

Public-health research: are there differences between northern, southern and eastern european countries? A perspective from national public health associations

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Abstract

Background: Research provides the important evidence base for public health practice. We sought to compare the current support for public health research within European countries.

Methods: Within a collaborative study *SPHERE* (Strengthening Public Health Research in Europe), we developed an e-mail questionnaire and sent it to 93 representatives of national member associations of the European Public Health Association. We compared the answers with reference to three macro-areas: Northern, Southern and Eastern Europe.

Results: We gained responses for 22 of the 39 European countries (56% country response rate). Current priorities at national level were: health service and patient safety for Northern Europe; infectious disease, health service and cardiovascular disease for Southern Europe; and food safety and nutrition, environmental and occupational health for Eastern Europe. Respondents gave fewer priorities for international research. In Northern Europe the priorities emphasized were health promotion, prevention and education (26.3%) together the injuries and alcohol habits (26.3%); health economics, health impact assessment, evaluations of services and programmes in Southern and Eastern Europe respectively 30% and 41.7%.

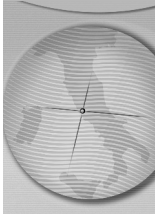
Conclusions: Support for public-health research differs across Europe, and barriers to undertaking better research included structures and sufficient personnel. National public health associations and public authorities should cooperate in order to find effective answers to common problems.

Key words: Public-health, research, Europe, priorities, finance

Introduction

The European Public Health Association (EUPHA) was established in 1992 as an international, multidisciplinary, scientific organisation bringing together public-health experts for professional exchange and collaboration across Europe. Representing approximately 20,000 researchers and practitioners, and through editorship of its official journal, the European Journal of Public Health, EUPHA forms a unique resource to assess perspectives on European public-health research. EUPHA's members are the public-health research associations. In some countries there is more than one public-health association, and each has a specific perspective, some include mainly public-health physicians while others are more multidisciplinary or focus mainly on research.

Our study was part of a European collaboration, *SPHERE* (Strengthening Public Health Research in Europe) [1], funded by the European Commission, which aimed at describing public health research literature [2] and the development of public health research in Europe [3]. A previous survey by the Société Française de la Santé Publique EUPHA [4] reported the results of a consultation on public-health priorities at a European level. It found that the composition and organisation of the national associations varies considerably, and the respondents reported a very broad range of priorities. However, since research is the basis for the development of public-health policy and practice [5], the purpose of our study was to compare the status of public-health research in three macro-areas: Northern, Southern and Eastern Europe.



Methods

The questionnaire

A structured questionnaire covered the following areas of interest:

- current methods of commissioning public health research at national and local levels
- personal experience of research in public health practice
- evidence on implementation of research findings in public health practice
- financial aspects

In the first part of the questionnaire, the responders were asked which institutions provide funding for public-health research programs at national and regional level (Ministry of Health, National Institute of Health, Ministry of Welfare, etc.); and to choose from a list their priorities at national and international level.

In the second part of the survey, the items were: the development in their own organisation of a website in which research findings on public-health are presented; the use of a newsletter regarding research findings on public health; their own experience about relative lack in public-health research (infrastructure, technological equipment, researchers, administrative personnel); the difficulties of dialogue between political administration and scientific needs; and their points of view concerning public health research implementation.

In the third section, we were interested in: the level of implementation of their own research activities into public-health practice; how the level of activities of their national public-health association influences practice; the use of research findings in their country; and the availability of a national database for public-health research findings.

The last area of the questionnaire was focused on the financial aspects: the national and regional annual budget for research, and the economic contribution of private institutions (both rated on a 5-point range from very high to insufficient). The final question was about the priority areas that they would like to see in public-health research in the near future.

The draft questionnaire was discussed and amended through comments and suggestions made by the other partners of SPHERE. The final questionnaire was sent via e-mail to EUPHA member national public health associations on two occasions between February and September 2006.

The sample

We sent the questionnaire, with an explanatory

letter, to members of the EUPHA Governing Council, who are senior representatives of their national public health associations. We then extended the list through direct contacts during EUPHA annual meetings. In total, we sought responses from 93 public-health researchers and professionals representing 39 European countries. The questionnaire and results were reviewed at meetings of the *SPHERE* consortium partners.

Statistical Analysis

For this relatively small representative sample, we used simple descriptive statistics, frequencies and percentages divided in three macro areas: northern, southern and eastern Europe.

Results

Over the period May-September 2006, 23 questionnaires were returned (56% response rate on country basis).

We divided the countries into three geographical macro-areas classified in the following way: Northern Europe included Austria, Belgium, France, Finland, Germany, Iceland, Ireland, the Netherlands, Norway, Sweden and UK; Southern Europe considered Albania, Greece, Italy (with two questionnaires), Malta, Portugal and Spain; Eastern Europe comprised (Latvia, Lithuania, Poland, Romania and Slovakia).

Funding

The main source of funding for public-health research was considered to be the Ministry of Health (74%), followed by the Ministry of Scientific Research and/or Science and/or University (56%).

Priorities

Priorities for public-health research chosen from the list within the questionnaire are shown in table 1. Differences between countries emerged. The most important priorities at national level were: for Northern Europe health services, infectious disease, cardiovascular and patient safety, with the same percentage (90.9%); for Southern Europe infectious diseases (85.7%), health services (71%) and cardiovascular diseases (71%); for all countries of Eastern Europe food safety and nutrition, environmental health and occupational health (100%).

Respondents gave fewer priorities for international research (Table 1). The most important priorities at international level are: for Northern Europe infectious diseases control (57.1%); for Southern Europe, health services, cancer research, drug addiction, food safety and

Table 1. Percentage of Public health research priorities for different research fields at national and international levels respectively for Northern, Southern and Eastern European countries.

Research fields	Total countries (N=23)		Northern (N=11)		Southern (N=7)		Eastern (N=5)	
	National level %	International level %	National level %	International level %	National level %	International level %	National level %	International level %
health services	78.3	21.7	90.9	27.3	71.4	28.6	60.0	0.0
infectious disease control	78.3	30.4	81.8	57.1	85.7	14.3	60.0	40.0
epidemiology	65.2	18.2	72.7	20.0	42.9	14.3	80.0	20.0
health management	60.9	17.4	63.6	27.3	42.9	14.3	80.0	0.0
cardiovascular disease research	78.3	30.4	81.8	36.4	71.4	0.0	80.0	60.0
cancer research	69.9	34.8	81.8	45.5	57.1	28.6	60.0	20.0
health education and promotion	65.2	21.7	81.8	18.2	42.9	14.3	60.0	40.0
use of medicines	56.5	17.4	81.8	18.2	42.9	14.3	20.0	20.0
drug addiction	56.5	26.1	72.7	27.3	57.1	28.6	20.0	20.0
food safety and nutrition	78.3	21.7	81.8	18.2	57.1	28.6	100.0	20.0
health technology assessment	56.5	22.7	81.8	30.0	28.6	28.6	40.0	0.0
migrant health	34.8	13.0	54.5	18.2	28.6	14.3	0.0	0.0
bio-terrorism	66.5	13.6	72.7	20.0	57.1	14.3	20.0	0.0
environmental health	73.9	21.7	72.7	18.2	57.1	14.3	100.0	40.0
mental health	65.2	30.4	81.8	18.2	42.9	28.6	60.0	60.0
patient safety	65.2	21.7	90.9	18.2	28.6	14.3	60.0	40.0
occupational health	65.2	21.7	72.7	27.3	28.6	14.3	100.0	20.0

nutrition, health technology assessment and mental health, with the same percentage (28.6%); and finally for Eastern Europe the priorities at international level were cardiovascular diseases and mental health (60%).

Communication and barriers to public-health research

In the second section, 68% of respondents stated that there was a website on public health and 35% that there is a newsletter. Concerning the barriers to undertaking better research (Table2), we found that 78.2% strongly agree or agree that there is a lack of infrastructure (essentially Eastern 80% and Southern 45.5% areas); a majority (52.2%) consider there is sufficient technical equipment (especially Northern Europe 81.8%); 60.8% strongly agree or agree with a lack of research personnel (about 50% in each macro- areas); while almost half (45.5%) reported satisfaction with administrative personnel (mainly in northern with 60%).

Of other concerns reported, 39% had difficulties of publishing results of research; 65% reported a lack of interaction between policy makers' needs and scientific needs; and 61% said there was no evidence of implementation of research findings in public health.

Implementation of public-health research

The respondents showed a range of views on the implementation of public-health researchers' own activities into practice, with 27% answering very high and high, 50% answering 'medium' or 'sufficient', and 23% 'insufficient'. Similarly, 36%

rated 'medium' the activities of their own national public health association influencing practice. Almost all (91%) of the responses indicated implementation of research findings in public-health practice in their own country. On the other hand, 83% stated that there was no national database of research findings.

Budget for public-health research

The final section of the questionnaire asked about funding: 81% of respondents considered that the national annual budget for public-health research was insufficient. However, fewer (56%) considered the regional funding for public-health research insufficient, and 43% regarded the public health research budget from private institutions as insufficient.

Future priorities

The respondents on behalf of national public-health associations in this survey suggested three priority areas for public-health research in the future. Ranked in order, these were: health economics, evaluation of health services and programmes (29.3%); health promotion, prevention and education (24.4%); quality of life, health community and behaviours, inequalities (14.6%); injury and suicide, alcohol, mental health (14.6%), chronic diseases epidemiology, care for diabetes and epidemiology (9.8 %); nutrition, obesity prevention and physical activity (7.3%).

In Northern Europe the priorities emphasized were health promotion, prevention and education (26.3%) together with injuries and alcohol habits (26.3%); health economics, health impact

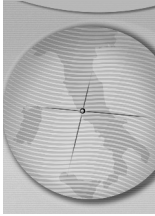


Table 2. Percentage of types of barriers to undertaking better research.

Barriers (Numbers of Countries)	Strongly agree (%)	Agree (%)	Uncertain (%)	Disagree (%)
lack of infrastructure (23)	39.1	39.1	13.0	8.7
northern (11)	18.2	45.5	18.2	18.2
southern (7)	100	0	0	0
eastern (5)	0	80	20	0
lack of technological equipment (23)	17.4	17.4	13.0	52.2
northern (11)	9.1	0	9.1	81.8
southern (7)	28.6	14.3	28.6	28.6
eastern (5)	20	60	0	20
lack of research personnel (23)	30.4	30.4	17.4	21.7
northern (11)	27.3	36.4	18.2	18.2
southern (7)	28.6	14.3	28.6	28.6
eastern (5)	40	20	0	40
lack of administrative personnel (22)	9.1	22.7	22.7	45.5
northern (10)	0	10	30	60
southern (7)	28.6	28.6	14.3	28.6
eastern (5)	0	40	20	40

assessment, evaluations of services and programmes in Southern and Eastern Europe were respectively 30% and 41.7%.

After the initial survey, we sent all the informants a brief description of the results received, and asked them to review their responses to tell us if any changes had happened since the first answer. Only two questionnaires were revised.

Discussion

Our survey found considerable variations in the perceptions of respondents for national public health associations in public-health research funding, processes and development across the European region. But a common issue was the barrier to undertaking better research, due to structures and personnel (research and administrative), whereas there was a difference with respect to lack infrastructures and technologies: Southern and Eastern Europe underlined the current shortage in comparison to the north.

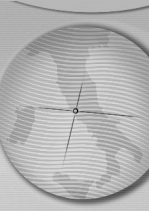
The respondents indicated that infectious diseases are still an important challenge. Research on this issue is recognised as fundamentally international, but there is marked variation between European countries [6]. The systems for surveillance of communicable diseases in Europe needs to be improved and integrated [7]. The recent establishment of the European Centre for Disease Control (ECDC) in Stockholm demonstrates the will to respond to this challenge at the continental level.

Our survey described different research priorities from the North to the South of Europe

and across to Eastern Europe: according to our respondents, issues of health services and patient safety research are higher national priorities in Northern European countries, infectious diseases, health services and cardiovascular diseases in Southern European countries, and food safety and nutrition, environmental health and occupational health in Eastern Europe. Cooperation between EUPHA and national public health associations would contribute to finding the best answers to common problems.

These results show some differences from the results of a survey on priorities for public health (not specifically research) conducted in Europe a decade ago, when the most frequently cited priorities in southern and eastern countries were health economics, health impact assessment, while in northern countries they were inequalities, prevention, health education, and lifestyle [4]. However, the approaches and methodologies of these studies were different, as the earlier study used national consensus reports as the basis for country comparisons, and categories for reporting priorities was open-ended. More work is needed on the best methods to record perspectives of European public health researchers and practitioners on research priorities.

To address the interests of Europe's citizens, European member state governments need to take more interest in EU health research, to learn from each other and to contribute to EU-wide investigations and innovation [8]. National public health associations and EUPHA can disseminate results from existing collaborative research, and build capacity through exchange. The knowledge



gap between public-health research and policy/practice needs to be reduced. Research findings in public health are published primarily for the research community, and often they do not reach policy makers and practitioners [9].

In tackling one of the most challenging current public-health problems, the obesity epidemic [10], we need to adopt comprehensive strategies to reverse the trends, and involve several partners, such as governments, the health service, food and catering industry, and the fitness industries as well as transport planners in local governments. Public-health research can focus on the needs of policy and practice and should learn how to interact with politicians and practitioners. However, governments must also give sufficient funding to research studies in areas of national policy and practice, including studies that assess the impacts and effectiveness of interventions.

In 2006, the European Public Health Association published ten statements on the future of public health in Europe [11], and one of them states that "*Research remains a solid basis for the development of public health practice and policy*". Public health challenges are no longer just local, national or regional, but they represent a global issue [12]. The integration of Europe as a political, social and economic unity will

strengthen public-health research and practice across borders in Europe.

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