

# Towards a conceptual framework for evaluating primary care research networks

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## SUMMARY

We describe a conceptual framework that we have developed for evaluating primary care research networks. The framework includes objectives, process indicators, and outcome indicators. We propose the framework as a provisional model that we hope will promote further research and debate.

*Keywords:* primary care; research networks; conceptual framework.

## Introduction

A research network is an organisation that aims to increase the involvement of primary care professionals in research. Networks have many different structures but most have the following: formal membership for either individuals or practices, a co-ordinator or co-ordinating team, a steering committee, a newsletter for members, and most provide both training and individual support to members. Many networks are linked to an academic department of general practice. Some of the first primary care research networks were in the United States of America, but in the early 1990s networks began to be established in the United Kingdom (UK). In 1997, the Mant Report on research and development in primary care recommended that primary care research networks be developed in each region.<sup>1</sup> Since then, the number of networks in the UK has increased significantly. A survey published in 1997 identified 19 networks.<sup>2</sup> There are currently 38 networks registered with the UK Federation of Primary Care Research Networks (personal communication, 2000).

Like any major initiative, research networks require evaluation to assess their effectiveness. However, there is very little published work about the evaluation of networks. A literature search undertaken in 1996<sup>2</sup> yielded no published research on this topic. We have repeated this literature search, using the same search strategy, for the period 1997–1998 and failed to find any relevant studies. In a report, Evans and colleagues<sup>2</sup> discussed the issue of evaluation and recognised the need for agreed objectives and

indicators. However, they did not propose a set of objectives or indicators. The Mant Report included six objectives for networks but did not map out any indicators for these. Summerton<sup>3</sup> has recently proposed a set of indicators for assessing the effectiveness of primary care research networks. However, we feel that the small number of indicators suggested fails to reflect the diverse objectives of networks.

## Proposed conceptual framework

Any meaningful set of indicators must be set within a conceptual framework that relates directly to the objectives of networks and must be wide-ranging to reflect the diversity and scope of those objectives. We propose such a framework in Table 1. This framework is not set in stone, and we envisage it being modified through further debate. It is based on the findings of the national survey of 22 network co-ordinators reported in the Mant Report.<sup>1</sup> The four main objectives of networks described by those surveyed were, in order of frequency: to promote high quality research by primary care practitioners, to promote research awareness, to promote collaborative projects, and to recruit primary care practitioners to collect data for academically-led research. We have renamed the four objectives and listed them in rows three to six of Table 1. It is generally agreed that these objectives will be met by increasing the research capacity of professionals working in primary health care; therefore, this appears as Objective 2 in the table. Networks also require an infrastructure to enable them to meet these objectives; therefore, the development of an infrastructure appears as the first objective. There is also general agreement that networks should be acceptable to their actual and potential members,<sup>2</sup> which provides the final objective in our proposed framework.

One key element that has received much discussion among network co-ordinators, and which is also emphasised in the Mant Report,<sup>1</sup> is the extent of interprofessional involvement in networks. We have not included this as a specific objective in our proposed framework because it cuts across many of the objectives. We do, however, suggest that the indicators could be reported separately for the different professions involved, which would give a clear picture of the extent of multidisciplinary working.

## A flexible framework

We recognise that networks vary quite widely in their objectives. This variation may be incorporated into the framework proposed by asking networks to assign weights to each of the seven objectives listed (including weights of zero where an objective was not held by a particular network). A network's effectiveness could thus be evaluated within its own terms of reference. We also recognise that networks differ with regard to the baseline research experience and skills of their members. In some networks membership is open to all; in others, members are selected using a variety of selection criteria. This highlights the need for baseline measurement and for assessing change within a network from its own baseline. Any comparisons between networks must take into account the wide variations in the levels of funding awarded to different networks, since networks with low levels of funding will have fewer resources for meeting their objectives. Comparisons

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**Table 1.** A provisional conceptual framework for evaluating primary care research networks.

Objective	Process indicators	Outcome indicators
1. To develop a network infrastructure	Extent/quality of needs assessment undertaken Extent/quality of evaluation undertaken Existence of communication channels	Existence of a strategic plan/clear objectives Extent of use of communication channels Number of/attendance at networking meetings Number of/attendance at network conferences Number/quality of network newsletters Quality/use of website
2. To develop the research capacity of PCPs	Number/quality of training sessions offered Attendance at training sessions Amount/quality of support/supervision provided Amount/quality of written support material provided Number of PCPs with research skills development portfolios and research-related appraisals completed Number of PCPs registered for higher degrees	Extent of PCPs' research/EB practice skills, experience, confidence, and resources Number of higher degrees obtained
3. To increase the number/quality of research projects led by PCPs	Number of PCP-led projects undertaken Extent of external research funding for PCP-led research applied for/obtained Number of PCP-led publications/presentations submitted	Number of PCP-led projects published/presented Number of final reports of PCP-led research produced
4. To increase the use of research findings by PCPs	Use of EB resources Extent/quality of literature searches undertaken Extent/quality of critical appraisal undertaken Extent of development/local adaptation of EB guidelines Dissemination of network research	Implementation of EB guidelines Extent to which care provided is EB Improvements in health outcomes following implementation of EB care Implementation of findings of network research
5. To increase the number/quality of research projects in which PCPs collaborate	Number of research projects in which PCPs are collaborating Extent of external research funding applied for/obtained in collaboration with PCPs Number of publications/presentations submitted with PCP collaborators	Proportion of network projects that are multicentre Number of publications/presentations/final reports in which PCPs collaborated
6. To increase the number/quality of research projects in which PCPs participate	Number of research projects in which PCPs are participants Extent of external research funding for applied for/obtained in collaboration with PCP participants Number of publications/presentations submitted in which PCPs participated	Rates of practice/PCP recruitment to studies Rates of recruitment of patients by PCPs to studies Number of publications/presentations/final reports in which PCPs participated
7. To provide a network that PCPs find acceptable	Number of network members/membership turnover Extent of involvement in network activities	PCPs' satisfaction with network

PCP = primary care professional; EB = evidence-based.

might also usefully take into account geographical differences, since networks in largely rural areas face particular challenges.

We have not specified particular measures for each indicator. For some indicators measurement is straightforward, such as the number of training sessions offered. However, for the more complex indicators, such as the extent of members' research skills, there is a need for the development of validated questionnaire-based measures. Alternatively, qualitative assessments may be appropriate for some of the complex indicators. An example of such qualitative assessment might be focus groups to explore members' satisfaction with a network.

There are many different models for evaluation and this objectives-based model is just one approach.<sup>2</sup> One limitation of this approach is that it will not capture unintended or additional outcomes. This highlights the need for careful consideration of the outcomes in advance.

## Conclusion

Networks are, and will continue to be, subject to both internal and external evaluation. It is imperative that such evaluation is methodologically and conceptually sound, and reflects the diversity of objectives held by networks. We believe that those involved in networks should have a central role in setting the

evaluative agenda. We hope that our proposed framework is a useful step forwards in the development of a conceptual framework that could be used by and across many different research networks. This could be done either through debate prompted by the framework proposed here or by research; for example, by asking a sample of network coordinators and members to modify the objectives and indicators proposed in line with their perceptions.

## References

1. NHS Executive. *R&D in primary care: National Working Group report (Mant Report)*. London: Department of Health, 1997.
2. Evans D, Exworthy M, Peckham S, *et al*. *Primary care research networks: Report to the NHS Executive South & West R&D Directorate*. Southampton: Institute of Health Policy Studies, 1997.
3. Summerton N. Accrediting research practices. [Letter.] *Br J Gen Pract* 1999; **49**: 64-65.

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