COMMENTARY

Can a Health Unit Take Action on the Determinants of Health?

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ABSTRACT

There is growing interest in improving population health by multi-sectorial partnerships that address the determinants of health. The Leeds, Grenville and Lanark District Health Unit worked with some 80 other community agencies to form the Lanark, Leeds and Grenville Health Forum in the spring of 2000. The goals of this Health Forum were to evaluate the determinants of health of the population over a five-year period, identify activities within an overall Health Improvement Plan to address these determinants, pursue ongoing resources for interventions, assess their impact on health, and modify plans and activities accordingly.

The Health Forum identified that their region had increased mortality rates from cardiovascular disease and cancers compared with the rest of Ontario. The local district health unit offered three possible determinants to explain this: socio-economic determinants (residents below provincial average for income and education), behavioural determinants (residents had higher rates of smoking, sedentary activity and high fat diets) and lack of access to health care. The Health Forum developed a Health Improvement Plan to work on each of these determinants.

Throughout its lifetime, the Health Forum proved to be both active and productive, leading to many cooperative ventures. This paper provides a brief overview of the approach taken with its Health Improvement Plan, as well as the successes and limitations of this approach. The experience of the Leeds, Grenville and Lanark Health Forum offers a practical model for public health units to work with partner agencies to address the determinants of health, as well as some insights into the requirements to sustain such a model.

ublic health units have a mandate to work with populations to protect and promote health, and prevent disease. Increasingly, attention has been give to the determinants of health as a strategy to improve population health. 1-3 Thus the case can be made that public health units should address determinants of health such as economic and physical security, social supportiveness within communities, and access to educational and occupational opportunities. Fostering stronger linkages among community agencies may be one way to address these determinants. This paper documents efforts to do so in a public health unit in southeastern Ontario.

Identifying a need

Leeds, Grenville and Lanark (LGL) is a rural district within southeastern Ontario. In the early spring of 2000, the directors of several health care and social service agencies in LGL identified a need to convene on a regular basis for communication, collaboration and planning. Communication between this group of directors and the Southeastern Ontario District Health Council led to the initiation of the Lanark, Leeds and Grenville Health Forum (the Health Forum) with an inaugural meeting of representatives from over 80 member agencies in the spring of 2000 (see Appendix for a list of the member agencies).

Increased Mortality

At that time, the Leeds, Grenville and Lanark District Health Unit had produced a comprehensive community health status report, noting a 5% rise in the all-cause age-adjusted mortality rate for LGL between 1991-1995. This sharply contrasted with the declining age-adjusted mortality rate for the province (see Figure 1). The same pattern of increasing mortality in this district was noted for the two major categories of disease, specifically cardiovascular disease and cancer (see Figures 2 and 3).*

La traduction du résumé se trouve à la fin de l'article.

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It should be noted that although the elevation in the mortality rates was the prime concern that led to the Health Improvement Plan of the Health Forum, mortality data regarding later years that became available by 2004 demonstrated a reversal of the increasing mortality trend in LGL. Neither the increased mortality trend nor its reversal has been completely explained to date.

Determinants

The staff of the Leeds, Grenville and Lanark District Health Unit offered the following interpretations of the population health information (grouped under three of the four categories of health determinants from the Lalonde Report⁵) in an effort to explain the district's increasing mortality rate:

- Socio-economic Determinants: Between 1991 and 1996, there was an increase in the percentage of the population in LGL and in Ontario that had an income level below the low-income cutoff, as well as a proportional increase in single-parent residences. LGL fell below the provincial mean for income and education levels.
- Behavioural Determinants: Tobacco use in southeastern Ontario was approximately 10 percentage points greater than the provincial average. The LGL population is also at greater risk of morbidity and mortality from other risk behaviours such as high fat consumption, obesity, and reduced physical activity.
- Access to Health Care: The Brockville area, located in LGL, has been officially designated as medically underserviced, although there were limited data available about adequacy of access to health care in LGL as a whole.

Thus the elevation in mortality in LGL between 1991-1996 appeared to be due to socioeconomic conditions, adverse health-related behaviours, and possibly limited access to health care.

The challenge of addressing the determinants of health

Currently, the mandate of boards of health in Ontario, as defined under the Health Protection and Promotion Act and the Mandatory Health Programs and Services Guidelines (the Mandatory Programs), is extensive but does not include directly addressing some determinants of health, such as socio-economic well-being. However, is it outside of the public health mandate?

Consideration of the following criteria taken from the guiding principles of the Mandatory Programs⁶ would suggest broad determinants of health may well be within the mandate of public health units:

- 1. Need: How big is the problem?
- 2. **Impact**: How much can we fix?
- 3. **Appropriateness**: Are we the best people to do it?

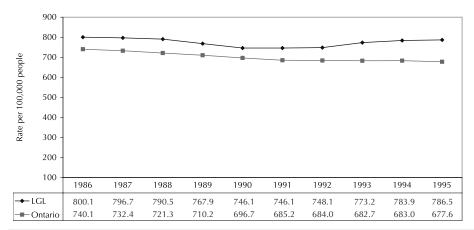


Figure 1. Age-standardized mortality rates for all causes of death in LGL and Ontario for both sexes (using three-year moving averages), between 1985-1996

Sources: Ontario Ministry of Health: HELPS1 Y2K June 1999 release. Population Estimates Database & Mortality Database

The standard population was the population of Canada in 1991.

A three-year moving average means that each standardized mortality rate is based on data from three years. For example, the rates for 1994 are based on data from 1993,1994 and 1995.

Three-year averages were used to improve the stability of the age-specific rates used in this calculation.

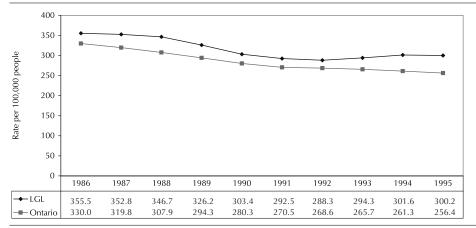


Figure 2. Age-standardized mortality rates for all circulatory disease deaths in LGL and Ontario for both sexes (using three-year moving averages), between 1985-1996

Sources: Ontario Ministry of Health: HELPS1 Y2K June 1999 release. Population Estimates Database & Mortality Database

The standard population was the population of Canada in 1991.

A three-year moving average means that each standardized mortality rate is based on data from three years. For example, the rates for 1994 are based on data from 1993,1994 and 1995.

Three-year averages were used to improve the stability of the age-specific rates used in this calculation.

4. Capacity: Are we able to do it?

The health unit for LGL found that these determinants were a big problem. The answers to the other three questions were unclear. How could boards of health address socio-economic issues such as poverty and access to health care? The questions of appropriateness and capacity posed daunting challenges for local public

health units acting alone. The scope and complexity of the determinants suggested that a collaborative approach involving many agencies within communities would be appropriate.

Goals and strategies

In the fall of 2000, the general membership of the newly constituted Health

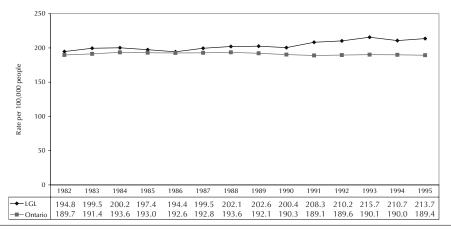


Figure 3. Age-standardized mortality rates for all cancer deaths in LGL and Ontario for both sexes (using three-year moving averages), between 1981-1996

Sources: Ontario Ministry of Health: HELPS1 Y2K June 1999 release. Population Estimates Database & Mortality Database

The standard population was the population of Canada in 1991.

A three-year moving average means that each standardized mortality rate is based on data from three years. For example, the rates for 1994 are based on data from 1993,1994 and 1995.

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Forum resolved to develop a broad, coordinated community strategy to address the population health findings for LGL. By the spring of 2001, a vision paper was written and adopted by the Health Forum membership, proposing a Health Improvement Plan to serve as an operational framework coordinating action on the determinants of health. The paper called for the formation of a Steering Committee supported by two subcommittees to address Socio-economic Issues, and Access to Health Care respectively. The Steering Committee would also maintain communication with and provide support to the already established, multiagency Tri-health Team (the heart health coalition for LGL), the goal of which was to promote healthy behaviours regarding diet, physical activity and tobacco. Thus, all three key determinants of health were to be addressed.

The objectives of the Health Forum over a five-year period included: monitoring the determinants of health, identifying activities to improve the determinants of health, pursuing ongoing resources to support these activities, conducting the activities, evaluating their impact on health, and modifying plans and activities accordingly (see Table I).

By the end of 2001, discussions with the Southeastern Ontario District Health Council (DHC), and the Eastern Regional

Office of the Ministry of Health and Long-Term Care led to the allocation of \$97,000 to support the first year of the Health Improvement Plan. By March 2002, the Health Forum recruited and hired a Health Planner on contract to coordinate and support activities of the Health Improvement Plan.

The Socio-economic Issues Subcommittee and the Access to Health Care Subcommittee obtained, reviewed, and presented data on LGL regarding their respective mandates to the general Health Forum membership at its meetings in October 2002 and in May 2003. The general membership of the Health Forum provided discussion and feedback to the Subcommittees on their findings, and directed them to proceed with creating action-plans to improve access to health care and address poverty issues in LGL.

Improving Socio-economic Determinants

In October 2002, the general membership of the Health Forum endorsed the motions put forth by the Socio-economic Subcommittee:

- to write to the provincial Minister of Finance opposing the "clawback" of the National Child Benefit Allowance
- to write to the federal Minister of Finance opposing a tabled federal bill

restricting the eligibility criteria for disability pensions.

Improving Behavioural Determinants

At the same meeting, the Health Forum also supported motions from the Trihealth Team:

 to develop municipal bylaws throughout LGL prohibiting smoking in all indoor public places and workplaces.

In keeping with these motions, letters of advocacy were drafted and sent by the Steering Committee to the local municipal councils and the provincial government. The Steering Committee included correspondence to its member agencies, inviting each to communicate its support for the motions.

Improving Access to Health Care

At the May 2003 meeting, the Health Forum reviewed the findings of a survey of health care providers and clients throughout LGL with regard to access to health care. The main barriers identified were unmet transportation needs and limited availability of medical specialists. The Health Forum supported the following motion:

 that the Access to Health Care Subcommittee develop strategies to address the barriers identified in their study on access to health care in LGL.

Sustainability

General membership meetings of the Health Forum were held semi-annually from the spring of 2000 to May 2003. In addition to discussing the activities of the Subcommittees, these meetings allowed the membership to engage decision-makers regarding health care matters. Representatives of the region's District Health Councils (Southeastern Ontario; and Champlain District), and the Ministry of Health and Long- Term Care Eastern Regional Office attended and presented on their initiatives and plans. Presentations made to the Health Forum included topics such as the Romano and Kirby Commissions and mental health care reform, as well as one made by Dr. Dennis Raphael of York University on the negative impact of poverty on heart health.

The Health Planner was able to work full time to ensure that the tasks of the committees were carried out. This was

TABLE I

Outcomes on the Health Improvement Plan of the Lanark, Leeds and Grenville Health Forum

Intended Duration of the Health Improvement Plan: Five years (March 2001 to March 2006) **Actual Duration of the Health Improvement Plan:** 18 months (March 2002 to September 2003)

Goals of the Health Improvement Plan of the Lanark, Leeds and Grenville Health Forum:

To improve the health status of the population of Lanark, Leeds and Grenville by positively influencing the determinants of health, including the social and physical environment, lifestyles and behaviours, and access to health services. To contribute to a sustainable health system in the rural area of Lanark, Leeds and Grenville by reducing the demands for treatment and rehabilitation.

	Objective #1: To improve health by addressing socio	-economic issues
Activities in the Health Plan	Target Time Intervals	Outcomes Achieved
Develop the Socio-economic Issues Subcommittee.	Original draft of the Health Improvement Plan was dated March 2000: Identified activity in the Health Improvement Plan was anticipated to take place from March 2001 to May 2001.	Achieved by April 2002 (within one month of commencement of the Health Planner, and within four months of the provision of funding for the Health Improvement Plan).
Assess the population of Lanark, Leeds and Grenville regarding indicators of socio-economic well-being.	Within 6 months.	Preliminary assessment completed and presented at the Health Forum general membership meeting in October 2002 (within 10 months of the commencement of funding for the Health Improvement Plan).
		Final assessment completed and presentation made at the Health Forum general membership meeting in May 2003.
Identify socio-economic issues to be addressed and activities to address them.	Within 1 year.	Motion of advocacy passed by the Health Forum general membership in October 2002 (within 10 months of the commencement of funding for the Health Improvement Plan) for the following: • Letter to the provincial Minister of Finance opposing the "clawback" of the National Child Benefit Allowance • Opposition to a tabled federal bill restricting eligibility for disability pensions.
To evaluate the impact of the activities of the Socio-economic Issues Subcommittee, modify activities accordingly, and to provide an annual report card to the public.	Within 1 year.	Not achieved with the loss of the Health Planner in March 2003, and the suspension of the activities of the Health Forum and its Health Improvement Plan in September 2003.
	Objective #2: To improve health by promoting healthy I	lifestyles/behaviours
Member of the Steering Committee (the Medical Officer of Health) to serve as a liaison with the Tri-health Team (the district Heart Health Coalition).	Original draft of the Health Improvement Plan was dated March 2000: • Identified activity in the Health Improvement Plan was anticipated to take place from March 2001 to May 2001.	Achieved by April 2002 (within one month of commencement of the Health Planner).
Identify ways to support the activities of the Tri-health Team in addressing the following three lifestyle risk factors: • Tobacco • Diet • Physical activity.	Ongoing.	Presentations made at the Health Forum general membership meeting on Tri-health Team activities in October 2002 and May 2003.
		 Motion of advocacy passed by the Health Forum general membership in October 2002 for the following: Letter to the provincial Minister of Health calling for 100% smoke-free legislation Letter to partner agencies of the Health Forum calling for their support for 100% smoke-free legislation.
	Objective #3: To improve health by addressing access t	o health care issues
Develop the Access to Health Care Subcommittee.	Original draft of the Health Improvement Plan was dated March 2000: • Identified activity in the Health Improvement Plan was anticipated to take place from March 2001 to May 2001.	Achieved by April 2002 (within one month of commencement of the Health Planner, and within four months of the provision of funding for the Health Improvement Plan).
Assess the population of Lanark, Leeds and Grenville regarding their access to health care.	Within 6 months.	Survey of health care providers and users completed and presentation made at the Health Forum general membership meeting in April 2003.
Identify barriers to access to health care to be addressed and activities to address them.	Within 1 year.	Second phase of assessment to determine initiatives was not completed when the Health Forum suspended its activities in September 2003.
To evaluate the impact of the activities of the Access to Health Care Subcommittee, modify activities accordingly and to	Within 1 year.	Not achieved with the loss of the Health Planner in March 2003, and the suspension of the activities of the Health Forum and its Health Improvement Plan in September 2003

activities accordingly and to provide an annual report card to the public.

September 2003.

absolutely essential for the successful dynamics of the Health Forum. Unfortunately further funding for the project was not continued in the spring of 2003. With this change, attendance at committee meetings quickly fell below quorum, rendering successful activity impossible.

To date, no replacement funding has been available. In consultation with the general membership, the Steering Committee determined that the activities within the Health Improvement Plan could not be pursued without the support of the Health Planner. Because of this, the Health Forum suspended its activities in September 2003.

Once commenced, the first year of the five-year Health Improvement Plan was completed with a high degree of fidelity to the Plan (see Table I). During that time, much was accomplished in the development of committee structures, baseline assessments and the identification of issues and response activities. It is quite possible that much more would have been accomplished to address the determinants of

health, had the Health Forum been able to continue fulfilling its five-year plan. The ultimate potential of this approach remains unknown.

RECOMMENDATIONS

The following recommendations are based on our experience of the Health Forum and its Health Improvement Plan to address the determinants of health for LGL:

- The Mandatory Health Programs and Services Guidelines for Ontario boards of health should include programmatic activities to address broader determinants of health, such as socio-economic well-being;
- Provincial policy should encourage collaborative partnerships in districts throughout the province to support such programming; and
- A local agency within the districts, such as the public health unit, should be empowered, adequately funded, and supported to act as a facilitator of such initiatives.

Gananoque & District Association for Community

CONCLUSION

Addressing the determinants of health, and in particular socio-economic well-being, within a district is very challenging. Nonetheless, it is possible, and a multistakeholder approach is promising. Our experience showed some successes. Once commenced, the first year of the five-year Health Improvement Plan was completed with a high degree of fidelity to the Plan. Assessments were completed and presented on socio-economic well-being, access to health care, and health-related behaviours. Advocacy was conducted on poverty issues, and in support of the tobacco bylaw campaign for the district. Meetings were being held semi-annually, with educational content for the general membership of the Health Forum on population health and health care developments. Despite these achievements, the Health Forum was unsustainable. It was unable to continue its activities without continued funding.

The experience of the Lanark, Leeds and Grenville Health Forum demonstrates that with modest resources, it is possible to

Appendix

Member Agencies of the Lanark, Leeds and Grenville Health Forum

Access Centre for Community Care in LLG Almonte Country Haven Almonte General Hospital Alwood Treatment Centre Alzheimer's Society of Lanark County Alzheimer's Society of Leeds & Grenville Bayfield Manor Nursing Home Bayshore Centre Dialysis Bayshore Health Care Broadview Nursing Centre Brock Cottage Brockville & Area Community Living Association Brockville & Area YM/YWCA Brockville & District Association for Community Involvement Brockville General Hospital Brockville Ontario Provincial Police Brockville Police Service Brockville Psychiatric Hospital Brockville Public Library Canadian Hearing Society Canadian Institute for the Blind Carleton Place and District Memorial Hospital Carleton Place/Beckwith Home Support Carveth Care Centre Catholic District School Board of Eastern Ontario Centre for Addiction and Mental Health Champlain District Health Council Chelsea Court Health Centre Child & Youth Wellness Centre of Leeds and Grenville Children's Aid Society - County of Lanark Children's Resources on Wheels City of Brockville Comcare Health Services CommuniCare Therapy Community Living Association Lanark County Community Living Association North Grenville Country Roads Community Health Centre County of Lanark Dental Care for All Developmental Services of Leeds and Grenville Fairview Manor Family and Children's Services of Leeds and Grenville

Living Grenville Community Futures Development Corporation Hilltop Manor Nursing Home Kemptville and District Home Support Inc. Kemptville District Hospital Kingston District Office of the Canadian National Institute for the Blind L&G Wraparound Lanark Community Programs Lanark County Interval House Lanark County Mental Health Program Lanark County Sexual Assault Centre Lanark Lodge Lanark, Leeds and Grenville Mental Health Coalition Lanark/Perth Ontario Provincial Police Lanark-Carleton Constituency Leeds & Grenville Rehab.& Counselling Svc. Leeds and Grenville Interval House Leeds, Grenville and Lanark District Health Unit Leeds-Grenville Constituency Maple View Lodge
Mental Health Implementation Task Force
Merrickville District Community and Health Centre
Ministry of Community Family & Children's Services Ministry of Community Family & Children's Serv Ministry of Health and Long-Term Care Multiple Sclerosis Society of Canada North Grenville Community Hospice North Lanark County Community Health Centre Ontario Breast Screening Program Ontario Court Provincial Division Ontario Early Years Centre @ C.R.O.W. Ontario March of Dimes Ontario Provincial Police Grenville County Open Doors for Lanark Children & Youth Pakenham Community Home Support Para-Med Health Services Perth and Smiths Falls District Hospital Perth Community Care Centre Providence Continuing Care Centre, St. Vincent de Regional Community Brain Injury Services Regional Geriatric Program, PCCC Rideau Lakes Home & Community Support Services

Rideau Regional Centre

Rose Garden Family Support Centre Rosebridge Manor Nursing Home Salvation Army Sandy Hill Community Health Centre Separated Town of Prescott Services to Assist Independent Living (SAIL) Sherwood Park Manor Smiths Falls Police Department Southeastern Ontario District Health Council St. Lawrence Lodge Stoneridge Manor Tayside Community Options Tennant House The Canadian Red Cross Society Town of Carleton Place Town of Mississippi Mills Town of Perth Town of Smiths Falls Township of Athens Township of Augusta Township of Bathurst, Burgess, Sherbrooke Township of Beckwith Township of Drummond and North Elmsley Township of Edwardsburgh/Cardinal Township of Elizabethtown-Kitley Township of Front of Yonge Township of Lanark Highlands Township of Leeds and the Thousand Islands Township of Montague Township of North Grenville Tri-County Addiction Services
United Counties of Leeds & Grenville United Counties of Leeds & Grenville Social Services United Way of Lanark United Way of Leeds & Grenville Upper Canada District School Board Victorian Order of Nurses Victorian Order of Nurses Lanark Victorian Order of Nurses of Leeds & Grenville Village of Merrickville-Wolford Village of Westport Volunteer Bureau of Lanark County Volunteer Bureau of Leeds & Grenville VON Lanark

Wellington House Nursing Home

bring multiple agencies together to assess the determinants of health for a district and to commence actions based on the findings. Similar or future efforts will need to focus on sustainability.

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RÉSUMÉ

Les collaborations multisectorielles sur les déterminants de la santé s'avèrent de plus en plus utiles pour améliorer la santé de la population. Le Bureau de santé du district de Leeds, Grenville et Lanark (LGL) a travaillé avec quelque 80 organismes communautaires afin de former, au printemps 2000, le Forum sur la santé de Lanark, Leeds et Grenville. Les objectifs de ce Forum étaient d'évaluer, sur une période de cinq ans, les déterminants de la santé de la population, de cerner les activités à déployer à l'intérieur d'un plan global d'amélioration de la santé, de poursuivre les outils d'intervention en cours, d'évaluer leurs incidences sur la santé et de modifier les plans et activités en conséquence.

Le Forum sur la santé a permis d'établir qu'en comparaison avec le reste de l'Ontario, la région avait un taux accru de mortalité à la suite de maladies cardiovasculaires et de cancers. La circonscription sanitaire du district a cerné trois sources qui pourraient expliquer les résultats : les déterminants socio-économiques (les résidents se situent sous la moyenne provinciale en ce qui à trait au revenu et à l'éducation), les déterminants comportementaux (les résidents présentent un taux plus élevé de fumeurs, de sédentarisme et de diètes riches en gras), ainsi que le manque d'accès aux soins de santé. On a élaboré dans le cadre du Forum un Plan d'amélioration de la santé pour travailler sur chacun de ces déterminants.

Depuis sa mise sur pied, le Forum sur la santé a été à la fois actif et productif, entraînant la création de plusieurs projets coopératifs. Ce document fournit un bref aperçu de l'approche empruntée dans le Plan d'amélioration de la santé, ainsi que les succès et les limites de cette approche. L'expérience du Forum sur la santé de Lanark, Leeds et Grenville fournit aux unités de santé publique un modèle pratique en vue de collaborer avec des organisations partenaires aux fins de se pencher sur les déterminants de la santé, sans compter qu'elle donne un aperçu des exigences nécessaires à la poursuite d'un tel modèle.

