

Poverty and Health

Identifying poverty in your practice and community

by The Ontario Physicians Poverty Work Group

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You are a new family doctor with a practice in a growing multicultural suburb in the Greater Toronto Area. One of your first patients is Sunil K, who is five-years-old and has a chronic cough. When you make a home visit for Sunil after he has spiked a fever, you are surprised to find an extended family living in the home.

Introduction

Physicians know that their practices include patients living in poverty. Even a practice based in an affluent neighbourhood will have some patients who drift into poverty because of job loss, family break up, illness, or acts of nature.

Because poverty and other determinants of health, like housing, have a major impact on health and health-care programs, it is important to have accurate information about patients who are suffering economic deprivation. Unfortunately, few doctors or health-care facilities keep track of poverty among their patients.

This article discusses how poverty is measured, and how this information can be used for clinical practice and public policy.

The measurement of poverty

Governments and organizations use a variety of different indices to categorize persons as “poor” or “non-poor.” In some instances, this has prompted a debate that could be characterized as, “how poor does one have to be, to be poor?”

Of course, this is scientifically inappropriate because the process uses income as a dichotomous variable when, in fact, it is a continuous variable.

For example, air humidity is a con-

tinuous variable which measures the saturation of air with water vapour, from zero per cent to 100 per cent. However, it only rains when the air is saturated, at 100 per cent. Measuring the humidity with a rain barrel wouldn't tell us very much.

This situation is similar to that faced by clinical practice guideline committees when they define thresholds of blood pressure as hypertension. Systolic blood pressure levels above 130 mmHg and diastolic levels above 80 mmHg are associated with increased risk of illness, but treatment thresholds for most hypertensives are above this level.

A third-generation mother on social assistance and a third-year engineering student might be defined as poor, but the implications for their health are quite different. They require tailored approaches to their poverty from the health-care delivery system and the policy process.

The faces of poverty are often hidden to physicians. Patients may be ashamed to say they cannot afford their prescriptions or follow other advice.

Listening to patient stories and/or participating in community initiatives can supplement more formal data, and assist physicians to identify individuals who are at risk for the health impacts of poverty.

Absolute versus relative poverty measurement

The most common indicator used for poverty is the low income cut-off (LICO).¹ Statistics Canada defines those below the LICO as those households who spend more than 20 per cent more of their income than average on food, shelter and clothing. The LICO is adjusted for family size and degree of urbanization. LICO is a relative indicator because the poverty rate could go up if the wealthiest got wealthier even if the poorest didn't get poorer.

On the other hand, some recommend using an index that measures more explicit deprivation. There will always be problems associated with choosing thresholds for diagnosis from a continuous variable.

However, the relative approach to poverty measurement, such as LICO, seems to be more consistent with identifying it from a health perspective.

A number of epidemiological studies have concluded that even when people have significantly more than their basic needs met, their relative socio-economic position still confers considerable extra risk. For example, the U.K.'s Whitehall studies investigated cardiovascular risks in men employed by the British civil service, all of whom lived above any level of deprivation.² Nonetheless, the men at the lowest level of the civil service had mortality rates that were four times those of the senior administrators.

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Poverty measurement in practice

You are an established specialist in obstetrics/gynecology in Scarborough. You have been accepting referrals from Public Health for a number of years and have noticed a recent increase in low pre-pregnancy weights in your patients, and wonder if others are seeing this as well.

Physicians, other health-care providers, public health practitioners, researchers and social policy-makers, use many sources of information to describe, define and compare poverty levels in individuals and groups. Examples include census data, information on social assistance case loads, and health-care utilization data.

Information collected at the local level, through self-report surveys, direct observation, and discussions with local social services personnel, are particularly valuable.

Demographic questionnaires, which are completed when a new

patient or family joins a practice and updated routinely, can assist physicians in understanding the economic challenges faced by their patients.

Primary care physicians are particularly interested in collecting, utilizing and updating patient information about determinants of health and risk factors as they change over the life course of their patients.

Ontario's Community Health Centres (CHCs) have provided leadership by including social demographic information in the intake form of new patients. A self-administered questionnaire is used to ask immigration status, ethnic or religious background, income and education level, as well as family composition. Unfortunately, the limits of current electronic systems prevent the full use of this data.

Some individuals and communities are concerned about the collection of data and registration as they fear misuse of this information by

government and others. Physicians can discuss these concerns and provide reassurance regarding how this information is collected and used.

Patients who appreciate the health reasons for collecting sensitive information about themselves and their community are more willing to disclose.

Poverty measurement in the community

The Zehr family runs a farm in southwestern Ontario. According to Perth County's report on the cost of healthy eating (Nutritious Food Basket), the family cannot afford to eat well enough at certain times of the year. Their family doctor has not asked them about this, and they feel ashamed to mention it.

At times, poverty may not be easily identified within a practice, but may be seen through local statistics and stories. Information on poverty levels in communities is often analyzed and grouped by geographic area

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(neighbourhoods for example), but can also be presented by other common factors, such as age, gender, and ethno-racial identification. Groups such as farmers or Aboriginals are often left out of studies as they are not identified in the collection of information.

Physicians can access this kind of information through their local health unit, social planning council, or municipality. In addition, local media (e.g., newspapers) may present this information. Informed physicians can support families like the Zehrs through local knowledge of families at risk.

Population measures of poverty

There are many reports on population measures of poverty, such as the Poverty by Postal Code report by the United Way of Greater Toronto,⁴ and the Institute for Clinical Evaluative Sciences (ICES) report on the geography of diabetes.⁵

Poverty is usually measured by household income levels, either with a relative approach or absolute approach. However, poverty can be measured with other data, such as:

- Housing security (homelessness, shelter use, waiting lists for supported housing).
- Job security (unemployment, access to employment insurance, full-time/part-time, permanent/temporary employment).
- Education (high-school graduation, enrolment, literacy).
- Food security (food bank use, local Public Health's "Cost of a Nutritious Food Basket" calculations).

The cost of poverty to society can also be measured. The Federal/Provincial/Territorial Health Disparities Task Group estimated that health disparities, many due to economic disparities, increased the cost of health care in Canada by 20 per cent,⁶ approximately \$35 billion.

Poverty measurement provincially, nationally and internationally

The measurement of levels of poverty regionally, nationally, and interna-

tionally, is of great interest to policy-makers and researchers. This enables them to identify trends and high-risk groups, and assess the impact of interventions (such as taxation, child benefits, etc.) on poverty reduction and health improvement.

Physicians can critically assess poverty statistics by asking themselves how the information is collected and presented:

- Does income include all sources: work, government transfers, etc.?
- Does income include before-tax or after-tax figures?
- Is the unit of analysis individual, household, or economic family?
- Is there any adjustment for expenses: non-discretionary or not?

Historically, Canada has used the low income cut-off (LICO) statistic to measure individuals and families at risk of poverty.³ LICO levels are updated annually. LICO levels are higher than levels for social assistance or minimum wage.⁷ The overall Canadian LICO rate is 10.8 per cent, but certain populations have much higher rates.⁸

Approximately 30 per cent of fe-

male, single-parent-led families, and single-person households fall below the LICO. While LICO may be a relative rate, most low-income families have much lower incomes than the LICO threshold. An average low-income family lives approximately \$10,000 below LICO.⁹

Other measures used in Canada include the low-income measure (LIM), which is defined as half the median family income (income is adjusted for the family size), and the market basket measure (MBM), which defines a basket of goods and services necessary to live in communities across Canada, and then determines the necessary disposable income to purchase those services.³

The Nutritious Food Basket is Ontario's standardized food-costing tool that measures the real cost of healthy eating.¹⁰ Ontario Boards of Health collect data from grocery stores within their health units each year to monitor the cost of eating nutritious food in their communities. This information is used to promote and support the development



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of policies to increase access to nutritious food.

Toronto Public Health has posted its reports online. Physicians can access this information from their local public health units.

Other measures of poverty include deprivation indices, which have been used to adjust population-based health-care funding in the United Kingdom¹¹ and Quebec.¹²

Quebec's deprivation index uses six indicators: the proportion of persons who have no high-school diploma; the ratio of employment to

population; average income; the proportion of persons who are separated, divorced or widowed; the proportion of single-parent families; and the proportion of people living alone, adjusted according to the age and sex of the population, and combined using a factorial approach.

Because of the challenge to measure poverty accurately, other indicators have been used to measure social inequity.

This permits the assessment of inequality from a variety of perspectives, including income, education, unemployment, housing affordability, crime, single-parent families, and food insecurity.

Table 1 (left) summarizes the indicators used nationally by the Health Indicators framework from Statistics Canada and the Canadian Institute for Health Information, and provincially by the Association of Public Health Epidemiologists in Ontario in the Core Indicator project.

The statistics of health indicators at the community level can also be found on the Statistics Canada website.

A list of useful Web resources for physicians appears in Table 2 (see p. 43).

Summary

You are an experienced cottage country family doctor nearing retirement who has been asked to join a local anti-poverty coalition. Although you know much from your years of practice, you want to be better informed about the burden of poverty in your community.

Ontario physicians have a unique viewpoint on the province's increasing rates of poverty. Physicians are also uniquely placed to help ameliorate its effects. Practice and population data complement each other to provide a useful base for planning clinical programs and policy advocacy.

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Table 1
Summary of Social Determinants of Health Indicators

- High school graduates
- Post-secondary graduates
- Adult and youth unemployment rate
- Long-term unemployment rate
- Labour force participation Rate
- Low income rate (income for the year prior to the census)
- Children in low-income families (income for the year prior to the census)
- Average personal income (income for the year prior to the census)
- Median share of income
- Government transfer income
- Income Inequality
- Housing affordability (income for the year prior to the census)
- Single Parent Families
- Living Arrangements for Seniors
- Decision latitude at work
- Crime incidents
- Adults and youth charged
- Food insecurity
- Cost of a nutritious food basket
- Commuting population

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Table 2 Online Poverty Information Resources for Physicians

- *Local Health Integration Networks:* www.lhins.on.ca
- *Social Planning Councils (Social Planning Network of Ontario):* www.spno.ca
- *United Way of Canada:* <http://www1.unitedway.ca/sites/PortalEN/default.aspx>
- *Campaign 2000:* <http://www.campaign2000.ca/>
- *Statistics Canada* <http://www.statcan.ca/menu-en.htm>
- *Toronto Public Health reports on Nutritious Food Basket:* http://www.toronto.ca/health/food_basket.htm
- *Association of Local Public Health Agencies:* http://www.alphaweb.org/health_units.asp
- *Canadian Population Health Index with the Canadian Health Information Institute:* http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=cphi_e
- *Institute for Clinical Evaluative Sciences:* <http://www.ices.on.ca/webpage.cfm>
- *Centre for Urban and Community Studies at the University of Toronto:* <http://www.urbancentre.utoronto.ca/>
- *Health Providers Against Poverty:* www.healthprovidersagainstpoverty.ca

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