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A Health Atlas for RHAs

MANITOBA CENTRE FOR HEALTH POLICY

Summary by
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based on the report:
*The Manitoba RHA
Indicators Atlas:
Population-Based Compar-
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Care Use*, by
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Imagine you are planning a journey around the world. Think how difficult it would be without an atlas, a book of maps representing the main features of the countries you are to travel in. Without these maps you are likely to get lost, take wrong turns. You may not end up where you want to go. In fact without the maps you may not even know where it is you want to go.

Similarly, when planning for the needs of their regions, Manitoba's Regional Health Authorities (RHAs) require maps, representations of the health and health care use of their populations. Fortunately, thanks to the work of *The Need to Know Team*—a collaboration of the Manitoba Centre for Health Policy (MCHP), Manitoba Health and the Non-Winnipeg RHAs—such a book of maps is now available.

The *Manitoba RHA Indicators Atlas* provides RHAs with information which, when combined with other sources of data and with their own understanding of their regions, will allow them to get a better picture of where it is they want to go, and to make it more likely they will get there.

RHAs can now compare their region's health status with other RHAs in the province (see map) and with provincial averages. They can also compare the health status of the districts within their regions, and can see how the health of the region has changed over time. Furthermore, since RHA representatives were part of the project team, they can ensure that their regions know about and understand the information, helping to inte-

grate it within regional and provincial health plans.

The Need to Know Team

Funded by a five-year grant from the Canadian Institutes of Health Research, key people from MCHP, Manitoba Health and high level planners from each of the Non-Winnipeg RHAs work together as The Need to Know Team. The team allows everybody to learn: Researchers learn to appreciate better the areas of research most relevant to rural and northern RHAs; planners learn how to interpret and apply research in the planning and decision-making.

How was this information arrived at?

The Need to Know Team's first task was to decide on the sub-regional districts that would be useful for RHA planning while meeting research requirements. Fifty-one districts were subsequently defined. Next, a set of indicators—68 in all—were decided upon. Think of these as signs pointing to the healthiness of a community, e.g., vaccination rates, number of mothers breastfeeding, etc. Rate comparisons for each indicator were then made between RHAs, and within RHAs at a district level, over two time periods: the pre-RHA time between 1991 and 1996, and the RHA period between 1997 and 2001.

Significantly, these health and health care use rates are population based. In other words, they record patterns of care for the population *within a geographical region* irrespective of where that care was received. A person living in a remote area

in Nor-Man RHA, for instance, may be hospitalized in Winnipeg, but the hospitalization is attributed back to the region.

Another advantage is that the rates are standardized. When regions have different distributions of age and sex—perhaps more women than men, more young than old—it can be difficult to make comparisons between them. When standardized however, the rates reflect what they would be if all regions had the same age and sex distribution.

Finally to make the graphs easier to interpret they are all ordered in the same way from the healthiest to the least healthy regions, based on the average from 1991-2000.

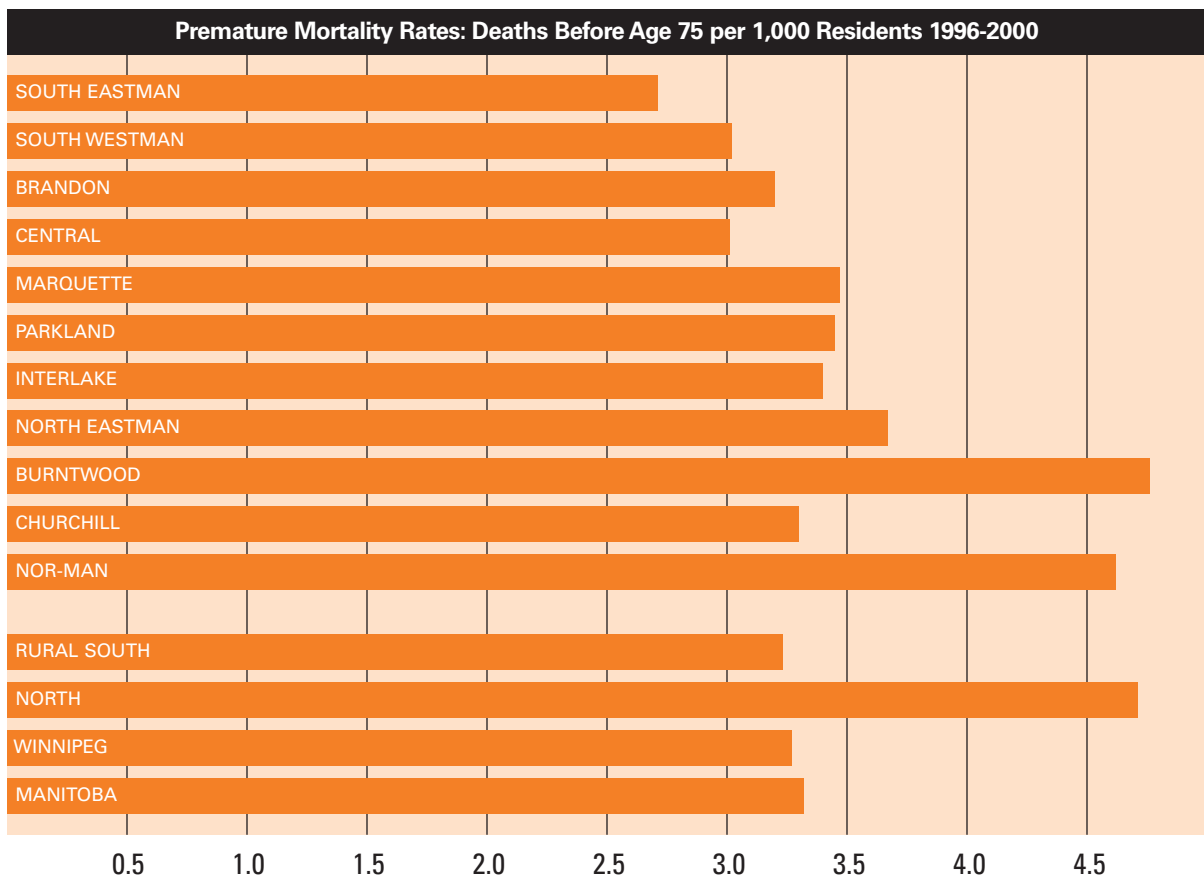
But what constitutes a healthy area? The single best measure to reflect the health status of a population is considered to be the premature mortality rate (PMR)—the rate of death before the age of 75, age- and sex-adjusted. Areas with a high PMR have been found to require more health care services.

Health Status

- While the overall health status of Manitobans improved from the first half of the 1990s to the second, there are still large differences between the regions, particularly northern and southern ones. PMR ranged from a low of 2.7 deaths per thousand in South Eastman to a high of 4.8 in Burntwood during the period 1996-2000 (see graph). But also within RHAs there are interesting differences between the districts. In North Eastman, Springfield district has one of the lowest PMRs in the province at 2.7, while Northern Remote has one of the highest at 8.5 deaths per thousand.

Illness and Death

- Provincially, heart attack rates showed a slight decline over time, from 2.4 to 2.2 per thousand (for adults aged 20 or more). However, Burntwood showed a significant increase from 2.5 to 3.4.



- The top cause of death in the last half of the 1990s was circulatory diseases (39%), followed by cancer (27%) and respiratory illnesses (10%). Of the 6% of deaths due to injuries, about 1/4 were due to falls, 1/4 to vehicle accidents, and 1/4 due to suicides.
- The percentage of people treated for diabetes increased provincially from 4.6% to 5.6%. Northern RHAs in particular showed a dramatic increase and are well above the provincial average.

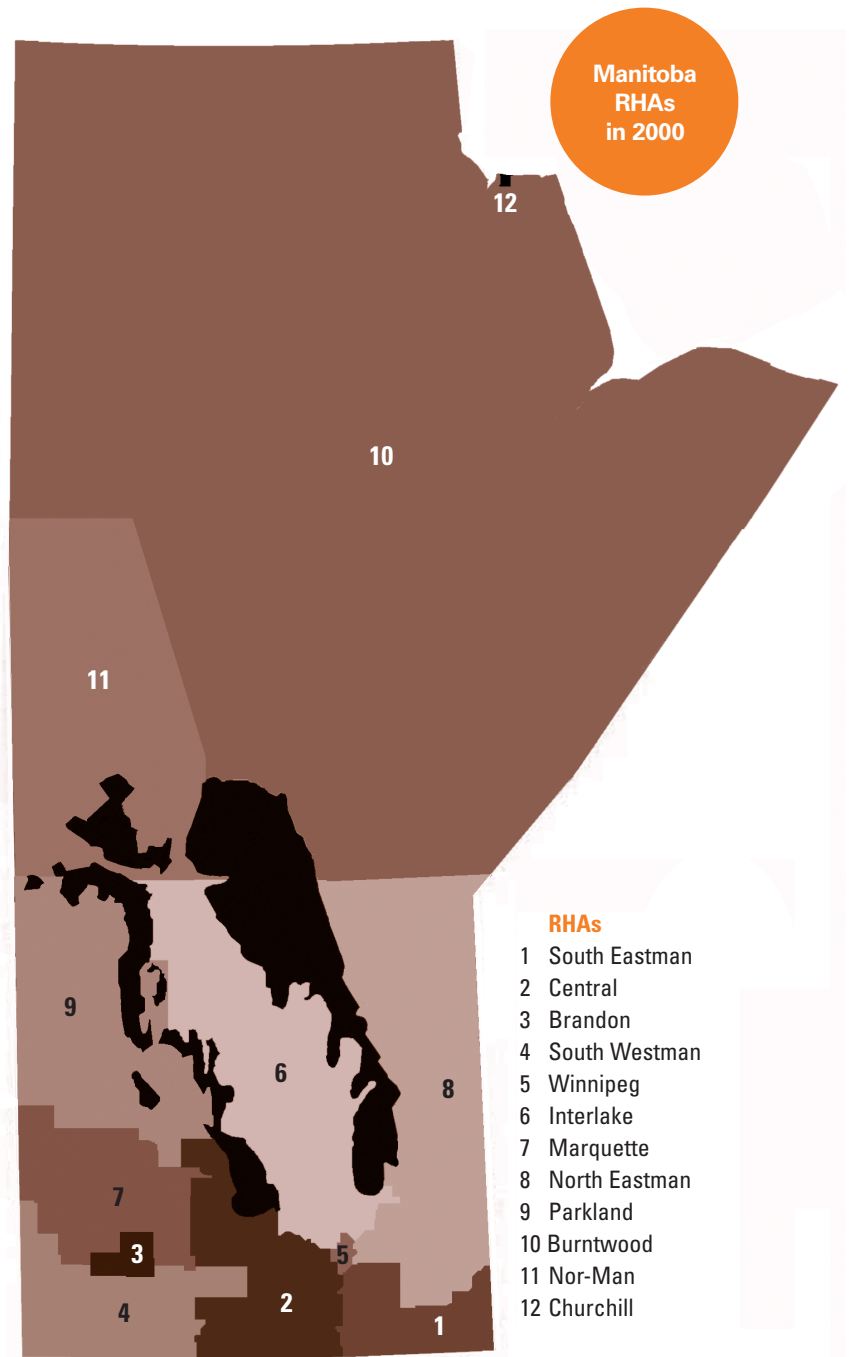
Preventive Care

- Childhood immunization rates, as measured by a complete set of immunizations, declined slightly in the province. The greatest decline was in seven-year-olds, from 83% to 73%.
- Breast screening rates—women aged 50-69 with at least one mammogram in two years—increased substantially throughout the province, from 50% to 63%. Rural South rates were higher than the provincial average.
- Cervical screening rates for most RHAs were generally lower than the provincial average.

Use of Health Care Services

- A high proportion of Manitobans, 82%, saw a physician at least once during the year 2000, and the average person visited a physician over four times per year. The main reason for seeing a physician was for respiratory illnesses.
- Interestingly, consult rates—rate of a first referral to another physician for a complex problem—showed little association with the underlying health status of the region. Urban residents had higher than average rates; rural and northern residents lower. Churchill is the exception with a substantially higher rate than the Manitoba average.

- Causes of hospitalization changed very little over time. Surprisingly, the leading reason for hospitalization was not an illness but pregnancy and delivery (12%). This was followed by other diagnoses: circulatory (10%), cancer (10%), digestive (9%) and respiratory (7%).



- The demands on home care workers have increased. The home care caseload went from 21 open cases per 1000 persons to 26. The average time persons received home care also increased from 195 to 209 days.
- Sixty-six per cent of the population received at least one prescription. The number of drugs per user was higher in the North at 4.0 per user compared to the rest of the province where it was about 3.4 per user. This reflects the poorer health status in the North.

How can the information be used?

Although the atlas was designed for use mainly at the RHA and district level, trends were noted for “Rural South” (an aggregate of all southern and mid-province RHAs except the urban centres of Winnipeg and Brandon) and for “North” (the three northern RHAs). In this way the atlas provides a series of maps which can “zoom in” and “zoom out” on health and health care within the province—from a view of overall provincial health (the big picture) to a closer look at the aggregate regions of Rural South or North, nearer still to a view of the RHAs themselves, or a close-up of the districts within them.

For example, looking at the big picture, North Eastman might note that its breastfeeding rates are much lower than the provincial average (69% versus 80%). By taking a close-up look at the district rates, however, another picture begins to form. Of the six districts, three are actually above the provincial average and another is just below it. The district of Northern Remote has a substantially lower rate of 38%—a remarkable difference within a single RHA. Thus, planners can look at specific interventions for different districts within their RHA.

One of the features of the atlas is that it provides not only rates, but also the actual number of persons who received care. The stroke

rate in Burntwood is almost double that of Central. But, because Burntwood has a younger and smaller population, the actual number of stroke cases was only 38, compared to 129 in Central. So even though the personal risk of having a stroke is twice as high in Burntwood, the actual number of people requiring services is much smaller.

The variety of indicators included allows the RHAs to see a fuller picture of health and health care within their region. For instance, while Brandon has a higher heart attack rate than the provincial average, it also has lower than average cardiac catheterization rates (a diagnostic test for coronary artery disease), and lower angioplasty rates. Given the higher rate of heart attack might we not expect their diagnostic rates to be higher too? This is a question the RHA might explore.

Anomalies too can become apparent. While we find that the North has the lowest use of physicians and lowest rates of consults in the province, Churchill actually has the highest physician visit and consult rates. So while a common perception might be that northern remote communities have poor health services, we can look at Churchill and ask why, what makes it different?

The relationship between health and health care is clearly a complex one. One piece of information may need to be considered in the light of others. As a guide, the indicators atlas does offer some sample interpretations and questions that might arise, but the most useful interpretations will come from the RHAs themselves.

Fortunately since the RHAs had team members involved in this project, each atlas, in essence, comes with its own interpreter. So while the journey that planners, decision-makers and policy-makers take to provide the best health care system for the people within their regions can be difficult, at least with the right maps they can feel more assured that they are heading in the right direction.

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 OR CONTACT MCHP: PH. (204) 789-3805; FAX (204) 789-3910
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