Vertical integration of GP practices with acute hospitals in England and Wales: rapid evaluation

Manbinder Sidhu,[1] Jack Pollard[2] and Jon Sussex[3*]

[1]Health Services Management Centre, University of Birmingham, Birmingham, UK
[2]Health Economics Research Centre, Nuffield Department of Population Health, University of Oxford, Oxford, UK
[3]RAND Europe, Cambridge, UK

*Corresponding author: jsussex@randeurope.org

Declared competing interests of authors: none.

Published June 2022
DOI: 10.3310/TLLA3317

Scientific summary

Vertical integration of GP practices

Health and Social Care Delivery Research 2022; Vol. 10: No. 17
DOI: 10.3310/TLLA3317

NIHR Journals Library www.journalslibrary.nihr.ac.uk

Scientific summary

Background

In the NHS in England and Wales, acute hospitals do not usually run primary care services. However, the desirability of better integrating patient care across primary and secondary care settings has become established as an NHS policy objective. At the same time, in the face of growing patient demand combined with general practitioner (GP) workforce constraints, the long-term sustainability of primary care in the UK has become an increasing focus of concern.

Usually, general practices have contracts (to provide primary care services) with NHS England (in England) or their Local Health Board (LHB) (in Wales). This study provides an evaluation of instances where organisations running acute hospitals have taken on the responsibility for fulfilling those general practice contracts. This change of responsibility has been happening in several locations in England and Wales since 2015, but is not yet widespread practice. It is now timely to evaluate such arrangements.

An acute hospital taking responsibility for running general practices is an example of 'vertical integration', that is, integration between organisations operating at different stages along the patient pathway. Vertical integration between acute hospitals and general practices in the NHS often entails some horizontal integration (i.e. hospitals are running more than one general practice and, therefore, those practices are effectively integrated horizontally with one another, as well as vertically with the hospital).

A hospital integrating with general practices – from which patients are referred to the hospital – may facilitate demand management and enable cost savings by sharing back office administrative functions. Less positively, vertical integration may mean that patients find themselves less able to exercise choice between alternative providers of hospital care because their GP is inclined to refer patients to the hospital that employs them.

Objectives

This rapid evaluation had two distinct aims.

Aim 1

Our first aim was to understand the early impacts of vertical integration, namely the objectives of vertical integration, how vertical integration is being implemented, if and how vertical integration can underpin and drive the redesigning of care pathways, if and how services offered in primary care settings change as a result of vertical integration, and the impact of vertical integration on the general practice and hospital workforces.

Aim 2

Our second aim was to develop a theory of change for vertical integration, which means identifying what outcomes this model of vertical integration is expected to achieve in the short, medium and long terms, and under what circumstances.

In line with these overall aims, our evaluation was grounded in the following six research questions to help understand the experience of implementing vertical integration and to establish early learning to inform a potential follow-up evaluation:

1. What are the drivers of and rationale for acute hospitals taking over the management and governance of general practices? What does this type of vertical integration aim to achieve?
2. What models/arrangements exist for acute hospital organisations to manage general practices (including different contractual/legal/organisational arrangements across primary, secondary and community health services)?
3. What is the experience of implementing this model of vertical integration, including barriers to vertical integration and enablers of vertical integration, as well as the lessons learnt?
4. In what ways, if any, has this model of vertical integration influenced the extent and type of health service provision delivered in primary care?
5. What are the views of the primary and secondary care workforces about working together in this way across the care interface?
6. In what ways, if any, has this model of vertical integration had an impact so far? What are the expected longer-term impacts? How is progress being measured?

Addressing these questions informs the development of a theory of change for vertical integration between acute hospitals and general practices, describing its desired outcomes and the mechanisms by which these are expected to be achieved.

Methods

Our overall approach was a cross-comparative case study qualitative evaluation, comprising three work packages (WPs).

Work package 1: rapid review of the literature, telephone scoping interviews and a stakeholder workshop

Work package 1 comprised three parts. First, to inform the development of propositions to be tested through comparative case studies, we carried out a scoping review of published evidence ($n = 27$) on vertical integration of secondary and primary care services in both an international and UK context in the past 30 years. Second, to gather their initial insights and perspectives on why vertical integration was introduced and seek views on which research questions a rapid evaluation should prioritise, we carried out telephone interviews and face-to-face meetings with academics, policy analysts and NHS staff ($n = 13$) involved with the implementation of vertical integration across different sites in the UK. Third, to consider the scope of an evaluation of vertical integration between acute hospitals and general practices to refine research questions, we organised a stakeholder project design workshop.

Work package 2: comparative case studies of three vertical integration sites

Work package 2 was a comparative qualitative study that involved (1) interviews ($n = 52$) with key staff participating in the conceptual design, implementation and analysis of this model of vertical integration at the respective case study sites across primary and secondary care, (2) analysis of key documentation (both internal and publicly shared) that related to patient experience, (3) non-participant observation of strategic meetings ($n = 4$), and (4) interpretation of information being collected by, and any analyses undertaken at, the case study sites. Fieldwork was completed in parallel across all three case study sites (August–December 2019) by three members of the research team with experience of undertaking interviews and qualitative data analysis. Data were analysed using an adapted framework analysis approach for qualitative health research.

Work package 3: development of theory of change

A theory of change provides a framework that encourages stakeholders to develop comprehensive descriptions and illustrations of how and why a desired change is expected to happen in a particular context. The process of creating a theory of change is outcomes based and helps to clearly define long-term goals and then map backwards to identify the necessary preconditions that are required for success. In WP3, we developed a theory of change for each case study site and then an overall theory of change for vertical integration between acute hospitals and general practices. The development of these theories of change was undertaken in a series of research team meetings. In addition, we had a workshop meeting with the full research team, including senior qualitative researchers from University of Birmingham (Birmingham, UK) and RAND Europe (Cambridge, UK) who were not otherwise involved in the evaluation.

Between November 2019 and April 2020, the insights gained through interviews, documents and non-participant observations were analysed for each case study site. We took a content analysis approach to documentary reviews and observations and, therefore, an iterative process of reading appropriate vertical integration literature and engaging in interpretation. To aid the process of analysing and interpreting data, the research team held weekly telephone meetings for the duration of the project and undertook three face-to-face half-day workshops from November 2019 to March 2020 (in addition to the theory of change workshop with methodological experts).

The original project design also included a stakeholder workshop at each case study site and a further workshop with stakeholders from the Department of Health and Social Care (London, UK) and NHS England (London, UK) and peer policy analysts active in the field of care integration. The workshops were intended to refine the theories of change and to contribute to the dissemination of the evaluation findings. However, as a result of the COVID-19 pandemic and associated restrictions from March 2020, the study team omitted the workshops so as not to delay reporting for an indefinite, but probably protracted, period.

Results

Examples of vertical integration between acute hospitals and primary care were identified from both international literature (from, for instance, USA, Spain and Denmark) and literature from the UK, along with a typology of types of integration, ranging from organisational integration through clinical integration to cultural integration. Overall, the rationale for vertical integration between acute hospitals and primary care that we found to be most commonly cited in the literature was concerned with expectations of providing better-quality care delivered at the same or lower cost to the health-care system. There is a lack of robust evidence on the outcomes and effectiveness of vertical integration in health care, particularly with respect to patient outcomes.

We identified five major themes that provided a framework for the evaluation of all three case studies alike. In the following paragraphs, we summarise learning from our scoping work (i.e. the evidence review and stakeholder interviews) and cross-case study findings within each theme, in turn. At the end of this section, we have included a logic model for vertical integration, which is based on our three case study sites. In *Conclusions*, we reflect on how far the evaluation findings answer our research questions.

Understanding the need for, and purpose of, acute hospital integration with primary care in a world of primary care networks (in England) and primary care clusters (in Wales)

Our initial evaluation of three case studies [at two sites in England (one urban location and one rural location) and one (rural/coastal) site in Wales] implies that vertical integration may, indeed, have a role as a route to better integration of patient care, at least in some areas. However, the single most important driver of vertical integration proved not to be integration of patient care, but, rather, maintenance of primary medical care local to where patients live. Vertical integration has, in these places, provided a more stable financial platform for primary care than the model based on individual

practices run as separate businesses. At the case study sites, the financial and other business risks associated with running a general practice have been removed from the GPs, who no longer risk personal financial loss when the practice suffers from high costs (e.g. due to employing locums), as these risks have been absorbed by the organisation running acute hospitals in the area. Owing to their much greater size, compared with individual general practices, and their much broader portfolio of activities, an NHS trust (England) or LHB (Wales) is better able to cope with the risks. At the same time, the trust- or LHB-backed general practices can offer staff training and career development opportunities, as well as job security, which increases their chances of recruiting and retaining primary care staff.

We listened to the expectations of interviewees at the two case study sites in England (Urbanville and Greenvale) about the likely future interaction of vertical integration with horizontally integrated primary care networks (PCNs). We also asked interviewees about the interaction of vertical integration with primary care clusters at the case study site in Wales (Seaview). At Urbanville, all but one of the vertically integrated general practices together formed a single large PCN. The one other vertically integrated practice was part of a PCN that was largely formed by non-vertical integration practices. Therefore, with this one exception, the PCN was coterminous with the vertical integration organisation. The interviewees at Greenvale who offered views on the future interaction of the vertical integration company with the local PCNs took the view that the two forms of integration could co-exist. However, the emphasis interviewees at Seaview placed on stabilising general practices to return them, if possible, to independent operation implies that vertical integration is, at Seaview, seen as a temporary state. To the extent that horizontal clusters of general practices are expected to continue by default, they may be seen as the intended way forward in that location.

Progress with developing a model of integration and implementation strategy

Closer organisational integration could be attributed to previous good relationships between primary and secondary care locally, and to historical planning and preparation towards integrated working across the local health economy. Vertical integration at Greenvale was facilitated, at least in part, by the primary and acute care systems vanguard model of care that had been operating since 2015, which focused on better managing care across primary and secondary care settings for patients with complex and multiple morbidities.

The structural divide in the NHS between general practices delivering primary care services and trusts or LHBs running hospitals has not been fully overcome. Many local general practices choose to remain outside the vertical integration arrangement, even though they would be free to join it. Clearly, vertical integration is not sought by all GPs, even in areas where recruitment of GP colleagues and/or other practice staff may be difficult. We did, however, hear about a possible increase in mutual understanding between staff in primary care settings, on the one hand, and staff in hospitals, on the other, as a result of vertical integration.

Making the change: from General Medical Services contract to subcontracted providers of primary care

An unintended consequence of the transition to vertical integration may have been that some individual GPs left their practices sooner than they might otherwise have done because the vertical integration meant that they could exit without financial cost to themselves. The transition from being GP partners to salaried doctors within a vertical integration organisation was understood as a temporary state by some of the GP partners viewing a salaried employee position. These GP partners remained for only a short period of time after vertical integration and then left general practice.

Practice staff who moved into vertically integrated organisations had their terms and conditions or employment protected. This resulted in more job security, but also entailed greater scrutiny with regard to job specifications and whether or not staff fulfilled them. The move to vertical integration imposed a significant requirement on acute trust and LHB staff, who were primarily used to operating

in large organisations focused on secondary care, to learn about and understand the practicalities and the culture of running primary care.

Changes to patient care

Although changing patient care was not the prime motive for vertical integration, the platform it created by stabilising primary care provided an opportunity to progress with some changes to patient care. It is hard to tell the extent to which the changes, such as specialist musculoskeletal or diabetic services being provided at some general practices in the vertical integration arrangements, might have occurred anyway in the absence of vertical integration; however, without financially stable and fully staffed primary care practices, they would have been harder to introduce. Other innovations introduced included sharing information in real time across primary and secondary care (Urbanville) and targeting high-risk patients with multiple morbidities who are most likely to access emergency secondary care, but could be better managed in the community (Greenvale).

Impact on practice staffing

All three sites had some success in recruiting salaried GPs to work within vertical integration practices. The reduction in personal financial risk for GP partners that is consequent on the trust or LHB taking responsibility for the GP contracts seems to have helped significantly. Combined with increased training for all types of practice staff and opportunities for GPs to develop specialist interests, the opportunity for GPs to focus on clinical work and leave 'running the business' to others makes vertical integration practices more attractive to some potential GP recruits. Nevertheless, recruitment of GPs is not easy, even for vertical integration organisations, and all sites continued to encounter high costs associated with continued employment of locums. The vertical integration sites were able to increase the use of multidisciplinary teams (MDTs) in primary care. There were increased training opportunities for non-clinical staff in primary care to upskill and 'move up' within a larger organisation, which may have improved their recruitment and retention within the vertical integration model.

Conclusions

The early implementation of vertical integration has focused more on achieving functional integration than clinical integration. Based on the initial evaluation, our answers to the six research questions can be summarised as follows.

The main driver of and rationale for vertical integration is to sustain primary care provision locally by avoiding closure of general practices, as this not only enables patients to continue to have local access to primary care, but also helps with managing demands on secondary (especially emergency) care. The stable platform provided by vertical integration creates the opportunity for patient care improvements in future.

Governance and contractual arrangements to achieve vertical integration differed between the case studies. At Seaview, the contracts for GP services are run directly by the LHB. At Urbanville, the practices are part of the NHS trust organisation. At Greenvale, a separate company has been created to run GP services, but it is wholly owned by the NHS trust. Details of legal aspects and resolving such matters as access to the NHS pension scheme and clarification of the application of value-added tax (VAT) rules took considerable time and effort to set up.

Vertical integration has developed further where there were good pre-existing relationships between primary and secondary care, and where key individuals were active in providing leadership, energy and focus for the integration. Recruitment and retention of GPs and practice staff has been difficult, but positive progress has been made. Reliance on locums has been reduced, but remains a considerable cost burden.

Without vertical integration, at least some general practices would have closed, which would have increased the pressure on remaining practices and forced patients to travel further to receive care. Development of MDTs has taken place, and some increase in providing specialist outreach from hospitals to primary care locations, but similar changes can also be seen among non-vertically integrated practices. Improving care pathways, and the efficiency of the local health economy, for patients who are high users of emergency secondary care and/or living with complex or multiple morbidities was a particular focus at two of the three sites (Urbanville and Greenvale).

The different operational practicalities and cultures of primary care and secondary care have required effort to bridge. The main impact on ways of working has been in primary care. The views of the primary and secondary care workforces about working together across the care interface in vertically integrated arrangements is a subject we intend to return to in a future evaluation.

The net impact of vertical integration on health system costs appears to be either neutral or beneficial. The main benefit of vertical integration to efficiency is the scope for better management of emergency patient flows to acute hospitals. Centralisation of back office functions may also offer modest savings. We were not able to determine the impact of vertical integration on patient experiences or outcomes, or to quantify the effect on the ability to recruit and retain primary care staff, due, in part, to the novelty of these arrangements. We plan to return to the questions of costs and savings and of patient experiences and outcomes in a future evaluation of vertical integration.

Overall, we have been able to develop a theory of change for each of the case study sites. In addition, there has been sufficient commonality between sites to derive an initial overall theory of change for vertical integration. We intend to test and develop these theories of change in a follow-on phase 2 study of vertical integration.

Therefore, vertical integration is a valuable option to consider when general practices look likely to fail; however, it is not an option that should be imposed from the top down. Many GPs evidently do not wish to join such arrangements. Vertical integration may be a route to better integration of patient care, at least in some areas, but it is not the only route.

We propose a number of questions to be the focus of further research, some of which we hope to address in a second phase of the evaluation that is reported here.

Funding

This project was funded by the National Institute for Health and Care Research (NIHR) Health and Social Care Delivery Research programme and will be published in full in *Health and Social Care Delivery Research*; Vol. 10, No. 17. See the NIHR Journals Library website for further project information.

Health and Social Care Delivery Research

ISSN 2755-0060 (Print)

ISSN 2755-0079 (Online)

Health and Social Care Delivery Research (HSDR) was launched in 2013 and is indexed by Europe PMC, DOAJ, INAHTA, Ulrichsweb and NCBI Bookshelf.

This journal is a member of and subscribes to the principles of the Committee on Publication Ethics (COPE) (www.publicationethics.org/).

Editorial contact: journals.library@nihr.ac.uk

This journal was previously published as *Health Services and Delivery Research* (Volumes 1–9); ISSN 2050-4349 (print), ISSN 2050-4357 (online)

The full HSDR archive is freely available to view online at www.journalslibrary.nihr.ac.uk/hsdr. Print-on-demand copies can be purchased from the report pages of the NIHR Journals Library website: www.journalslibrary.nihr.ac.uk

Criteria for inclusion in the *Health and Social Care Delivery Research* journal

Reports are published in *Health and Social Care Delivery Research* (HSDR) if (1) they have resulted from work for the HSDR programme, and (2) they are of a sufficiently high scientific quality as assessed by the reviewers and editors.

HSDR programme

The HSDR programme funds research to produce evidence to impact on the quality, accessibility and organisation of health and social care services. This includes evaluations of how the NHS and social care might improve delivery of services.

For more information about the HSDR programme please visit the website at https://www.nihr.ac.uk/explore-nihr/funding-programmes/health-and-social-care-delivery-research.htm

This report

The research reported here is the product of an HSDR Rapid Service Evaluation Team, contracted to undertake real time evaluations of innovations and development in health and care services, which will generate evidence of national relevance. Other evaluations by the HSDR Rapid Service Evaluation Teams are available in the HSDR journal.

The research reported in this issue of the journal was funded by the HSDR programme or one of its preceding programmes as project number NIHR131295. The contractual start date was in October 2018. The final report began editorial review in July 2020 and was accepted for publication in October 2020. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HSDR editors and production house have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the final report document. However, they do not accept liability for damages or losses arising from material published in this report.

This report presents independent research funded by the National Institute for Health and Care Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, the HSDR programme or the Department of Health and Social Care. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, the HSDR programme or the Department of Health and Social Care.

Published by the NIHR Journals Library (www.journalslibrary.nihr.ac.uk), produced by Prepress Projects Ltd, Perth, Scotland (www.prepress-projects.co.uk).

BRACE: The Birmingham, RAND and Cambridge Rapid Evaluation Centre

The BRACE Rapid Evaluation Centre (National Institute for Health and Care Research Birmingham, RAND and Cambridge Evaluation Centre) is a collaboration between the Health Services Management Centre at the University of Birmingham, the independent research organisation RAND Europe, the Department of Public Health and Primary Care at the University of Cambridge, and National Voices. BRACE carries out rapid evaluations of innovations in the organisation and delivery of health and care services. Its work is guided by three overarching principles:

1. Responsiveness. Ready to scope, design, undertake and disseminate evaluation research in a manner that is timely and appropriately rapid, pushing at the boundaries of typical research timescales and approaches, and enabling innovation in evaluative practice.
2. Relevance. Working closely with patients, managers, clinicians and health care professionals, and others from health and care, in the identification, prioritisation, design, delivery and dissemination of evaluation research in a co-produced and iterative manner.
3. Rigour. All evaluation undertaken by the team is theoretically and methodologically sound, producing highly credible and timely evidence to support planning, action and practice.