

Development

Fit for purpose – a regional case study in primary care research partnerships

Amanda Howe¹, Heather Leishman² and Helen MacDonald³

¹Primary Care Group, School of Medicine, Health Policy and Practice, University of East Anglia, Norwich, UK

²Research Network (Norfolk and Suffolk) & SPHERE, NHS Norfolk, Norwich, UK

³Primary Care Research Network-East of England (previously at Norfolk PCT, now NHS Norfolk), Cambridge, UK

Aims: To describe the context, mechanisms and outputs of a regional primary care partnership for research facilitation over a three-year period, and evaluate factors which were likely to be worth replicating in the new UK Clinical Research Network (UKCRN) structures. **Background:** The revision of NHS research and development structures into the UKCRN has presented organizational challenges to pre-existing partnerships. This raises questions of whether pre-existing arrangements had already delivered effective research facilitation in NHS settings, and makes evaluation of successful practice a crucial part of organizational learning for the current management of research delivery in the UK. **Methods:** A mixed methods case study in one R&D consortium (Norfolk and Waveney, England). Using a model of realistic evaluation, we analysed context, mechanisms, working practices, and outcomes for research delivery in the primary care context – covering key priorities of research governance and ethics, hosting and recruiting to studies, and training and support approaches. **Findings:** From January 2005 to December 2007, 35 general practices opted into a host practice research network, each hosting an average of 10 studies over that period, with 278 projects being active overall. By the last year, an extension of network activity to all practices in Norfolk, Great Yarmouth and Waveney had led to 96% of all practices delivering at least one study, and a turnaround, from application to commencement of approved studies, of 28 days for 74% of studies. This level of activity can act as a baseline for future UKPCR activities, and the factors associated with it may be helpful for others seeking to provide an effective networking structure. The larger structures of the new UKCRN regional networks will be able to draw on extensive good practice in some areas, and should be sure to preserve these, as they may already be fulfilling the important goals for which UKCRN was created.

Key words: primary care research; realistic evaluation; research networks

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Introduction

Correspondence to: Professor Amanda Howe, Primary Care Group, School of Medicine, Health Policy and Practice, University of East Anglia, Norwich NR1 2AT, UK. Email: Amanda.howe@uea.ac.uk

Research in primary care has been an increasingly important policy focus for the UK (Department of Health, 2000), and the Medical Research

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Council (MRC, 1997) over the last decade, and professional leaders in general practice have supported the development of general practice research capacity (Sibbald and Dowell, 1998). Primary Care Research Networks (PCRNs) such as that of the MRC (Vickers *et al.*, 1999) have been in existence for 20 years, and as more PCRNs have developed they have become an extensive resource for community-based research (Griffiths *et al.*, 2000).

However, a strategic review of all NHS research funding (Department of Health, 2006) led to the Cooksey report (Cooksey, 2006), which recommended a single co-ordinating structure to deliver: '*fundamental biomedical research, through translational research which links laboratory and other science with the science of treating or preventing illness, to applied research which looks at the application of new discoveries and ideas to "front-line" health services, including technology assessment, public health and social care research*'. This has resulted in the creation of 'topic-specific' networks focused on key disease areas, and has regrouped both funding from the Medical Research Council and the NHS into a single ring-fenced budget. Additional research areas are to be supported by a new infrastructure defined as 'comprehensive local research networks' (CLRN).

Within this framework, primary care has secured a new network structure covering the whole of England through eight regional PCRNs. The rationale for this was both philosophical and practical. Many areas of research which focus on the patient in their individual and societal context (McWhinney, 1997) are lost if research is confined to disease-specific areas. There are known gaps in the evidence base for primary care: primary research on illness and its care in the community, cost effectiveness of interventions delivered mainly in primary care, translation of hospital-based research to primary care, and effective educational or behavioural incentives for evidence-based practice in primary care practice (Mant *et al.*, 2004).

There is also a need to capture the expertise of pre-existing PCRNs, some of which had already achieved effective facilitation of research in the dispersed and autonomous context of UK primary care (see for one example of the many, Pitkethley and Sullivan, 2003). The new PCRNs therefore need to deliver effective high quality primary care research and retain the support of

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previous networks, which had hosted effective recruitment of staff or patients from primary care.

One of the biggest challenges which has to be overcome by the new PCRNs is that the centralized co-ordination of the UKCRN is perceived as a 'top down' rather than 'bottom up' network (Thomas *et al.*, 2001), and issues of ownership and personal achievement which were recognized in the previous structures could be lost in the recent reorganization. The UKCRN has rational goals to:

1. Establish the NHS as an internationally recognized centre of research excellence.
2. Attract, develop, and retain the best research professionals to conduct people-based research.
3. Commission research focused on improving health and care.
4. Strengthen and streamline systems for research management and governance.
5. Act as sound custodians of public money for public good (Department of Health, 2006).

However, the new bureaucracy could fail to value the local relationships and partnership which take time to develop, and which need to exist across studies and specific goals and deliverables (Macaulay and Nutting, 2006).

Aims

We decided to analyse the activity and impacts of our pre-existing primary care research collaborations over a specified time period (January 2005–December 2007), and to describe and evaluate factors, which may be worth promoting in the new structures. We wanted to learn lessons about the mechanisms used in our regional partnerships prior to its evolution into the UKPCRN East of England, in order to review their value in the new context of the UKPCRN. We also wanted to disseminate our experiences and develop greater understanding of factors that appear to be important to hosting research.

Methods

A choice of models of evaluation of policy initiatives and reorganizational delivery exists. We have used a framework of 'realistic evaluation' (Pawson and Tilley, 1997) which accepts the unique context of each service innovation,

and asks researchers to identify what works (*mechanisms*) under what circumstances (*context*) to deliver what *outcomes*. Specifying the details allows replication of mechanisms and clear identification of where context may be similar or very different, thus allowing future service interventions to be built on prior principles that can be verified and generalized over settings and time.

Data sources

We analysed our outputs using current UKCRN criteria of numbers of studies in the portfolio, proportion of primary care teams engaged with hosting research, speed of commencement of studies, and funding for network staff: all quantitative data held by the Norfolk R&D Office where the host research network ('SPHERE') had its administrative hub. In addition, we have summarized the host network's training provision, communications, and practice engagement – all quality indicators suggested for research networks (Clement *et al.*, 2000). Some comments have been cited from routine evaluation received from participating practices. We have also summarized our working practices (Ryan and Wyke, 2001), looking specifically at areas where the UKCRN expects good practice such as streamlining of honorary contracts, reciprocal governance, public involvement, and communication with stakeholders. We have done this reflexively, as participant observers (Lincoln and Guba, 1985), and share the results here for peer scrutiny and learning.

The context

The Norfolk and Waveney Research and Development Consortium at the time of transition into UKCRN comprised three Acute Care Trusts, two Primary Care Trusts, one Mental Health Trust, and their local academic partner.¹ These partners had shared NHS infrastructure funding under the previous structures, share governance and ethics committees and procedures, and are bound together for R&D as part of a formal agreement. Within that, the primary care constituents are the Norwich-based R&D office,

¹Norfolk & Norwich University Hospital, James Paget at Great Yarmouth, Queen Elizabeth Hospital at Kings Lynn: Norfolk and Great Yarmouth & Waveney PCTs; Norfolk Mental Health Trust: and University of East Anglia (Faculty of Health), which includes the new UEA School of Medicine.

which hosts the Norfolk PCT R&D function; the administrative and research nurse support for general practitioner (GP) practices who host and lead research; and the R&D public involvement co-ordinator for the Public and Patient Participation in Research ('PPIRes') project (Barrett *et al.*, 2006). Key staff also worked closely with the Primary Care and Public Health groups from the School of Medicine, Health Policy, and Practice at the University of East Anglia, whose professorial leads have helped to develop some of these components.

Prior to the period evaluated (2005–07), there was already an individual membership-based primary care practitioner research network ('SuNet'), and a group of 10 'Culyer' funded research active practices working across Norfolk and Suffolk ('SAND'). Both these had Department of Health funding, which has now been terminated in the UKCRN reorganization. A gap² was identified in the primary care R&D infrastructure in the region: the need for a network of practices committed to the hosting of research and recruitment for studies.

The mechanisms

Funding for set-up was secured by a bid by university researchers and NHS R&D leads in the local PCT to the Norfolk and Waveney consortium against infrastructure monies. Practices who had hosted three or more studies in the previous two years were then offered a £500 honorarium to become members of the new network ('SPHERE' – 'SuNet Practices Hosting and Enabling Research'). Resources were also committed to appointment of a 0.5 FTE research network facilitator (senior nursing background). The work was supported in the R&D office by an administrator whose post included around one day a week (0.2 FTE) to support SPHERE: and a research co-ordinator (1.0 FTE), whose job included a lead role in core R&D governance functions for all studies hosted by the Norfolk PCTs. From January 2005–December 2007 there was significant infrastructure development of a GP host practice network of 35 practices, a public involvement project of around 40 volunteers (see Barrett *et al.*, 2006), and a core team of staff who acted as a 'one-stop shop' for researchers approaching primary care.

²Howe (2002, personal communication).

All project governance applications passed through the same team. As new projects made requests to the network co-ordinator, any specific costs for running the studies (eg, specific nurse hours, staff support for patient identification, and mailing) were identified: the availability of funding would be confirmed with researchers while also being specifically flagged with potential practices.

Effective working practices we developed included:

- An agreed system of approaching practices and working with them – the practices made a commitment in principle to hosting at least one study per year, and also to receiving concise information and requests on a regular basis.
- Quality assurance of the research being sent to practices through the network – all projects were vetted, and only those which had been ethics and research governance approved were put out as requests.
- Initial information about research projects was presented to the practices in a brief and succinct format – outlining what the practices needed to do and what they might gain from taking part, with minimal literature and clear ‘next steps’.
- An indemnity proforma was sent to practices which had agreed to host a study. This was used to inform defence unions of the practices’ participation in the research project.
- A practice specific ‘site file’ with research guidance notes and a profile of all hosting activity was prepared – this has proved useful in GP appraisal.
- The network offered free training events for participants, including managerial and clinical staff. There was a particular focus on ‘Good Clinical Practice’ together with showcasing current and upcoming research in the area. SPHERE worked closely on these events with the local university partner (UEA) and the Research and Development Support Unit (RDSU) staff, who saw such training as of common benefit. Recent PCRN collaboration has brought additional free access to online and face-to-face training events through the UKCRN training programme.

Development of communications

There was an extensive communications strategy across primary care, marketing the network, *Primary Health Care Research & Development* 2009; **10**: 7–13

advertising meetings, and promoting studies. Communication used various formats:

- Direct email communication to two named leads within the practice: usually the practice manager and the lead research GP. The links are asked to disseminate information to other practice staff: having two links avoided absences and workload variation from impeding response to messages.
- Promotion of events via onsite practice meetings.
- Hard copy mailings via the PCT internal mail system.
- Advertising events on the Research Consortium website.
- Advertising events in the GP bulletin sent electronically to all GPs from the PCT.

The outcomes: activity

Our original bid for 20 practices hosting at least one study a year was quickly surpassed, and GP practices in the host practice network hosted an average of 10 studies each over the four-year period. In terms of volume, 278 projects (including both funded and unfunded work such as student and pilot projects) were run in primary care in the area. Twelve per cent of these held major national funding, required multiple general practice sites, and were allocated for recruitment through the GP hosting network. Only one study did not reach its recruitment targets.

In 2006 (the last full year before PCRN transition), 74% of projects received approval within 28 days. Although there were various accounting and organizational changes over the period, the centralization of primary care R&D and the links with consortium level reporting meant that funding streams were all clearly identified and auditable. Over the period there was a consistent increase in activity, forming a basis for a bid to the Department of Health for a significant increase in support funding to facilitate the increased additional activity. Since 2004, many more practices now consider the hosting of research as part of their practice business and we are now seeing more engagement with complex projects that involve GP and nurse time. Engagement with practices outside the SPHERE network led to 96% of all practices in Norfolk and Great Yarmouth and Waveney PCTs having hosted at least one study in 2007, and 13 UKCRN studies

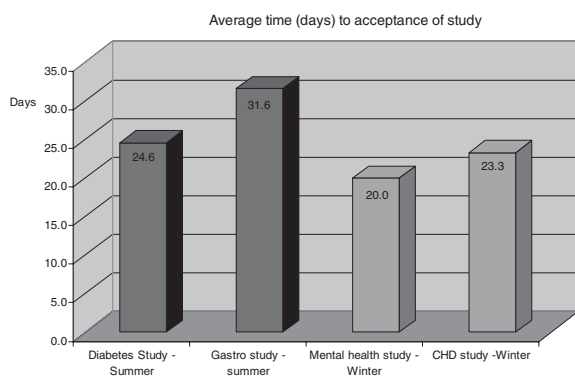


Figure 1 Seasonal variation in turnaround time of studies in general practice

were adopted in the last 6 months of the study period (to end December 2007). It is worth noting that the amount of industry funding coming through the PCT office was very small, and the practices reporting work done directly for pharmaceutical companies were few (three). The current situation is that Norfolk is one of the busiest counties for hosting research in primary care in the new East of England PCRN hub, and the intention within the next period is to ensure that costs to practices of hosting studies are fully met.

The network allowed a variety of audit and data comparison opportunities: for example seasonal variation in speed of study acceptance (see Figure 1, comparing four studies). Recruitment time of practices appears to be faster in the winter months than the summer: this is presumably due to the summer holiday season slowing down team consensus on the acceptance of projects.

The network contacts were routinely evaluated over time, and produced largely positive responses. Examples include:

I have found SPHERE very helpful and tenacious in getting practices to collaborate. Certainly one of the most effective PCROs we've worked with!

(National researcher)

SPHERE provides an excellent research service. Time was saved recruiting practices through the network and practices had confidence in our study as it had been reviewed by SPHERE first.

(Local researcher)

From practices:

The variety of stimulating research projects available together with high quality information and assistance from SPHERE has helped us to develop a large and varied research portfolio.

(Practice manager)

SPHERE is a brilliant idea, having a central coordinator who does most of the admin makes research more attractive to a busy practice like ours!

(GP)

Discussion

Factors which we concluded were key to the successful outputs of the network were:

- *Organizational responsiveness* – The formal partnership arrangements of the consortium allowed funding to be made available on a recurrent basis, and also allowed a commitment to a co-ordinated approach to primary care.
- *Give to get* – The existence of an active portfolio of NHS and university projects made the concept of a host network attractive and important,³ while practitioners could see that their efforts to support research and to be responsive to their local academic colleagues was being acknowledged through being offered network membership and services.
- *Vision and leadership* – The experience and robust commitment of key academics, bringing evidence from the success of other host networks which could translate to the local context.
- *Experience* – Nurses with community research experience who had the confidence and clarity to appraise and 'interpret' research studies to practices in an accurate and positive way.
- *Championship* – A research facilitator who promoted research as worthwhile, worked with practice constraints, and gave the practices the opportunity to build up relationships over a period of time, thus gaining confidence and trust in the health community.

Making the structures work to the task of research delivery was also crucial. In terms of the

³ For full recent report, see <http://www.nrr.nhs.uk/2007annualrpt/> *Primary Health Care Research & Development* 2009; **10**: 7–13

SPHERE network administration, the ‘one-stop shop’ nature of links with other R&D components appeared to be crucial. This meant having:

- one person/site that dealt with all queries, whether about specific projects, training, invoicing, and a whole range of other inquiries;
- shared premises and named leads with whom NHS professionals and practices could easily communicate;
- R&D officers and public involvement leads who worked closely together to streamline processes and produce rapid appraisals and responses to studies;
- direct collaboration with NHS RDSU;
- consistency of approaches – personnel, style and format, level of information.

We found that the network accelerated the process by which researchers could engage with interested practices, and therefore improved both turnaround and accrual. Having a co-ordinator who knew where the practices’ research interests lay helped with the accurate targeting of practices. The co-ordinator also knew which practices had decided they were not in a position to host for a specified period, and those practices who had just accepted another study: by avoiding these practices there was less likely to be overlap, patient exhaustion and time wasted. Overview of studies passing to the network meant that governance functions could be checked and flagged with minimal time delay at a practice level, as queries and permissions (including honorary contracts and site-specific assessments) could be dealt within the R&D office and consortium structure without direct practice-researcher contact. In this regard the SPHERE network pre-empted many of the goals of a co-ordinated process for research hosting which is now being rolled out across England.

Limits to the study

The study is primarily descriptive, and although many details of context, mechanisms and outputs have been described it is not possible to know which of these are essential rather than desirable to setting up a host research network. In terms of the methods, we have fulfilled the stages of realistic evaluation and provided quantitative data

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to support our outcomes. However, all authors were part of the academic–R&D partnership, and therefore while exercising critical judgement cannot be said to be objective. In addition, as the various components of the ‘intervention’ have not been separated or tested under pragmatic trial conditions no conclusions can be drawn about which parts are essential to the deliverables cited.

One of the strengths of the SPHERE network is that it became ‘normalized’ (May *et al.*, 2007) into the infrastructure of a large number of practices, and the new UKPCRN East of England retained both personnel and structures in its larger geographical remit. It is hard to say whether the loss of key personnel at this time would have damaged the outputs, or whether the structures would have maintained practice commitment. Primary care being a very ‘people oriented’ type of social network, it may be that stability of high quality personnel is the key feature to the success of this model.

The future

The new opportunities for research activity, training and cross-site comparisons created by the UKCRN should enhance the structures already in place by offering engagement with the other research networks in existence, increased research nurse support at the GP sites, and help with research training and development. One of the useful developmental features of the PCRN/‘SPHERE’ partnership is that the focus on accruals (patients recruited to studies) will be much more intense. There will be systems in place for new information flows about how sites are performing, and there will be some additional options to support practices in recruitment, that is research nurse capacity, sessions for practice nurses. With the development of the PCRN in the area, it will now become easier to track patient recruitment into studies at an earlier stage as accrual data collection is uploaded to the UKCRN by study managers. This means that where sites are struggling to recruit patients this is identified more quickly and help to improve accrual rates can be explored earlier than previously.

The PCRN has the lowest direct investment of all the UKCRNs, but it is expected that some costs will be met from those who want studies to enter the PCRN portfolio, including the CLRN

and industry-based studies – a source which the UKCRN hopes to increase. Other funding is drawn in from costing of host network activity for recruitment and retention into research grant applications. The value of this network to the topic-specific networks is to enable studies to be placed in primary care in an efficient way, and to ensure a co-ordinated approach to the practices for all research. Whether the setting up of separate structures for each topic network will lead to duplication and fragmentation at a local level, or whether structures such as SPHERE will retain their ability to be an effective and efficient ‘one-stop shop’ remains to be seen. Regional ownership, flexibility, and a mutual sense of ‘give to get’ may be key. In conclusion, there is much specific good practice in pre-existing structures, which achieve local engagement and ownership. This needs retaining in larger networks, and in particular the ‘known link’ and ‘one-stop shop’ may be invaluable to retain efficient and effective PC input to research.

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