The Health of Manitoba's Children

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MANITOBA CENTRE FOR HEALTH POLICY AND EVALUATION

A growing body of research confirms what common sense tells us: that good health in our childhood years raises our chances of being healthy in our adult years, and conversely, that poor health in childhood raises the risk of poor health in adulthood. The research on the connection between child and adult well-being has inspired interest in public policies that improve child health.

But how do we do that? If you were given the task of improving the health of Manitoba's 325,000 children between the ages of 0 and 19, where would you begin? You would start, no doubt, by collecting information on the health of our children today in order to know where improvement is needed. But health has many facets, and good and bad health have many causes. What information would you collect?

The Manitoba Centre for Health Policy and Evaluation had to wrestle with this question when it was asked by Manitoba Health to develop a report on child health in Manitoba. With the help of a volunteer advisory committee consisting of clinicians, researchers, and policy makers with expertise in child health, MCHPE developed a long list of data that the advisory committee thought would help illuminate the status of child health in Manitoba.

Choosing health measures

Because health is a multi-dimensional concept, there is no single measure with which to evaluate the health of 325,000 children (or even one child, for that matter). The closest thing to a single barometer of health for an entire population that health policy experts have identified is something called the "premature mortality rate," or PMR. The PMR measures the rate of "premature deaths," defined to be the rate of deaths that occur before the age of 75.

The PMR is not an infallible measure of health (after all, there is more to health than not dying). But research has shown that the PMR in a region is related to many other barometers of health, including the incidence of disease and the likelihood that people in the region will report that their own health is good or bad. In other words, an area with healthy people is very likely to have a low PMR, and an area with many unhealthy people is very likely to have a high PMR.

Along with poor health, high PMR goes hand in hand with higher socioeconomic risk, that is, lower income and lower education. To help understand how the health of an area's children compares to its overall health and socioeconomic status, the report constantly compares area rankings on PMR with rankings on numerous other indicators of child health.

In addition to the PMR, MCHPE collected data on dozens of other measures. These measures can be allocated into one of three categories:

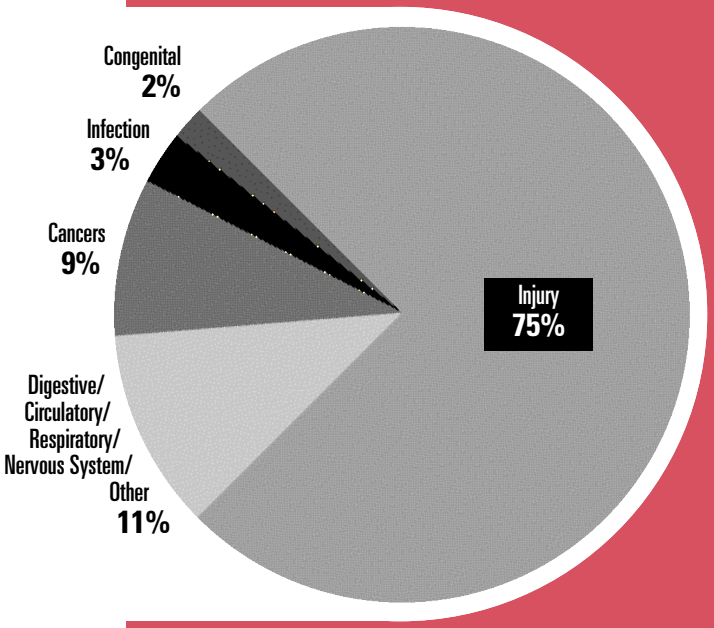
1. measures of health at the population level (such as the rate of infant mortality, respiratory infections, and injuries);
2. measures of conditions and activities that are not themselves measures of

Did you know?

Examples of information available in Chapters 2 through 8.

Chapter 2: Demographics and Conceptual Framework

- Infant mortality was double for the lowest income areas compared to the highest.
- The leading cause of death for children was injury, accounting for half of the deaths in children aged 1 to 9 years and three-quarters of the deaths in children 15 to 19 years (Fig. 1 below).



Chapter 3: Being Born in Manitoba

- Mothers who lived in downtown Winnipeg had the highest rate of low birth weight babies (7.2%).
- 77% of Manitoba babies were breastfeeding on hospital discharge; 90% of the babies in South Eastman start out being breastfed, compared to just over 60% of the babies in Nor-Man.

Chapter 4: Reproductive Health Issues for Adolescents in Manitoba

- Among girls who reported having sexual intercourse in the past year, birth control pill use was highest in the North at 61%, followed by the rural south at 56%, and lowest in urban areas at 36%.
- The Manitoba teen pregnancy rate was high: 6.3% for 15 to 19 year olds compared to the Canadian rate of 4.2%.

Chapter 5: Health Status: Childhood Acute-Chronic Conditions

- 6% of children less than one year old are hospitalized for lower respiratory tract infections.
- Parkland children are about twice as likely to be hospitalized for lower respiratory tract infections in their first year of life than infants living in South Westman.

Chapter 6: Health Status: Injury

- Children living outside of Winnipeg are over twice as likely to die from injuries and almost two-and-a-half times as likely to be hospitalized for injuries than children living in Winnipeg (Fig. 2).
- Motor vehicle crashes are the leading cause of injury death among Manitoba children.

Chapter 7: Health Care Utilization

- Children who live in Winnipeg were over three-and-a-half times more likely to visit paediatricians and other specialists than children living elsewhere in the province.
- Close to 60% of children less than 5 years old had received one or more antibiotic prescriptions during 1998/99 (Fig. 3).

Chapter 8: Quality of Care

- 71% of Manitoba children born between 1994 and 1997 had a complete set of immunization shots by their second birthday, and 83% had all their shots at seven years of age.
- Children living outside of Winnipeg were one third more likely to have their tonsils removed than children living in Winnipeg.

health but which are thought to be factors affecting health (such as family income, lone-parent status, and unemployment rates);

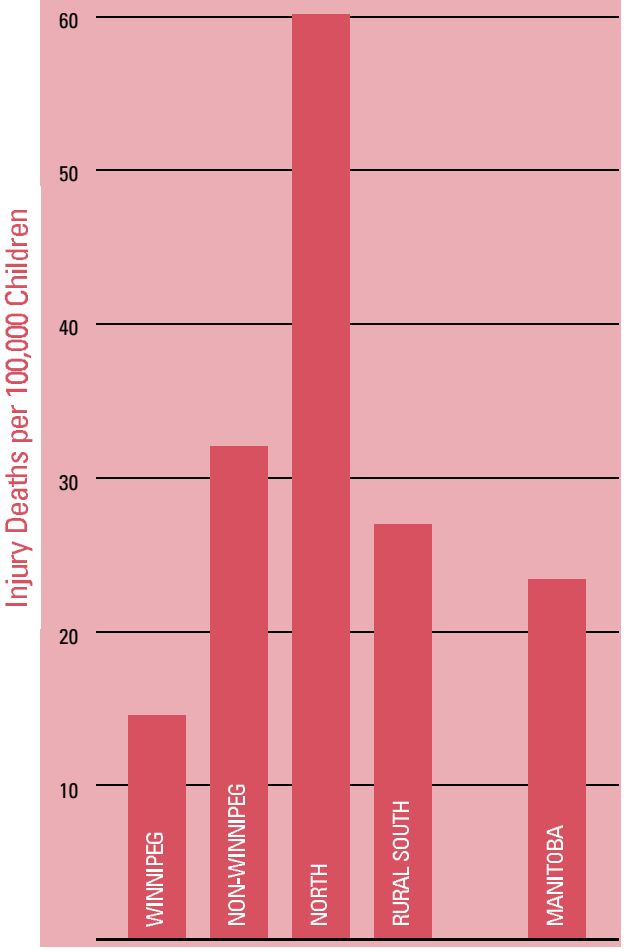
3. measures that are thought to be related to quality of medical care (such as hospitalizations due to preventable diseases like measles), and measures of health care use (for example, physician visit rates and rates of prescription drug use).

One of the most powerful factors in the second category is income. People with higher income (and the higher education that usually goes with higher income) tend to enjoy better health. Because the link between income and health status is now well established by research, the Centre decided to pay close attention to the role that income and income-related factors (such as employment rates and education levels) might play in child health.

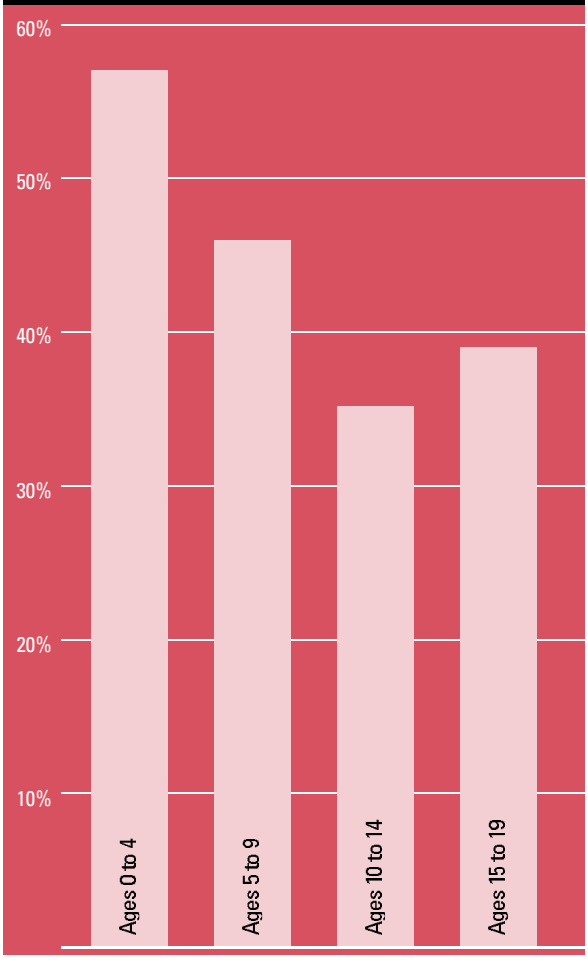
Findings

Although the report contains numerous findings, it makes no policy or research recommendations. The purpose of this report is not to present a blueprint for the province to follow, but to assemble data that will help others —Regional Health Authorities, other policy makers, researchers, and citizens—develop their own research and program priorities for improving child health. Our report presents a large body of information (we are calling it our "child-health encyclopaedia") that contributes to our understanding of some but by no means all of the factors that enhance or diminish our children's health.

2. Injury mortality rates for children aged 0-19 years, 1994 to 97



3. Percent of children receiving from 1 or more prescriptions for an antibiotic, 1998/99



The report is divided into ten chapters.

Chapter 1 explains how the province is broken up for data-reporting purposes. While some of the data are reported at the provincial and national level, most of the findings are broken down by regions within Manitoba. Most of the tables and figures in the report present data for each of the province's twelve Regional Health Authorities (RHAs). Because the Winnipeg RHA is heavily populated, Winnipeg is broken down into twelve community areas.

In order to help the reader discern relationships between various child health measures and PMR rates (that overall indicator of population health), all tables and figures present the RHAs and Winnipeg community areas in the same order. The ordering is by PMR rank. Thus, every figure or table showing data by RHA starts with South Eastman, because South Eastman has the lowest PMR (which means South Eastman's population is, according to this measure, the healthiest in the province), and ends with Churchill because Churchill has the highest PMR (which means Churchill's population is the least healthy). Similarly, every table or figure showing data by Winnipeg community areas begins with Fort Garry (whose residents are the healthiest) and ends with Point Douglas (Winnipeg's least healthy residents).

Chapters 2 through 8 present the numerous child health measures (see page 2 for examples of data from these chapters).

Most of Chapter 9 is devoted to evidence that income and income-related factors (like education and employment levels) are related to health status in Manitoba. For example, income is related to the likelihood that a child will be born at a low birth weight, die before his or her first birthday, and will die from or be hospitalized for an injury. To say that income is "related" to these measures means that areas with high incomes tend to have:

- a lower percent of its children born underweight,
- a lower percent of its children die before they are one year old, and
- a lower percent of its children killed by injuries or hospitalized for injuries.

On the other hand, these percentages tend to be higher in areas with low incomes.

Chapter 9 also summarizes the relationships between PMR and other measures of health. For example, the report finds that RHAs with high PMRs (that is, RHAs with relatively unhealthy residents) also tend to have higher rates of stillborn children. Similarly, RHAs with high PMRs are also likely to have higher rates of infant mortality (the rate at which babies die before their first birthday), child mortality, teen pregnancy, hospitalization for lower respiratory tract infections, death by injury, hospitalization because of injury, and lower rates of breastfeeding and immunization.

Conclusion

It is difficult, and perhaps impossible, to prescribe accurately for an individual patient if one does not have an accurate diagnosis. Similarly, it is difficult and perhaps impossible to make recommendations for improving the health of hundreds of thousands of Manitoba children without information about their health—a "diagnosis," if you will. MCHPE and its advisory committee were given a very ambitious mission—write a report that presents a comprehensive picture of the health of Manitoba's children.

Given the breadth of the mission, the report had to be comprehensive. It is. How the numerous facts and figures in this report will be used—whether to create new programs, change existing programs, or undertake new research—will be up to all those who work to improve child health.

Summary by Kip Sullivan based on the report: Assessing the Health of Children in Manitoba: A Population-Based Study *by Marni Brownell, Patricia Martens, Anita Kozyrskyj, Patricia Fergusson, Jennifer Lerfald, Teresa Mayer, Shelley Derksen, and David Friesen*

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