

HEALTH INEQUALITIES IN AN URBAN, SUBURBAN AND RURAL AREA – SOCIAL DETERMINANTS AND THEIR INTERACTION

A study and its implications

Health inequalities are of utmost concern in the minds of public health officials and researchers around the world. In 2006, a Québec research team headed by Maria De Koninck, Professor in the Department of Social and Preventive Medicine at Université Laval, published the findings of a study¹ on this topic. Conducted over a four-year period, the study shed light on the social determinants of health inequalities in populations inhabiting three areas in the Québec City region.



A few months after the preliminary findings of the study were released, the Québec Population Health Research Network (Knowledge Sharing and Application Group) invited various stakeholders such as researchers, decision-makers in health and community development, and front-line workers in health and social services, to comment on the significance of the findings and reflect on future directions.

This document constitutes a report of this process. It presents both a summary of the principal findings and an analysis of the impact they may have on potential action. Finally, inspired by the comments of the stakeholders, future directions are suggested in terms of both research and intervention.

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1. This study was funded by the Canadian Population Health Initiative (CPHI) of the Canadian Institute of Health Information (CIHI).

Overview of the Study and its Findings

How can the health status of populations with similar socioeconomic status be different?

This is the question at the root of the research project entitled *Inégalités de santé et milieux de vie : déterminants sociaux en cause et leurs interactions* (“Health Inequalities in an Urban, Suburban and Rural Area – Social Determinants and their Interaction”). To answer this question, the research team used a multi-perspective approach, resulting in the division of three areas in the Québec City region into neighbourhood units. The purpose was to study the influence that people’s milieus (neighbourhood, family and workplace) could have on their health status. The areas were studied over the course of four years. Their selection was based on their scores on the material and social deprivation index.² Material deprivation is mainly associated with education, employment and income, whereas social deprivation refers primarily to single parenting, marital status, and living alone. These indicators were selected for their known associations with a large number of health problems, their affinities with the material and social forms of deprivation and their availability by a certain level of census area. The study could therefore examine why the populations of these areas, though their scores on the material and social deprivation index were similar, had contrasting health statuses.

Though the areas were located in different zones – downtown, suburban, and rural – location as such was not a criterion for their selection and no comparative analysis based on geographical zone was made of the results.

To do thorough research, the project team used a combination of various approaches, from processing administrative data and conducting a population survey, to doing individual interviews and surveying key informants in the field. Throughout the process, an advisory committee composed of stakeholders working in community development and health was available to the researchers. Consulted at various times during the research project, the committee helped improve the survey instruments, validate interpretations and adjust the research strategies being employed.

For each area studied, a detailed monograph was produced. Beyond local characteristics, certain general observations emerged, which are outlined in the sections that follow.



Main Findings

BASIC PREMISE

Over the years, numerous associations have been observed between economic, social and demographic characteristics of a particular area and the health status of its population. Much research has demonstrated that the inhabitants of disadvantaged areas are at higher risk of health problems than those of more advantaged areas. However, the first finding of Maria De Koninck’s research team has added a level of complexity to such analyses. The creation of neighbourhood units by the researchers has confirmed that disadvantaged status is not a binary factor. In other words, it is not an all-or-nothing attribute of a particular area. Rather, as the researchers have clearly demonstrated, though certain basic trends can be identified in each of the areas, many economic, social and demographic realities can coexist inside one and the same area.

2. The suburban area was advantaged in terms of socioeconomic status, the rural area was socially advantaged but materially disadvantaged, and the downtown area was disadvantaged both socially and materially.

HIGHLIGHTS

Health indicators

- ➔ Life expectancy at birth was higher in the suburban area (81 years) than in the rural (79.4 years) and downtown (77.1 years) areas. Significant differences were observed within areas among neighbourhood units. Two neighbourhoods in the downtown area had more than a 10-year difference between them in terms of life expectancy.
- ➔ Healthy life expectancy, defined as expected number of years to live with no moderate or severe disability, was also higher in the suburban area (76 years) and rural area (75 years) compared to the downtown area (70.6 years). However, the difference was less pronounced among women than men.
- ➔ Be it mortality, long-term disability or hospitalization, the health of the inhabitants of the downtown area was affected earlier in life than that of people living in the suburban and rural areas.

Lifestyle habits

- ➔ The highest rate of smoking was observed in the downtown area (27.3%). However, exposure to second-hand smoke was higher in the rural area (46.5%). The lowest rates of smoking and exposure to second-hand smoke were observed in the suburban area (20.4% and 31.3% respectively).
- ➔ Frequency of physical activity (four times a week or more) was highest in the rural area, closely followed by that in the downtown area. Manual work in the agriculture and manufacturing sectors may in part explain this phenomenon. Physical activity in the downtown area compared to the other two areas can hypothetically be explained by the notion that a large part of the population living there may, in the majority of cases, move around on foot.

Food security and body weight

- ➔ The highest percentage of people reporting food insecurity was found in the downtown area (17.4%) and the lowest in the rural area (9.1%).
- ➔ A higher percentage of people with insufficient body weight were in the downtown area (6.5%) compared to the rural (5.3%) and suburban (3.4%) areas. In contrast, the highest percentage of overweight people was observed in the rural area (40.8%). The difference between this percentage and that of people in the downtown area was particularly pronounced. Slightly less than a third of people in the downtown area were overweight.

Use of health care services

- ➔ Use of health care services for physical problems was higher in the downtown area. This was also observed for mental health problems. Proximity to second- and third-line health care services may in part explain these findings.
- ➔ Access and use of dental services was, however, lower in the downtown area. The overall economic situation being generally more difficult in the downtown area may explain this finding.

Reported health status

- ➔ In general, the majority of people living in the three areas reported they were in good or excellent health. However, the proportion reporting this was lower in the downtown area. The findings also varied according to sex and age in each of the three areas.
- ➔ The rate of long-term disability (6 months or longer) was higher in the downtown area compared to the other two. This was also the case for short-term incapacity (15 days).

Mental health

- ➔ The perception of the populations with regards to their mental health varied from good to excellent in each area. However, people in the suburban area had the highest rate in terms of feeling relaxed and free of worries, all the time or often (89.1%).
- ➔ The feeling of being in control of their lives – an important predictor of physical and mental health –, was significantly lower in the downtown population. The findings tend to confirm the associations already established between scores on the deprivation index and health indicators. In general, people who reported poor or passable health were more likely to report a lower level of feeling in control.

Education

- ➔ Compared to the other two areas, a higher number of children in the downtown area entered elementary school with learning deficits. This trend continued all the way through primary school. There were also a higher number of school dropouts in the downtown area compared to the other two areas.

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- Social dynamics**
- ➔ An aging population was observed in each of the three areas studied. Therefore, this demographic element by itself cannot explain health inequalities.
 - ➔ Greater concern for social problems (poverty, suicide, crime) was observed in the downtown area. The most positive perception of social dynamics was observed in the rural area, yet varied by neighbourhood unit.
 - ➔ Participation in community life was virtually the same in all three areas, at approximately 23%.
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- Connection with the local community**
- ➔ The sense of belonging and having roots in the community was higher in the rural area compared to the downtown one.
 - ➔ Social isolation was less prevalent in the rural area compared to the downtown one. The downtown area contained the highest number of single-parent families and people living alone.
 - ➔ People chose the suburban area as a place to live because of social ties, often with plans to start a family. The majority of respondents reported living in a family situation.
 - ➔ In the rural area, identity was mainly associated with the area where people live, whereas in the suburban area, elements such as shared characteristics and values (family, etc.) fostered a sense of social cohesion.
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- Work**
- ➔ Lack of work and employment instability were higher in the downtown area. Approximately 20% of the downtown population were receiving employment insurance payments.
 - ➔ In the rural area, family ties were reported as a kind of “security blanket” during difficult times associated with work.
 - ➔ The highest rate of dissatisfaction with working conditions was reported in the suburban area. Interestingly, the highest employment rate was also reported there.
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OBSERVATIONS

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The material wealth of the populations in the three areas contributed to the disparities in health status. The more disadvantaged a population, the lower the health status indicators. This was the case not only on the area level, but also on the neighbourhood unit level. Material conditions had both a direct and indirect influence on health in terms of people being able to fulfill their needs, and acquire and maintain lifestyles with healthy lifestyle habits.

Therefore both living conditions and culture (values, norms) should be taken into account in how health inequalities develop. Material wealth was also associated with the employment status of a population and their score on the deprivation scale. It should be noted that the most disadvantaged populations were those not in the labour force and the most socially isolated.

2

The local area had an influence on health because of the relationship populations develop with their milieu and the material and social conditions it offers. The local area and the milieus in which people circulate must be taken into consideration in differences in health. Their roles are complex and multidimensional. Analysis of their influence on health revealed interactions among the composition of the population, the context in which people's lives develop and the social and cultural dynamics characterizing the population. The local area played a role in the characteristics of health status by contributing to a sense of individual control and community empowerment. The concordance or lack thereof among the criteria of a milieu considered "appropriate" (reference milieu) and the characteristics of the local area may have had an impact on the sense of control, which is a strong predictor of health status. The feeling of being in control may not only be individual but also collective, and may affect the social dynamics of the milieu.

- 3 Populations living in the same area shared certain characteristics. The material and social contexts of the area attracted certain populations and excluded others. The characteristics of the local area supported the development of social relationships and the social and cultural capital of these populations. Furthermore, even though available resources such as health care and social services, family services, educational institutions, and recreation facilities were viewed in a positive light because they may be equivalent in different areas, this does not necessarily mean that they are appropriate or effective when taking into account people's needs and the preventive and counterbalancing roles these resources can play in terms of the negative aspects of a particular area.
- 4 The family milieu also influenced health status. It should be recognized that the family, as the foundation of social ties, plays an important role in conjugating the influence of the workplace and local area. This is why the absence of family ties as a fundamental source of social ties should be counterbalanced by another type of social network that can act as a protective factor when the workplace or local area cannot fulfill material and social needs.
- 5 The influence of the workplace milieu, namely whether one had a job or not and the working conditions of a job, interacted with that of the family milieu, and that of the local area or milieu (which may or may not have affected the employment trajectory). A comprehensive approach to understanding population health should take into account the combination and interaction of these three influences.

RECOMMENDATIONS FOR ACTION

- 1 The principles guiding strategies for the redistribution of collective wealth should especially target the most disadvantaged populations, whose financial situation influences the conditions of the areas in which they live and contributes to deleterious social dynamics. Strategies should also target families with children in disadvantaged populations.
- 2 Employment and income are determining factors that act directly and indirectly on the development of health inequities. They should be recognized as such in terms of providing the rationale for significant investment that can break the cycles of exclusion from the labour market.



- 3 In the health and social services sector, programs and services should be expanded to provide ongoing, intensive, individualized monitoring and follow-up for disadvantaged populations, without excluding wider-scale common programs. In addition, these programs should be oriented towards empowering people at the bottom of the social ladder to counter a certain fatalism that is both social and health-related. Emphasis should be placed on successes in a disadvantaged population to give a feeling of hope and control of one's destiny. Public policy should be based on solid knowledge of the factors that influence the life paths of citizens.
- 4 In disadvantaged areas, interventions recognized as being effective in early childhood should be expanded in order to prevent learning deficits at entry into elementary school. They should also provide a means for mothers to accomplish personal goals (trade or profession, education, respite, etc.).
- 5 In the education system, it should be recognized that different socioeconomic groups have different needs. Therefore, specific approaches reflecting these differences should be applied in terms of allocating resources.
- 6 Even though there seems to be no consensus on the benefits of socioeconomic diversity,³ it should be encouraged to counter homogenization (see page 9).
- 7 In local areas, effort should be devoted to developing and maintaining a feeling of belonging and social cohesion by ensuring conditions are in place that foster the development of social and cultural capital.
- 8 Greater effort should be devoted to countering negative perceptions people have of their local area and neighbourhood and encourage the development of positive perceptions.

3. Socioeconomic diversity can be defined as follows: In a given geographic zone, people with varying incomes and/or cultural origins live in the same area, come into contact with or socialize with one another, or frequent one another's businesses, thereby giving the area a heterogeneous quality.

Interpretation – Stakeholders’ Analyses and Comments

Invited for a one-day workshop entitled *The Development of Health Inequalities – Shedding Light on the Findings of Research on the Phenomenon and Recommendations for Action*, decision-makers from the health and social service sectors and researchers presented their comments on the significance of the findings.

Although they were aware of some of the results, everyone involved supported the relevance of the project. Decision-makers, practitioners in the field and researchers agreed on the importance of conducting this kind of research. The results were considered useful because they questioned practices, went beyond the usual discourse on health and sought the input of a variety of stakeholders. They revealed existing disparities, among and within the areas that were studied.

With regards to methodology, the workshop participants unanimously commended the use of both quantitative and qualitative methods, as well as the cross-referencing of individual data with those in large data banks. They also expressed their strong approval of the division of the areas into neighbourhood units, thus providing the opportunity for more in-depth analyses and a better understanding of people’s everyday lives. Everyone attending also agreed that having an advisory committee had made an invaluable contribution to the process, particularly by fostering relations between researchers and people working in the field.

Prospectively, the study and its findings made participants aware of the importance of the wealth and range of information derived from the various study participants. As a result, the message was heard that inter-sector action is the key to informed decision-making and that program and service planning should benefit from the contribution of school boards, health and social service institutions and municipal administrations. Participation of field personnel in this process – community organizers, social workers, etc. – also would appear to be essential.

In terms of knowledge sharing, the vast majority of decision-makers, stakeholders, workers in the field and researchers indicated that the study’s recommendations could be implemented in their particular field of action. However, some had reservations about socioeconomic diversity, especially because this could lead to the negative effects of gentrification. They underlined the importance of careful planning if such an approach were to be implemented. Nevertheless, given this, stakeholders who expressed their opinions in this workshop were more than satisfied with the results, and felt that this type of research process could and should be reproduced in other regions.

Stakeholders acknowledged this type of research requires considerable allocation of resources, and therefore suggested it would be advisable to do such research on a more modest scale while conserving the two fundamental characteristics, namely the division of areas into neighbourhood units and the strategy of knowledge sharing with an advisory committee. The participation of public health institutions in producing this type of analysis should be considered, and the time has come for research groups to work together to prevent repetitive or parallel research.

Future Directions

Beyond observations based on the findings, both stakeholders and researchers identified various future directions. They indicated what can be envisaged in terms of research, decision-making and interventions.

DECISION-MAKING AND INTERVENTIONS

- ➔ Expand the definition of “health” in descriptions of services offered by institutions and other relevant bodies.
- ➔ Reaffirm the importance of “local” and foster interventions based directly in the community.
- ➔ Prioritize the combination of community action and government action.
- ➔ Foster the development of new public policies targeting health promotion.
- ➔ Focus on accessibility to ensure health is an attainable value.
- ➔ Mobilize and gather together key stakeholders and decision-makers around the dual goals of health and community development.
- ➔ Learn to direct investment of resources towards the people and areas that need it the most, so that large-scale policies match their specific needs.
- ➔ Drop the current process of governing in silos.

RESEARCH

- ➔ Foster data sharing.
- ➔ Give priority to research that results in findings that can be applied by people working in the field, management personnel and partners, in order to improve practices.
- ➔ Conduct more in-depth study to further document how deleterious situations develop in order to understand the mechanisms of accumulation. Further study social exclusion, especially in isolated populations and those excluded from the labour market. Gain a better understanding of the interaction of these two phenomena.
- ➔ Conduct more in-depth study to further document differences among and within local areas and between the health of men and the health of women.
- ➔ Conduct further research to gain a better understanding of the mechanisms underlying protective factors.
- ➔ Further compare and contrast rural and urban areas in terms of both the mechanisms underlying health inequalities and those at play in specific sub-groups such as youth and women.

Conclusion

To summarize, the study entitled “Health Inequalities in an Urban, Suburban and Rural Area – Social Determinants and their Interaction” reveals that the mechanisms underlying differences in health are complex and can be better explained by the interaction of many factors. It seems clearer that the many interactions and relationships people have with their local community has an influence on their health. The study also revealed that social ties or the lack thereof are fundamental in the development of social inequalities in health, since they affect how people perceive the area in which they live and the milieu in which they circulate.

The complexity of this chain of interactions illustrates to what degree social inequalities in health remain a major challenge for decision-makers and society at large. Nevertheless, vigorous action should be undertaken to combat these inequalities. In light of the scientific knowledge available and the opinion of stakeholders in the areas under study, the priority seems to be that interventions should be planned and implemented by sectors working together in a multi-dimensional fashion.

In terms of research, recommendations for further directions have been stated above. A major priority of the Québec Population Health Research Network (QPHRN) is to continue to build capacity in research on social inequalities in health. By devoting the first issue of its PopHealth Notes series to this question, the QPHRN is demonstrating the importance it ascribes to this type of research. By shedding light on a study of three Québec City areas, we hope to encourage research that examines the reality of local health issues in the province of Québec, with a scope that largely transcends boundaries.

QPHRN

Created in 2002, the Québec Population Health Research Network (QPHRN) is a network of approximately 600 researchers working in the fields of public health, population health, health care services, health policy and health and society. Its mission is to support research infrastructure, innovative, multidisciplinary scientific activities and publications, champion a new generation of young researchers by funding graduate studies, and foster knowledge sharing. Its ultimate goal is to identify, understand and act on the social determinants of health to improve the health of populations. The scientific director is Dr. Gilles Paradis.

Knowledge Sharing and Application Group

The *PopHealth Notes* series is an initiative of the QPHRN's Knowledge Sharing and Application Group (*Axe Partage et utilisation des connaissances*). The group's research mandate is to sensitize researchers, public policy decision-makers, central and regional managers, and local workers in the field to the findings of health and population research and the issues raised by them. The group's activities reflect a two-pronged role – supporting other research themes of the QPHRN and initiating new projects designed to increase the sharing and application of knowledge in population health. The group is composed of Pierre Bergeron (INSPQ [*Institut national de santé publique du Québec*] and QPHRN), Marie-Claire Laurendeau (INSPQ and QPHRN), Pierre Joubert (INSPQ and QPHRN), Joseph Lévy (UQAM [*Université du Québec à Montréal*] and QPHRN) and Karine Souffez (QPHRN).

PopHealthNOTES

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The *PopHealth Notes* series presents summaries of the main research projects and innovative events organized in the context of the work of the QPHRN.

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