HEALTH DISPARITY IN SASKATOON

Analysis to Intervention

Summary

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SUMMARY

The overall objective of our report is a) to describe the extent of health disparity in the Saskatoon community, b) to determine the causes of health disparity, c) to explain that health disparity is mostly preventable and d) to use evidence from other jurisdictions to present policy options for consideration.

A study conducted by the Saskatoon Health Region in 2006 compared the health status of residents within Saskatoon's six low income neighbourhoods to the rest of the city and found substantial disparities in suicide attempts, mental disorders, injuries and poisonings, diabetes, chronic obstructive pulmonary disorder, coronary heart disease, chlamydia, gonorrhoea, hepatitis C, teen births, low birth weights, infant mortality and all cause mortality. Although disparity in health outcomes by socioeconomic status is well known, the magnitude of the disparity in health outcomes is shocking for a city in the western world. For example, the infant mortality rate in Saskatoon's low income neighbourhoods was 448% higher than the rest of the city; which is worse than developing nations.

Upon completion of the research, over 200 community consultations were initiated with various government representatives, academics, community groups and community associations. The purpose of the consultations was to transfer knowledge of the vast disparity in health to the Saskatoon community and to gather opinion on what needs to be done to help alleviate this complex problem. As a result of these consultations, a number of regional initiatives were implemented.

The initial *Health Disparity by Neighbourhood Income* study (Figure 1, page 3) led to more comprehensive research to examine the relationship between socioeconomic status and health status in Saskatoon residents. These additional studies have demonstrated that income status often has the strongest independent association with disparity in the prevalence of diseases or disorders in Saskatoon residents. Utilization of physician or mental health services had limited (if any) association in preventing disease prevalence. As well, behaviours also had limited independent associations with health outcomes; mainly because the prevalence of risk behaviours is often associated with income status. The results from Saskatoon are consistent with the results from other jurisdictions in that the determinants of health (and behaviours) fall mainly outside the health care treatment sector. A new finding also materialized through the more comprehensive research. Aboriginal cultural status was found to have a much more limited association (if any) with poor health outcomes or risk behaviours after statistical adjustment for other variables like income status. This suggests that the health status of Aboriginal residents in Saskatoon can be improved substantially with appropriate social intervention. For example, the 2007 Saskatoon School Health Survey found that Aboriginal children between the ages of 10-15 were initially 181% more likely to suffer from depressed mood than Caucasian children. However, after statistical adjustment for other variables like socioeconomic status, Aboriginal children were only 13% more likely to have an independent association with depressed mood. Here is another example. In the Saskatoon Health Region, the prevalence of lifetime suicide ideation (thoughts) is 11.9%. Reviewing by income, 6.1% of high income Caucasians and 3.8% of high income Aboriginal people had lifetime suicide ideation.

The rationale for the more comprehensive research was to establish a finite number of determinants which were independently associated with health disparity in Saskatoon. Given the reality of limited human and financial resources, it is important to ascertain the main determinants of health of which a positive return on investment is likely. If the main determinants of health responsible for health disparities are variables like income status and educational status, a comprehensive and coordinated set of policy options will be required to reduce extensive health disparity in Saskatoon.

In order to develop this comprehensive and coordinated approach to reducing extensive health disparity in Saskatoon, two additional actions were taken. First, 5000 residents from Saskatoon were contacted at random by telephone to determine which health and social disparity interventions they were willing to support. Second, over 10,000 abstracts and articles were reviewed from across the world for evidence

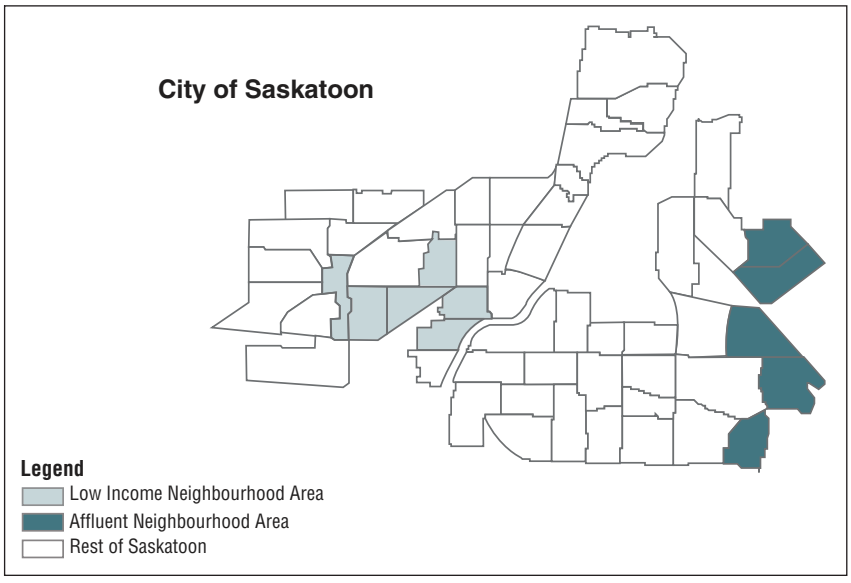
based policy options to reduce health and social disparity. These evidence based policy options were then matched to levels of public support from the Saskatoon population. Policy experts from various government agencies, academic institutions and community groups were able to review our report prior to production, verify that the statistics were correct and ensure the evidence-based policy options were realistic in a Saskatchewan context. Through this process, an additional 100 consultations occurred.

The final results show that a number of relatively simple policies could be implemented that would have a substantial impact on reducing health disparity. For example, 26.3% of all children aged 0-2 years (and 20.1% of all children) in Saskatchewan live in poverty. The impending result of poverty in children is substantial health disparity in youth of all ages; ranging from unacceptable high mortality rates in infants to alarming differences in health and social outcomes in adolescents. If we were to implement a child poverty protection plan, modelled after the Canada Pension Plan that reduced poverty in seniors from 58% to 6%, we could substantially reduce child poverty in Saskatchewan. In our survey of 5000 Saskatoon residents, 83.8% supported strengthening early intervention programs for children, like poverty reduction. It is important to note, however, that the evidence based policy options in this report should be viewed in combination rather than in isolation. Some policy options are to address immediate needs, while others are long term strategies that address macro level social structures. For example, short term income and housing stability measures are intended to provide the necessary support and stability to low income residents to allow longer term educational and employment initiatives to have a realistic chance of success.

In total, 46 evidence based policy options are presented. The policy options to reduce health and social disparity are within the general categories of income, education, employment, housing and health care.

Significant health disparities are inconsistent with Saskatchewan values. In addition to the excess burden of illness on those who are already disadvantaged, health disparities threaten the cohesiveness of our community, challenge the sustainability of our health system and have an impact on the economy. These consequences are avoidable and can be successfully addressed. Our research shows that many of the evidence based policy options presented for discussion already have strong public support; including a wide range of general support from agencies and community groups.

Figure 1
Statistics Canada Low Income Cut-off Designation for Six Saskatoon Residential Neighbourhoods in 2001



Community Consultation and General Letters of Support

Since the writing of the first draft of this report, an additional 100 community consultations occurred with various government agencies, academics, community groups and community associations. The purpose of the consultations was to ensure that the research was valid, the statistics were accurate and that the evidence based policy options presented were realistic in a Saskatchewan context.

General letters of support were obtained from regional government agencies. The foreword is from the President and CEO of the Saskatoon Health Region. The other letters of support are from the Tribal Chief of the Saskatoon Tribal Council, the President of the Central Urban Métis Federation, the Chairman of the Board of the Saskatoon Board of Education, the Chair of the Greater Saskatoon Catholic Schools, the Mayor of Saskatoon, all ten City Councillors for Saskatoon, the Chief of Police and the Regional Inter-Sectoral Committee.

General letters of support were also obtained from various academics. The foreword is from Professor Mackenbach in Europe who is the foremost international expert on health disparity in the world. Professor Mackenbach was the author of the European Union's report on health disparities. From a national level, a letter of support was written by the Honourable Monique Bégin who is the former Minister of National Health and Welfare for Canada and represented Canada on the World Health Organization's Commission on Social Determinants of Health. National letters of support were also written from the Chief Executive Officer of the Canadian Public Health Agency, the Director of the Canadian Population Health Initiative and the Director of the Canadian Institute for Health Information. Letters of support were also written from local academics at the University of Saskatchewan, University of Regina and SIAST. General letters of support from local academics included the President of the University of Saskatchewan, the President of SIAST, the Dean of Medicine, the Director of the Masters of Public Health program, the Head of the Department of Paediatrics, the Head of the Department of Community Health and Epidemiology, the Head of the Department of Psychiatry, the Dean of Education, the Director of Applied Research, an Associate Professor within the Department of Political Studies, the Research Chair for Substance Abuse, the Canada Research Chair for Public Policy and Economic History, the Co-Directors for the Community University Institute for Social Research, the Director of Quality Measurement and Analysis at the Health Quality Council and the President of the Student Medical Society of Saskatchewan.

General letters of support were also obtained from community agencies, community organizations, community leaders, unions and business groups. The foreword is from the Executive Director of the United Way. Other letters of support were also written from the CEO of the YMCA, the Executive Director of the YWCA, the Paediatrician that works at St. Mary's school and W.P. Bates school in Saskatoon's low income neighbourhoods, the Executive Director of Communities for Children, the Executive Director of the Canadian Cancer Society in Saskatchewan, the Chief Executive Officer of the Heart and Stroke Foundation, the President and CEO of the Lung Association, the Administrator for the Saskatoon Community Clinic, the Coordinator of the Student Initiative Toward Community Health (SWITCH), the Executive Director of the National Anti-Poverty Organization, the Co-Chairs of the Saskatoon Anti-Poverty Coalition, the Executive Director of the Saskatoon Friendship Inn, the CEO of the Saskatoon Food Bank, the Community Association Presidents from the low income neighbourhoods in Saskatoon, the Executive Director of the Saskatoon Housing Coalition, the Executive Director of Saskatoon Ideas Inc., the President of the Saskatchewan Public Health Association, the President of the Saskatchewan Union of Nurses, the President of the Service Employees International Union (West), the President of the Saskatchewan Federation of Labour and the Executive Director from the Riversdale Business Improvement District.

Our health disparity research was also guided by an Elders Council of ten respected Elders from Saskatoon.

Income and Health in Saskatoon

In comparison to higher income residents, Saskatoon residents that are low income are:

- 1458% more likely to attempt suicide
- 1389% more likely to have Chlamydia
- 3360% more likely to have hepatitis C
- 676% more likely to have gonorrhea
- 1549% more likely to have a teenager give birth to a child
- 448% more likely to have an infant die in the first year
- 52% more likely to have low self report health
- 165% more likely to have diabetes
- 277% more likely to have heart disease
- 95% more likely to have high blood pressure

In comparison to higher income children, Saskatoon children aged 10-15 years that are low income are:

- 180% more likely to have low self report health
- 200% more likely to be depressed
- 250% more likely to be anxious
- 190% more likely to have suicidal thoughts
- 41% more likely to have low self esteem
- 1140% more likely to be smoking already
- 200% more likely to be using alcohol already
- 1900% more likely to be using marijuana already

Income Disparity in Saskatoon

- 17.1% of Saskatoon residents live below the Low Income Cut Off (LICO)
- 20.1% of children under the age of 18 years live below the LICO

Examples of Evidence Based Policy Options

A) Set Measurable Goals to Reduce Poverty

- Reduce poverty in children from 20% to 2% in five years
- Reduce poverty in all residents from 17% to 10% in five years

In Ireland, a target was set in 1997 to reduce the percentage of the population living in poverty from 15% to 10% in ten years. Within four years, the poverty rate had already fallen from 15% to 5%. The success observed in Ireland was attributed to the setting of a goal; followed by changes in social programs including increases in social assistance payments, then educational programs and then employment initiatives.

B) Ensure No Child Lives in Poverty

- Parents with children who are on social assistance should have their shelter allowances and their adult allowances (i.e., food, clothing) doubled in order to raise children to the LICO.

Although every resident is important, the prioritization of children was a key strategy within poverty reduction plans in the United Kingdom, Sweden and Quebec.

C) Create a Child Poverty Protection Plan

- Establish a Child Poverty Protection Plan or CPPP to fund the reduction of poverty in children in Saskatchewan.

Because of the Canada Pension Plan, only 6% of Canadian seniors live in poverty instead of 58%. Exempting 500,000 residents, we could fully fund a Child Poverty Protection Plan in Saskatchewan at $6 per week from every worker and $5 per week from every business.

According to a review of child benefits conducted by the Canada Revenue Agency, Saskatchewan is one of only three provinces that does not offer a targeted child benefit at the provincial level.

D) Remove Work Earning Clawbacks

- Work earning supplements should be coupled with the removal of work earning clawbacks to successfully transition return to work and promote voluntary withdrawal from social assistance.

In Saskatchewan, every dollar earned beyond $125 by a parent with children is subtracted from Social Services benefits. In two Canadian provinces and three American states, the removal of work earning clawbacks and the provision of work earning supplements were the most effective initiatives in returning people back to work and reducing poverty. The extra cost to government is only $110 per applicant per year but adds an extra $2,405 income per year to each recipient. In Québec, the removal of work earning clawbacks and the provision of work earning supplements has been rapidly expanded from less than 100,000 people to 536,000 low/middle income households.

E) Change Lower Limit Tax Exemptions

- Change the lower limit tax exemption for low income workers and offset the revenue loss by removing the lower limit tax exemption for higher income earners.

Tax credits, along with changes to the minimum wage in the United Kingdom, resulted in 800,000 fewer children living in low income in 2004/05 in comparison to 1996/97. The greater distance created between what you could earn from work, in comparison to what you could earn on social services, was attributed to the United Kingdom having the highest rate of employment and the lowest rate of unemployment in the G8.

F) Increase Support for Parents on Leave

- Increase the Employment Insurance rate for parents on parental leave from 55% to 80% of pre-employment income

In Sweden, parental leave has an income replacement rate of 80% instead of 55% offered in Canada. This policy, along with child care reform, has resulted in Sweden having the lowest rate of lone parent families living in poverty (6.7% in comparison to 51.6% in Canada). As well, the income of lone parents in Sweden is 80% that of two parent families whereas this number is less than half in Canada.

Support from the Saskatoon Community

In our survey of 5000 Saskatoon residents:

- 83.8% support strengthening early intervention programs for children (i.e. poverty reduction for children)
- 84.1% support work earning supplements

The British Medical Journal labelled income inequality and health "The Big Idea" and suggested that the health of a society is not based on overall wealth but more on how evenly that wealth is distributed through taxes and transfers (BMJ, 1996).

Education and Health in Saskatoon

In comparison to higher educated residents, Saskatoon residents with less than high school graduation are:

- 25% more likely to have low self report health
- 55% more likely to have diabetes
- 30% more likely to have suicide ideation
- 141% more likely to have heart disease
- 61% more likely to have high blood pressure
- 40% more likely to be daily smokers

In comparison to children with parents who have higher levels of education, Saskatoon children with parents who had less than high school graduation are:

- 98% more likely to have low self report health
- 96% more likely to be depressed
- 61% more likely to be anxious
- 52% more likely to have suicidal thoughts
- 97% more likely to have low self esteem
- 82% more likely to be smoking already
- 49% more likely to be using alcohol already
- 147% more likely to be using marijuana already

Education Disparity in Saskatoon

- At least 690 children below the age of 19 are not attending school in Saskatoon
- 10.7% of all adults between the ages of 20 to 24 do not have a high school diploma
- 48.0 % of Aboriginal adults between the ages of 20 to 24 do not have a high school diploma and are not in school

Examples of Evidence Based Policy Options

A) Increase Support for Community Schools

- Provide health and social services in schools in low income neighbourhoods in order to prevent school drop-out, encourage academic achievement, increase graduation rates and improve overall health.

Research indicates that children who access school-based health centers are more likely to stay in school, have better attendance, progress in school and graduate. Research also shows that school-based health centers improve health outcomes in youth.

B) Universal Child Care for Low Income Parents

- Child care, pre-school and pre-kindergarten should be provided to all low income parents at no cost in community schools in low income neighbourhoods.

In Sweden, child care is 2.5% of the average household income while pre-school and pre-kindergarten are provided at no cost. These initiatives allowed single parents to return to the workforce and have resulted in Sweden having the lowest rate of low income, lone-parent families in the world (6.7% of lone parents live in poverty in comparison to 51.6% in Canada).

C) Reserve Education Placements for Low Income Students

- Learning institutions like SIAST should allocate 10% of their existing skills training vacancies to adults that have been on social assistance for more than one year to take the programs at no cost.

In Ireland, 20% of the placements in the new National College of Ireland were reserved for low income residents. Prior to this project, less than 1% of students in a deprived district went to college. Within ten years, this number had increased to 10%. Putting more money into actual skills training was a key component in Ireland's ability to decrease unemployment from 11.3% to 4% in only three years.

D) Cap Annual Health Care Treatment Spending Increases

- Cap the annual growth of the health care treatment sector at 5%, instead of 10%, in order to redistribute financial resources to health enhancing activities like education.

Japan has the best health outcomes in the world despite having the lowest expenditures for health care treatment (ie. Japan spends 7% of its GDP on health care treatment in comparison to 14.5% in the United States). By limiting growth within the health care treatment sector, the Japanese were able to free up investment for intellectual development; which resulted in superior health outcomes.

Support from the Saskatoon Community:

In our survey of 5000 Saskatoon residents:

- 82.0% support more health promotion programs (ie. health promotion in schools)
- 83.8% support enhanced early intervention programs in general (with 66.0% direct support for more subsidized day cares and pre-schools)
- 82.3% support more subsidized trades training for adults
- 41.3% support transferring health care treatment resources to health creating activities like education

> **"A society that spends so much on health care that it cannot or will not spend adequately on other health enhancing activities may actually be reducing the health of its population" (Evans, 1994).**

Employment and Health in Saskatoon

In comparison to adults who work, Saskatoon adults who are not working are:

- 53% more likely to have low self report health
- 132% more likely to have diabetes
- 272% more likely to have heart disease
- 133% more likely to have high blood pressure

In comparison to children with parents that have a professional occupation, Saskatoon children with parents who have a non-professional occupation are:

- 64% more likely to have low self report health
- 32% more likely to be depressed
- 40% more likely to be anxious
- 21% more likely to have suicidal thoughts
- 72% more likely to have low self esteem
- 86% more likely to be smoking already
- 21% more likely to be using alcohol already
- 46% more likely to be using marijuana already

Employment Disparity in Saskatoon

- In 2007, the unemployment rate for Aboriginal people was 17.6% in comparison to 4.4% for non-Aboriginal people
- Aboriginal people account for 15% of our overall population but only 8.3% of our civil service and 2.5% of our professional workforce (ie. Saskatoon Health Region)

Examples of Evidence Based Policy Options

A) More Employment for Aboriginal People

- Aboriginal representation should increase to 15% of civil service jobs, 15% of management positions and 15% of professional workplaces within 10 years.

The strategy of more employment for Aboriginal people is similar to Ireland's plan to provide education and then targeted employment to marginalized groups (20% of all jobs in marginalized neighbourhoods were reserved for local residents). The ten year goal in Ireland in 1997 was to decrease unemployment from 11.3% to 6% and long term unemployment from 7% to 3.5%. Within four years, unemployment was at 4% while long term unemployment dropped to 1.2%.

In the Canadian Armed Forces Medical Services, the main priority is to recruit medical students in comparison to physicians. The incentive of an annual salary during medical training with reimbursement for tuition fees has resulted in a 300% increase in medical officers within five years with a retention rate of 67% after four years of service. The Saskatoon Health Region, in partnership with the University of Saskatchewan, could build a professional Aboriginal workforce modelled after the military. Aboriginal high school graduates could work half time as a health care assistant in training (ie. nursing assistant) while going to University half time; while receiving full time reimbursement. The cost of University training would be paid for by the employer. Each applicant should be provided with a mentor/tutor to assist with clinical and academic training. A comprehensive strategy that includes recruitment with on the job training and on-going education would systematically reduce persistent Aboriginal employment inequity in the professional workforce.

B) Increase the Minimum Wage

- The minimum wage should be increased to $10 per hour in order to encourage employment by making work more attractive than employment assistance.

In England, minimum wage was such a high priority that it legislated a national minimum wage. As a result, England had the combination of the highest employment rate and the lowest unemployment rate of all G8 countries for the first time in 50 years (along with tax credits). The combination of a national minimum wage and tax credits were also responsible for removing 800,000 children from impoverishment.

C) Comprehensive Return to Work Programs

- For those who have been off work for an extended period of time, return to work programs should include a comprehensive combination of adapted skills training, job search, job placement, on the job experience and life skills training in order to increase chances of transitional return to work. Health services should augment the return to work process when required.

Comprehensive return to work programs were found to be successful in Alberta, Saskatchewan, Québec and Ontario. In Alberta, 80% of trainees were employed after comprehensive return to work programs.

D) Social Assistance as a Transition to Work

- Use Social Assistance as a transition to work (when possible) with enhanced benefits that are time limited to ensure they achieve their intended results

In the United States, a new law was introduced to mandate return to work after two years of social services benefits with termination of all benefits after five years. The results were mixed. About 50% returned to work while the other 50% did not. A made in Saskatchewan alternative could include enhanced benefits for education, skills training and employment for a time limited period of five years. If return to work is not obtained after five years of comprehensive intervention, the applicant could revert back to the previous benefit schedule (not termination of benefits).

Support from the Saskatoon Community

In our survey of 5000 Saskatoon residents:

- 67.5% support employment equity programs
- 71.3% support increasing the minimum wage
- 82.3% support providing more subsidized trades training

> **"It has been said that the measure of any society is what it does for its least fortunate group" (Waiser , 2005).**

Housing and Health

We have not yet collected information on the impact of housing on health in Saskatoon. However, the World Health Organization concluded that housing conditions are directly related to health and quality of life. The WHO found that inadequate housing is one of the mechanisms through which poverty affects the health of a population; especially for vulnerable and marginalized groups.

A review of the literature finds that when occupants are exposed to mould or dampness in a house, the residents are:

- 60% more likely to have asthma
- 90% more likely to have bronchitis
- 30% more likely to have arthritis
- 60% more likely to have depression
- 60% more likely to have anxiety
- 70% more likely to have migraines

Housing Disparity in Saskatoon

- There were 2,150 people on a waiting list for affordable housing units in Saskatoon in 2006
- There is an estimated overall deficit of 5,900 affordable housing units in Saskatoon
- There is an estimated 22,500 people (or 9,000 households) who are considered to be at risk of homelessness in Saskatoon
- There are approximately 6,400 homeless individuals in Saskatoon (see definition)

Examples of Evidence Based Policy Options

A) Expand Affordable Housing Initiatives

- The provincial government should consider purchasing 20 abandoned or neglected multifamily and apartment buildings in Saskatoon's low income neighbourhoods, renovate them and transfer the title to not-for-profit housing authorities with the eventual goal of transferring the title to home ownership.

Economic analysis performed in British Columbia concluded that people that are homeless and those that are at risk of becoming homeless consume more health, correctional and social services than their housed counterparts. Providing housing for homeless individuals saves $17,895 per person per year in overall costs; when health, social services and correctional costs are included in the overall cost to government. When supportive housing was integrated with health services in San Francisco, emergency room usage dropped by 58%, inpatient days fell by 57% and there was a near elimination of residential mental health services.

B) Expand Affordable Housing Projects

- The City of Saskatoon should continue to examine the benefits of development of a Land Trust, designating surplus city land to affordable housing projects, inclusionary zoning, improving the speed of approval process for affordable housing and a five year tax abatement for affordable housing projects/units.

A comprehensive housing initiative called Home Again was initiated in the city of Portland, Oregon. The program exceeded its ten year goals within three years. In its first year, 1,286 chronically homeless individuals and 1,681 homeless families with kids were housed.

C) Reserve 10% of New Developments in Saskatoon for Affordable Housing

- Any developer that purchases land from the city of Saskatoon should set aside at least 10% of the new development for affordable housing.

In Ireland, 20% of all new homes were set aside for affordable housing as a key component of their anti-poverty strategy. In England, the goal to increase the supply of social housing by 50% resulted in 75,000 new affordable housing units within three years and a reduction of homelessness of 27% within the first year of implementation.

Support from the Saskatoon Community

In our survey of 5000 Saskatoon residents:

- 68.8% support more subsidized quality housing for adults without children
- 74.9% support more subsidized quality housing for parents with children

> **"I need not say anything more than if the issue of housing is not addressed, then it is unlikely that any provincial mental health reform will have an impact on the problem of escalating mental health illness in society" (Kirby Senate Report, 2006).**

Aboriginal Cultural Status and Health in Saskatoon

It is not difficult to find a government agency in Canada reporting that Aboriginal cultural status is associated with poor health. For example, the Health Canada website reports that First Nation peoples are more likely to experience poor health outcomes in essentially every indicator possible (ranging from two to seven times higher). *A Statistical Profile on the Health of First Nations in Canada for the year 2000* found that First Nation males live 7.4 years less than other Canadian males and First Nation females live 5.2 years less than other Canadian females.

One of the concerns associated with the discussion above is that it gives policy makers and the public at large the impression that health disparity is not preventable because a major determinant of health and behaviour (Aboriginal cultural status) is not modifiable. There is little acknowledgement that socioeconomic status and Aboriginal cultural status are strongly linked in Canada; and that lower socioeconomic status within Aboriginal populations might be the true cause of health disparity.

For example, one Canadian paper revealed that Aboriginal Canadians experienced significantly more depressive symptoms than other Canadians. However, after statistical adjustment, the authors concluded that socioeconomic variables were responsible for mental health disadvantages between cultural groups (Wu, 2003). Another Canadian study found that lower self report health and diabetes prevalence were not associated with Aboriginal cultural status after controlling for socioeconomic confounders (Ralph-Campbell, 2006).

Aboriginal Cultural Status and Health in Saskatoon

In Saskatoon, after controlling for other variables, Aboriginal cultural status no longer has a statistically significant association with low self report health, diabetes prevalence, heart disease prevalence, lower child immunization rates, depressed mood and alcohol use. After controlling for other variables, Aboriginal cultural status retains a statistically significant association with suicide ideation, daily smoking and marijuana use; albeit a greatly reduced association.

After controlling for other factors, namely income status, Aboriginal people from Saskatoon are:

- 21% less likely to report low self report health
- 24% less likely to have diabetes
- 4% less likely to have heart disease
- 184% less likely to have suicidal thoughts
- 186% less likely to be a daily smoker
- 64% less likely to have a child that is not fully immunized
- 168% less likely to have a child that is depressed
- 272% less likely to have a child that uses alcohol
- 712% less likely to have a child that uses marijuana

Examples of Evidence Based Policy Options

A) Aboriginal Self Determination

- Aboriginal people in Saskatchewan should be afforded more control over health, social, education and justice policies and funding that disproportionately effect Aboriginal people.

After reviewing the evidence, the federal Royal Commission on Aboriginal Peoples concluded that self-government is the key to ending the cycle of poverty and despair. Self government is a means of enhancing both the self-respect of Aboriginal people and mutual respect between Aboriginal and non-Aboriginal people.

In British Columbia research was undertaken to try to explain why the rates of suicide in First Nations youth were so high. In British Columbia, the rate of suicide in First Nations youth aged 15-24 is 108.4 per 100,000 children. When a Reserve Community had some level of self government, the youth suicide rate was only 18.2 per 100,000. When a Reserve Community had some level of control over self government, land claims, education and health services, the youth suicide rate was 0 per 100,000 population.

B) Ensure Federal Responsibility for "Registered Indians"

- The federal government must assume its full constitutional responsibility for all Registered Indians under section 91(24) of the Constitution Act, 1867. Jurisdiction and responsibility must go together.

The federal government has advocated that section 91(24) of the Constitution Act, 1867 allows it to exercise jurisdiction over Registered Indians but does not require the federal government to take responsibility for them. We must advocate that jurisdiction and responsibility go together. The federal government has used divided jurisdiction to limit their own legal responsibility for Registered Indians as well as a corresponding reluctance to provide support to Registered Indians no longer living on-reserve.

Support from the Saskatoon Community

In our survey of 5000 Saskatoon residents:

- 60.1% support more self determination for Aboriginal groups

> **"The biological explanation for inequalities between cultural groups is wrong but, unfortunately, we are not told what the correct explanation is" (Diamond, 1999).**

Health Care and Health in Saskatoon

The availability of fully insured Medicare services has not eliminated extensive health disparities. Large increases in health care spending in Saskatchewan – approximately 10% per year – have not been able to reduce health disparities. This reaffirms how important it is to evaluate not only accessibility but also the effectiveness of health services for those in poorest health.

Health disparities persist among lower income groups despite their overall use of health services. Because they are more often and more severely sick or injured, people in the lowest income groups use approximately twice as much health care services as those in the highest income groups. On the basis of an estimation of health care resources used by Canadian households, approximately 20% of total health care spending may be attributed to income disparity alone. By this estimate, Saskatchewan could save approximately $640 million per year in health care treatment costs if there was more equity in population income levels. In other words, social programs will need to work in combination with health programs in order to reduce health disparities. The health care treatment sector can not do it alone.

That said, what can the health care sector do? The report *Reducing Health Disparities – Role of the Health Sector* provides examples of challenges within the formal health care treatment system:

- Lower income groups use some health care services less (mainly prevention programs); even where programs are universal and have no direct cost to users
- Lower income groups have more complex needs and are less likely to have a continuous source of care and health care providers familiar with their needs
- Higher income groups are more likely to receive optimal care
- Higher income groups are more likely to be referred to specialist.
- An episode-oriented medical and hospital system that focuses on discrete events and crises is often unable to address the more complex and continuous needs of at-risk populations

Examples of Evidence Based Policy Options

A) Health Disparity Reduction: A Health Sector Priority

- Make health disparities reduction a health sector priority in the Saskatoon Health Region.

Leadership on disparities reduction within the health sector is needed to facilitate the roles of the health sector to achieve health gains.

B) Intersectoral Action

- Engage other sectors in health disparities reduction other than health care treatment

We need to engage citizens in order to foster public awareness in order to gain public support to reduce health disparities. Specifically, we need to develop communication and education strategies to increase public awareness of the determinants of health (ie. income).

C) More Health Resources in Low Income Neighbourhoods

- The number of health resources in Saskatoon's low income neighbourhoods should, at the very least, be proportionate to the size of the population; let alone to the disproportionate number of health disorders.

We suggest that property tax abatements be created for more physicians and nurses to work in low income neighbourhoods. A property tax reduction or elimination policy would be consistent with actions taken by the Netherlands. The Netherlands, however, recognized that access to good health care is not enough.

D) Integrated Health Services in Low Income Neighbourhoods

- The Saskatoon Health Region should offer integrated and comprehensive services in Saskatoon's six low income neighbourhoods including public health, mental health, addictions and primary care services.

In the Netherlands, it was recognized that low income people require a different approach to care to achieve similar health outcomes.

Health disparities persist among lower income residents despite higher overall use of health services. Large increases in overall health care spending have been unable to reduce health disparities. As such, health services need to be accessible, comprehensive and integrated while working in combination with appropriate social programs.

Support from the Saskatoon Community

In our survey of 5000 Saskatoon residents:

- 82.0% support more health promotion programs (ie. health promotion in schools)

> **"At quite an early stage in any analysis it becomes apparent that many of the conventional explanations of the determinants of health – of why some people are healthy and others not – are at best seriously incomplete if not simply wrong" (Evans, 1994).**

Variables Independently Associated with Poor Health and Risk Behaviour in Saskatoon

Comprehensive research was undertaken to determine variables that had independent associations with poor health outcomes and risk behaviour in Saskatoon. This requires more complex statistical techniques like logistic regression to determine the independent effect of one variable on an outcome while controlling for all other potential explanatory variables.

After statistically controlling for all other potential explanatory variables,

Low self report health was independently associated with:
- Low income, higher age, being overweight or obese, daily smoking and physical inactivity

The prevalence of diabetes was independently associated with:
- Low income, higher age, high blood pressure and being overweight or obese

The prevalence of heart disease was independently associated with:
- Low income, higher age, male gender and high blood pressure

Lifetime suicide ideation was independently associated with:
- Low income, Aboriginal cultural status and extreme life stress

Daily smoking was independently associated with:
- Low income, low education, middle age, Aboriginal cultural status, suicide ideation, extreme life stress and alcohol abuse

Depression in youth was independently associated with:
- Low income and hunger, low education, female gender, low self esteem, suicide ideation, feeling like an outsider at school, being bullied and alcohol abuse

Alcohol abuse in youth was independently associated with:
- Low income, older age, low self esteem, skipping school, being bullied, having friends that use marijuana and having friends that use alcohol

Marijuana use in youth was independently associated with:
- Low income, Aboriginal cultural status, low self esteem, suicide ideation, skipping school, being suspended from school, being bullied and having friends that use marijuana

Incomplete immunization coverage in children was independently associated with:
- Low income

How the Evidence Based Policy Options Work Together

The evidence based policy options should be viewed collaboratively instead of in isolation. Some policy options are to address immediate needs, while others are long term strategies that address macro level social structures. For example, short term income and housing stability measures are intended to provide the necessary support and stability to allow educational and employment initiatives to have a realistic chance of success.

Let's use the example of a lone parent with two children who has been on social assistance for five years. There is a very limited chance the parent will return to workforce soon and a possibility that the parent might never return to the workforce. Why is this so?

As stated previously, a lone parent with two children receives $725 per month from provincial Social Services for shelter, food, clothing, transportation and so on. The average cost of a two bedroom apartment in Saskatoon is $694 and the average cost for a parent and two children to eat nutritious food is $448 per month. This leaves a monthly net deficit of $417 prior to the payment of other necessities like clothing, medicine, transportation and so on.

This family is facing big problems. The first priority should be to stabilize the security of the family and address the hierarchy of needs. The doubling of the shelter allowances and the adult allowances (policy option #3), and access to low income subsidized housing (policy option #25) will allow this family to have a secure place to live with provisions for nutritious food.

Once adequate income support has been initiated, and basic needs like housing and food insecurity have been addressed, a parent is now able to focus on long term strategies to alleviate chronic poverty.

A comprehensive series of policies need to work in coordination to assist this family. First, the early childhood education programs are now provided at no cost so the parent can now attend school (policy option #15). Second, the parent attends a skills enhancement course at SIAST at no cost (policy option #17); of which SIAST receives funding from the Ministry of Social Services (policy option #18). Third, upon completion of the skills training, the parent receives a comprehensive series of job search, job placement, on the job experience and life skills training (policy option #36). Fourth, while working part time and re-integrating back into the workforce, the parent is not subjected to work earning clawbacks (policy option #6). Fifth, while being transitioned into full- time yet relatively lower income work, the parent has an incentive to work by receiving temporary tax incentives (policy option #8) and a higher minimum wage (policy option #33). Finally, once the parent is fully transitioned into the workforce with a skilled and higher income occupation, the parent is rewarded with the title of their affordable housing apartment which has been converted into home ownership (policy option #25).

How does society benefit? First, society avoids the much higher cost associated with expensive emergency shelters and hospital emergency rooms. Second, taxpayers avoid the other expensive costs of Medicare that are associated with increased healthcare utilization rates of low income residents. Third, a parent with a high probability of using social services for an extended period of time has been transitioned back into the workforce. Fourth, the parent is filling a void in the skilled labour market and is now a higher income taxpayer. Most importantly, however, the parent and the two children will not have to face excessive and avoidable health problems. The cycle of poverty has been broken and the children of the previously unemployed parent are now more likely to be productive members of society as well.

Support from the Saskatoon Community

In our survey of 5000 Saskatoon residents:

- 83.2% believe something can be done to reduce health disparity by income status
- A majority believe there should be 0% difference in health status between income groups in Saskatoon

> **"Instead of stating what amount of aid someone will receive, we should instead determine what someone needs in assistance and then raise the required amount. The problem is not public opposition to greater aid, but rather a lack of leadership to ask the public for greater efforts" (Sachs, 2005).**

Final Thoughts

It is our hope that our report provides the basis for decision makers, policy analysts and the public at large to decide what type of society we wish to become. We can then decide which specific policy options to adopt in Saskatoon and Saskatchewan in order to move us towards that goal. All we require is a shared vision, common purpose, community support and strong leadership to make it happen.

> **"When systematic differences are unavoidable by reasonable action, it is simply unfair to avoid intervention" (Marmot, 2008).**

CREDITS

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Professional guidance

Professor Johan Mackenbach and Dr. Anton Kunst from Erasmus University in the Netherlands.

Funding

The Canadian Institutes for Health Research for their financial support of the grant titled “Reducing Health Disparity in Saskatoon” (grant #149320).

Art work

Permission to use the image titled “The Broadway Bridge” displayed on the cover was obtained from The Glen Scrimshaw Gallery. For more information about the artist and his prints contact Glen Scrimshaw at gallery@glenscrimshaw.com.

Cover design and layout by DBlack Communication Inc.

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For copies of the full report

Copies of the full report can be obtained from the Saskatoon Health Region Public Health Observatory website:

http://www.saskatoonhealthregion.ca/your_health/ps_public_health_pho_about.htm

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Saskatoon Health Region

October 2008