Health Promotion International, Vol. 21 No. 4
doi:10.1093/heapro/dal024
Advance access publication 19 July 2006

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Implementation of the Healthy Cities' principles and strategies: an evaluation of the Israel Healthy Cities Network

MILKA DONCHIN[1], ANNAROSA ANAT SHEMESH[2], PAMELA HOROWITZ[2] and NIHAYA DAOUD[1]

[1]*Braun School of Public Health, Hadassah and the Hebrew University, Jerusalem and* [2]*Department of Planning Surveys and Evaluation, Ministry of Health, Jerusalem*

SUMMARY

The Israel network of Healthy Cities has been operating since 1990, and the first evaluation of its performance was carried out in 2004. The objectives were to evaluate the level of implementation of the 'Healthy Cities' principles and strategies in each network city and to assess the contribution of the network to its member cities. Coordinators of 18 active healthy cities participated in the study by completing a questionnaire with the aid of key informants in the municipality. The survey covered six dimensions of Healthy Cities' principles and strategies, and each was analyzed as a sum of scores of separate components and measures, converted to a 0–10 scale. Cities were found to differ in their performances. The dimension of intersectoral collaboration received the highest mean score (8.0 ± 1.6), while the environmental protection dimension received the lowest one (4.5 ± 2.2). Time investment by the coordinator of >20 h a week is significantly associated with a higher score on the management dimension (7.8 versus 4.4 where the coordinator invests 20 h a week or less, $P < 0.001$). Previous work experience in either public health or community work was associated with higher scores of the community participation and intersectoral partnership dimensions (6.9 versus 5.2 and 8.5 versus 6.8, respectively, $P < 0.05$). Political support was associated with the city equity policy dimension (8.1 versus 4.8 in cities with high versus low political support, $P < 0.01$). Coordinator's participation in the network's activities is associated with better scores on all the dimensions except for environmental protection. It appears that political commitment and support is a significant enabling condition, which, together with the capacity building of the coordinator, may lead to better implementation of Healthy Cities' policy. Environmental issues should be incorporated into training sessions to enhance the environmental protection dimension.

Key words: Healthy cities; evaluation of healthy cities network; health promotion

INTRODUCTION

The Healthy Cities project of the World Health Organization was established in Europe in 1987 and is now a worldwide movement that includes thousands of municipalities and local authorities (De Leeuw, 2001). The core aim in Europe is 'to improve health by addressing the determinants of health and the principles of Health for All and sustainable development. . .Promoting good governance and partnership-based planning for health' (WHO, 2003). Its mode of action is based on the 'Health for All' and 'Agenda 21' principles of equity, community participation, intersectoral partnerships and sustainable development (Dooris, 1999; Raphael, 2001). Healthy Cities act as a social change movement (Curtice, 2001).

The diversity of perspectives of Healthy Cities, the multiple players involved and the variations in implementation provide researchers with a variety of focuses and approaches for evaluation.

Several studies focus on the level of assimilation of the healthy cities model, taking projects for developing personal skills as the lowest level while implementing healthy public policy as the highest one (Goumans, 1997; De Leeuw, 1999a). Some refer to the quality of outputs, processes and achievements, which are expected by the WHO project cities network, such as a city health profile (Webster, 1999). Others evaluate processes, such as participation in a consultation process or the preparation of a city health plan (Costongs, 1997; Strobl, 2000).

In Israel, the Healthy Cities network has been operating since 1990. Jerusalem is the only designated city in the European WHO project cities network. As of 2005, the Israeli network includes 37 cities and towns, a regional authority, 4 ministries, 8 institutions and several individuals. There are specific membership requirements according to the category of membership. Cities and towns make a political commitment to adopt the principles of a 'Healthy City'; i.e. to produce a city health profile and strategic health development plan in line with the strategic aims of 'Health for All' and 'Agenda 21', implement strategies of the Ottawa Charter for health promotion, nominate a city coordinator (with a well defined role) and a steering committee, and participate in the network's activities. Cities vary widely in the implementation of all these commitments, in their activities, in their level of assimilation of the Healthy Cities' principles and strategies, and in their participation in the network's activities.

This study aims at describing the level of implementation of the Healthy Cities' principles and strategies by each city and pointing out indicators of success. The results will: (i) Help cities to identify strengths and weaknesses within their own system and will direct their future activities. (ii) Serve as a baseline for monitoring progress over time. (iii) Compare between cities and (iv) Enable the network to identify issues and problem areas that need reinforcements by providing training and/or consultation.

METHODS

Subjects

All 36 coordinators or contact persons enrolled in the Healthy Cities network during 2003 were contacted both by mail and at the annual business meeting and were encouraged to take part in the study; 18 coordinators complied and completed a questionnaire with the aid of key informants in the municipality. Coordinators were approached in person or by phone to assure completion of the questionnaire. The other 18 non-respondent cities, which had minimal contact with the network, were contacted in order to verify their reasons for non-responding and their status in the network. Eleven of them did not appoint a coordinator and had no health promoting activities. In the other seven cities, which were active in the past, there was no political support in the last 2 years; therefore, they suspended the Healthy City activities.

The evaluation tool

The evaluation tool was developed by a task group, in a participatory process. The task group included members of the Israeli Healthy Cities Network, researchers and statisticians from the Hebrew University—Hadassah Braun School of Public Health in Jerusalem and the Ministry of Health.

The questionnaire was designed based on the MARI's (Monitoring Accountability Reporting Impact assessment) framework (De Leeuw, 1999b). It was composed of both open-ended and closed questions and covers six dimensions of the principles and strategies of the Healthy Cities work:

(i) Equity policy and political support.
(ii) Management.
(iii) Health promotion programs and activities in the city.
(iv) Community participation.
(v) Intersectoral partnerships
(vi) Environmental protection activities

Each dimension has several components and measures. Each measure was scaled as either a yes–no question or a rank-order question. Open-ended questions were categorized. The research group affixed a ranking score for each measure in a consensual process. For most measures the highest score was given to the ideal pattern or outcome. The sum of scores of the measures generated a component score. For each dimension, a sum of scores of the components was compiled (different weights were given for some components) (Table 1). Cronbach's alpha was used to test internal reliability of the components and dimensions. Measures or components not consistent with the scale were excluded from the sum of scores. One

Table 1: The ranking system: dimensions, components and measures

The dimension (scoring)	Components (scoring)	Measures (scoring)
(1) City equity policy and support α^* = 0.80 (0–35)	(a) Policy for reducing inequalities. α = 0.68 (0–14) (b) City bylaws for health promotion. α = 0.63 (0–9) (c) Political support. α = 0.83 (0–12)	a.1 Official policy on equity (0–3), a.2–3 municipal debates on inequalities (0–6), a.4 budget allocated for equity (0–3), a.5 annual reports (0–2) b.1 City bylaws and their application (0–3), b.2 political discussions (0–3), b.3. Application of smoking restrictions (0–3) c. support by: c.1 the mayor (0–3), c.2 other political representatives (0–3), c.3 council members in steering committee (0–3), c.4 council members participate in health promotion activities (0–3)
(2) Management α = 0.78 (0-34)	(a) Organization and resources. α = 0.84 (0–18) (b) Coordinator position and assignments. α = 0.60 (0–16)	a.1 A steering committee exists (0–3), b.2 is multi-professional (0–3), b.3 has municipality and other organizations (0–3), b.4 hierarchy level of the head of the steering committee (0–3) b.5 number of annual meetings (0–3), b.6 has a budget for activities, salary or both (0–3) b.1 The coordinator's position in the organizational hierarchy (0–3), c.2 position in the municipality (full/part time) (0–3), c.3 time dedicated for coordinating healthy city's activities (0–3), c.4 professional background (0–1), c.5 coordinators' assignments: initiate activities, planning, recruit participants, coordination, fund raising, building partnerships and community participation (0–3), c.6 general background (0–3)
(3) Health promotion programs and activities α = 0.68 (0–43)	(a) A detailed description of up to 10 reported projects carried out during 2003 α = 0.84 (0–33) (b) Number of activities reported (up to 10) (0–10)	(a) Percentage of programs that fulfill the expected best practice: project rationale, goals and objectives, indicators of success, target populations, partnerships, leadership, multi-strategies, sustainability and evaluation planned and/or performed Scoring: 0 = no program fulfilling any of the criteria 3 = over 50% of the programs and activities met the criteria. 1 and 2 were scored for intermediate performances
(4) Community participation (0–15)	According to the 'the wheel of participation' (WHO, 2002)	(a) Providing information (0–3) (b) Consultation (0–3) (c) Empowerment (0–3) (d) Participation in decision making (0–3) (e) Citizen's participation in the health profile discussions (0–3)
(5) Intersectoral partnerships α = 0.60 (0–12)		Refers to partnerships (a) Within the municipality (0–3) (b) Between the municipality and others (0–3) (c) Type of partnership (0–3) (d) Level of partnership (0–3)
(6) Environmental protection activities α = 0.69 (0–15)		(a) Environmental impact assessment (0–3) (b) A mechanism for detection of environmental nuisances (0–3) (c) Air pollution monitoring (0–3) (d) Noise pollution monitoring (0–3) (e) The priority of environmental issues in the city (0–3)

*α = Cronbach's alpha.

component, 'producing a city health profile' was excluded from the management dimension and received separate consideration. One of the environmental protection measures (accessibility) was excluded from the sum of scores in this dimension.

In addition to city performance, there were also questions referring to the impact of the network

and assessment of its contribution to the city's health-promotion activities, as well as a checklist of participation in five network activities. Associations of these additional measures with the six dimensions of the city performance were analyzed.

Data analysis

A total score of each of the six dimensions was calculated and converted to a 0–10 scale. This procedure enables a comparison between cities and may serve as baseline for future evaluation. It also enables a graphic presentation (Rifkin, 1988). The analysis was based on Donabedian's model for the assessment of quality of health care, referring to the associations between structure and process measures or components (Donabedian, 1980). Spearman's correlation coefficients were used to assess associations. ANOVA was used to compare the mean dimension scores between groups of cities.

RESULTS

Coordinators' profile

Two-thirds of the coordinators who responded to the questionnaire were female. The mean age of the group was 50 with a range of 39–60 years old. Almost 90% of the coordinators are employed by the municipality. In terms of hours dedicated to Healthy City activities, four claim to work only an hour a week at this role, four dedicate up to 20 h, five work 21–39 weekly hours and four work 40 h or more in this role. Most of them reported that they perform all the seven assignments listed. About 72% have previous experience in community work, public health or health promotion. Six coordinators have ready access to the mayor and 12 have less central positions in the municipal hierarchy.

Dimensions

The dimension system reflects differential strength and weaknesses of cities (Figure 1). The dimension of intersectoral partnerships received the highest total mean score (8.0 ± 1.6, Table 3) and was the highest scoring dimension in 10 cities. Six cities had their highest score in the health-promotion activities dimension and the remaining two in equity policy or management. On the other hand, the dimension of environmental activities

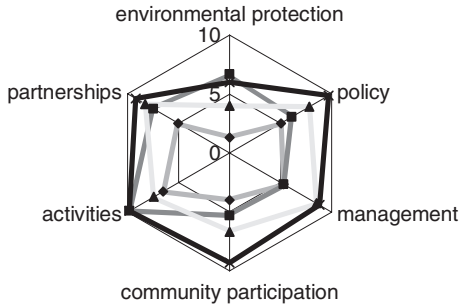

Fig. 1: An example scoring of four cities.

was the weakest among the six dimensions that were examined, receiving a mean score of 4.5 ± 2.2. A correlation was found between some of the dimensions (Table 2). Community participation is significantly correlated with four of the five other dimensions: equity policy, management, intersectoral partnerships and activities. Equity policy is also correlated with management and intersectoral partnership.

The association of each dimension with several structural and process measures (coordinator's profile, political support, organization and resources, and participation in network activities) was tested. Differences between cities in dimension's scores were associated with characteristics of the coordinator's work (Table 3). Investing over 20 working hours a week is significantly associated with a better score on the management dimension (7.8 versus 4.4, where the coordinator invests 20 h a week or less, $P < 0.001$). The impact of investing more hours was noticed in the other dimensions too, though the differences were not significant.

Previous work experience of the coordinator in either public health, health promotion or community service was found to be associated with higher scores on the community participation and intersectoral partnership dimensions compared with lack of experience in these areas (6.9 versus 5.2 and 8.5 versus 6.8, respectively, $P < 0.05$).

The component of organization and resources was significantly associated with the dimensions of community participation and management. The two categories (above and below median score) for organization and resources have different scores on the community participation dimension (7.5 versus 5.4 $P < 0.01$) and for the management dimension (8.0 above median versus 4.3 below median, $P < 0.001$) (Table 3).

Table 2: Spearman's Correlation between dimensions

	Equity policy	Management	Community participation	Activities	Intersectoral partnerships	Environmental protection
Equity policy	–	0.55*	0.60*	0.08	0.52*	0.33
Management			0.61**	0.30	0.33	0.21
Community Participation				0.50*	0.74***	0.29
Activities					0.38	0.21
Intersectoral partnerships						0.02

*$P < 0.05$, **$P < 0.01$, ***$P < 0.001$.

Table 3: Mean scores (and standard deviation) of the dimensions assessed by selected characteristics

	n	Equity policy	Management	Community participation	Activities	Intersectoral partnerships	Environmental protection
Total mean (SD)		6.5 (2.7)	6.1 (2.1)	6.4 (1.6)	7.2 (2.3)	8.0 (1.6)	4.5 (2.2)
Coordinator working hours							
≤20/week	**8**	5.4 (3.4)	4.4*** (1.0)	5.5 (1.5)	6.8 (1.2)	7.6 (1.9)	4.0 (2.6)
>20/week	**9**	7.5 (1.6)	7.8 (1.3)	7.3 (1.5)	7.6 (1.3)	8.4 (1.0)	5.0 (1.9)
Previous experience							
No	**5**	5.7 (3.1)	5.8 (2.1)	5.2* (2.0)	7.1 (1.5)	6.8* (2.1)	3.6 (2.5)
Yes	**13**	6.9 (2.6)	6.3 (2.1)	6.9 (1.1)	7.2 (2.6)	8.5 (1.0)	4.8 (2.1)
Organization and resources							
Below median	**9**	5.3 (3.3)	4.3*** (0.8)	5.4** (1.2)	7.2 (1.5)	7.4 (1.8)	4.2 (2.7)
Above median	**9**	7.6 (1.5)	8.0 (2.1)	7.5 (0.9)	7.2 (2.9)	8.6 (1.0)	4.7 (1.8)
Political support							
Lower scores	**6**	4.8** (2.4)	5.2 (1.8)	6.0 (1.6)	7.4 (1.0)	7.4 (1.6)	3.9 (3.0)
Higher scores	**10**	8.1 (1.3)	7.2 (1.8)	6.9 (1.7)	7.0 (3.0)	8.4 (1.6)	5.1 (1.4)
Participation in network activities							
Low	**8**	4.9* (3.2)	5.0* (1.7)	5.2** (1.3)	5.8* (2.5)	7.1* (1.7)	3.5 (2.1)
High	**10**	7.7 (1.7)	7.0 (2.0)	7.4 (1.1)	8.3 (1.3)	8.8 (0.9)	5.3 (2.1)
Perceived impact of membership							
Low	**8**	5.8 (2.9)	4.9* (1.3)	5.7 (1.7)	6.7 (1.2)	7.5 (2.0)	4.6 (2.5)
High	**8**	7.1 (2.8)	7.5 (2.0)	7.1 (1.4)	7.3 (3.2)	8.3 (1.1)	5.2 (1.5)

*$P < 0.05$, **$P < 0.01$, ***$P < 0.001$.

Political support was strongly associated with the equity policy dimension. Among cities with high political support the mean score for the equity policy dimension was 8.1 while it was 4.8 in cities with low political support ($P < 0.01$) (Table 3). Associations between political support and the other dimensions were also noted (with the exception of activities), though these were not statistically significant.

Participation in the Healthy Cities network activities was significantly associated with five of the six dimensions. In cities where the coordinator participated in 4–5 network activities during the last 2 years, a higher mean score was found in all the dimensions except for the environmental one, in comparison with those who participated in fewer activities. Political support was correlated with participation in the networks activities (Spearman's $r = 0.50$, $P = 0.043$). Coordinators' scoring on the impact of network membership on a city's performance was fair (mean of 3.6 ± 1.0 with the range of 2–5 on a scale of 0–5) (Table 3). Six out of nine coordinators who participated in more activities (4–5) gave a higher rating (4–5) to the impact of network membership (though this finding was not statistically significant).

The length of membership in the network was not associated with any of the dimensions nor was the position of the coordinator in the municipal hierarchy.

City health profile

Only four cities produced a 'City Health Profile' based on national and local secondary data as well as a population survey. Two other cities used only secondary data. All six cities had discussions in

the steering committee about the profile findings while only in one of them was it also presented to the public.

DISCUSSION

The current evaluation enabled the Israeli network of Healthy Cities to illustrate the level of implementation of the healthy cities principles and strategies, identify strengths and weaknesses of cities, assess the contribution of the network to the member cities and identify specific areas for intervention. This study demonstrates one possible way of 'utility—driven evidence', as De Leeuw (De Leeuw, 2005) suggests, to be developed. The evaluation process itself had a beneficial impact on the network's organization. As mentioned earlier, all non-responding coordinators, or the mayors of their cities, were approached. As a result, seven cities renewed their membership and activity in the network, five cities decided to leave the network, admitting that they could not fulfill their commitments, and the rest did not, yet, take action one way or the other. These results, alone have provided an added value to the quality of work within the Israeli network.

The study is cross-sectional and mainly quantitative; however, the small number of cities and the large variability between them in some cases did not allow for adequate power to detect statistically significant differences. The quantitative nature of the study was also supplemented by individual discussion with each coordinator as well in a group meeting. This contributed to the understanding of the processes in the cities under study.

The dimension system that was used in the current study was an effective tool that demonstrated different achievements of cities in different areas under study. The heterogeneity of Healthy Cities' performances was already demonstrated in the Valencia network (Boonekamp, 1999). Standardizing each dimension on a 0–10 scale enabled a comparison between dimensions as well as between cities.

Each dimension refers to a principle or strategy of Healthy Cities work and represents the main elements of that health-promoting setting.

The dimension of intersectoral partnership achieved the highest score in most of the cities. This might reflect the specific historical context of some Israeli municipal patterns of work implemented by 'Project Renewal' that targeted distressed residential areas. Intersectoral partnerships and community participation were the main strategies of this project (Carmon, 1994). This might explain the correlation between intersectoral partnerships and community participation that was found in this study. Cities adopting community participation as part of their regular work patterns were more likely to have achieved higher scores in four of the other five dimensions. It is worth mentioning that the best practice considered in the dimension of intersectoral partnership is a sustainable, formal one. De Leeuw's (De Leeuw, 2005) current review supports this decision. However, the intersectoral partnerships referred mainly to partnerships between the municipality and other organizations. Further research is needed to elaborate the intra-municipal partnerships.

The lowest score on the environmental dimension might indicate less investment in environmental issues within the cities of the network. Attention to environmental issues and their effect on population health have only begun in the last decade in Israel. Poor scoring on this dimension has been discussed by the network's board and has recently been integrated into the network's action plan. Several training activities were conducted in the past year, to enhance the knowledge and raise the awareness of coordinators concerning environmental issues and sustainable development.

The fact that the activities dimension received a high mean score but has no correlation with four of the other five dimensions is consistent with previous research (Goumans, 1997), which addresses the level of assimilation of the Healthy Cities' principles and strategies. Cities in the UK and the Netherlands, which were investigated in 1993–94, were still at the level of the implementation of projects and programs while having no apparent impact on the city's health policy per se. Cities may carry out health promoting activities as projects or programs without assimilating the 'setting approach' (Goumans, 1997). The present study seems to strengthen that assumption by demonstrating that health-promoting activities could be performed even without political support.

The most significant predictor of success of the Healthy Cities in Israel seems to be political support and commitment. This was reflected directly by higher scores on four of the five dimensions and indirectly by the number of

working hours of the healthy city coordinator as well as the coordinator's participation in the Network activities (as was mentioned by most of the participated coordinators). Political support enables coordinators to participate in network activities, which helped to achieve better scoring. All the 18 city coordinators who participated in this study noted that they act as social entrepreneurs, which is expressed by the list of their assignments. Though this in itself is a prerequisite, it is not sufficient to bring about change. As was already demonstrated by De Leeuw (De Leeuw, 1999a), institutionalization of the entrepreneurial activities may lead to better implementation of the healthy city policy.

As expected, cities in which coordinators invested more than 20 weekly hours in Healthy City related activities received better scores in implementation of health promotion activities, community participation and management. The association with the management dimension might be explained by the fact that this dimension includes the measure of the working hours of the coordinator. However, there are additional measures and components in that dimension. It is worth mentioning that the employment position of Health Coordinator is not a compulsory one within the local authorities in Israel and that such an appointment by itself reflects a political commitment for working towards healthy public policy.

Previous experience in public health or community work on the part of the coordinator was also associated with better scores in community participation and intersectoral partnerships but is not a prerequisite for performing health promoting activities.

Since one of the mandatory building blocks of the Healthy City is to produce a city health profile as well as a strategic health development plan that is based on its conclusions, we asked specific questions related to this point. We assumed that this component (a scale) is part of the management dimension; however, we found that it yielded a low reliability coefficient. As a result, we excluded this component from this dimension's calculation.

Only four cities performed a complete profile. It seems that the lack of professional skills needed for accomplishing this task is one of the obstacles for the city coordinator. Consequently, the Israeli network coordinating committee decided to take over part of the responsibility and provide professional support to its member cities. Specifically, an agreement was signed recently with the Central Bureau of Statistics which will assist with the population surveys.

It was encouraging to find that in the cities where the coordinator participated in more network activities (4–5), they achieved higher scores in all the dimensions. This possibly could be related to the capacity building efforts of the network's activities.

CONCLUSION

Two main factors are associated with better assimilation of the principles and performance of a healthy city: first, a high level of political commitment and support is a significant enabling condition. Second, capacity building of the coordinators appears to have a major impact on the city's performance. It is, therefore, recommended that investment in capacity building be continued, as should the investment of efforts to institutionalize the role of the coordinator as a formal job description in the local authority, with preference to previous professional experience.

Further research is needed relating to the whole setting approach and towards promoting political will and support.

ACKNOWLEDGEMENTS

The authors thank Prof. Jeremy Kark and Prof Eliot Barry for their reviewing comments and support. The authors also thank Dr Drora Maluvitzki, Dr Vera Adler and Mr Eli Padeh who were members of the task group. Thanks also to the city coordinators and their key informants for their cooperation and, especially, to Yulin Goldberg, Mazal Snir and Mohammad Naamna who were our pretest subjects.

Address for correspondence:
Milka Donchin MD, MPH
Braun School of Public Health
Hadassah and the Hebrew University
Jerusalem
E-mail: milka@hadassah.org.il

REFERENCES

Boonekamp, G.M.M., Colomer, C., Tomas, A. and Nunez, A. (1999) Healthy cities evaluation: the coordinators perspectives. *Health Promotion International*, **14**, 103–110.

Carmon, N. and Baron, M. (1994) Reducing inequality by means of neighborhood rehabilitation: an Israeli experience and its lessons. *Urban Studies*, **31**, 1465–1479.

Costongs, C. and Springett, J. (1997) Joint working in the production of a City Health Plan: the Liverpool experience. *Health Promotion International*, **12**, 9–19.

Curtice, L., Springett, J. and Kennedy, A. (2001) Evaluation in urban setting: the challenge of Healthy Cities. In Rootman, I., Goodstadt, M., Hyndman, B., McQueen, Potvin, L., Springett, J. and Ziglio, E. (eds), *Evaluation in Health Promotion: Principles and Perspectives*. WHO Regional office for Europe, Copenhagen.

Donabedian, A. (1980) The definition of quality and approaches to its assessment. Health Administration Press, Ann Arbor, MI.

Dooris, M. (1999) Healthy cities and local agenda 21: the UK experience-challenges for the new millennium. *Health Promotion International*, **14**, 365–375.

Goumans, M. and Springett, J. (1997) From projects to policy: 'Healthy Cities' as mechanism for policy change for health. *Health Promotion International*, **12**, 311–322.

De Leeuw, E. (1999a) Healthy Cities: urban social entrepreneurship for health. *Health Promotion International*, **14**, 261–269.

De Leeuw, E. (1999b) MARI, Monitoring, Accountability, Reporting, Impact assessment. A Framework for Networks of Healthy Cities, presented to the WHO Network of European National Healthy Cities Networks Business Meeting, Turko, Finland.

De Leeuw, E. (2001) Global and local (glocal) health the WHO healthy cities program. *Global Change and Human Health*, **2**, 34–45.

De Leeuw, E. and Skovgaard, T. Utility-driven evidence for healthy cities: problems with evidence generation and application. *Social Science and Medicine*, **61**, 1331–1341.

Raphael, D. (2001) Letter from Canada: paradigms, politics and principles. An end of the millennium update the birthplace of the Healthy Cities movements. *Health Promotion International*, **16**, 99–101.

Rifkin, S.B., Muller, F. and Bichmann, W. (1988) Primary health care: on measuring participation. *Social Science and Medicine*, **26**, 931–940.

Strobl, J. and Bruce, N. (2000) Achieving wider participation in strategic health planning: experience from consultation phase of Liverpool's 'City Health Plan'. *Health Promotion International*, **15**, 215–225.

Webster, P. (1999) Review of the 'City Health Profiles' produced by WHO-Healthy Cities- do they present information on health and its determinants and what are their perceived benefits? *Journal of Epidemiology and Community Health*, **53**, 125–127.

WHO (2002) Community participation in local health and sustainable development—Approaches and techniques. European Sustainable Development and Health Series: 4. University of Central Lancashire, European Sustainable Cities & Towns Campaign, European Commission, Healthy Cities Network. Copenhagen: WHO Regional Office for Europe.

WHO Healthy Cities Network (2003) Phase IV (2003–2007) of the Healthy Cities Network in Europe: Goals and Requirements. Available at: http://www.euro.who.int/healthy-cities/publications/20050201_3.

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