

A review of health management research

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Background: The review of European health management research was undertaken over a 10-year period, from July 1995 to June 2005, to produce an account of the state of research, including its quality, range and any gaps; and to assess the implications of the research, its potential for uptake by policy bodies and the need for future research and the direction it might take. **Methods:** To identify relevant research studies and bodies of work, two methods were employed: (i) a standard database search and (ii) special request to members of the European Health Management Association (EHMA) via its electronic newsletter. **Results:** The results from the database search yielded a modest flow of relevant (at least in terms of the definition of health management employed) material. Only 63 relevant journal articles were finally selected out of 1047 identified. Very few have focused explicitly or primarily on mainstream management issues affecting the public's health. There is also a heavy bias towards health care systems. Two main conclusions emerged: (i) there exists limited original research in the area of health management; outside the UK, this limitation is even more apparent and (ii) health management appears to be an underdeveloped research area throughout Europe. **Conclusion:** There exists a paucity of public health management research aimed at strengthening the evidence for effective interventions, effective decision-making and priority-setting. There needs to be support for research that not only crosses academic disciplines and institutions but which also embraces the diverse range of organizations and professions engaged in managing and delivering public health.

Keywords: health care, health management, public health, research

The review of health management research has been framed by three objectives:

- (i) To undertake an overview of the literature for European research in health management over a 10-year period, from July 1995 to June 2005.
- (ii) To produce an account of the literature and the state of health management research in Europe, including the quality, range and gaps in the research.
- (iii) To assess the implications of the research, its potential for uptake by policy bodies and the need for future research and the direction it might most usefully take.

Health management has proved a deceptively difficult, imprecise and slippery domain to grasp and define. This may reflect the difficulty of researching what can seem a rather diffuse activity that cannot easily be reduced to trials or a standard methodological approach. But it also reflects the fact that most research on health management focuses on health 'care' or 'service' management, much of it directed towards improving the way services are organized and delivered.¹ In contrast to health management research, there are thousands of management and organization studies of the health services system and its various subsystems and components. Even here, however, the impact of such research has not been impressive and the efforts expended have been criticized for probably producing less than they promised.² The reasons for this state of affairs are not the primary concern

of this review although the gap between knowledge acquisition and application remains an important issue which cannot be entirely ignored. In health management, however, the problem may be twofold: first, a lack of research; and, second, a failure to utilize what already exists to redirect the efforts of public health managers and practitioners. These issues are returned to in the final section.

Possibly because the public health arena itself is large and sprawling and encompasses a number of domains—health protection, health promotion and health service quality and standards—health management is similarly difficult to pin down.³ Public health is not a well-defined discipline with clear boundaries in research terms since it includes contributions from a wide range of social and behavioural sciences. Consequently, this has made the task of searching the databases both especially complicated and perhaps a more subjective exercise than might have been desirable. Finally, there are overlaps with other *SPHERE* (Strengthening Public Health Research in Europe) work packages, notably health services research and health promotion, the boundaries of which may blur with those of health management.

In the end, we settled upon the following definition:

'Health management comprises activity around the development and implementation of policy and the organization of services aimed at improving health. The focus is on delivery and effecting change in organizations concerned with improving population health.'

As is evident from this definition, it is very broad and embraces not simply the activities of health care services or systems but also those of other agencies, notably local and regional governments, which have a significant influence on the health of populations and whole communities. This breadth is intentional since it is generally accepted that the impact of health care services on population health, though significant, perhaps functions best at the secondary prevention level rather than the primary prevention level.

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Methods

In order to identify relevant research studies and bodies of work, we employed two methods:

- (i) A standard database search and
- (ii) Special request to members of the European Health Management Association (EHMA) via its electronic newsletter.

Database search

Searches were carried out for appropriate peer-reviewed research in English, using the following electronic databases: Embase, Medline, Pubmed and the Social Sciences Citation Database. The general terms for which we were searching included 'management' with 'health' or 'chronic disease' or 'long-term condition, performance management' and 'change management'. We felt it was important to include some implementation terms as well as management terms since management is, after all, about doing and acting on problems to resolve or ameliorate them.

Request to EHMA members

The database searches were complemented by an approach to EHMA members engaged in academic research on health systems. An item was included in the winter 2005 issue of EHMA's electronic newsletter, alerting its members to the existence of the *SPHERE* project and to the health management research review in particular. The note requested assistance from academic researchers in the field and invited comments and feedback on the state of health management research in Europe, perceived research gaps and future directions such research might take. The item was met with total silence and elicited no interest whatsoever from members. The outcome may say more about the newsletter as a means of communicating with members but is also likely to reflect the absence of health management as a well-defined area of inquiry.

Topic analysis

Within the overall definition of health management given above, and an initial study of retrieved articles, we identified

a number of sub-topics to provide a framework for analysis as follows:

- (i) Chronic disease management
- (ii) Mental health management
- (iii) Multidisciplinary public health:
 - (a) general
 - (b) related to housing
 - (c) related to community
 - (d) related to occupational health
- (iv) Public health competencies/skills
- (v) Policy development/implementation
- (vi) Clinical governance.

Analysis by geography

We carried out an analysis of the selected articles by country of affiliation of the corresponding author, calculating the rate per million population and in relation to GDP. We also undertook a similar analysis for the 48 articles whose reference population was definitely in the EU.

Results

Number of suitable articles retrieved

The results from the database search yielded a modest flow of relevant (at least in terms of the definition of health management employed) material. Only 63 relevant journal articles were finally selected out of 1047 initially identified. For each article, the country of the corresponding author's affiliation, the country of the reference population and the year of publication were noted. Figure 1 shows the number of articles by EU-affiliated authors over the period from July 1995 to June 2005. Whilst there has been an upward trend over the years, the numbers remain small.

The number of articles over that time period by author's country is shown in table 1. Searches did not bring up any appropriate articles from countries not mentioned in the table. It will be noted that most of the research items included originated in the UK. Obviously, the focus on English language references will, in part, explain such a bias but language is not the only, or even principal, reason for this imbalance.

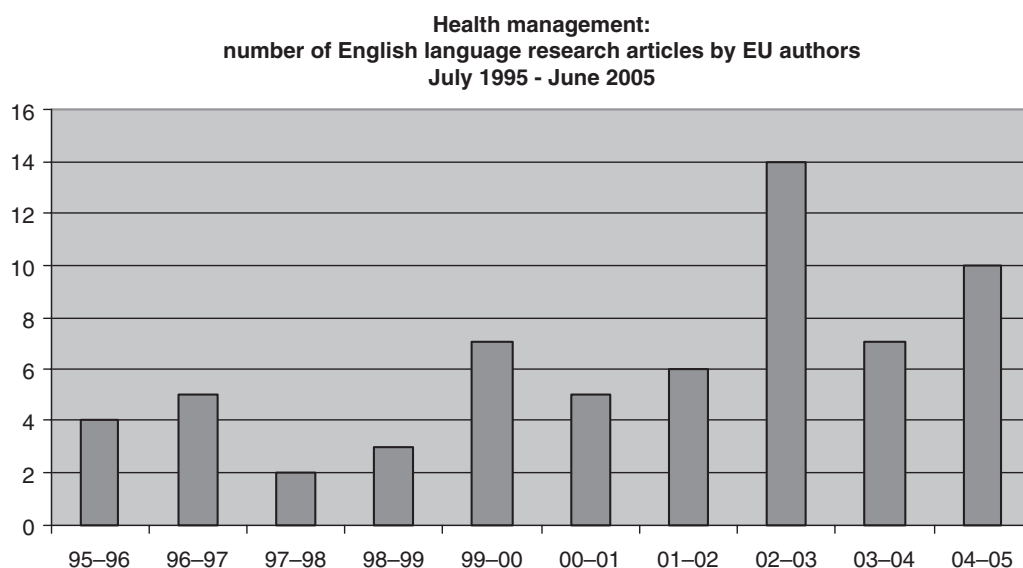


Figure 1 Number of English language research articles by EU authors

Themes identified

Most of the articles have concentrated on chronic disease management or management of long-term conditions. Very few have focused explicitly or primarily on mainstream management issues affecting the public's health. Also, none originate from local or regional government, being heavily biased towards health care systems. It may be that studies that are not confined to the health care system do exist and that our search strategy simply failed to identify them. Or it could be that such studies do indeed exist but have not been published either primarily or solely in journals. Perhaps they comprise books or chapters in books, or perhaps they have remained confined to the class of reports known as 'grey' or 'fugitive' literature. Perhaps, too, as already noted, use of the term 'health management' is problematic as it is not a sufficiently well defined or focused term under which to locate relevant research. It may suffer from being perceived as too much of an Anglo-Saxon concept and not sufficiently or widely understood across Europe.

It also quickly became evident that much of the literature on topics like healthy public policy and health inequalities took the form of policy analysis and commentary rather than being the product of primary or secondary empirical research although some of this material did derive from, or refer loosely to, relevant studies. Moreover, little of the published research in these areas is devoted explicitly to management issues.

A clear conclusion, therefore, is that there exists limited original research in the area of health management. Outside the UK, this limitation is even more apparent. In contrast, research on health care management seems reasonably

well developed. Our main conclusion must be that health management remains an underdeveloped research area throughout Europe although in the UK at least an attempt is being made, albeit belatedly, to address the gap.

Geographical analysis

Figures 2 and 3 show the rates by population and GDP of the country of corresponding author's affiliation. The small number of articles (62, since the affiliation of one article's author was not available) needs to be taken into account when comparing rates.

Discussion

In terms of the quality of research and methods adopted, we have little to say by way of comment except to note the absence of comparative research across countries and health systems within Europe and/or beyond. Much of the research appears country-specific, descriptive and based on surveys and outcome measures which reveal little about the importance of context and processes in accounting for success or failure. In respect of management research, these 'inside the black box' dimensions are of critical importance, especially in respect of being able to generalize from a particular study or setting.

The modest volume of research we identified seems appropriate and relevant for this work package, especially in respect of chronic disease, which once again has become a top priority for health policy-makers in many countries. Chronic disease—described as 'the neglected epidemic'—represents a huge proportion of human illness.

A paradox is that while public health management is deemed important, and increasingly so, it is not yet reflected in the research commissioned or undertaken. However, this deficit may be about to be corrected, at least in those countries where tackling health inequalities and health improvement more generally in the population are deemed core priorities by the various governments. If populations in countries throughout the world are becoming fatter and less physically and mentally fit, are consuming an excess amount of alcohol and indulging in other risky activities then identifying which interventions work and are effective, and the particular contribution made by management, becomes a central priority.

In his review for the UK government on the state of public health policy and practice in England, Derek Wanless⁴ observed that the major constraint to further progress on the

Table 1 Number of articles by country of corresponding author

Country	Number of articles
Greece	1
Italy	1
Poland	1
Portugal	1
Germany	2
Spain	2
Sweden	2
France	3
The Netherlands	7
UK	42

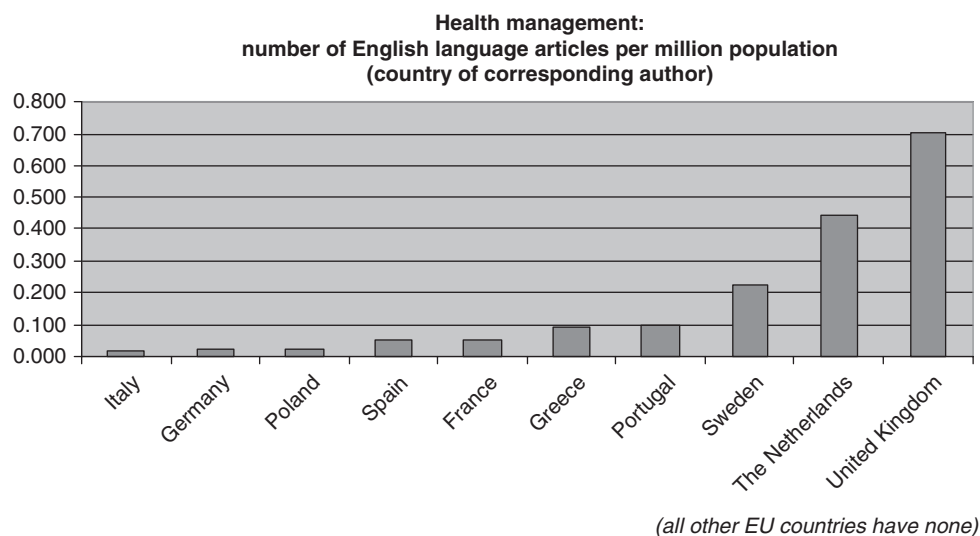


Figure 2 Number of articles per million population (country of corresponding author)

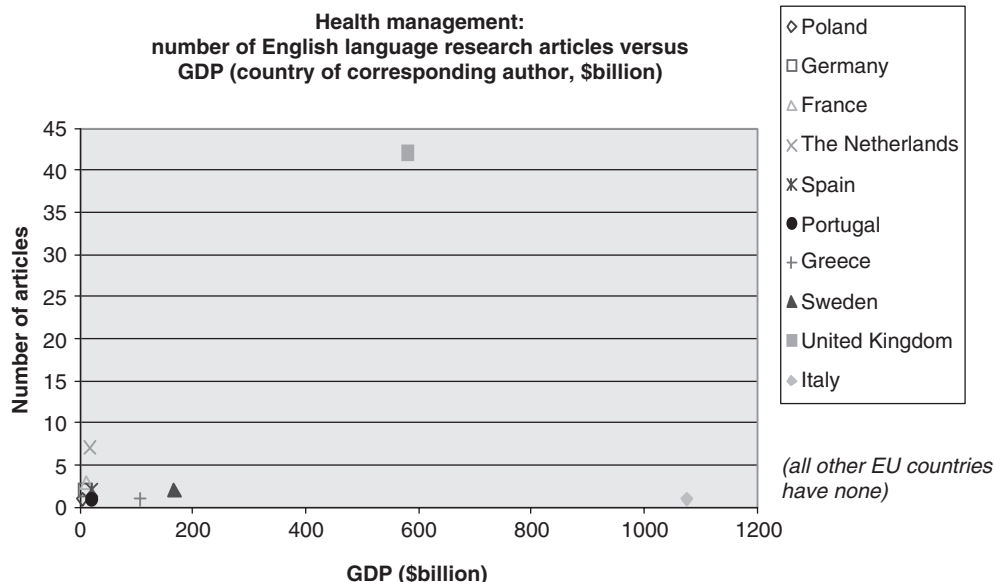


Figure 3 Number of articles per GDP (country of corresponding author)

implementation of public health interventions is the weakness of the evidence base for their effectiveness and cost-effectiveness. This is largely due to the lack of funding of public health intervention research, with funding from research organizations and the private sector very heavily directed towards clinical, pharmaceutical, biological and genetic research. Wanless went on to suggest that this state of affairs was a reflection of the 'relatively low status with which public health is regarded within the research and medical communities'. He argued for substantial investment or re-prioritization in order to redress the imbalance both in research funding and in the direction research was taking.

But, importantly, he also bemoaned the current lack of capacity for undertaking public health research especially in respect of health economics and mathematical modelling. Quoting a survey conducted for the English Department of Health in 2001 which concluded that, despite the increase in public health research capacity over the preceding 10 years, there remained a lack of depth and expertise in the core disciplines of statistics, epidemiology, social sciences and health economics, he expressed frustration at the persistence of these problems in a policy climate favourably disposed towards public health. Compounding the problem was a research infrastructure that lacked both secure funding and a critical mass to build sustainable programmes of work and support research careers. Worrying, too, was the absence of well-developed links between academic public health departments and associated disciplines such as health economics, medical sociology, psychology, health policy and management and so on. It seems unlikely that such difficulties are confined to the UK.

Certainly, a prerequisite for doing health management research on any scale is not only the existence of appropriate capacity and capability but also how these are organized, funded and sustained. Disciplines operating in silos that should be joined up risks wasting resources, incurring significant transaction costs and failing to maximize potential. Arguably, across Europe, research capacity in health management, even where it is recognized as a legitimate area for inquiry, is scarce and confined to a few centres.

Part of the problem lies within academic public health itself, where the priority in research is invariably on

epidemiological studies or lifestyle surveys which reveal little about the management issues in respect of achieving change and evaluating the impact of various policy initiatives designed to improve health. The priority in much research of this nature is also on 'gold standard' evidence from randomized controlled trials (RCTs) which is not always appropriate in the case of public health research and rarely in management research.

It would seem from the database searches we completed that there is, not unexpectedly, a bias in terms of research published in English that also has its origins in the UK. This may also have something to do with the organization of health care, which since 1948 has been heavily dominated by a publicly funded and organised system—the National Health Service (NHS). The NHS's dominance of health policy has, some observers allege, hindered the development and successful implementation of public health policy.⁵

But the weakness is not confined to the UK. Possibly for different reasons, there are weaknesses in other countries, too. In their review of public health decision-making in eight countries (six of them European), Allin and colleagues⁶ conclude that 'the extent of monitoring and evaluation of public health policies appears to be quite limited'. The accounts reported in the study are not for the most part informed by primary policy research, which makes it impossible 'to comment on the ways in which some items appear on the policy agenda while others do not, or the informal, but extremely important, mechanisms by which policies are developed' (p. 57). The authors note that 'remarkably few' of the policies reviewed have been subject to an evaluation of effectiveness. Yet, all the countries reviewed recognize that one of the major challenges facing public health is to develop a more systematic methodology for setting priorities and making decisions among different interventions. In ensuring that the challenge is met, and while acknowledging the difficulties of conducting research on complex adaptive systems and complex interventions where measuring both the costs and health effects of prevention poses particular dilemmas, the authors insist that 'there is a need for a much broader evidence base for policy-making in public health' for which international collaboration will be necessary.

At present, there is a serious disconnection between the policy priority accorded to public health and the lack of

a sound evidence base to support it. In respect of health management research, there is a paucity of studies that might help guide policy-makers in respect of policy and practice. Attention also needs to be given to research infrastructure and to mechanisms that positively incentivize collaborative, cross-disciplinary research. The present incentive structures in at least some countries, notably the research assessment exercise (RAE) in the UK, actually serve as a disincentive and represent a bias against interdisciplinary, multi-centre research and translational research.

An issue that is by no means unique or confined to health management research is the impact of research on policy and practice, whether locally or at higher levels. It cannot be assumed that having more evidence will lead automatically to better policies. The challenges of evidence-based policy-making policy are well documented.^{7–10} This gap may be less of a concern in respect of public health management research, given its comparative paucity. However, being attentive to the impact of research is surely an issue that researchers keen to make a difference to the health status of populations and communities ought to be concerned about.

We consider that for the next stage of the *SPHERE* project in respect of this particular work package it would be appropriate to conduct a survey, together with some one-to-one (telephone or face-to-face or a mix of the two) interviews, of a range of research centres across Europe where research of the type with which we are concerned either is being, or could be, conducted. For example, it may be that the necessary skills and expertise already exist but that they are focused on other aspects of the health system (e.g. health care delivery, acute care, hospital services, culture change, system redesign and so on) which are deemed to be a higher priority and where there is funding available for research. It could well be that all that is required in such instances is a shift of focus and funding streams so that essentially the same research questions and theoretical frameworks are modified and directed towards management challenges in health improvement as distinct from health care. Why, for example, have health economists virtually ignored public health, as Wanless rightly notes, concentrating their efforts instead on health care delivery issues? How might they be encouraged to look at research in the area of health management, as distinct from health care management?

The terms of reference for such an inquiry could be to identify the priorities for health management research, the barriers to undertaking such research and ways to tackle these and provide incentives for the type of research that seems to be required and yet is either not being done at all or in insufficient quantity or at the level of desirable quality. It would seem important to be able to complement the database searches reported here with a more in-depth analysis of the opportunities and problems facing the research community in Europe when it comes to strengthening the evidence base in the area of health management research. We consider that such an exercise would be immensely worthwhile in terms of

the insights it would produce and the possible lessons for how future research is organized and funded.

Conflicts of interest: None declared.

Key points

- There exists a paucity of public health management research aimed at strengthening the evidence for effective interventions.
- There needs to be support for public health management research that not only crosses academic disciplines but which also embraces managers and practitioners.
- Behavioural and applied social sciences have much to contribute and should not be accorded second place in preference to research centred on RCTs and clinical research.
- Better networking of research centres across Europe would be one means of strengthening capacity and capability as well as provide more balance across countries in respect of the research being funded.

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Received 14 May 2007, accepted 24 May 2007