International networking

A healthy vehicle for research?

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Collaboration between research centres has existed for a long time, but the possibility of obtaining external funding has been an extra motive for centres to participate in international networks. This paper discusses the opportunities and limitations of international networking based upon the case of the CityHealth Research Network in which the authors participated. They reflect upon the functioning of European networking in practice and highlight aspects that could be improved. The structure, organization and functioning of the CityHealth Research Network are considered as well as its influence on research output. Furthermore, recommendations are formulated on establishing and implementing a coherent and efficient cross-national research network. It is not a one-sided success story about collaboration between international research teams, but rather a reflection upon the learning experiences and the successes achieved within this network. In general, the complexity of networking between research teams from different countries not only seems to be a challenge for research practice, but it also provides a challenging topic for scientific inquiry itself.

Keywords: EC funded network, international research networking

Collaboration between researchers from different institutes and countries is not a new phenomenon. However, funding of research networks by the European Commission (EC) is of a more recent nature. The Research and Technology Development (RTD) Programme of the EC started in 1982 and is now up to its fifth framework (1999-2002). With the rise of EC-funded networks, cooperation with research partners from other European countries has become very interesting. In the past decades a large number of EC-funded networks have developed in the public health field, either in the sphere of research (financed through Directorate General XII), health promotion (Directorate General V, Unit I/3) or in the educational field (within the TEMPUS programme - trans-European mobility scheme for university studies). One of the prerequisites to obtaining funding from the EC is that a research network must consist of at least five non-affiliated research teams from at least three countries working together on a joint research project. Therefore, it can be observed that research networks are established not only because of a shared vision on research topics in a particular field of science or technology, but also for reasons of cultural and national diversity. Networks and networking are considered to be of increasing importance for policy development and interorganizational collaboration as well as for the development of science and research. It can stimulate processes of change and innovation across the boundaries of different organizations, sectors and even countries. A research network can be defined as 'an alliance between research institutes where collaborative research takes place, and information and other resources are exchanged'. According to the EC, such research networks will 'encourage the interaction between different disciplines, the combination of different technologies, the transfers of techniques from one scientific domain to another, the dissemination of results, and co-operation between academia and the industry'. The final output of the network will be better than the one developed by individual research institutes because of the synergistic effect that is created through multi-disciplinary and cross-national research. Although networking is a recognized vehicle for the exchange and dissemination of research experience and results, there is less clarity about how a European research network contributes to research in practice. In what way does the international exchange of researchers support research and add new resources and what are the limitations? In this paper the authors, who participated in the EC-funded CityHealth Research Network, reflect upon the functioning of European networking in practice and highlight aspects that should be considered when setting up research networks across Europe.
ORGANIZATION OF THE CITYHEALTH RESEARCH NETWORK

In the spring of 1993 the CityHealth Research Network was awarded a 2-year funding under the Human Capital and Mobility (HCM) Programme of the European Commission (DG XII-RTD). The HCM programme was intended to ‘stimulate the integration of research skills throughout Europe and to give young researchers the opportunity to work and be trained in centers outside their country’. The seven centres participating in the CityHealth network were based in cities of six EC countries (Table 1). According to the HCM programme, the researchers employed in the network had to have a nationality other than the one of the country in which they were based and either a PhD qualification or several years of research experience. In 1994 a supplementary grant was awarded under the PECO (Pays d’Europe Centrale et Orientale) programme which funded the participation of three eastern European centres in the network. Under this programme centres were not obliged to appoint foreign researchers. The interests and working fields of the people responsible for the network, hereinafter called contractors, included health policy, health economics, health promotion, health education and environmental health. They were affiliated to either profit or non-profit organizations and the nature of their jobs varied from research, education, management and politics to consultancy work. Their common goal, which motivated them to establish the network, was to reach consensus on research strategies to evaluate public health in cities.

The EC set 1 July 1993 as the operative starting date for the project and the first part of the funding was received in the autumn of that same year. However, to comply with the HCM budget the EC substantially reduced the budget CityHealth originally applied for. To be able to keep all the partners in the network, the contractors decided to reduce the budget for the researchers’ salaries. This meant that some institutes chose less-experienced researchers and others shorter research projects.

The implementation stage of the network was not reached until mid-1994 when the first researchers came into their posts. In those 2 years between writing the EC proposal and the implementation of the network, the interests of the contractors had changed. Therefore, the objectives of the CityHealth research network had to be redefined to cover all the new interests. A compromise was reached about the domain by dividing it into three clusters characterized by different disciplinary fields. The main vehicle for the functioning of the CityHealth Research Network was the scientific business meetings in which all the partners participated. The purpose of these meetings was to discuss EC contractual issues, the progress of the individual research projects, the possibilities for collaboration between the centres and the dissemination of the research findings. Over the course of the project three business and several cluster meetings were organized. Other means to communicate were the bi-monthly newsletter, published by the coordinating centre and through e-mail.

Summarizing, the organization of the CityHealth Research Network was confronted with the following constraints.

- The project was delayed 2 years. One of the main reasons was the long recruitment procedure for the researchers.
- Because of the reduced EC budget, the appointment periods of the researchers varied from 5 to 18 months. Consequently, the start and end dates of these periods also differed.
- The aim of the network was not clear, partly due to the various and, over the years, changing interests of the network partners.

EUROPEAN NETWORKING IN RESEARCH: THE BOTTLENECKS

Different perspectives of the network partners Because of the differences in the professional, organizational and cultural backgrounds of the contractors, their views and perspectives varied a lot. This diversity guaranteed a comprehensive or ‘holistic’ research approach, but, as was observed in other studies, it also caused difficulties related to differences in knowledge, skills, perceptions and mandated memberships. Multidisciplinarity and an intersectoral approach are indispensable for the public health field and, more specifically, in the health promotion arena. However, to make the collaboration work, the aim and the framework for research must be clear, unambiguous and accepted by every partner.

Collaboration between the network partners

In practice, the process of joint working on research projects turned out to be complicated. During the scientific business meetings the emphasis was put on discussion about redefining the general objectives of the network, the network structure and ways forward. The discussion about research content was rather limited. In addition, the exchangeable relationship was limited due to the different project periods of the individual researchers and the cluster boundaries. Collaboration between the three clusters was minimal because the research topics and disciplinary backgrounds were too diverging. In addition, the lack of time obliged the researchers to concentrate on their own projects, leaving little time available to establish joint outputs with other centres.

Table 1 Participating cities in the CityHealth Research Network

<table>
<thead>
<tr>
<th>Participating EC cities</th>
<th>Eastern European cities</th>
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<tbody>
<tr>
<td>Edinburgh (UK; coordinating centre)</td>
<td>Brno (Czech Republic)</td>
</tr>
<tr>
<td>Athens (Greece)</td>
<td>Prague (Czech Republic)</td>
</tr>
<tr>
<td>Hamburg (Germany)</td>
<td>Iassy (Romania)</td>
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<tr>
<td>Liverpool (UK)</td>
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<td>Maastricht (The Netherlands)</td>
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<td>Milan (Italy)</td>
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<td>Valencia (Spain)</td>
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Cultural diversity and academic level of the contracted researchers
The researchers who were recruited and finally employed were mainly Dutch and most of them did not have a PhD. Due to this Dutch dominance, there was less cultural diversity among the researchers. An explanation for the shortage of PhD applicants might be the duration of the contract, the packages offered and salaries.

Working environment of the researchers
The direct working environment of the researchers was mainly determined by the characteristics of their host institute, the contacts with their colleagues and the fact that they were working in another country, rather than by being part of an international research network. The frequency of the scientific business and cluster meetings was not enough. The researchers would have preferred to meet each other more often to discuss the contents of their projects, but, due to the lack of financial resources, they were not able to visit the other centres. Some researchers felt rather isolated in their host institutes because they were part of an external network with no links to other research projects within their centres.

Added value of the research network to the host institutes
It appeared to be difficult to establish regular collaboration between the international research network and the local host institutes because of the small overlap in their research practices. Issues such as the degree of involvement of colleague researchers from the centres in CityHealth or what this European network could mean for local research in practice were not explicitly discussed and, consequently, led to varying expectations. The benefits of the research network were in fact limited to those involved directly. The CityHealth researchers appointed had thereby the task of compromising between the interests of the research network and the existing projects in their host centres.

Role of the contractors
The contractors had many other commitments besides CityHealth, which meant that it was sometimes difficult for researchers to be adequately supported in the host institutes. However, more importantly, it meant that, during the time the researchers were in their posts, they were the main networking actors, which eventually had consequences for the continuation of the research network. Even the main contractor had no extra time allocated for management of the project. Administrative issues related to the EC requirements, such as the writing of interim and annual reports, absorbed much time that could not be dedicated to scientific discourses.

THE RESEARCH OUTCOME:

BENEFITS OF JOINT WORKING
In terms of learning experience both the researchers and the contractors gained a lot. The entire period of working together was a learning process about international net-
RECOMMENDATIONS

Collaborative research in the public health field through the medium of international research networks is expected to increase in the future. From the experiences described above several recommendations can be deduced which are important for networks that wish to undertake research across national boundaries.

One clearly defined research theme for the whole network
Agreement upon the purpose, research theme(s) and objectives is of the utmost importance if the network wants to make the output more than the sum of its individual components. This common theme has to be of interest to all the participating centres and it should be embedded in their actual research programmes. Individual projects can then easily be linked to each other and a high level of interdependence and collaboration will be a logical consequence. Examples of more focused international research networks in the field of public health are the Super project and the Inventory of public health and health promotion training in the European Union. Furthermore, an unambiguous focus of the work keeps discussions during meetings ‘to the point’ and facilitates communication.

Dividing the common theme into different aspects for each partner
To justify the existence of an international network, it is necessary that there is synergy between its individual components: each research centre should work on an aspect of the common theme in constant negotiation and exchange of information with the other centres. Negotiation is necessary to define the various aspects and establish (optimal) collaboration between countries.

Definition of rules and procedures
The rules and procedures of the network should be discussed and explicitly defined beforehand in order to avoid different expectations of the network partners and improve the effectiveness and efficiency of the collaborative efforts. The expectations of network outputs, in terms of publications or other products, should be realistic and feasible within a given budget and timetable. To develop and carry out a research project in a short time period in a foreign country is too often underestimated. A minimum time for the researchers to be in a post and to do the job should therefore be negotiated.

One central research manager
The coordination of a European network requires a lot of time, much more than someone with a full-time job has available. Therefore, it is recommended appointing a central research coordinator to guide, monitor and link the research work to be done in the various centres. In this way, a coherent and integrated research network can be developed more effectively. An alternative would be a greater active involvement of the contractors, but through the CityHealth experience it has become obvious that this is not feasible as it would require too much extra time of the contractors.

Equal recruitment procedures of the researchers
To facilitate a cultural variety of applicants, every network partner which exchanges researchers should follow the same recruitment procedure. It is recommended using the same application procedures and forms, announcing job vacancies through the same media and establishing selection criteria that take nationalities into account.

Same start and end dates
For the international network to function well, cooperation between the network centres and the researchers should be maximized. Therefore, it is necessary to organize the research projects in the different centres having the same start and end dates.

Optimize communication between the researchers
Separate technical meetings of the researchers during the course of the network facilitate collaboration and exchange of experience and information. Organizing one week’s introduction and training to get all the researchers of different nationalities and educational backgrounds on one ‘scientific’ line should be considered. The researchers have the opportunity to get to know each other and it would stimulate and motivate them to start with their own and joint projects. Frequent subsequent meetings would facilitate collaboration, discussion and reflection upon individual and joint projects.

Optimize the collaboration between the network and the host institute
A balance has to be found between the network’s objectives and the research programmes of the host institutes within countries. The research programmes of the participating centres should benefit from the research of the network and, at the same time, support the appointed researcher’s work. Discussion should take place about the way in which local researchers can make use of or can contribute to the network and its expertise in public health research.

Continuation of the network
The aim of research networks is that their results can be used for the development of further research, action and/or policy. Research networks with a relatively short duration should consider their continuation at an early stage, particularly if they want to benefit from the (now trained) researchers. For funded networks this means that project proposals should be written in time to guarantee their continuation and even the existence of the network. If there is no job continuity in the centres, these trained researchers will be lost to the network. Moreover, contacts between the centres will be considerably reduced when there are no networking researchers in posts.

CONCLUSION

In general, it is recommended that research teams applying for external funding do not only take into account the funding requirements, which are usually directed towards team constitution, the scientific quality
Networks: the researchers' experience

of the joint research project, quality of the applicant teams, training content, quality of the network's management and organization and involvement of industry. When searching for adequate foreign research partners they should also consider criteria essential for successful collaboration such as similarity of goals, complementary resources, ideological and domain consensus, similar working methods, interdependency awareness and mutual positive judgement.

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REFERENCES


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