The introduction of health impact assessment in the WHO European Healthy Cities Network

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SUMMARY
The World Health Organization (WHO) has been a strong and persistent voice calling for the recognition of the role of health in development and of the impact of socio-economic development on health. Health impact assessment (HIA) is one mechanism that can be used to achieve this goal. The objective of this paper is to describe HIA practice in the WHO European Healthy Cities Network and present some of the initial learning from a collective approach to introducing this relatively new methodology into municipal business. One of the foundations for this was a European Union (EU)-funded project entitled Promoting and Supporting Integrated Approaches for Health and Sustainable Development at the Local Level across Europe (PHASE). For Phase IV of WHO European Healthy Cities, HIA was made one of four core themes, and a sub-network in HIA was set up to support the introduction and development of the methodology. The use of HIA by four cities in the Network—Belfast, Onex-Geneve, Helsingborg, Bologna—illuminates the challenges and successes experienced in the initial stages of Phase IV.

Key words: Healthy Cities; health impact assessment; HIA

INTRODUCTION

The World Health Organization (WHO) has been a strong and persistent voice calling for the recognition of both the role of health in development and, reciprocally, the impact of socio-economic development on health (Ritsatakis, 2004). In 1977, the World Health Assembly formally confirmed the need for an intersectoral approach to health development through the Health For All resolution, and in 1982 the WHO European Region adopted a Health For All Strategy (WHO Regional Office for Europe, 1982) stating that:

[H]ealth development both contributes to and results from wider socio-economic development.

Intersectoral action is a key element in WHO corporate strategy (WHO, 1999). In the WHO European Region, intersectoral action for health has been promoted through revisions to the Health for All policy for Europe (WHO Regional Office for Europe, 1985, 1995) and by supporting countries to implement their own policies (Ritsatakis et al., 2000). Indeed, intersectoral action for health is a cornerstone for the WHO Regional Office for Europe (WHO Regional Office for Europe, 1997a, 1997b).

Health impact assessment (HIA) exemplifies and promotes intersectoral action on health. Often described as a methodology, it has (i) developed logically from a social model of health that underpins an intersectoral approach to intervention, (ii) applies evidence from a variety of secondary sources to the subject and (iii) acknowledges the political and professional context of the undertaking (de Leeuw, 2009).
On a global level, the WHO’s interest in HIA goes back almost 20 years originating from work on environmental impact assessment and water resource development through a joint initiative by WHO, the United Nations Environmental Programme and the Food and Agricultural Organization of the United Nations. (WHO, 2000). In 2000, a meeting was organized for representatives from the six WHO regions to develop an overview of HIA-related activities within WHO and the ways in which they could be co-ordinated more effectively (WHO, 2001).

HIA-related activities in the WHO European Region have been undertaken at several Regional offices, including Copenhagen and Rome. Until the early 2000s, the main body of work was undertaken by the office in Brussels, pivotal in the production of the Gothenburg consensus paper that outlines the concept and values behind, and definition of the methodology:

[A] combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population and the distribution of effects within the population (WHO Regional Office for Europe, 1999).

Work on HIA by the WHO Regional Office for Europe continues to support implementation of European Health for All policy, stating that by 2020:

Member States should have established mechanisms for health impact assessment and ensured that all sectors become accountable for their policies and actions on health (WHO Regional Office for Europe, 1998).

The methodology of HIA was originally designed for, and applied to, non-health proposals, thereby recognizing the importance of the determinants of health and the contribution that the non-health sector has in promoting health. Thus, the primary purpose behind undertaking HIA is to suggest ways to modify a proposal (whether non-health or health related) by enhancing any beneficial effects on health and well-being and by reducing or avoiding any harmful effects. Suggestions about the ways to protect and improve health and reduce or ameliorate health inequalities through changes to the design, development or implementation of the proposal are presented to decision-makers with the intention of supporting them in obtaining health gain for the population or community through that proposal. In this way, it is possible to address the key areas relating to health in the context of sustainable development that were identified by WHO in 2002.

In 2000, staff of the WHO Regional Office for Europe investigated ways in which HIA methodology could be introduced across the WHO European Healthy Cities Network (WHO-EHCN) towards the end of Phase III (1998–2002). Three approaches to enhance and support the application of HIA in Healthy Cities were identified:

(a) The PHASE Project—Promoting and Supporting Integrated Approaches for Health and Sustainable Development at the Local Level across Europe—funded by the European Commission, Directorate-General for the Environment, under the Community Framework for Cooperation to Promote Sustainable Development (2003–2005);

(b) Making the methodology of HIA one of the four core themes for work by Healthy Cities during Phase IV (2003–2008)—the other core themes were healthy ageing, healthy urban planning and active living;

(c) Setting up a sub-network in HIA to take forward the development, introduction and mainstreaming of the methodology within the WHO-EHCN.

METHODS

PHASE project

The aim of the PHASE project was to promote the health and social aspects of sustainable development by focusing on and introducing the HIA process. The main objective was to develop a HIA toolkit for practitioners responsible for introducing and implementing HIA at a local level. The Regional Office coordinated the project and staff undertook initial preparation. After a literature search, an analysis was conducted of HIA tools and toolkits already available irrespective of their country of origination. This analysis formed the basis of discussions about the contents of the toolkit among HIA experts from European countries, WHO staff and expert advisers, representatives from the WHO-EHCN and representatives from the Italian Healthy Cities Network and the Association of Healthy Cities of Slovakia.
A draft version was piloted in two countries located to the south and west of the EU where there was little practical experience of HIA. Slovakia and Italy were identified as having long-standing national networks, which had demonstrated ability to introduce new ideas to policy-makers (WHO Regional Office for Europe, 2005). Trnava and Bologna were selected as pilot cities by their national networks, having demonstrated both capability and commitment. As part of the process, WHO staff prepared an analysis of the political and legal frameworks and the economic, social and environmental contexts of both countries as a background to inform the conduct of each pilot.

The funding from the European Commission allowed for the preparation of five documents:

- A background paper on HIA, which was entitled ‘From vision to action’;
- A training module in HIA, aimed primarily at technicians or officers in a municipality but also at staff in other organizations who might work on at a local level;
- A brochure on how health impact assessment can support decision-making—aimed in the first instance at politicians and other decision-makers but also for people with no previous knowledge of HIA;
- Two reports of case-studies about introducing HIA in Bologna, Italy, and in Trnava, Slovakia.

Significant changes were made to the background document as result of the pilot case-studies in Bologna and Trnava, which related to both the usefulness and usability of the document.

**HIA as a core theme**

HIA was identified as a core theme for Phase IV to advance work on city health development plans (CHDPs) developed in Phase III (Green *et al.*, 2009). CHDPs emphasize the wider determinants of health and the responsibilities of agencies outside the healthcare sector towards the improvement of population health and well-being. HIA supports intersectoral multi-disciplinary partnership working to derive health gain from non-health policies.

For each of the core themes in Phase IV, there was a set of objectives which cities were required to work towards. The objectives for HIA included:

(a) translating the PHASE toolkit;
(b) conducting a pilot HIA;
(c) conducting a process evaluation of the pilot HIA, and applying that learning to the next HIA;
(d) mainstreaming HIA in municipal business.

**WHO sub-network in HIA**

One of the innovations in Phase IV of the WHO-EHCN was to establish four sub-networks as a mechanism for developing work on the four core themes. Network cities were required by WHO (WHO Regional Office for Europe, 2003) to participate in one sub-network and, through an Action Plan, take formal responsibility, with WHO, for disseminating tools, good practice and shared experience to cities in the wider WHO-EHCN. Each sub-network comprised a group of cities, organized by a lead city and supported by at least one academic institution and an expert advisor recommended and partly resourced by WHO. Lead city for the HIA thematic sub-network was Belfast and the author was expert advisor. Unlike the multi-city action groups of Phase III, the thematic sub-networks of Phase IV had a formal responsibility for wider dissemination to the WHO-EHCN and beyond.

These structures, processes and methods were combined in a unique attempt by the WHO-EHCN to introduce HIA as a methodology to support politicians and other decision-makers at a local level to make ‘healthy’ decisions. For the first time, a group of cities across Europe were tasked with applying the methodology across a range of countries, politico-legal systems, economies and socio-cultural contexts.

**APPLICATION**

My assessment of how HIA developed during the early years of Phase IV triangulates evidence from four primary sources. First were reports, profiles and plans produced both by WHO-EHCN and the WHO Regional Office for Europe. Second was the annual reporting template (ART) completed by 34 of the 56 WHO-EHCN cities at the beginning of Phase IV. Third was evidence contained in cities’ applications for Phase IV. Fourth, evidence was drawn from participant observation by the author whose expertise had been utilized by EHCN cities during Phase III.
The author assessed ARTs (a WHO-EHCN membership requirement) submitted by 35 cities in 2006 using 14 criteria to gauge the extent of their engagement. Cities which had undertaken HIA fell into three categories:

(a) Cities in the United Kingdom where there was previous history of undertaking HIA (since 1998) prior to the introduction of the methodology to the EHCN;
(b) Cities in the sub-network in HIA;
(c) Cities from which representatives had received training in HIA organized by the sub-network or from the HIA expert advisor.

Analysis of the applications to become a designated healthy city in Phase IV revealed a large proportion of cities that were probably restricted in their ability to perform an HIA. A substantial body of literature analyses the receptivity of organizations to such innovation, with the most relevant theoretical insights highlighted by Greenhalgh et al. in their systematic review of diffusion of innovations in service organizations (Greenhalgh et al., 2004). They highlight a paradox at:

the very heart of the diffusion, dissemination and implementation of complex interventions...‘Context’ and ‘confounders’ are not extraneous to the object of the study; they are an integral part of it.

We have adopted this realist approach (de Leeuw, 2009) by reporting a series of case studies to illuminate the application of HIA. First, however, are contexts we assess as inimical to cities’ receptivity to HIA:

(a) Lack of awareness of the methodology and what it can offer politicians and other decision-makers;
(b) Lack of understanding of HIA as a methodology—it is commonly confused with the routine monitoring and evaluation of health trends and outcomes;
(c) Lack of tangible political support for conducting HIA and the resource demand it entails;
(d) Limited capacity and capability to conduct HIA within the technical resource constraints of a municipality;
(e) Lack of statutory backing for HIA—this is particularly important in an eastern European context;
(f) Lack of resources in languages other than English.

To draw out the challenges and success experienced during the early stage of Phase IV (2003–2008) in introducing HIA to municipalities in Europe, we have identified and describe below several case studies in HIA that have been undertaken by European Healthy Cities with a view to outlining the learning points and facilitating reflection on the HIA process. The case studies reflect the diversity of experience in the WHO-EHCN.

Belfast

Belfast was the lead city for the sub-network in HIA; however, it was using HIA before it became a core theme in Phase IV. Owing to their track record in HIA, in the autumn of 2006, the Northern Ireland Housing Executive (NIHE) approached Belfast Healthy Cities to conduct an HIA on the redevelopment and regeneration of the Lower Shankill Estate (over 500 houses) in West Belfast. Responsibility for social housing lies with NIHE, an independent government body and not with the Belfast City Council as is the case in most other European cities. Eleven options for redevelopment were proposed in the Economic Appraisal, and it was agreed that the HIA would address the potential health impacts of all those options so that decision-makers would have health-relevant information aligned with the results of the Economic Appraisal.

Residents on the Lower Shankill Estate suffer from severe health and other inequalities, exacerbated by not only the collapse of heavy industry (major employers in the area were the Harland and Wolff shipyards and Mackies engineering works) but also the impacts of 30 years of conflict during ‘The Troubles’. However, for residents of the Lower Shankill, there had been a series of feuds among the loyalist (protestant) paramilitary groups in the area which had led to fatalities and intimidation resulting in the displacement of several hundred people.

The HIA was conducted within this political context, and therefore it was vital to consult the community as part of the HIA through a series of events, including a workshop and focus groups. The proposal was complicated and complex and the HIA Assessor, therefore, conducted a desk-top appraisal of each option to complement the information from stakeholders.
The results of the HIA were submitted to NIHE for the Board to consider the potential health impacts alongside the economic outcomes for each option.

**Onex-Geneve**

Onex-Geneve was a member of the HIA sub-network. By 2007, the HIA Unit of the Public Health Directorate had completed three HIAs on behalf of Onex-Geneve, one of which investigated the potential health impacts of the introduction of a ban on smoking in bars and restaurants. The HIA was commissioned by Geneva’s cantonal administration from the Health Minister to provide objective information about the health effects of such a ban in what was perceived as a sensitive issue for many stakeholders. The health impacts were identified at a population level and the potential impacts on health and the resultant burden on health services through smoking-related outcomes were estimated.

Support from within the WHO-EHCN was provided by Brighton, a city which had conducted an integrated impact assessment (IIA) on a smoking ban in public places. Brighton was able to supply the results of a literature review to Geneva and acted as mentors at various points in the process. Geneva built on the information in the review and complemented it with local data and statistics to model the potential health outcomes (e.g., lung cancer and chronic obstructive pulmonary disease) and related healthcare costs. The Geneva Government, which is ultimately responsible for the report, submitted the results to Cantonal Parliament as part of the debate about whether to enact the ban as law.

**Helsingborg**

Helsingborg was a member of the HIA sub-network and, like Belfast, had also been using the same methodology during Phase III. The model of HIA in use at a local level in Sweden was based on the Swedish County Council’s suite of three tools. However, following HIA training, professional and technical staff of the municipality sought to extend their HIA practice by using the classic or traditional process of HIA. To do this, they identified a need to develop a ‘screening’ tool for HIA (screening is the first stage in the HIA process used to ‘filter’ proposals, helping to assess the need for further investigation of potential health impacts) that was tailored to their particular situation in the city.

The process of developing a screening tool was inclusive, iterative and importantly involved politicians in the municipality. The politicians were keen to be involved especially in the selection of criteria or variables interrogated when using the tool. The politicians agreed the framework and also defined some of the key questions for the screening tool which enabled officers to make recommendations about whether to conduct an HIA on specific proposals within the parameters set by the decision-makers. For the politicians, this structure and their input to content provided reassurance that officers’ recommendations were robust and matched the city’s priorities for action. Officers at Helsingborg have since embarked upon an HIA of the Green Transport Plan confident of the political commitment to considering the outputs from the HIA during decision-taking.

**Bologna**

Bologna was one of the pilot cities for the PHASE project and, unlike Trnava, also a member of the HIA sub-network. The first HIA conducted by the municipality arose out of the PHASE project, and involved a proposal to identify the potential impacts on health of distributing surplus food from supermarkets to charitable organizations. In turn, food was distributed directly and indirectly to various vulnerable groups. The HIA was designed to highlight the potential effects through the social determinants of health to complement the existing assessments of the environmental and economic impacts of this project by the Department of Agricultural Economics and Agricultural Engineering, University of Bolgna.

Impact identification was conducted using a desk-top appraisal and stakeholder workshops. Despite the initial challenges, Bologna experienced in introducing HIA during the PHASE project, the completed pilot HIA was successful, suggestions about the changes to the proposal were accepted and learning was applied to subsequent HIAs.

**DISCUSSION**

The major learning point from piloting the PHASE project in Bologna and Trnava was the
difficulty inherent in introducing a new methodology into any municipality. Indeed, this is a common problem, and reflects the experience of several countries, including that in the United Kingdom where HIA was first introduced a decade ago.

However, the context is important (Greenhalgh et al., 2004) and the underlying reason for the difficulty in introducing HIA is different for each of the two cities. In Bologna, the difficulty arose as a result of a change in the administration during the period of the pilot study. This meant that some of the groundwork that had been done in persuading the politicians to support HIA had to be repeated, which took time and resources, and new staff were introduced to the project who had to acquire knowledge of HIA very rapidly to fulfill requirements under the European Commission funding for the Project. A change in political administration is not an uncommon occurrence in municipalities and can affect not only the direction of but also the introduction and mainstreaming of various streams of work.

In Trnava, the difficulty arose as a part of the political culture for Slovakia as a whole. HIA is not part of the country’s statutory or regulatory framework, as is the case for many countries. However, for resources to be devoted to the introduction and mainstreaming of a new methodology in Slovakia, it is best if that methodology is seen to have a legal status. Professional and technical staff from WHO Healthy Cities in other central European countries also expressed this view during the initial period of Phase IV.

Issues were also raised about the difficulties in translating some of the terminology used in HIA, most of the literature about which is published in the English language. During the early stages of Phase IV, these concerns were echoed by staff working in Healthy Cities across Europe. In some cases, decisions have been made to coin new words in several languages to resolve these problems.

The difficulty of introducing HIA as a methodology into routine municipal business seen in the PHASE project was repeated during the initial Healthy Cities experience in Phase IV. Though organizational theorists have produced typologies of barriers to implementation, these tend to focus on policy dissemination, either top-down from central government (Sabatier and Mazmanian, 2005) or equally the bottom-up (Sabatier, 1986) approach of

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Greenhalgh et al.’s focus on innovation provides a more apposite model, though a sharper distinction is required between adoption of an innovation such as HIA and its diffusion throughout an organization.

A companion article (Ison, in press) will address diffusion. At the beginning of Phase IV, the focus was on adoption. There were two main types of barriers: technical and political. From our case studies, we can begin to identify the ways in which both types of barrier can be overcome. Technical barriers can be overcome in several ways, including:

(a) Training and skills development;
(b) The provision of technical support especially on any initial HIAs;
(c) Mentoring, peer review and peer support;
(d) Increasing political understanding of what HIA is and what it can offer;
(e) Involving the politicians at a strategic level in setting the parameters for the use of HIA by the municipality;
(f) Piloting HIA using proposals that are likely candidates to increase the potential for health gain;
(g) Presenting the results of HIA in a useful and usable format for politicians so that health can be taken into consideration during decision-making.

Greenhalgh et al.’s model for considering the determinants of implementation identifies key attributes of innovations (as perceived by the prospective adopters) that explain much of the variance in adoption rates for the HIA innovation. Technical supports (a), (b) and (c) remove the perception of HIA as unduly complex; reinvention helps adopters to adapt, refine or otherwise modify the innovation to suit their own needs; training reduces the perception of personal risk by the individuals leading the HIA initiative; HIA will be adopted more readily if technical support improves task performance; HIA will be adopted if the knowledge required to use it can be codified, translated and transferred from one context to another.

Politicians are more receptive to HIA if they understand (d) that innovation is compatible with their values, norms and perceived needs. They are more likely to adopt HIA if it can be trialled (f) and if they perceive a relative
advantage in the cost-effectiveness of results (g). HIA has a core methodology of agreed procedures, but in the longer run politicians are more likely to incorporate HIA methodology at a strategic level (e) if it produces observable results and its ‘fuzzy boundaries’ overlap with other municipal priorities.

Bearing in mind the political and technical barriers to introducing HIA, the advantages of working on HIA in the WHO-EHCN are several. They relate not only to the nature of networks, in general, but also to the nature of the WHO-EHCN itself. The main advantage of a network, in general, is that in a context of limited resources, whether financial, human or material, it provides an efficient mechanism whereby different members can focus on either different aspects or facets of using and implementing a methodology or share the learning.

The advantages of the WHO-EHCN arise from the following four factors:

1. The structure of the WHO Regional Office programme in which the designated cities conduct their work. Since its inception, the Programme has been structured in phases, with cities applying to become a designated member at the start of each phase. For each of these phases, there is a series of key themes that all cities must work on if they are successful in being designated. For Phase IV, the key theme of health impact assessment was introduced, building on the work already completed on the PHASE project;

2. The diversity of member cities brought together by a commitment to common values, aims and objectives, and targets, which provides an ideal testing ground to identify appropriate and effective developments in the methodology of HIA.

3. Strength of numbers—the number of cities in the network in Phase IV reached 79—which provides the possibility of generating results that are meaningful if they can be replicated across the majority of cities.

4. The opportunity to translate resources into languages other than English.

CONCLUSION

The WHO-EHCN made a significant contribution to promoting HIA in a number of municipalities across the European Region during the early period of Phase IV and has sensitized many more to its relevance for maximizing health gain. It also has a great potential to contribute to generic HIA methodology while acknowledging the importance of local context highlighted by Greenhalgh and de Leeuw. There is scope for refining the process originating in the Gothenburg Consensus, drawing on the collective experience of many practitioners and analysts and acknowledging the theoretical contribution of local research communities. This utility-generated methodology is enhanced by:

- the unique opportunity furnished by the active participation of, and support from, politicians at a local level for the agenda of the WHO-EHCN. Previously, the level of political commitment to, and support for, HIA had been variable in the different countries where HIA has been implemented;

- the number of cities working on HIA at the same time and in a systematic way according to an Action Plan with objectives and targets;

- the capacity to assess the applicability and transferability of solutions and developments in HIA procedures, tools and methods across a wide range of European countries that have differing cultures, administrations and operating environments.

This supportive institutional context can be described as social laboratory for health development (Green and Tsouros, 2008) bridging the traditional divide between action and research, enhancing synergies between municipalities and their local university, and utilizing pan-European experts and thematic sub-networks of WHO-EHCN to develop and refine HIA methodology.

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