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Social Capital as a Health Determinant

How is it Measured?

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How is it Measured?

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Résumé

Le présent rapport se penche sur les aspects méthodologiques de la recherche sur le capital social. Il fait suite à un premier rapport sur le sujet dont la Division de la recherche sur les politiques, Direction des politiques stratégiques, Direction générale de la santé de la population et de la santé publique, Santé Canada, nous avait confié la rédaction.

Les trois premières parties examinent les sources de données, les indicateurs retenus dans le cadre des recherches sur la question et les difficultés de s'adapter à des sources d'indicateurs qui n'ont pas été conçues pour analyser spécifiquement le capital social. La quatrième partie se concentre sur les sources de données existantes au Canada et celles potentiellement utilisables à moyen terme. Il s'agit notamment, dans ce dernier cas, d'enquêtes de Statistique Canada en cours d'élaboration.

La cinquième partie du rapport présente une proposition de sept indicateurs de base et de deux indicateurs complémentaires pour mesurer le capital social dans le cadre d'enquêtes sur la santé. Une annexe contenant une liste de questions extraites de diverses enquêtes et recherches, dont certaines ont été modifiées, accompagne le document. D'autres questions de cette liste sont originales.

Abstract

This report focusses on the methodological aspects of social capital research. It is a follow-up to an initial report on the subject commissioned by the Policy Research Division, Strategic Policy Directorate, Population and Public Health Branch, Health Canada.

The first three parts examine data sources, indicators selected as part of social capital research, and the difficulty of adapting to sources of indicators that were not specifically designed for social capital analysis. The fourth part focusses on existing data sources in Canada and those that could be used in the medium term, especially surveys currently being developed by Statistics Canada.

The fifth part of the report proposes seven basic and two complementary indicators for measuring social capital within the framework of health surveys. An appendix containing a list of questions taken from various surveys and research projects is included with the document. Some questions have been modified while others are original.

The Author

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Introduction

The debate on social capital centres primarily on two main aspects: its definition and the way it is measured. This is a complex task because, as with a large number of concepts used in the social sciences field, social capital is a construct (Labonté, 1999). An initial report on social capital focussed on the definition and conceptualization of this construct.¹ This follow-up report concentrates on the way social capital is measured, especially on problems linked to the operationalization of the concept, since it is difficult to find indicators that are capable of reflecting the social wealth it conveys.

The first part of this report assesses the complexity of social networks as well as the variability of the measurement of trust and norms. The second and third parts consist of a brief overview of data sources and indicators used in social capital studies. The fourth part presents and analyzes existing data sources in Canada that could eventually be used in social capital research in the health field, including formal surveys and those conducted in the university environment, and public sector proposals for social capital indicators as well as a forthcoming survey (Cycle 17 of Statistics Canada's General Social Survey). The report looks at the indicators used, the frequency and level of the study, and the strengths and weaknesses of each source.

Finally, the fifth part of the report is devoted to the presentation of a conceptual framework as well as the social capital indicators proposed for the development of formal studies on this issue.²

¹ van Kemenade, Solange. *Social Capital as a Health Determinant: How is it Defined?* Report prepared for the Policy Research Division, Strategic Policy Directorate, Population and Public Health Branch, Health Canada, 2002. (Report for publication submitted to the Applied Research and Analysis Directorate, Information, Analysis and Connectivity Branch, Health Canada.)

² The Canadian Population Health Initiative, the Canadian Community Health Survey and the General Social Survey, conducted by Statistics Canada are good examples. It should be noted, however, that since this research began, a number of social capital initiatives have emerged. For example, Cycle 17 of the General Social Survey will include a module on social cohesion and social capital. This survey could therefore become promising in the context of examining the relationship between social capital and health.

From Deconstructing Social Capital to Constructing Indicators

In the majority of studies, the purpose of measuring social capital in a given community is to learn about certain basic indicators, especially those relating to social networks, norms and social trust, that are apt to facilitate coordination and cooperation within the community (Putnam, 1995).

This is no easy task, however, and researchers have encountered a certain number of difficulties (Krishna and Shrader, 2000), which are reflected in the following questions.

Which types of social networks are most frequently associated with social trust and norms that promote coordination and cooperation in the general interest? Should the same types of networks be considered in all countries and in all contexts, or should the cultural dimension be taken into account?

Can norms and trust be measured directly? Can their efficacy be measured in terms of facilitating collective action? Are there cultural differences?

Some studies view social capital exclusively from the perspective of network density, while others see it uniquely as a function of trust. Still others combine network density and the strength of prevailing norms. The latter appear to be the most appropriate.

Furthermore, some research highlights risks, such as including criminal organizations or antisocial groups (e.g. the Ku Klux Klan and the Mafia) when measuring social capital.

What is more, horizontal networks contribute to the formation of social capital whereas vertical networks inhibit it. In this regard, Putnam (1993) points out that intense horizontal interactions constitute an essential form of social capital. With regard to the latter, it would be inadvisable to include certain types of groups, such as organizations based on mailing lists, that would be incapable of producing social capital, unlike groups that maintain personal contacts (Putnam, 1996). Similarly, large organizations, especially multiregional and multinational agencies that help promote cooperation and general well-being, would not be as strong as local groups.

Other studies on social capital have questioned Putman's decision to rule out vertical networks. As an example, Scouts is a group that is organized hierarchically, but is viewed favourably in social capital analyses. Researchers also question the relevance of including informal groups when measuring social capital, instead of focussing exclusively on formal groups.

In general, there appears to be some consensus on considering networks linked to forms of cooperation and social trust. However, the norms associated with each network cannot be presumed in advance. They must be subjected to an independent analysis for each context, since what may constitute social capital in one context could be asocial in another (Krishna and Shrader, 2000). This is why analyses of social capital in different contexts have identified dissimilar networks. Consequently, it is certain that the forms favoured by each researcher are specific to, and will have little or no value outside, a given cultural field.

How Is Social Capital Measured?

Data Sources

Social capital research generally draws on a number of sources of information to construct social capital indexes. Surveys aimed exclusively at measuring social capital were rare a few years ago, but are proliferating at present. Some examples are the World Bank surveys, conducted in Colombia, Uganda and Tanzania, in particular.³ In Canada, the University of British Columbia launched the first phase of a nationwide survey in 2000. Even when surveys are designed for the purpose in hand, researchers tend to combine these data with indicators from other surveys, such as income distribution and poverty indexes.

In the first type of study, most researchers use surveys on values or general social surveys. Hence, Putnam (1995) constructed an index based on indicators from a number of sources such as organization data banks, the Roper Survey and the DDB Survey. Data banks provided him with information about the members of the organizations studied, such as volunteer or professional associations. The Roper Survey gave him access to information on civic participation, while the DDB Survey provided data on the frequency of certain behaviours such as participation in religious and volunteer activities.

As an example of the second type of study, Narayan and Pritchett (1998) created a measurement of social capital by using data from a survey that was designed specifically for this purpose, and a survey on poverty in Tanzania (the Tanzania Social Capital and Poverty Survey). The social capital survey questioned respondents about their associative activities and their trust in others and in institutions. The authors also drew on data from a survey on household incomes.

In his analyses of health and social capital in the United States, Kawachi (1997 and 1999) used the General Social Survey and the Behavioural Risk Factor Surveillance System. For his study on social capital and health in Saskatchewan, Veenstra (2000) developed a self-administered questionnaire. In Australia, Baum et al. (2000) used a questionnaire on health and participation that had been designed for that purpose. Knack and Keefer (1997)⁴ borrowed indicators relating to trust and civic norms from the World Values Survey. The purpose of their study of 29 market economies was to identify growth in the dimensions of social capital.

The examples also show that the levels selected to analyze social capital differ widely from one research project to another. There are studies on social capital at the small community level (Kreuter, Young and Lezin, 1998), studies comparing the provinces or regions of a country (Putnam, 2000), and finally, comparative analyses that use countries as units of analysis (Knack and Keefer, 1997). It should be noted that the comparative dimension is very much in evidence in social capital research, including research at the community level. Kreuter, Young and Lezin (1998) compared two rural communities in the United States to determine whether there was a correlation between social capital and the efficacy of community-based health promotion.

³ To view the questionnaires, use the links from the World Bank Web site: poverty.worldbank.org.

⁴ This study is used as a reference on the World Bank's PovertyNet Web site on social capital: worldbank.org/poverty/scapital

Which Indicators to Use?

The following are some of the indicators used to analyze social capital: the presence of the word *participation* in local newspapers in two rural communities, the prevalence of telephone services in sub-Saharan countries, the tons of recyclable material collected in Canadian cities, membership in volunteer associations, and frequency of social behaviour.

Some indicators are the result of an in-depth analysis of the subject. In other cases, the researchers were obliged to conform to existing indicators, which leads to questions about the relevance of their choices.

Basic and Complementary Indicators

In social capital research, it is generally agreed that basic indicators such as measures of trust, civic or community engagement, political participation and social support are important.

Measuring trust and political participation does not appear to create unavoidable methodological problems. The research reveals more convergence than divergence on these two dimensions. On the other hand, measuring civic or social engagement gives rise to controversy, especially in relation to social networks. On this subject, researchers favour the associationist dimension of the members of a community. The type, the formal or informal character, and the vertical or horizontal nature of these groups are examples of aspects that warrant in-depth analysis.

Temple and Johnson (1998)⁵ selected indicators such as ethnic diversity, social mobility and the prevalence of telephone services as indicators of the density of social networks. By combining several indicators, they created a social capacity index and showed that it can explain significant variations in the rate of national economic growth.

In their comparative study of two rural communities in the United States, Kreuter, Young and Lezin (1998) adopted a qualitative methodology based on a content analysis of local newspapers. In the articles, they identified the frequency of the use of expressions and words such as *civil participation*, *trust*, *social engagement* and *reciprocity*. They looked for positive and negative mentions. Interviews with local leaders and a telephone survey complemented the content analysis.

The World Bank has developed a social capital measurement tool known as SCAT (Social Capital Assessment Tool). It has three components: a community profile, a household survey and an organizational profile. The qualitative participatory methods (e.g. interviews with local leaders) designed to determine the social capital of the targeted community were used to establish the community profile. The household survey includes 39 questions that focus primarily on structural social capital and cognitive social capital. The organizational profile is aimed at delineating relationships and networks that exist between formal and informal institutions, and singling out the internal characteristics of organizations that promote or hinder the constitution of social capital. SCAT was first used during a pilot test conducted in Panama (Krishna and Shrader, 1999).

SCAT is a very comprehensive measuring tool that helps in the study of social capital in small and medium-sized communities. The results obtained appear to be extremely useful to international financial institutions in making investment decisions.

As mentioned earlier, researchers are not often able to create their own information gathering tools. In the majority of cases, they are restricted to using existing data sources, and it appears that general social surveys are the most adequate in this respect. Hence, Putnam adopted this solution for his studies on the decline of social capital in the United States. In addition to the general social surveys, Putnam used the data banks of 30 major organizations of American civil society, including Hadassah, the Knights of Columbus, parent-teacher associations and the Lions Club.

⁵ A brief description of the study is included on the World Bank's PovertyNet Web site on social capital: worldbank.org/poverty/scapital

The next section examines the sources of Canadian data that provide indicators associated with social capital. Using synthesis tables for these sources, the indicators used, the frequency of information collection and the level are described, and the strengths and weaknesses of each indicator are examined. Sources that could be used in the medium term have been carefully examined, as have proposals developed to measure social capital.

Data Sources for Measuring Social Capital in Canada

Existing Sources

Federation of Canadian Municipalities

The Federation of Canadian Municipalities (FCM) developed a series of indicators to measure the quality of life in Canadian cities. The FCM wished to obtain a global picture of living conditions in the country's cities, and identify trends and issues that could go unnoticed when conventional methods were used to assess the consequences of public policy. In cooperation with a team of authorities from 16 municipalities across Canada, the FCM established a series of indicators to measure community well-being. A certain number of these indicators have been grouped in a community participation index. Political participation and some forms of community participation such as donations and community initiatives (e.g. recycling) are included in this index and could be associated with social capital. This being said, the index remains largely inadequate for measuring social capital.

Table 1. Federation of Canadian Municipalities

Available Social Capital Indicators	<p>Community Health Index Measured by infant mortality, low birth weight, premature mortality, hospital discharges and hours lost because of illness or disability</p> <p>Community Participation Index Measured by electoral participation, charitable donations, amount of contribution to United Way per resident, daily newspaper circulation and the number of tons of recyclable material collected (kilograms per resident per year)</p>
Sources of Indicators	Statistics Canada: National Population Health Survey and Labour Force Survey, Elections Canada, Statistics Canada, Audit Bureau of Circulations, Association of Municipal Recycling Coordinators
Frequency	National Population Health Survey: 1991, 1996, 2001 Charitable donations: 1995–1997 Recycling: 1997
Level	Municipal (16 cities)
<p>Comments</p> <p>Strengths</p> <p>Weaknesses</p>	<ul style="list-style-type: none"> • Community participation indicators are closely related to what is defined as social capital, but the civic participation indicator is not developed in the FCM index. • This source allows the examination of possible relationships between health variables and those concerning community participation. • This source could prove interesting if it could be twinned with other sources for the same cities. • Community participation indicators are not necessarily conventional social capital indicators, and their relevance is questionable. Therefore, can it be claimed that the tons of recyclable material collected in a community or daily newspaper circulation are social capital indicators? • Since different sources are used, all the information does not refer to the same years. • The cities were already selected. The selection criteria are unknown.

Cycle 14 of the General Social Survey

Introduced in 1985, the General Social Survey (GSS) is recognized as a tool that ensures continuous data collection, helping to analyze social trends and to monitor the evolution of the living conditions and well-being of Canadians. The GSS provides immediate information on specific social policy issues of current or emerging interest. At the same time, it provides an opportunity to develop and test new concepts that address emerging issues.

Cycle 14 of the GSS focusses on access to and use of information and communication technologies (ICT). Although this subject is removed from social capital, the survey asked respondents questions on volunteer work (relating to the use of ICT), participation in religious activities, elections and other forms of political engagement, trust and health status. The question on volunteer work is interesting since it includes *ad hoc* forms of participation (e.g. canvassing or participating in fundraising campaigns) and more standard forms (e.g. helping to organize or supervise activities or events for an organization). The question regarding participation in religious activities such as Mass or assemblies is part of the common trunk questions of the GSS and is based on the World Values Survey.

Table 2. Cycle 14 of the General Social Survey, Statistics Canada (2000)

Available Social Capital Indicators	Volunteer work (participation and type of activity), participation in religious activities (Mass, assemblies, etc.), trust, participation in elections and other forms of political engagement Indicators/Health Index: Self-rated health status
Sources of Indicators	Statistics Canada: GSS 2000
Frequency	Every five or six years. First administration: 2000; next: 2005–2006.
Level	Provincial
Comments Strengths	<ul style="list-style-type: none"> • The questions on volunteerism are of some interest in an analysis of social capital. • The combination of indicators relating to volunteer work and trust, and two other participation indicators (religious activities and political participation) could be a starting point for a large-scale analysis of social capital in Canada.
Weaknesses	<ul style="list-style-type: none"> • The indicator on self-rated health status is also included. • The civic participation variable is relatively undeveloped. • Cycle 14 does not provide information on the northern territories or Aboriginal peoples.

Cycle 16 of the General Social Survey

Cycle 16 of the GSS focusses on social support in general, and in particular, on the provision of care for persons aged 65 years and older. The first part of the survey, concerning persons aged 18 years and older, provides information on immediate social support networks (i.e. family, friends and neighbours). This dimension is one of those used to measure social capital, but, as in the case of the preceding data sources, would not be sufficient, in itself, to measure social capital.

Table 3. Cycle 16 of the General Social Survey, Statistics Canada (2001)

Available Social Capital Indicators	Cycle 16 of the GSS focusses on social support in general, and in particular, on the provision of care for persons aged 65 years and older. The first part of the survey concerning persons aged 18 years and older provides information on immediate social support networks (i.e. family, friends and neighbours). This dimension is one of those used to measure social capital. Indicators/Health Index: Self-rated health status
Sources of Indicators	Statistics Canada: GSS 2001
Frequency	Every five or six years. First administration: 2001; next: 2005–2006.
Level	Provincial
Comments Strengths	<ul style="list-style-type: none"> • This survey is exhaustive with regard to the section on supply and demand of care for the elderly or persons with limited capacity due to illness. • The section dealing with immediate networks is well developed and can provide interesting information, primarily on the frequency of social contacts between respondents and the people around them.
Weaknesses	

National Population Health Survey

This is a longitudinal survey on population health status. The first cycle of the survey was held in 1994–1995 and follows the same population sample every two years. The survey consists of three components: a survey of households, a survey of health institutions and a survey of the population in the North.

The survey contains information on the health status of persons who consent to share information on this topic. More specifically, the survey addresses subjects such as diagnosed physical illnesses and key health determinants (e.g. income level, education, social support and employment situation). Social support, which is measured primarily by social activities and contacts with immediate networks, is one of the indicators used in social capital research. The “perception of social support” index consists of four elements that indicate whether the respondents consider that they have someone they can confide in, someone they can count on, someone who can advise them and someone who makes them feel loved. The perceived social support is all the more significant since the rating is high. Health status is measured by self-rated health status, among other things.

Table 4. National Population Health Survey

Available Social Capital Indicators	Social support (environment support) is measured by social activities and contacts with friends and family (type and frequency). Indicators/Health Index: Self-rated health status
Sources of Indicators	National Population Health Survey
Frequency	Every two years
Level	Provincial (regional with Canadian Community Health Service data)
Comments Strengths Weaknesses	<ul style="list-style-type: none"> • Social support variables <p>—</p>

Canadian Community Health Survey

The Canadian Community Health Survey (CCHS) is designed to produce regular cross-sectional estimates of health determinants, health status and health system use for 136 socio-health regions across the country. CCHS data collection began in September 2000 and is carried out monthly. Each two-year collection cycle consists of two surveys: a socio-health region survey in the first year among a total sample of 130,000 people, and a provincial survey in the second year among a total sample of 30,000 people.

This survey provides certain indicators that are used to measure social capital, but its measurement capacity could be improved by adding other relevant questions.

Table 5. Canadian Community Health Survey

Available Social Capital Indicators	Social support (family, friends and neighbours) Life satisfaction, relationships with friends, family, neighbours, etc. Personal well-being (self-esteem, sociability, participation in community activities, etc.) Neighbourhood safety Community affiliation Indicators/Health Index: Self-rated health status and several others
Sources of Indicators	CCHS (major and minor cycles)
Frequency	Every two years. The first survey has not yet been completed. The next survey will be held in 2003.
Level	Regional (136 socio-health regions)
Comments	
Strengths	<ul style="list-style-type: none"> This survey provides data at the sub-provincial level on social support and other social determinants of health. These indicators are not sufficient to measure social capital, however, but they could be complemented with other indicators. Since this is a health survey, there is a considerable amount of information available on health that would help associate it with social capital.
Weaknesses	<ul style="list-style-type: none"> The social capital indicators are insufficient. The survey does not address the issue of Aboriginal peoples living on reserves or people living in institutions.

National Survey of Giving, Volunteering and Participating

This Statistics Canada survey is aimed at collecting information on donations, volunteer activities and participation by the Canadian population. Given the scope of this survey, it is considered to be the most detailed assessment of the forms of mutual aid ever conducted in Canada. It includes information on the conditions in which activities focussing on giving, volunteering and participation are carried out. The survey also contains information on the satisfaction generated by volunteering, the time devoted to volunteering, the frequency of the activities and the periods during which these activities are carried out. The first survey on this subject was conducted in 1997 and the second in 2000.

Although it touches on the key aspects of social capital, this survey focusses on traditional forms of volunteerism and participation, and neglects new and emergent forms. In fact, innovative forms of volunteer participation and civic engagement have been appearing for a number of years. They are designated by expressions such as “bridging social capital” and “active citizenship.” At times, the new information and communications technologies have been

at the origin of these initiatives and have strengthened them. The indicators proposed in this report further clarify these new forms of participation.

Table 6. National Survey of Giving, Volunteering and Participating

Available Social Capital Indicators	Donations to charitable organizations or other groups Volunteer activities (type and characteristics of organization, time spent, type of activity, reasons for participating, informal volunteering, effects of volunteering, etc.) Participation (forms of social relationships with family, friends, neighbours, professional groups and community, religious or political organizations, etc.) Indicators/Health Index: Self-rated health status
Sources of Indicators	National Survey of Giving, Volunteering and Participating, 1997 and 2000 cycles
Frequency	Every three years
Level	Provincial
Comments Strengths	<ul style="list-style-type: none"> • This survey provides abundant data on the three dimensions mentioned. There is one health indicator and another concerning well-being. • There are no indicators of trust. The modules on volunteering and participation should be adapted to enable social capital to be measured more appropriately (emergent forms of volunteering and participation).
Weaknesses	

University of British Columbia Social Capital Survey

This large survey launched by the University of British Columbia is the first to focus exclusively on social capital in Canada.⁶ Access to the questionnaire used in this survey was given in May 2001.⁷

The survey addresses all the conventional dimensions of social capital. The module on trust is very well developed and control questions are included for each variable. The questionnaire addresses demographic and socio-economic variables as well as the respondents' health status. In short, it is a very interesting data source for exploring the link between health and social capital.

⁶ The initial analyses conducted by the principal researchers, Richard Johnson and John Helliwel, were expected in the fall of 2001.

⁷ A number of groups at the University of British Columbia are involved in this research.

Table 7. University of British Columbia Social Capital Survey (2000)

Available Social Capital Indicators	<p>Index of Social Capital (to be developed). Measured by:</p> <ul style="list-style-type: none"> • social support (family, friends and neighbours); • economic security; • trust and efficacy; • volunteerism; • political participation; • income and employment; • health, well-being, and child care; • use of media; and • ethnic groups, religion and demographic variables. <p>Indicators/Health Index: Self-rated health status</p>
Sources of Indicators	Questionnaire designed for the survey
Frequency	First phase: 2000; second phase: 2002
Level	National (with samples of immigrants from three urban centres: Montréal, Vancouver and Toronto).
Comments	This survey was developed by the departments of economics and political science at the University of British Columbia to measure social capital in Canada.
Strengths	<ul style="list-style-type: none"> • Contains all the conventional social capital indicators. Each dimension is addressed through several questions. The block on trust is very well developed.
Weaknesses	<ul style="list-style-type: none"> • There is no information on the methodological criteria or the survey coverage. • The survey is quite lengthy and requires a large number of respondents.

World Values Survey

This survey is aimed at monitoring worldwide socio-cultural and political changes. It is based on European values surveys, the first of which was administered in 1981. Later surveys took place in 1990–1991 and in 1995–1996 in more than 65 countries. The most recent cycle took place in 1999–2001. This project was carried out by an international network of social science researchers who receive national financial support.

This is an exhaustive measurement tool that allows researchers to monitor values and compare countries. It contains most of the conventional social capital indicators, such as level of trust, social support, membership in organizations of civil society, volunteer work and political participation. The survey includes self-rated health status as a health indicator.

Table 8. World Values Survey

Available Social Capital Indicators	<p>Index of Social Capital (to be developed). Measured by:</p> <ul style="list-style-type: none"> • social support (family, friends and neighbours) • trust • membership in civil society and community organizations • volunteer work • values and objectives of importance for the country • political participation <p>Indicators/Health Index: Self-rated health status</p>
Sources of Indicators	World Values Survey
Frequency	Information unavailable
Level	National (opportunity to compare countries)
Comments	
Strengths	<ul style="list-style-type: none"> • The social capital indicators are adequate. Comparisons can be made at the international level.
Weaknesses	<ul style="list-style-type: none"> • There is no information on methodological criteria. The level of the survey is national. • Data cannot be accessed until 2004.

Potential Medium-term Sources

Cycle 17 of the General Social Survey

As part of the work carried out by the Social Cohesion Network, some of its members have asked Statistics Canada to devote a cycle of the GSS to social cohesion and social capital. In response to this request, but also because of growing interest in the subject in government circles, Cycle 17 of the GSS will devote several modules to social capital.⁸

Table 9. Cycle 17 of the General Social Survey, Statistics Canada (2003)

Available Social Capital Indicators	Cycle 17 of the GSS will focus on time use, social cohesion and social capital. Statistics Canada initiated a consultation process on this subject in the summer of 2001. An initial pilot survey is planned for February 2002.
Sources of Indicators	Statistics Canada: Cycle 17 of the GSS
Frequency	Every five or six years. First administration: 2002; next: 2007–2008
Level	Provincial
Comments	
Strengths	<ul style="list-style-type: none"> • All conventional social capital indicators are present. This is an exhaustive study.
Weaknesses	—

Proposals for Measuring Social Capital

Two proposals for indicators linked to the analysis of social capital have been developed in two different Canadian environments. The first stemmed from the work of the Indicators Research Group, a sub-group of the Social Cohesion Network. The second was developed by James Frankish of the Institute of Health Promotion Research at the University of British Columbia as part of a partnership with Health Canada.

⁸ During our research on social capital, we have had very productive exchanges with the Statistics Canada team that is developing Cycle 17 of the GSS. This team, under the leadership of Marie Brodeur, had access to an initial version of the two reports we prepared, and on a number of occasions, we had the opportunity to take part in presentations and discussions on this survey.

Social Cohesion Network Proposal

Although the Network's subject is social cohesion, it was interested in a battery of indicators relating to the activities and behaviours that strengthen cohesion and that are included among the conventional indicators of social capital. Hence, the work carried out by the Network includes indicators relating to trust in others and in institutions, understanding of reciprocity, belonging (e.g. the sense of belonging to the community or to Canada), social support networks and participation in network or group activities (e.g. volunteer work, the level of philanthropy and political participation). Since the Social Cohesion Network confined itself to examining the sources of available indicators, it has not suggested new indicators or modifications to those that exist. Its work is nonetheless rigorous, and it has been a source of inspiration for this report.

Table 10. Social Cohesion Network Proposal

Available Social Capital Indicators	This is a battery of indicators relating to the activities and behaviours that strengthen social cohesion. Elements measured: trust in others and in institutions, understanding of reciprocity, belonging (e.g. the sense of belonging to the community or to Canada), social support networks and participation in network or group activities (e.g. volunteer work, level of philanthropy and political participation)
Sources of Indicators	Several: EKOS Research, World Values Survey, National Population Health Survey, General Social Survey, Elections Canada, National Survey of Giving, Volunteering and Participating
Frequency	—
Level	Provincial or national (depending on the survey)
Comments	
Strengths	<ul style="list-style-type: none"> • This is a coherent proposal that takes account of all the standard social capital indicators.
Weaknesses	<ul style="list-style-type: none"> • The proposal is developed according to existing indicators and is therefore subject to the constraints already noted for these sources. As an example, the participation measurement is limited.

Comments on Available Sources

None of the official surveys presented above are sufficiently comprehensive for the purpose of analyzing the links between health and social capital. The weaknesses discerned in each case are linked primarily to the inadequacy of indicators, the limited relevance or lack of relevance of certain indicators, the poor quality of questions, and approaches that are not necessarily centred on social capital. Ideally, the tendency should be to create information collection tools that meet the needs of the research, not the reverse (i.e. adapting the research to the tools that are available). However, the first option is still a demanding solution in terms of human and financial resources and, consequently, is not always a viable choice. A third intermediate option is conceivable, that is, to improve existing surveys. This is the option Health Canada has chosen to further social capital research. The proposal stemming from this approach is presented in the following section.

Proposed Indicators for Measuring Social Capital

This proposal for indicators is based on an in-depth analysis of the literature on social capital and related aspects such as social networks, social support and volunteerism. Careful consideration has been given to the relationship between these aspects and health. The proposal was also enriched by three other approaches related to that of social capital and described in the first report (community health, socio-economic inequality and social cohesion). Increasingly, social capital researchers are taking account of income distribution (approach centred on inequality) and vice-versa, those studying community health are especially interested in social capital indicators, while researchers interested in social capital borrow elements from the approach centred on community health.

Parallel to the systematization of the conceptual approaches, we examined the methodological component of social capital research, notably the indicators used at the present time. In this respect, we first inventoried sources of available data in Canada. These include surveys developed by Statistics Canada as well as research conducted in academic circles. Second, we looked at international sources such as the World Values Survey. Third, we consulted World Bank surveys conducted in Togo, Uganda and Columbia. Finally, after a review of the approaches, empirical research and the criticism levelled at this research, we developed a proposal that starts from the pioneer work on social capital, incorporates the health dimension and, lastly, endeavours to reach beyond the limits that have been established for social capital research.

The proposed questions are based primarily on the following sources:

- Canadian Community Health Survey, 2000;
- Cycle 14 of the General Social Survey, 2000;
- University of British Columbia Survey;
- the 2000–2001 Cycle of the World Values Survey; and
- the manual *Measuring Volunteering: A Practical Toolkit* published jointly in 2001 by Independent Sector and United Nations Volunteers during the International Year of Volunteers.

The number of questions is in line with the mandate we received from the Policy Research Division, that is, to propose approximately five questions on social capital to be included in one of the Statistics Canada health surveys. We have grouped the questions into four thematic blocks (see Table 11). The first block relates to indicators of **trust**, the second to **social cohesion**, the third to **social support** and immediate networks. The fourth block concerns **civic engagement**, including membership in organizations of civil society and participation in their activities, volunteer work and political participation. Lastly, two final indicators should be considered in research on the links between social capital and health. These are **income distribution** and **health status**. Each question is accompanied by a justification that refers to the theoretical framework on which the conceptualization of social capital is based. Given the limited number of questions that may be included in the health surveys, we were obliged to make a choice subject to subsequent improvements.

The proposal is built on questions that have, for the most part, been tested by the various surveys analyzed. Our principal contribution has been to make an exhaustive study of all the sources of information, including those at the proposal stage, to compare them and extract indicators that best reflect the dimension we wish to measure. This choice has been strengthened in particular by criticism directed at earlier research on social capital. We have therefore found a way to improve indicators relating to civic engagement (i.e. to membership in associations of civil society and volunteer work). In this respect, two distinctions will, in our opinion, help to further develop the analysis of the links between health and social capital. The first concerns the type of sector in which organizations of civil society are found (traditional sector as opposed to active citizenship), whereas the second relates to the type of participation (active as opposed to passive).

It should be noted that the Policy Research Division’s participation has been extremely useful in analyzing and reviewing the preliminary version of Cycle 16 of the General Social Survey, which focusses on social support. Comments forwarded to Statistics Canada by the Division have contributed to the reflection by suggesting that a “quality of relationships” indicator be incorporated into this proposal.

Table 11. Indicators Selected to Measure Social Capital

Trust	<ul style="list-style-type: none"> • Trust in others • Trust in institutions
Social Cohesion	<ul style="list-style-type: none"> • Respect for diversity • Goals for the country (within 10 years) • Values and society model
Social Support and Immediate Networks	<ul style="list-style-type: none"> • Frequency of contacts between the respondents and their immediate circle • Quality of relationships
Civic Participation and Social Engagement	<ul style="list-style-type: none"> • Sense of belonging to the local community • Membership in community groups or participation in their activities • Volunteer work • Civic participation (including political participation)
Income Distribution	<ul style="list-style-type: none"> • Gini coefficient (to be specified)
Health	<ul style="list-style-type: none"> • Self-rated health status

Indicators Selected

Trust

Justification

Social capital theorists (Coleman, 1990; Fukuyama, 1997) describe trust as a relationship that creates an expectation on the one hand, and an obligation on the other. It is a type of “credit” that imparts a sense of security in relationships between the persons concerned. A high level of trust implies that the “obligations” will be cancelled. In other words, the credit will be repaid at the time established by the partners. Trust is therefore associated with regular, honest, cooperative behaviour, founded on mutually shared norms, by members of a community (Fukuyama, 1997). All institutions are based on this reciprocal trust.

The level of trust in a society includes two sub-levels that are linked to interpersonal relationships and relationships with institutions, respectively. It is considered as one of the most sensitive indicators of social capital. As part of our proposal for indicators, we selected two questions to explore the level of interpersonal trust and one question to measure the level of trust in institutions (see Appendix A). In both cases, these questions were asked in the World Values

Survey and repeated in the Canadian General Social Survey and the social capital survey conducted by the University of British Columbia.

Social Cohesion

Justification

Social cohesion is defined as “the ongoing process of developing a community of shared values, shared challenges and equal opportunity within Canada, based on a sense of trust, hope and reciprocity among all Canadians” (Social Cohesion Network, 2001). Although intimately linked with the concept of social capital, social cohesion is nevertheless a broader and more abstract concept. Social capital contributes to the creation of social cohesion in a community. This is why our proposal includes two questions aimed at obtaining information on Canadians’ values. Respondents were asked both questions in the 2000–2001 cycle of the World Values Survey. The first question focusses on the objectives the government should prioritize over the next 10 years. The second offers respondents a choice of two options representing, in one case, individualistic values, and in the other, values of a more social nature. The choice of one option or the other would result in a different model of society.

Social Support

Justification

Establishing a link between the social environment of individuals and their health represents one of the major gains of the past century in the health sciences field (Julien et al., 2001). During the 1970s, Berkman and Syme (1979) demonstrated the positive effects of immediate networks on the health of individuals. Later research (Berkman and Breslow, 1984; Boswell-Purdy, 2001) confirmed that the mortality rate for persons with weak or non-existent social links was higher than the rate for persons with strong links.

Furthermore, it was noted that good health status was maintained for a longer period in individuals who had the support of their spouse, their children, other relatives and close friends and neighbours. The family is therefore the first basic component of social capital. It is the highest ranking of the seven major sources of social capital (World Bank).⁹ Families and communities, through neighbourhood, friendship and group relationships, are the main sources of economic and social well-being for their members.

Although the mechanisms of influence of the individual’s social environment on health are still not well known, the most recent research suggests that this influence is exerted in diversified, bi-directional and contradictory ways (Barrera, 1986, in Julien et al., 2001). In fact, human relationships can be a source of protection against the negative effects of stress or a source of stress (e.g. conflicts at work, conjugal conflicts or domestic violence). Recent research shows that the difficulties associated with chronic interpersonal conflicts have an impact on an individual’s immune system by altering mechanisms that regulate the endocrine system (Kiecolt-Glaser, 1999, cited in Julien et al., 2001).

We propose two questions on social support (see Appendix A). They examine the frequency of contacts and the quality of the respondents’ relationship with people in their immediate circle.

⁹ PovertyNet, World Bank site (worldbank.org/poverty/scapital).

Civic Participation and Social Engagement

Justification

Civic participation and social engagement are expressed in membership in civil society organizations or groups, volunteer work and political participation, etc. The sense of belonging to a community is also an indicator that is regularly used in analyses of social capital and social cohesion.

Membership in Civil Society Organizations

The central idea of social capital is that the networks and norms of reciprocity associated with it have a certain value (Putnam, 2001). Interpersonal relationships established within networks have private repercussions for the persons concerned, and public repercussions, notably for society and the State.

Although the forms of social capital are by no means homogeneous, some studies concentrate on participation in groups that involve face-to-face interaction and that create links between communities. By contrast, participation in group activities in which interaction is nonexistent (e.g. sending a financial contribution to an environmental organization during a fundraising campaign) will have far less impact in terms of social capital.

When measuring a community's civic engagement, consideration should be given to "bridging social capital," in other words, new forms of associationism that would go beyond traditional forms. Accordingly, new social movements centred on defending the environment, women's rights or gender identity should be taken into account. Even more recent, anti-establishment activism movements such as those that oppose globalization or free trade, or that advocate equitable trade or imposing a tax on financial transactions, would also deserve a place among the new forms of association that contribute to building planetary solidarity. The indicators selected (see Appendix A) take account of these new networks in which citizens can participate.

Moreover, when developing indicators, it would be relevant to distinguish the type of participation and type of sector in which the activities take place. Participation can be more or less active depending on the level of engagement and type of activity. Taking part occasionally in a fundraising campaign or making a financial contribution does not appear to require the same engagement as serving on a board of directors.

As to the type of sector, a distinction should be made between the traditional sector and the innovative sector. Whereas the first would group not-for-profit organizations that have served the community for a considerable period of time, the second would include organizations that use innovative practices.

In the traditional sector, we include religious organizations, sports leagues and cultural or artistic groups. These organizations fulfill an important function in society, but they neither bring about nor demand socio-economic change.

The second sector is associated with the emergence of novel practices in the exercise of citizenship. Active citizenship involves assuming social, political and economic responsibilities in a society in constant transformation. It is pro-active engagement that goes beyond the conventional conception, that perceives the exercise of citizenship as access to traditional civic rights such as the right to vote, freedom of expression and public consultation. The proposal for indicators that accompanies this report endeavours to take account of this distinction.

Volunteer Work

Increasingly, researchers are finding a positive relationship between volunteer work and good health (Reed, 2001).¹⁰ This type of participation, which usually takes place within unregulated relationships and includes unpaid activities, gives particular gratification to those who take part in it. At the 16th World Volunteer Conference in Amsterdam in early 2001, volunteering was defined as “a fundamental building block of civil society. It brings to life the noblest aspirations of mankind — the pursuit of peace, freedom, opportunity, safety and justice for all people.”

Moreover, articles published during the International Year of Volunteers as well as the above-mentioned declaration highlight the beneficial effect of these activities on individuals and society. The following are some of the advantages.

- Volunteering has an ability to integrate, since the activities it generates create opportunities for social contacts, bonding and cohesion.
- It fosters the democratization of society, because volunteer activities spread power by creating new centres of thought, action and loyalty.
- The volunteer sector enables people to acquire new knowledge and skills and to fully develop their potential, independence and creativity.
- It complements or replaces governmental programs.
- It values courtesy and democracy by including people with different beliefs and interests.

For the unemployed, these activities can be a form of social integration that helps them feel useful and less isolated. This type of service to the community contributes to the formation of social networks, and consequently helps build social capital. There is a wide variety of volunteer organizations. For some, the primary objective is to offer a service, whereas others concentrate on culture, recreation, fighting disease, philanthropy or another area.

We propose three questions to measure the impact of volunteering on health (see Appendix A). The first is based on a question from the World Values Survey and concerns the types of organizations for which Canadians perform volunteer work. The second, drawn from Cycle 14 of the General Social Survey, relates to the type of activity carried out by volunteers. Finally, the third question asks respondents to describe how volunteer work contributes to their lives.

Political Participation

Justification

Participation in activities that are usually associated with the field of politics is considered as a type of contribution to the construction of social capital. From classical forms such as voting to more complex manifestations such as international lobbying, political action is becoming an instrument of social integration and cohesion. Moreover, participating in decision making, either through consultation mechanisms or forms of active citizenship, is the basis for establishing trust. In this section, we propose one question aimed at obtaining information on the forms of political participation over the 12 months preceding the survey. The question, which is

¹⁰ Paul Reed, Senior Social Scientist with Statistics Canada, recently presented the preliminary results of his research on the positive effects of volunteering on health. *Policy Forum*, Health Canada, No. 24, June 7, 2001.

drawn from the World Values Survey and the General Social Survey, has been modified slightly (see Appendix A).

Income Distribution

Justification

The idea that progressively and incontestably dominates in the health field is that it is not so much the wealth of a country that determines health status as its distribution (Wilkinson, 1996, Ross, 2000, Health Canada, 1999). Consideration of this variable therefore seems unavoidable. The measurement tool used most frequently in this case is the Gini coefficient.

Health Status

Justification

Self-rated health status is frequently used as a global health indicator in official surveys. It is a reliable indicator as a predictor of health problems, health care usage and longevity (Health Canada, 1999).

Our proposal presupposes that the questions suggested will be integrated into a survey that will take account of basic demographic and socio-economic variables. Some of these variables are very relevant in an analysis of social capital (e.g. civil status, level of education, and level of income), whereas others could enrich it (e.g. ethnic origin and profession).

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Web Sites

World Bank, PovertyNet site devoted to social capital: worldbank.org/poverty/scapital/index.htm

Federation of Canadian Municipalities: www.fcm.ca/

Health Canada: www.hc-sc.gc.ca

World Values Survey: wvs.isr.umich.edu/index.html

Appendix A

Questions proposed for the development of a social capital module in the General Social Survey (GSS), the Canadian Community Health Survey (CCHS) or the National Population Health Survey (NPHS).

Trust

Interpersonal Trust

As a general rule, would you say that most people can be trusted or that it is better to be careful in contacts with others? (GSS, University of British Columbia Survey)

1. Can trust
2. Better to be careful
3. Don't know, refuse to reply

Optional Question

People deserve our trust unless they prove otherwise. Do you agree or disagree with this statement? (GSS, University of British Columbia Survey)

1. Agree
2. Disagree
3. Don't know, refuse to reply

Trust in Institutions (two possibilities)

Do you trust the federal government to act in everyone's best interest? You have a choice of "nearly always," "most of the time," "sometimes" or "hardly ever." (University of British Columbia Survey)

1. Nearly always (including always)
2. Most of the time
3. Sometimes
4. Hardly ever (including never)

Are you confident that the government of [PROVINCE or TERRITORY] is acting in everyone's best interest? You have a choice of "nearly always," "most of the time," "sometimes" or "hardly ever." (University of British Columbia Survey)

1. Nearly always (including always)
2. Most of the time
3. Sometimes
4. Hardly ever (including never)

OR

I am going to read you a list of institutions and organizations. Could you tell me how trustful you are toward each of them? You have a choice of “very trustful,” “fairly trustful,” “not very trustful” or “not at all trustful.” (World Values Survey, 2000-2001, modified question)

	Very trustful	Fairly trustful	Not very trustful	Not at all trustful	Refuse
	1	2	3	4	9
Churches					
Armed forces					
Press					
Television					
Unions					
Schools					
Police					
Federal government					
Provincial or territorial government					
Municipal government					
Political parties					
Justice system					
Parliament					
Civil society organizations (e.g. charitable or volunteer organizations and activist movements such as ecological, feminist and antiglobalization movements)					
International organizations (e.g. the United Nations and NATO)					
Large companies					

Social Cohesion

I am going to read you some of the goals that people deem important for the country. From the list I am going to read, can you name the two that should be achieved within 10 years? Please indicate your first and second choices. (World Values Survey, 2000–2001)

1. A high level of economic growth
2. Strengthening the armed forces
3. Increased decision-making power for people on issues relating to their employment and their community
4. Beautifying cities and the countryside

Now I would like you to give me your views on the following subjects. How would you rate them on a scale of 1 to 10, where 1 means that you agree totally with the statement on the left, and 10, with the statement on the right? If your opinion is situated between the two extremes, you may choose another number. (World Values Survey, 2000–2001)

Incomes must be made more equal.

Wider income disparity is needed to stimulate individual effort.

1 2 3 4 5 6 7 8 9 10

The private sector should have a greater part of industry and trade.

The State should have a greater part of industry and trade.

1 2 3 4 5 6 7 8 9 10

The government should do more to ensure that everyone can make ends meet.

People should do more to ensure that they can make ends meet.

1 2 3 4 5 6 7 8 9 10

Competition is positive. It encourages people to work hard and find new ideas.

Competition is harmful. It awakens people's worst instincts.

1 2 3 4 5 6 7 8 9 10

Social Support

I would like to ask you a question about how often you do certain things. For each activity, can you tell me if you carry it out each week, once or twice a month, only a few times a year or never? (World Values Survey 2000–2001, modified question)

	Each week	Once or twice a month	Only a few times a year	Never	Refuse
	1	2	3	4	9
Spending time with close family or other relatives					
Spending time with friends and neighbours					
Spending time with co-workers or professional colleagues					
Spending time with members of your church, mosque or synagogue					
Spending time with other persons in sports clubs or volunteer or service organizations					

How would you define your relationship with the persons and groups mentioned in the preceding question? (Developed by author)

	Excellent	Very good	Good	Normal	Poor	No relationship	Refuse
	1	2	3	4	5	6	9
Close family or other relatives							
Friends and neighbours							
Co-workers and professional colleagues							
Members of your church, mosque or synagogue							
Persons encountered in sports clubs or volunteer or service organizations							

OR

I am going to name certain social networks. Could you rate them by order of importance, starting with the one you judge to be the most important in your life? Your assessment should take account of the support you receive from this network, the quality of your relationships with members of this network, and other positive elements of these networks that are important in your opinion. (Developed by the author)

- Your family
- Your friends
- Your neighbours and neighbourhood associations
- Co-workers or other persons associated with your professional life
- Members of your ethnic group
- Recreation groups
- Groups with whom you do volunteer work
- Members of your church, mosque or synagogue
- Militants in your political party or association
- Other parents at your children's schools
- Members of other types of organizations with which you are associated
- Other networks

Civic Participation and Social Engagement

Sense of Belonging to the Local Community

Would you say that your sense of belonging to your local community is:
(Canadian Community Health Survey, 2000).

- Very strong?
- Rather strong?
- Rather weak?
- Very weak?

Membership in Civil Society Organizations

I am going to read you a list of organizations. For each type of organization, please tell me if you are an active member, a non-active member or a non-member. By active member, I mean someone who belongs to an organization and frequently participates in its activities. By non-active member, I mean a person who belongs to an organization and does not participate in its activities. (Question from the World Values Survey, 2000-2001 and the World Bank's social capital survey conducted in Columbia in 1999. It has been adapted to include new practices in the civil organizations sector.)

		Active member	Non-active member	Non-member
1.	In general, not-for-profit social assistance organizations promoting awareness of poverty, disease, etc. (includes organizations such as United Way, food banks and foundations involved in the fight against various diseases)			
2.	Private/public school			
3.	Hospital/health centre/public or private clinic			
4.	Churches and sectarian groups			
5.	Clubs/sports leagues/recreation groups			
6.	Children and youth associations (Scouts, Guides, youth centres, etc.)			
7.	Social activity associations/groups (bingo, cards, seniors clubs, etc.)			
8.	Cultural or educational associations (arts, music, etc.)			
9.	Political associations or parties			
10.	Neighbourhood associations			
11.	Unions			
12.	Professional associations			
13.	Ethnic groups or associations			
14.	Community organizations providing services to various community sectors (e.g. family centres, integration companies, collective kitchens, community centres, housing cooperatives, youth centres) or local or regional development agencies			
15.	Advocacy groups, primarily in areas such as the environment, minority rights, immigrants, women, peace and international cooperation			
16.	Social organizations/networks/movements at the local, regional and global level that advocate socio-economic models as an alternative to the prevailing models (e.g. groups opposed to globalization or free trade, or supporters of equitable trade or the imposition of a tax on financial transactions)			
17.	Other groups or associations (specify)			

Volunteer Work

For which of the following associations do you perform volunteer work? (Question based on the World Values Survey, 2000–2001, and the manual *Measuring Volunteering: A Practical Toolkit*. It has been adapted to take account of new practices in the area of civil organizations.)

		Yes	No
1.	Public agencies		
2.	In general, not-for-profit social assistance agencies promoting awareness of poverty, disease, etc. (includes organizations such as the United Way, food banks, and foundations involved in the fight against various diseases)		
3.	Public/private school		
4.	Hospital/health centre/private or public clinic		
5.	Churches and sectarian groups		
6.	Clubs/sports leagues/recreation groups		
7.	Children and youth associations (Scouts, Guides, youth centres, etc.)		
8.	Social activity groups/associations (bingo, cards, seniors' clubs, etc.)		
9.	Cultural or educational associations (arts, music, etc.)		
10.	Political parties or associations		
11.	Neighbourhood associations		
12.	Unions		
13.	Professional associations		
14.	Ethnic groups or associations		
15.	Community organizations providing services to various community sectors (e.g. family centres, integration companies, collective kitchens, community centres, housing cooperatives and youth centres) or local or regional development agencies		
16.	Advocacy groups, primarily in areas such as the environment, minority rights, immigrants, women, peace and international cooperation		
17.	Social organizations/networks/movements at the local, regional and global level that advocate socio-economic models as an alternative to the prevailing models (e.g. groups opposed to globalization or free trade, or supporters of equitable trade or the imposition of a tax on financial transactions)		
18.	Other groups or associations (specify)		

During the past 12 months, have you, as a volunteer:
(based on Cycle 14 of the General Social Survey)

		Yes	No	Don't know	Refuse
a)	Canvassed, participated in campaigns or solicited funds?	(1)	(3)	(x)	(r)
b)	Provided information, helped to raise awareness or influence public opinion or exerted pressure on behalf of an organization?	(1)	(3)	(x)	(r)
c)	Helped organize or supervise activities or events for an organisation?	(1)	(3)	(x)	(r)
d)	Taken on consulting duties, performed administrative functions, served as a volunteer on a board of directors or a committee for an organization?	(1)	(3)	(x)	(r)
e)	Carried out volunteer activities using new information and communications technologies such as the Internet (e.g. for on-line volunteer work or another type of activity)?	(1)	(3)	(x)	(r)
f)	Carried out another unpaid activity that you have not already mentioned for an organization?	(1)	(3)	(x)	(r)

Other, specify:

What does volunteer work contribute to your life?

Political Participation

I am going to name certain forms of civic and political participation. Could you tell me, for each one, if you have taken part in it over the past 12 months? (World Values Survey, 2000–2001, GSS and author's contribution)

Did you vote in the last election?

- (1) Yes
- (3) No
- (5) Ineligible to vote in elections
- (r) Refuse

Discussed politics with other people?

- (1) Yes
- (3) No
- (x) Don't know
- (r) Refuse

Looked for information on a political issue?

- (1) Yes
- (3) No
- (x) Don't know
- (r) Refuse

Signed a petition, wrote a letter or participated in an open-line program to express your opinion?

- (1) Yes
- (3) No
- (x) Don't know
- (r) Refuse

Circulated information on community events among networks or groups? (These activities may have been carried out using e-mail, newsgroups and other new technologies.)

- (1) Yes
- (3) No
- (x) Don't know
- (r) Refuse

Participated in civic, social or political newsgroups on the Internet, signed or circulated petitions by e-mail, or took part in other types of civic, social or political activities using the new information and communications technologies?

- (1) Yes
- (3) No
- (x) Don't know
- (r) Refuse

Participated in demonstrations or protests?

- (1) Yes
- (3) No
- (x) Don't know
- (r) Refuse

Health Status

Compared with persons your age, would you say that your health is generally:
(Cycle 14 of the General Social Survey, 2000)

- (1) Excellent?
- (2) Very good?
- (3) Good?
- (4) Average?
- (5) Poor?
- (x) Don't know
- (r) Refuse