Integration' is not an alternative to 'specialisation'; rather, care integration should be seen as an adaptable approach to combining specialisation and standardisation with collaboration and personalisation. For example, by bringing diagnostics closer to communities, ensuring better communications between carers and community nurses, identifying and supporting patients at risk of further falls, or bringing specialist skills earlier to people with dementia, the aim of integration seems best understood as recombining specialist and generic skills around a changed set of processes. We identify a set of 'integrating activities', which broadly describe the steps that the pilots undertook in trying to provide better integrated care in this sense. We also present the findings of positive and negative changes associated with implementation of ICPs.

A number of positive findings were associated with the implementation of ICPs:

- service users reported more care plans and better coordination following hospital discharge.
- staff experiences of carrying out these projects were largely positive. Most staff members interviewed were enthusiastic about their pilot's progress and its potential for future impact.
- a majority of staff who had direct patient contact thought that care for their patients had improved over the previous year.
- there were significant net reductions in overall secondary care costs for sites focusing on case management of elderly people at risk of hospital admission. The net reduction in costs was mainly due to reduced elective admissions and outpatient attendance in pilot sites which balanced increased costs of emergency admissions.
- reports from sites of their own local evaluations document a wide range of service improvements.

A number of negative or equivocal findings were associated with the implementation of ICPs:

- some staff expressed disappointment that the pilots had not lived up to their initial high expectations in the scope of new activities or the changes actually implemented (although this may reflect on their expectations as much as on the delivery). Indeed a number of major planned initiatives, sometimes ones that were critical to the pilot's objectives, could not be implemented. Most often these were innovations that required major structure change or changes in financial arrangements.

- over a third of staff in the second survey round thought it was ‘too early’ to tell whether their pilot had improved care for patients. This emphasises the length of time that it took for several pilots to introduce their planned interventions – it is very difficult to produce rapid change in a system as complex as health and social care. We should take seriously the possibility that at least some of the pilots have laid the foundation for future improvements which have not yet been realised.
- patient/service users reported less continuity of care, poorer communication and less involvement in decision-making following interventions. We speculate on a number of possible explanations for this, including changes in staffing leading to frail older people having to accustom themselves to new staff and new routines, and the process of care planning ‘professionalising’ care rather than engaging patients and service users more in their own care.
- we found an unexpected increase in emergency admissions for patients who received an intervention, and this effect was most marked in sites focusing on case management of patients at risk of emergency admission. Although it is likely that some of the apparent increase may have been due to incomplete matching of cases and controls, we speculate that greater attention to at-risk patients may at times identify more patients judged to need admission to hospital. Such cases would be balanced to some extent by patients for whom staff were clear that an admission had been avoided. We have no means of determining whether any additional admissions were appropriate or not. Against the possible increase in emergency admissions, we found reductions in outpatient attendances, which we suggest may have been due to moving services into primary care settings, an aim of several of the sites. Reasons for the observed reduction in elective admissions (especially in chemotherapy for cancer) are not clear (and the necessarily late arrival of the data precludes further investigation prior to completing this report).

Integrated care activity throughout 16 pilot sites has to date resulted in changes to the delivery of care that have led to improvements in staff experience and organisational culture. Process improvements (such as more care plans) have been achieved and staff and Living Documents report better understanding and communication among those involved in delivering care. The interventions in general had high appeal among staff, and the wider evidence cited in Chapter 2 suggests that, in some cases at least, if the activities are given more time to become routine, they may bring about improvements in outcomes relating to patient care. In the absence of a null hypothesis, we have been cautious about any claims concerning costs but our informed assumption is that costs are broadly neutral but are likely to vary considerably depending upon the types of integrating activities being pursued.

## 8.2 Introduction

The ICPs have been on a journey that has afforded significant opportunities for learning. Like the journey, this learning is unfinished. However, some issues are much clearer and some uncertainties have been reduced. Equally importantly, this evaluation has also identified important further issues to be resolved before deciding whether and how to take integrated care forward. We have developed a body of evidence that strikes a balance between, on the one hand, supporting comparisons across different sites and, on the other hand, understanding the lived reality of delivering more integrated care. We have also been aware of the need to take into account the burden such an evaluation places on those delivering the piloted activities.

Before considering the findings of the evaluation, it is important to consider the influences on and limitations of the evaluation itself that are relevant to the generalisability and transferability of the lessons drawn. First, judgements based on heterogeneous and emergent activities in a changing environment can tell us a great deal about the variety of strategies that might be employed in different contexts, but less about which of these approaches is ‘best’. As such, the original design of the pilots programme was always more likely to be better at generating ideas and insights than proving that one approach is better than another. Not only did the ICPs themselves adapt and change but the changing wider

context, including NHS and social care reforms, introduced a range of confounding factors. Furthermore, pilot status brought with it a degree of legitimacy and national support that coincided with a palpable energy from some local leaders. The Living Documents are very clear about the benefits of pilot status. Care would therefore be needed before assuming that any of the approaches would generate a similar sense of purpose and enthusiasm if rolled out without pilot status. We have avoided making any direct claims about scalability and potential spread based on the evaluation.

In brief, there are a number of reasons to be cautious about generalising from the findings of this evaluation. The first relates to the selection of the pilots. As we have remarked in several places, the interventions planned by the pilots were heterogeneous, and benefits may have been apparent in some types but not others. Where possible we attempted to address this, for example, by grouping together case management sites in the quantitative analysis. However, the evaluation was neither designed nor powered to evaluate each individual intervention given the scale of most of the pilot site initiatives.

Second, the pilots were selected to be an innovative group and were encouraged to be experimental. However, we are aware that other innovative organisations chose not to apply for pilot status for a variety of reasons. These included running interventions that had already been introduced (which precluded them from being selected as they could not be part of a before and after evaluation) and the need to obtain support from local commissioners as part of the application process (which may have acted as a barrier to more far-reaching initiatives, given the relatively short application timescale).

The outcome was that the models of integrated care selected, while varied, did not include more radical options such as large-scale integration of health and social care organisations. The lessons we derive are therefore taken from smaller, time-limited efforts at integration.

Third, there was a series of limitations associated with the research design selected. For the quantitative analysis, our conclusions need to be tempered by the response rates to questionnaires and imbalances in the selection of controls for the analysis of hospital utilisation (though the difference-in-differences method used was robust to relatively substantial differences between cases and controls). We were also aware of the problem of multiple statistical testing across the many questions we addressed in the quantitative analysis. We considered allowing for this (e.g., with a Bonferroni correction); however, we also thought that findings that were significant at, say, the 10 per cent level might still be of managerial interest. We compromised on this by staying with the conventional 5 per cent level when reporting statistical significance. Our qualitative analysis was limited by only being able to carry out in-depth interviews and observations in four 'Deep Dive' sites, relying largely on the Living Documents for qualitative data from all the sites.

Finally, we were limited by the fact that several of the sites only started their interventions with patients towards the end of the pilot period. There were various reasons for this and mostly these were beyond the control of the pilot. Although the evaluation was funded for a three-year period, this may still have been too short to detect effects in some pilots. However, despite these caveats, we believe that the pilots add substantially to thinking about integrated care.

In this chapter we first review how our understanding of the practice of integrated care has evolved before discussing how worthwhile these practices are. Finally we identify our conclusions and key recommendations.

### **8.3 Our understanding of integrated care in general and the ICPs in particular**

Some definitions of integrated care focus on integrating dimensions of care – from preventive to diagnostic, to treatment and rehabilitation – while others emphasise linking together levels such as macro, meso and micro (e.g., regional or national, institutional or individual). Yet other definitions (including some of those given by the ICPs) emphasise the distinctiveness of integration in organising care around the service user. We started this evaluation anticipating

that each pilot would exhibit the features of a single coherent model that was consistent over time. In this case, the evaluation questions would be: what model was adopted; how faithfully was this implemented; did the model deliver what was intended; and could the benefits have been better delivered? Indeed, these were broadly the questions that informed our starting point. However, the evidence from the pilots suggests a different way of conceptualising integrated care and different evaluation questions.

Integration offers a variety of ways of managing the consequences of specialisation and organisational differentiation in delivering health and social care. Specialisation in particular has driven improvement in healthcare for much of the twentieth century, while organisational differentiation is an effective way of creating accountable bodies with manageable tasks. However, although these and other factors contributed to significant improvements in acute care, health services are increasingly concerned with meeting the needs of people with long-term conditions, who are often also experiencing multiple health problems. In addition, many might also require support from social care services. For these people the dis-economies of specialisation and organisational differentiation could be substantial. Problems might range from the irritation of having to provide identical information on many occasions through to more dangerous failures to share information among providers. Integrating activities offers the possibility of improving the cost-effectiveness of healthcare. However, since specialisation and expert knowledge managed within well-run organisations also contribute to the cost-effectiveness of healthcare, what is needed at the local level is a judicious balance and this is likely to reflect both the choice of integrating activity and local circumstances. This is what we describe in our route map (Chapter 6) as an adaptable model of care re-combining specialisation and standardisation, with collaboration and personalisation. The route map (Figure 8.1) identified a series of key questions to be considered when developing integrated care.

	Getting started					System change		Integrated care	
<b>BUILDING GOVERNANCE AND PERFORMANCE MANAGEMENT SYSTEMS</b>	Who is going to do what in the new environment?	What standards will apply to new services or new ways of working?	What are the agreed measures of performance and outcomes?	Who will be held to account, for what, and how will they be held to account?	How will we communicate progress to outside stakeholders?	How will we embed new accountability and responsibilities?	How will integrated management and change services, experiences and outcomes?	How will the accountability arrangements be made to work in newly integrated services?	
<b>MAKING AND DEVELOPING THE LOCAL BUSINESS CASE FOR INTEGRATED CARE</b>	How can more integrated approaches be described clearly and compellingly to multiple stakeholders?	How will integrated approaches deliver more evidence based improvements to health outcomes and patient experiences?	How will more integrated approaches deliver better value for money through lower costs, improved productivity or measurable benefits?	How can data be used to demonstrate the extent of progress and keep forward momentum?		How does monitoring produce learning and adaptation?		How can continuing benefits be communicated to target groups to sustain flexibility, support and momentum?	
<b>CHANGING ATTITUDES AND BEHAVIOURS</b>	What style of leadership is required and how might this change with different stages of development?	Whose behaviour needs to change and how will this be brought about?	Do stakeholders have the necessary skills and capacities to deliver integrated care?	Why should stakeholders support more integrated services?	Do staff and service users know: 1. What our approach to integration is? 2. Why it might improve care? 3. Their role in delivering it?	How will new values become accepted as legitimate?	How will new behaviours and professional roles become accepted as legitimate?	How will new behaviours become part of routine normal practice?	How will the need for specialist care be combined with the need for well coordinate care?
<b>DEVELOPING NECESSARY INFRASTRUCTURE (INCLUDING INFORMATION TECHNOLOGY)</b>	Does the infrastructure currently existing support more integrated working?	How can current infrastructure be adapted or changed to meet the needs of more integrated working?	How can necessary changes to current infrastructure be resourced?	How can necessary changes to infrastructure be implemented?	How can current infrastructure be developed so that it drives integration rather than getting in its way?	How can infrastructure start to drive integration rather than prevent it?	How can infrastructure enable learning and adaptation in delivering integrated care?	How can infrastructure facilitate and sustain changes in the wider environment of health and social care?	How can a new approach to infrastructure support continuous improvement?
<b>ESTABLISHING SUPPORTIVE FINANCIAL SYSTEMS AND INCENTIVES</b>	How can resources be moved to where they are most effective?	How can financial savings be identified in real time?	How can decision makers be shown the financial consequences of their choices?	How can decision makers be shown the non-financial consequences of their choices?	How can decision makers be incentivised if savings are made elsewhere in the system?	How can decision-making move to whole lifecycles analysis for financial decision making and away from activity based funding?	How can financial decisions be integrated so resources follow priorities?	How can a lean system of provision be established where priorities match resource allocation across the whole system?	How can financial systems become resilient to external change?

The Living Documents, in particular, describe cycles of learning which took place during the lifetime of each pilot. Initially, decision-makers went through a 'search' phase looking for ideas about integration that seemed relevant to the problems they faced. Both general inspiration and specific ideas were taken from a range of UK and US approaches to healthcare, but none of the pilots appeared to have looked for inspiration from outside healthcare (with the exception of some interest in 'lean production', which originates in manufacturing). These starting points were then typically negotiated with local stakeholders as part of developing the original proposal to the DH. The next stage involved the early efforts to make this approach work at the local level. The barriers and facilitators to this process have been described in Chapter 7. In many cases this involved changing the plans drawn up initially. Most frequently this was a process of modifying early plans to fit local circumstances and this included efforts to achieve the judicious balance described above. The third stage was where further modifications were needed in the light of changing local and national priorities. Consequently, following the initial choice of approach, integrating activities have been shaped by (a) their need to be balanced with other requirements of organisational effectiveness; (b) local relationships and circumstances; and (c) evolving priorities. This may help to make sense of the experiences of piloted activities described in Chapter 5.

Learning and adaptation was shaped by the types of leadership in each site. Across the ICPs a number of leadership styles and approaches were evident. Whilst it is not possible to state that one style of leadership was more effective than any other, staff praised leaders who were able to generate and sustain interest in the pilot activity and who remained engaged during the lifetime of the pilot. The degree of involvement of project leaders varied across sites; in some areas the project manager held much of the day-to-day responsibility for leading the direction and maintaining momentum of the pilot.

For one site the loss of the leader and driving force had led to great disruption and concerns for the future sustainability of pilot activity. Leadership for some workstreams did not have to be top down in approach and in some sites project leaders were a variety of disciplines or levels:

*I think that you do need leaders in that sense, who ... can be from any profession as long as they identify a wish to move things further forward. (Healthcare professional, Site 01, interview)*

In addition to the understanding of integrated care as an emergent and changing concept, we can now see more clearly that the initial objectives for IC can be grouped into two categories:

- Process related – better communications across professions, organisations and sectors, new roles, new skills, coordinated services and proactive care management – we have described establishing and normalising these processes as building a 'platform' for integrated care.
- Outcome related (as an expected result of processes above) – patient-centred care, better health/fewer emergency admissions, empowered patients, less duplication/fewer gaps in care, higher patient satisfaction and higher staff satisfaction.

Results presented here suggest that there have been some successes in terms of process aims but more mixed results in terms of outcomes (especially from the patient point of view). There are at least three explanations for this (and these may not be mutually exclusive): (a) not enough time has passed to allow process improvements to lead to outcome improvements (and, worse still, there may also be a 'disruption dip' in outcomes as new systems bed in); (b) the causality between process and outcome may not be well understood; and (c) the way in which the process objectives have been pursued has led to some outcomes being achieved at the expense of others.

Our experience of the ICPs has been that there may well have been a 'disruption dip' as new relationships and ways of working take time to become well established and understood in at least some areas. Furthermore, much early energy was taken up by pilots improving processes (building the platform), and this was our feedback following our analysis of early Living Documents. Consequently the pursuit of improved processes (for example, creating

interdisciplinary team meetings) might sometimes become an end in itself. However we would suggest that there is an important way in which explanation (c) seems very likely. It links with an interesting finding regarding a 'professional' bias to implementation. 'Professionalisation', in the sense used here, suggests that processes are improved by locating decision-making in the hands of staff who have the professional skills and personal capacities to make informed decisions on behalf of the service user. This involves empowering staff close to the patient to improve surveillance and make quicker decisions. However, it can be in contention with the aim of empowering service users and encouraging those with long-term conditions to play an active part in their care. From the different data sources reviewed, we might construct the following high-level interpretation.

We know that, as a whole, IC teams have successfully increased their use of care plans and other means of improving primary care services (such as creating new roles and improving communication). This has increased the range of primary care available to patients, and this appears to have substituted for some elements of hospital care (outpatients and elective care). We could hypothesise that in this situation of enhanced primary care activity, emergency admissions may have increased as a consequence of more 'system vigilance'; the increased primary care input is better able to identify needs and then to ensure appropriate emergency hospital care. Thereafter primary care improvements should also facilitate earlier discharge. This system vigilance can be compared perhaps to organisations with high safety cultures where relatively high levels of reports of incidents show a developed safety culture and therefore a safer organisation.

Within primary healthcare teams, integrated care teams proved broadly popular. This seems to chime with desires for inter-professional collaboration and effective clinical care (notwithstanding the expected barriers and concerns expressed about a lack of investment in training). However, it also appears that IC may have led to a professionalised view of good care (i.e., a form of care informed more by the perceptions and values of professionals than of users and carers). The care plan and role differentiation allows more (and coordinated) inputs to patients, but at the cost of continuity of care for some patients.

It could be argued that continuity of primary care staff (i.e., the same staff regularly meeting with the service user) is a crude way of managing the absence of the coordinating tool (the care plan). In this sense individual providers fill the coordination gap through their own notes, contacts and knowledge of the patient. Once that gap has been filled (through the care plan, for example), this 'workaround' might no longer be needed as multidisciplinary care becomes more the norm. However, there is no evidence either way whether this model would become more acceptable to the patient/service user in the long term.

In addition, and importantly, it appears that staff used the care plan as a way of communicating more among themselves than as a tool for structuring patient engagement and empowerment (a care plan can be used for both). As a consequence, a 'satisfaction gap' has emerged between professionals and patients. This is not just concerning from the point of view of user satisfaction but also because patient empowerment is an essential component of evidence-based models of the care of long-term conditions.<sup>54 55</sup> These changes appear to reflect a re-conceptualisation of quality from initial pilot aims – or perhaps reflect the persistence and importance of the tension between lay and professional views of quality. It also identifies the effort required to normalise new ways of working – especially when these come up against established and preferred approaches.

This might also help us to understand what is, at first sight, the most counter-intuitive finding from this evaluation. In those sites implementing case management for at-risk patients there was a reduction in outpatient attendances and elective admissions (by 22 per cent and 21 per cent respectively) but an increase of 9 per cent in emergency admissions. This is almost the reverse of what might have been expected given the intended aims of many of the pilots to reduce unplanned admissions, even though some of the increase may have been an artefact of the method of analysis. The first thing to note is that because integrating activities, as we have described, involve engaging with local organisations and groups, we should anticipate that implementation will be shaped by these relationships and preferences. In particular, increasing the depth and breadth of jobs may (especially without additional training) have

unintended consequences. Given that patients are reporting that they are being given less control over the healthcare they receive, it would seem more likely that these results are driven by staff behaviour than by patient choices.

A number of the pilots, in supporting a multidisciplinary team approach, sought to use information technology to share information or data between different parties. Information technology was mentioned by some staff as a facilitator to the pilot, for example the use of computer systems to identify patients for inclusion in a pilot with use of the PARR tool. For some information systems difficulties had been experienced but had been negotiated, for example through data sharing agreements between organisations, although these were often time-consuming to obtain.

However, more commonly information technology systems and data sharing difficulties were viewed as a barrier to effective working (see also Section 7.3.3). For some there were frustrations at the lack of linked IT between partner organisations, with organisations (for example district nursing, GP surgeries, hospitals and social care) having different systems which were not compatible with each other. There seemed particular difficulties in a number of sites linking with social care data. Some respondents mentioned the need to reach a consensus on the best system and to use it across all organisations.

Some staff spoke of how the lack of integrated patient records hindered initiatives such as virtual wards; for example, staff from secondary care were not able to view primary care patient records. Other respondents felt that lack of information sharing meant that different professionals could be requesting the same tests, wasting resources. Some staff felt (in their terms) time was wasted chasing paper copies of patient records as information was not shared electronically.

Sharing data between organisations was also identified as a barrier; several sites mentioned difficulties of who 'owns' patient records and GPs as sometimes blocking data sharing. For one site this meant protracted discussions with each surgery in the area to enable the provider organisation to roll out an integrated care service to patients. Some staff pointed to perceived inadequacies where data were shared, for example nursing staff having 'read only' access to GP records so they were able to view, but not add to, the patient record. For one site data sharing was the central focus of the pilot, but it had encountered a number of difficulties that hampered progress of the pilot, including obtaining permissions to receive data from some organisations, information on governance issues and problems with the software provider's conditions of use, which prevented access from a range of other organisations.

## 8.4 What do approaches to integration have in common?

Although approaches and activities that fall under 'integration' are varied, we believe related processes and outcomes can helpfully be organised into the route map as suggested above. These broad categories capture well the inputs and requirements described to us in the Living Documents, and this map has been shared with the pilots and was seen to be helpful. We outline these categories below. Following each major theme, the bullets list examples of the integrating activities from the evaluation. We then illustrate some of these generic activities with more specific examples:

- building governance and performance management systems
  - Agreeing and setting standards to apply to formerly detached groups of staff, establishing protocols for sharing information about service users
  - Establishing shared KPIs
  - Establishing new lines of accountability
  - Developing balanced scorecards to support strategic decision-making.

- making and developing the local business case for integrated care
  - showing how more integrated services would have better results, e.g., describing how a ‘typical’ patient would have a different life
  - using modelling tools to show where the costs and savings lie
  - developing a monitoring framework to demonstrate the continuing benefits of integrating activities.
- changing attitudes and behaviours
  - providing strong leadership that can keep refreshing the message, with self-styled ‘champions’ making the case
  - engaging staff, service users and wider stakeholders in the process of change
  - encouraging more responsibility by staff and reducing ‘blame culture’.
- developing the necessary infrastructure (including information technology)
  - identifying and developing the infrastructure required to deliver in new ways
  - establishing new ways of meeting and sharing, e.g., multidisciplinary team meetings
  - ensuring that integrating activities do not proceed more quickly than infrastructure allows
  - identifying the legal and technical limits to electronic information sharing.
- establishing supportive financial systems and incentives
  - aligning incentives with new ways of delivering
  - establishing joint budgets, or hard budgets
  - establishing how budget holders will be held to account under the new arrangements
  - ensuring joint responsibility does not dilute accountability.

Local decision-makers therefore have a menu of activities to draw upon rather than a simple model to be imported and adopted. Even approaches that were initially inspired by particular models appeared to then proceed by more opportunistically selecting from across a range of approaches and broadly doing so within the dimensions of the route map.

Therefore, while recognising the heterogeneity of approaches, it is also worth emphasising that there are generic approaches leading to high-level vision that is generally shared across the pilots. This shared vision suggests that more integrated care should:

- create a greater space for preventive work, especially by using intelligence to target resources on those most likely to need it
- give service users and carers more personalised choices and greater resources for self-care
- bring care closer to the patient, especially by reorganising primary and community care and re-articulating relationships (routes into and out) with acute care

- create efficiencies by using staff more flexibly and empowering staff to respond flexibly to the needs of service users
- improve coordination among specialist services, sometimes by strengthening the role of generalists within the system.

In summary, there are varied approaches that work differently according to local circumstances, but these approaches and related processes can be identified under the umbrella of ‘integrating activities’ because of their shared contribution to a common vision. As explained earlier in this chapter, we advise against seeing this map as a model but rather propose it as a tool to improve balance between the benefits of integration and the benefits of specialisation – one which is more fitted to meeting current health needs.

## 8.5 Reflections on the value of integrated care

The 16 pilot sites made substantial investments both financially and in staff time and energy; we reflect here on the value of those investments as identified within the period of the evaluation.

### 8.5.1 Service user experience

Integrated care aims to give service users and carers a more personalised service and greater choice. It also aims to support self-care. We have an understanding of the views of service users and carers from interviews conducted near the start of the evaluation, along with information on service user experience coming from the patient questionnaire before and after the start of the pilot. We also have the reflections of staff involved in patient care, which we regard as providing important insights on what was happening to the service users they cared for.

As reported in Chapter 5, there were mixed results. On a positive note, more service users reported having a care plan in place; and care was better coordinated following discharge from hospital. On the downside, post-intervention, fewer thought doctors or nurses were very good at involving them in decisions about care or felt that their views were always taken into account; fewer patients reported being able to see the nurse they preferred. We also know that this was not a period in which the pilot sites faced particular reductions in services, which might also explain these results.

Several sites underwent substantial staff changes as a result of joining the pilot scheme, which may explain some of these results; they might be regarded as a ‘disruption dip’. New roles were created (e.g., case managers), which may have led to a loss of continuity from staff with whom patients and service users were familiar. We know from the interviews and survey conducted with service users early on in the evaluation that familiarity and continuity (especially with the GP) were strongly valued. These staff changes may also have been responsible for the reported changes in communication. Even though it was an aim of several sites to involve patients more in decisions about their care, these aspirations appear not to have been realised. Care plans are seen as a key part of chronic disease management by the DH, which wants them to be a means to achieve greater patient involvement in their own care. However, it is likely that in many pilots, the approach was more to ‘professionalised’ care, i.e., giving more focus to elements of quality that are deemed important by care givers rather than those of care receivers. Given the imbalances of power and the dispersed patterns of decision-making, we should not be surprised if professional carers use the greater responsibilities and autonomy created by more integrated approaches to do what they think is in the best interests of the service user, even if this undermines personalisation and service user empowerment.

The findings may also have been partly due to disruption – we are capturing a sharp change in some practices, and patients, especially people who are frail and older, may not well tolerate related changes in staffing (e.g., new nurses), and new and unfamiliar procedures outside of their routine. We note that over a third of staff in the second round of questionnaires thought it was ‘too early’ to tell whether their pilot had improved care for

patients. This emphasises the length of time that it took for several pilots to introduce their planned interventions – it is very difficult to produce rapid change in a system as complex as health and social care.

Despite these qualifications, overall, the integrated care initiatives were not found to improve patient experience, and from this perspective they cannot be said to have brought a positive return on investment or to have succeeded at achieving certain of their aims.

### 8.5.2 Staff experience

In contrast to service user experiences, staff reported that their experiences of carrying out these projects were largely positive. Most staff members interviewed were enthusiastic about their pilot's progress and its potential for future impact, though some participants expressed disappointment that the pilots had not lived up to their initial high expectations in the scope of new activities or the changes actually implemented. It was indeed the case that a number of major planned initiatives, sometimes critical to the pilot's plans, could not be implemented. Most often these were innovations that required major structure change or changes in financial arrangements.

Many staff members felt relationships had improved both within teams and between professional groups. They reported more collaboration, easier joint working (for example, in processing referrals) and greater understanding of the roles of other professionals. Inter-organisational working was reported to have increased, and better communication was reported within participating organisations, though fewer than half reported better communication across organisations.

Overall, staff reported improvements in quantity and quality of relevant clinical skills and improved professional development. However, they reported less satisfaction with personal contributions to patient care after the ICP interventions had been implemented, in comparison with before. This may be due to the evolving 'generalist' roles staff took on at multiple sites (e.g., rapid response team member) whereas their jobs were previously more specific (e.g., district nurse). Playing a role that constantly varies and is felt to be the same as everyone else's – while potentially better for patient care and system costs – may leave staff feeling less valued individually and disconnected from individual patients. The apparent discrepancy between staff and service user experience is interesting and we return to this question in our conclusions.

### 8.5.3 Service user outcomes

Impact on patient outcomes is approached through the viewpoints of staff directly involved in care, hospital admissions data analysis, and responses to questions on the patient questionnaire. Fifty-six per cent of staff who completed a questionnaire towards the end of the pilot period reported that they thought care for their patients had improved as a result of the pilot. This view was reinforced by staff reporting in interviews that they felt patients were receiving improved services and better overall care. Many were able to provide examples of individual patients who had benefited from the initiatives. Although the wider picture of patient/user experience was not positive, user responses to the questionnaire in a few sites indicated improved understanding of disease and self-management, and some shorter waiting times for assessment and treatment.

As reported in Chapter 5, we found an apparent increase in emergency admissions for patients who received an intervention, and this effect was most marked in sites focusing on case management of patients at risk of emergency admission – precisely the group in whom they were hoping to reduce admissions. An association between case management and increased admissions has been seen before. For example, in the evaluation of Evercare, staff reported many instances in which admissions had been avoided, though overall emergency admissions increased, albeit not significantly.<sup>56-57</sup> A second example is the HOMER trial, in which home-based medication review for older people increased admissions to hospital.<sup>58</sup> The findings are also compatible with a recent evaluation of eight 'Partnership for Older People Projects' in the NHS, which found that none reduced emergency admissions and some might have increased them.

There are a number of possible reasons why increased attention might lead to increased admissions. First, there is the near-universal issue of 'supply induced demand' – that providing more care often leads to further (appropriate and inappropriate) utilisation. A second linked explanation is that more conditions requiring admission were detected by staff involved in the pilots, i.e., that there was an increase in appropriate emergency admissions. Contemporary data are sparse, but there is little evidence that a high proportion of emergency admissions are judged clinically inappropriate: the last systematic review assessed rates of inappropriateness as between 6 per cent and 20 per cent.<sup>60</sup> We have no means of determining whether additional admissions that we found among enrollees in the pilots were appropriate or not.

Against the possible increase in emergency admissions, we found reductions in outpatient attendance and fewer elective admissions. The reduction in outpatient attendance may be explained by moving a wider range of services closer to the patient's home – i.e., being delivered within primary and community care rather than through specialist referral. Although many sites had an aim to 'move care closer to home', few actually had an explicit objective to reduce outpatient attendance. The reduction in elective admissions among pilot patients appears in large part to be due to admission of fewer patients with cancer. While at first sight that might be seen as an expected beneficial result (e.g., more end-of-life care provided in the community), the change seems mainly to be in patients admitted for chemotherapy. We think this is unlikely to be due to widespread administration of chemotherapy in the home and cannot fully explain this finding.

In terms of overall costs, we only found a net reduction in overall secondary care costs, in case management sites. These changes in secondary care costs have, of course, to be seen alongside the additional costs of providing 'integrated care' within primary and community care services which were not measured directly in this evaluation. It is also important to note that secondary care costs were calculated from the perspective of the commissioner in this study. We have not calculated costs from a provider perspective, but it is possible that there were reduced costs for acute trusts in providing care for patients from Integrated Care Pilots and therefore greater potential savings for the health system as a whole.

We can say that for at-risk patients, integrated approaches have the capacity to deliver savings (even if not in the ways intended). These may not lead to better patient experiences and to achieve this might require further staff training and development. That said, as reported in Chapter 6, many senior staff and project managers were confident of longer-term cost savings. The interventions in general had high appeal and, based on the existing literature and our analysis of the DH ICP programme, we conclude that integrated services for targeted conditions or population groups are a promising way to improve staff morale and potentially to improve patient outcomes, and that there is a plausible case to be made that they may reduce costs in the years ahead.

On their own and with the exception of the case management sites, the financial results may seem a modest prospectus to present to an investor. However, this caution needs to be set against our opening remarks to this chapter, particularly because of the possibility that savings may accrue over a longer time horizon than that examined here. There is a compelling case for not seeing integrated care as a single internally consistent model but as a necessary response to having structures and processes that are less well suited to the new types of service users and new health needs of the population as a whole. This impulse to create better integrated services through a variety of mechanisms will inevitably come up against the limits imposed by the need for some specialisation and organisational effectiveness; nurturing specialists and creating excellent organisations requires boundaries. However, if combined with wider changes to create a more preventive health and social care system, driven by improving patient experiences and health outcomes, integrating mechanisms should continue to be a key part of improving care.

#### 8.5.4 Implications for current policy environment

When the ICPs were first conceived of as part of Lord Darzi's NHS Next Stage Review, the emphasis was on quality improvement within a broader context of financial growth.<sup>61</sup> The Vision for Primary and Community Care (the report on primary care that accompanied High Quality Care for All), while highlighting recent improvements in community-based care, also pointed out some important deficits – inter alia, that services are not 'joined up' around patients' needs and that people with long-term conditions want and need more control over and information about their care.

The proposals contained within the Vision for Primary and Community Care included a commitment to care planning, a stronger emphasis on quality standards and assurance, and proposals for more choice over and personalisation of care. Integrated Care Pilots were to be one mechanism by which to support the achievement of these aims. The pilots were intended to offer 'more personal, responsive care and better health outcomes for a local population' (p. 53) and had a strong focus on innovation. Indeed, the government was clear that it did not wish to impose a single 'blueprint' on how improvements were to be made.

Against this backdrop, the ICP programme can claim some success. As we have noted, the pilots improved some of the desired processes of care, such as formal care planning, and might reasonably claim to have been an effective mechanism for encouraging and supporting staff to change their working practices (although ultimately how 'innovative' some of these new practices have been might perhaps be questioned).

However, it is equally clear from our evaluation that these successes have not translated, at least so far, into equally encouraging changes in patient perceptions across all domains of quality. In particular, engagement of patients in their own care, another priority of the Vision, has (surprisingly, perhaps) deteriorated rather than improved.

But it is also clear that the priorities of the wider health service have shifted in the time since the pilots were conceived. The focus on quality and responsiveness of services has been joined by a new preoccupation; the need to achieve very significant productivity improvements in care during a time of financial austerity. This preoccupation emerged very clearly in the pilots over the lifetime of the initiative, as evidenced by their Living Documents.

In this context, pilots are likely to be judged by a more diverse set of standards than hitherto. Not only will there be a concern that integrated care should improve patient experiences and outcomes, but there is likely to be considerable interest in their impact on the costs of care. Our evaluation does not provide conclusive evidence in this realm (nor was it intended to). However, with the exception of the six case management sites it is clear that substantial and rapid cost improvements are unlikely to result from a diffusion of integrated care, at least of the type practised by the national pilots.

Therefore, if the key question for the NHS at the moment is 'how do we achieve a significant reduction in the costs of care?', then integrated care, as practised by the pilots we evaluated, is unlikely to be an immediate or compelling answer. This, of course, does not devalue the results in domains other than major cost improvement. But it does raise the issue of the opportunity cost of investing in integrated care at a time when a preoccupation with cost saving is paramount.

So could ICPs evolve to address both questions of quality improvement and cost savings? Here it is difficult to do other than speculate. The pilots successfully did things that could very well be part of delivering productivity gains as well as quality improvements in the future. They provided a focus for professional involvement and they created opportunities for interdisciplinary discussions, mechanisms to focus resources on priority cases and preventive interventions, and a platform for developing new relationships between primary and hospital care. However, these improvements did not always lead to quick cost savings. Our evidence has highlighted some important facilitators and barriers to using integrating activities in the current circumstances. For example, strong clinical leadership is a facilitator and pilots led by commissioners appeared to involve fewer hurdles between idea and implementation. It might

seem logical to conclude that future Clinical Commissioning Groups (CCGs), with primary care providers holding commissioning and provider roles, might be well suited to pursuing integrated care initiatives relatively effectively. In this regard, changes to the wider NHS context might be seen as supportive to integrated care (although this might be offset in the short term to some degree by the multiple calls on the time of local clinical leaders as CCGs are established).

However, to the extent that cost reduction is an aim of integrated care, more may need to be done to support integrated care providers to deliver financial savings. As has been noted by many commentators, the current financial incentives within the NHS do not lend themselves to integrated care (indeed, they may actively inhibit integration). Obvious examples include the nature of the national tariff, which serves to incentivise episodic care and links hospital income to greater hospital activity. Options for changing funding arrangements to support integrated care, in particular the use of capitated funding to incentivise cost-effective care management, have been discussed elsewhere and may be part of a more cost-conscious strategy to implement integrated care across the NHS.

## 8.6 Reflections on an ‘embedded’ evaluation

We have suggested from time to time that ours was an ‘embedded’ evaluation. This reflects a widely held view of how best to evaluate interventions where much of the knowledge about the processes and impacts is held locally by those most involved in delivering the change. This knowledge may often not only be written and captured in formal strategy documents but also be tacit and implicit. Understanding this locally held knowledge becomes an important part (but certainly not the only part) of the evaluation. Achieving this will depend upon establishing a degree of trust and also identifying how the evaluation might play a formative role. This formative role is described in Figure 1.2 in Chapter 1.

We believe that we established a good rapport with all of the Deep Dive sites and most of the other sites. The teams from all the pilot sites engaged to the degree needed for the evaluation and many engaged beyond this. Through the feedback to individual teams (especially through the response to the Living Documents) and through collaborative learning (at the learning events in particular) we believe that we had a positive contribution to thinking within the pilots but we did not intend to change the essential approach of any of the pilots, nor did we.

In retrospect we would have liked to have established more resource for supporting individual sites, and in particular to engage with them to draw out the lessons from the learning events and discuss how this could be made relevant to their own work. For example, we took the view during the second year that there was a risk that pilots would become over-focused on building the platform for integrating activities and underplay the objective of changing service user experience (particularly in ways that took account of their preferences). We articulated this view within the available opportunities (e.g., Learning Network conference calls) but we would have liked to have been able to express this more directly.

The balance of resources in the evaluation between collecting views of participants and collecting quantitative data was skewed towards the quantitative aspects. This was broadly right, in our view; however, it left some elements of the ‘black box’ of local processes hard to fathom. More ethnographic and observational data focused on leadership, how professionals and service users interact, and how work is reorganised in reality as opposed to on paper would all have offered valuable insights. Possibly fewer case study sites (Deep Dives), with more intense data collection at each, would have been beneficial. This may be helpful for future evaluators to note.

## 8.7 Summary and key messages

- While much of the wider literature focuses on ‘models’ of integrated care, we found that Integrated Care Pilots developed and implemented a loose collection of ‘integrating activities’ based on local circumstances. Despite the variations across the pilots, a number of aims were shared: bringing care closer to the service user; providing service users with a greater sense of continuity of care; identifying and supporting those with greatest needs; providing more preventive care; and reducing the amount of care provided unnecessarily in hospital settings.
- Most pilots concentrated on horizontal integration – e.g., integration between community-based services such as general practices, community nursing services and social services – rather than vertical integration – e.g., between primary care and secondary care.
- Integrated care led to process improvements such as an increase in the use of care plans and the development of new roles for care staff. Staff believed that these process improvements were leading to improvements in care, even if some of the improvements were not yet apparent. A range of other improvements in care were reported by pilots following local evaluations. We have reported these but they lie beyond the scope of the national evaluation.
- Patients did not in general share the sense of improvement. This could have been because the process changes reflected the priorities and values of staff (a so-called ‘professionalisation’ of services); because the benefits had not yet become apparent to service users (‘too early to tell’); because of poor implementation; or because the interventions were an ineffective way to improve patient experience. We believe that the lack of improvement in patient experience was in part due to professional rather than user-driven change, partly because it was too early to identify impact within the timescale of the pilots, and partly because, despite having project management skills and effective leadership, some pilots found that the complex changes they set for themselves were harder to deliver than anticipated. We also speculate that some service users (especially older patients) were attached to the ‘pre-pilot’ ways of delivering care, although we recognise this may change over time.
- A key aim of many pilots was to reduce hospital utilisation. We found no evidence of a general reduction in emergency admissions but there were reductions in planned admissions and in outpatient attendance.
- The costs of implementing change were varied and individual to each pilot. For the six sites focusing on case management, we found a net reduction in secondary care costs (an increase in costs for emergency admissions balanced by a reduction in elective admissions and outpatient attendance. For other sites, we found no overall significant changes in the costs of secondary care utilisation.
- Can the approach to integrated care found in these pilots improve quality of care? We conclude that it can if well led and managed, and tailored to local circumstances and patient needs. Improvements are not likely to be evident in the short term.
- Can the approaches to integrated care found in these pilots save money? Our conclusions concur with those of Ovretveit (2011)<sup>12</sup> – not in the short term and certainly not inevitably.
- Echoing the views of Powell Davies and colleagues (2006),<sup>2</sup> the most likely improvements following integrated care activities are in healthcare processes. They are less likely to be apparent in patient experience and reduced costs.

### **Important limitations to our findings**

- The ICPs stated that they enjoyed considerable support from their status as DH pilots and, in addition, they were provided with project management support and formative feedback from the evaluation team. For these reasons we should be careful about assuming that lessons learned from the evaluation would apply to establishing integrated care more widely.
- The pilots built on existing practices, then learned, adapted, abandoned some things and seized new opportunities. Any before-and-after study is limited by the emergent and changing character of the interventions.
- Much of the qualitative data used here was sourced from interviews, surveys, and structured feedback from the sites. It is inevitable that such data will be subjective and, on occasion, may be designed to present the best impression, though we do not believe this was generally the case.
- The quantitative evaluation was limited to survey data from staff and service users and comparison of outcomes with data from matched controls. Attribution of changes (or lack of them) to the intervention is less secure in this design than, say, a randomised controlled trial.

### **What results mean for decision-makers**

- The scale and complexity of delivering integrated care activities can easily overwhelm even strong leadership and competent project management. While it may seem obvious in theory that integrating activities should be scaled to match local capacity, this was not always the case in practice. In some cases enthusiastic local leadership produced expectations that were difficult to realise in practice. Changes to practice often took much longer to achieve than anticipated.
- The focus on the needs and preferences of end users can easily be lost in the challenging task of building the organisational platform for integration and in organising new methods of delivering professional care. Using performance metrics focused on the end user and strengthening the user voice in the platform for integration might avoid this.
- In developing integrating activities there is no one approach that suits all occasions, and local circumstances and path dependencies will be crucial in shaping the pace and direction of change. Integration is not a matter of following pre-given steps or a particular model of delivery, but often involves finding multiple creative ways of reorganising work in new organisational settings to reduce waste and duplication, deliver more preventive care, target resources more effectively, or improve the quality of care.
- Similarly, although the needs of the individual ICPs were due to local circumstances, there were some very common challenges reported, similar to those of more general organisational change (see Chapter 7). Individual organisations looking to implement service integration initiatives should take time up front to prepare for these challenges and create back-up plans to address them. We also recommend that the NHS as a whole should work to enable local, transitional changes (e.g., through giving organisations temporary relief from regulations restricting health or social care staff employment, or competition regulations, where strong cases are made).
- General conclusions about integration are limited by the nature of these particular interventions, especially their focus on integrating community-based care as opposed, for example, to integration between primary and secondary care (which was the focus on only a minority of pilots).

Although there is no one universal process to follow to achieve care integration, we believe there is a common set of questions that should be asked along the way. These questions are identified in our proposed, structured approach to planning and decision-making, which is summarised in our 'route map to integrated care'.

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