National Collaborating Centre for Determinants of Health
Centre de collaboration nationale des déterminants de la santé

PART OF THE
LEARNING FROM PRACTICE
SERIES

EQUITY IN INFLUENZA PREVENTION IN SASKATOON

USING DATA AND BUILDING RELATIONSHIPS AT THE SASKATOON HEALTH REGION

This is the story of Saskatoon Health Region's (SHR) work to improve immunization rates and reduce the spread of influenza in Saskatoon's six core neighbourhoods. In 2012, the NCCDH published a case study about Saskatoon's broad health equity work. (3) The story you are now reading focuses on the region's equity work related to influenza prevention through to 2014.

Public Health planners and practitioners at the front lines are acutely aware that disadvantaged communities experience greater risks and poorer health outcomes during influenza outbreaks. They also know the challenges, during an influenza emergency, of reaching out to low income families, Aboriginal peoples, newcomers to Canada, street-involved and homeless youth, and people living with addictions and mental illness.

The SHR used its significant knowledge of health inequities to improve its response to vulnerable populations during the 2009-10 H1N1 pandemic. Staff then built on that experience to enhance their annual influenza prevention campaigns and, in particular, to increase childhood immunization rates in six core neighbourhoods. (4) This example of addressing inequities in influenza prevention highlights four promising practices.

- continuously collect and analyze data to support the design and modification of programs and to report on achievements
- be flexible and responsive to the needs of the people served
- form and nurture partnerships with community organizations
- use experience to change immunization policies and educate others in the health system.

We hope this story about equity-focused influenza prevention at the SHR will help guide other public health units in finding ways to reach people who experience barriers to adopting influenza prevention practices and to immunization services.

BACKGROUND TO THE STORY

Saskatoon Health Region is the largest health region in Saskatchewan, serving more than 318,000 residents in Saskatoon and surrounding towns, villages, rural municipalities and First Nations communities. It is an integrated health delivery agency that provides hospital and long term care, public health, home care, and mental health and addiction services. One of its four strategic directions—that of *better health*—aims to "improve population health through health promotion, protection and disease prevention, and collaborate with communities and different government organizations to close the health disparity gap." (5, p9)
The Population and Public Health department focuses on communicable disease prevention, treatment and control; primary prevention and health promotion; health equity; health protection; and health surveillance.

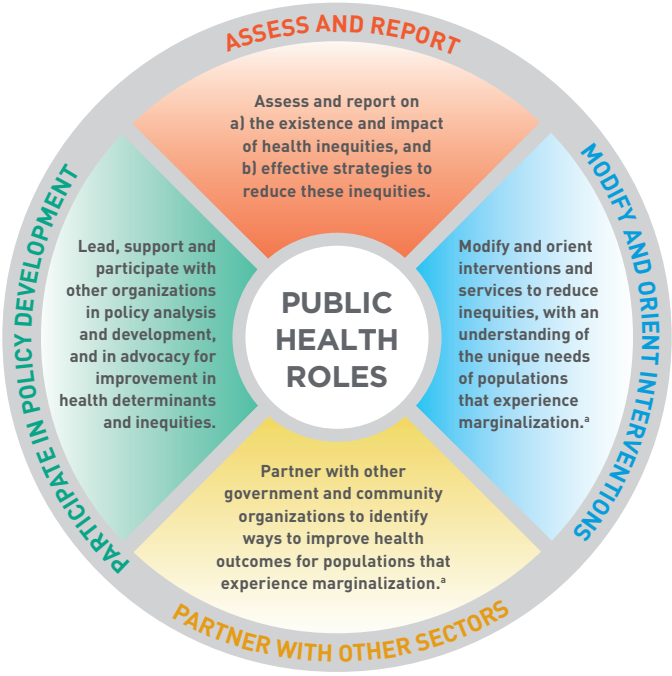
Health Region staff began to look at health disparities in the region in the early 2000s. In 2005, Statistics Canada neighbourhood data was analyzed with respect to low income neighbourhoods, affluent neighborhoods, and all other Saskatoon neighborhoods. The analysis revealed stark differences in health status between the six neighbourhoods with the lowest average household income—all located in the urban core—and all other neighbourhoods. Health disparities were clearly associated with income. (6, 7) For example, the infant mortality rate in the six core neighbourhoods was over five times higher, and attempted suicide rates 15 times higher, than in all other neighbourhoods.

Specifically, the team found that *childhood immunization rates* (e.g., measles-mumps-rubella, diphtheria, pertussis, tetanus) were considerably lower in the six core neighbourhoods than in the affluent neighbourhoods. From 2000 to 2005, the six low income neighbourhoods had complete child immunization coverage rates of 42.6 - 43.7%, while the five affluent neighbourhoods had coverage rates of 78.6 - 90.6%. (7, p847) Further, parents who were not up-to-date with their children's immunization schedule "were more likely to be single, of Aboriginal or non-Caucasian origin, have lower family income and have significant differences in reported beliefs, barriers and potential solutions." (7, p847)

In 2006, with support from a three-year health intervention research grant from the Canadian Institutes for Health Research, SHR established the *Building Health Equity (BHE)* team that continues to provide public health services in the Saskatoon communities of King George, Meadow Green, Pleasant Hill, Riversdale and Westmount. The team works from an office located in the city core, and uses community development strategies to address health disparities and improve health outcomes for residents. The team is committed to building partnerships and relationships in the community. The team became the Building Health Equity Department, with dedicated full-time staff, in the fall of 2014.

FRAMING THE STORY

We have organized the Saskatoon and Manitoba stories under the four roles in the *NCCDH's framework for action to reduce health inequities.* The roles framework, which is used by public health groups across the country, is described in the short document, *Let's talk... public health roles for improving health equity.* (2) The roles are: 1) assess and report on health inequities and effective strategies; 2) modify and orient interventions; 3) partner with other sectors; and 4) participate in policy development.



ROLE #1 ASSESS AND REPORT ON HEALTH INEQUITIES AND EFFECTIVE STRATEGIES

The Saskatoon Health Region used existing health data and analysis of socio-economic and health disparities in planning its response to the 2009-10 H1N1 pandemic. According to staff, as a result of their thorough prior research and "on-the-ground" experience, there was no question that core neighbourhoods would receive priority in the H1N1 vaccination programs with the goal to raise vaccination rates in these neighbourhoods to a level comparable to other areas of the city. As shown in Table 1, an in-depth evaluation of the pandemic response showed considerable success in reaching this objective; the vaccination rate in the core neighbourhoods was 40.2% compared to 48.4% in the region overall. (8)

Table 1. 2009 pH1N1 Immunization Rates by Sub-regional Population – Saskatoon Health Region

Subregional Population	Total population	% Immunized
Affluent neighbourhoods	23,024	56.4
Core neighbourhoods	16,564	40.2
Middle income neighbourhoods	175,109	47.2
Rural	85,941	46.2
SHR Overall	300,638	48.4

Source: Saskatoon Health Region, Public Health Services

The methods used to address influenza prevention in the core neighbourhoods during the pandemic have been applied to annual influenza and childhood immunization campaigns (4,7) with equally good results. The health authority followed the practices that worked: maintain an office within the city core, make immunization as easy as possible for families, nurture personal relationships, and act on community feedback.

Data on neighbourhood-specific influenza immunization rates continue to be collected annually through the *Saskatchewan Immunization Management System (SIMS),* an electronic data system shared by Saskatchewan Health, the health regions, and most recently, physicians. SHR reviews its immunization efforts monthly in order to continually improve results.

Through its engagement with Saskatoon communities, the 12-member BHE team—comprised of a program manager, public health nurses, community program builders, an office administrative assistant, a dietician and a public health inspector—learned that many families and individuals living in the core neighbourhoods face "invisible" barriers to health. For example, lack of money, family problems, chronic health conditions and disabilities can prevent people from getting to an immunization clinic.

ROLE #2 MODIFY AND ORIENT INTERVENTIONS

The Building Health Equity team used a variety of methods to reach out to and inform core neighbourhood residents about the 2009-10 H1N1 pandemic and address barriers to vaccination and other influenza prevention methods. Prior to working closely with core neighbourhood residents, SHR would have offered a limited number of mass influenza immunization clinics in a few central locations. This approach changed after staff got to know the core communities' needs.

The BHE team recognized that addressing health inequities is about accommodating the needs of families struggling to maintain their families' basic needs. In order to remove barriers and make services more accessible, clinics were held in elementary schools (where parents regularly drop off and pick up children), and in or near social housing buildings, the food bank and the Sexual Health Clinic. Vaccination clinic times were set to accommodate clients' work shifts and childcare responsibilities, and to provide as much choice as possible. In some cases, public health staff visited people in their homes. Immunization locations and times were advertised in the newsletters of partner organizations, posters at the food bank and other community agencies, and announcements at public gatherings. Some H1N1 communications tools were modified for the core neighbourhoods: for example, a hand washing poster was redesigned to be more visual.

Staff also engaged, trained and supported pandemic "ambassadors," volunteer community members who were given an honorarium. The ambassadors provided information about H1N1 prevention, dispelled myths, told people where and when clinics were being held, and answered questions. They were considered essential in bridging the gap between the community and public health staff. The ambassadors focused on face-to-face communication with residents, other ambassadors, partner organizations and public health staff.

ROLE #3 PARTNER WITH OTHER SECTORS

Staff at the Saskatoon Health Region credits much of its success in influenza immunization in its core neighbourhoods to the strong partnerships it developed with community organizations and agencies, aided by its ongoing physical presence and personal relationships with community leaders and members. Schools have been especially important allies. Each member of the BHE team was assigned to a school, enabling them to form direct relationships with staff, students and parents. Important partnerships have been formed with the Saskatoon Tribal Council and the Central Urban Métis Federation, both of which have been instrumental in promoting influenza prevention and childhood immunization in the core neighbourhoods. Building trust and personal connections was a team value from the beginning, as was openness to learning from the communities and continually trying new methods of reaching and serving members. Interestingly, the fact that the BHE team office moved several times before finding its current location may have unexpectedly contributed to its large number of close relationships with neighbourhood agencies.

ROLE #4 PARTICIPATE IN POLICY DEVELOPMENT

Based on their direct experience working in the core neighbourhoods, the BHE team has advocated for and achieved changes in SHR's policies. For example, clients can now be provided with bus tickets to get to public health programs and services. Newcomers who are awaiting a provincial health card receive immunization while their application is processed. Soon, influenza immunization and childhood vaccination clinics will be integrated. While this one-stop approach creates some logistical challenges for staff, and requires more public health resources, it eases the burden on low income families.

CROSS-CUTTING PUBLIC HEALTH FUNCTIONS: LEADERSHIP AND CAPACITY BUILDING

Leadership and capacity building are important competencies in carrying out all four public health roles to address health inequities. In SHR, staff continually advocates for core neighbourhood needs within the organization, and apply their experiences in influenza prevention to other initiatives. Believing that public health personnel need to lead by example, staff regularly shares research and lessons learned with other health organizations. The Saskatoon Health Region has also instituted learning opportunities about health disparities for staff, and is conscious of hiring new staff who support its social justice philosophy. For example, the organization uses a health equity question in public health nurse and health promoter job interviews and favours candidates who demonstrate an understanding of root causes of health disparities, barriers to service experienced by marginalized populations, and how public health staff can address them.

LESSONS LEARNED

Saskatoon Health Region's influenza prevention initiative is an example of a commitment to health equity that covers each of the public health roles. In sharing their story, program staff members emphasized the following lessons.

Build trust: Disadvantaged populations often have trouble trusting institutions and public services, as a result of bad experiences with the system or feelings that their needs are not being acknowledged. The Building Health Equity team believes they were able to break down some of these barriers through an investment in direct contact and longer-term relationship-building.

Be flexible and open to new ideas: A key to success is being open and willing to learn, and asking questions like "How can we help?" and "Where do we need to be to be available to people?" Staff listened to feedback and followed-up on suggestions, which often improved services. "Provide … lots of options for people." "Be willing to drop an idea quickly if it isn't working."

Put sound systems in place: "Do groundwork before a crisis. It's difficult to implement totally new ways of working while under pressure to address a major public health challenge like a pandemic."

Support staff: Staff members working in core neighbourhoods are doing difficult work and are affected by the daily struggles low income families face. One program manager said: "Staff members often feel conflicted about where to allocate time and resources when the need is so great." Part of the success of this initiative can be attributed to the closeness of the team and the support they receive from SHR.

Use targeted approaches within universal programs: Public health can improve immunization rates by taking initiatives in all four public health role areas

Articulate the reasons for an equity approach: "Believe strongly in equity and be able to explain the importance of this approach to others."

Maintain regular immunization programs during outbreaks: Some public health programs, such as childhood immunization initiatives, were cancelled during the 2009-10 H1N1 pandemic to redirect staff and resources to influenza prevention activities. In general, people in the core neighbourhoods understood the need to do this; however, staff noted that it took several years and concerted effort to get childhood immunization rates in the core back to pre-2009 levels. As a result, in 2013, when public health was required to increase influenza vaccination clinics to respond to the rise in H1N1 cases in the province, staff in the core neighbourhoods maintained their other programming even though it strained resources.

This is one of two stories published by the National Collaborating Centre for Determinants of Health (NCCDH) as part of a National Collaborating Centre for Public Health (NCCPH) collaboration to improve the prevention and control of influenza in Canada. (1) The two stories were developed in collaboration with staff from the **SHR** and **Manitoba Health, Healthy Living and Seniors**.

REFERENCES

1. National Collaborating Centre for Infectious Disease [Internet]. Winnipeg (MN): National Collaborating Centre for Infectious Disease; c2005-2014. Influenza; 2014 [cited 2014 Nov 28]; [about 7 screens]. Available from: www.nccid.ca/influenza
2. National Collaborating Centre for Determinants of Health. Let's talk... public health roles for improving health equity [Internet]. Antigonish (NS): National Collaborating Centre for Determinants of Health, St. Francis Xavier University; 2013. 6 p. Available from: http://nccdh.ca/images/uploads/PHR_EN_Final.pdf
3. National Collaborating Centre for Determinants of Health. Bridging the gap between research and practice – improving health equity in Saskatoon: from data to action [Internet]. Antigonish (NS): National Collaborating Centre for Determinants of Health, St. Francis Xavier University; 2012. 16 p. Available from: http://nccdh.ca/images/uploads/Saskatoon_EN.pdf
4. Kershaw T, Cushon J, Dunlop T. Towards equity in immunization: the Immunization Reminders Project [Internet]. Saskatoon (SK): Public Health Services, Saskatoon Health Region; 2011 Mar. 17 p. Available from: www.saskatoonhealthregion.ca/locations_services/Services/Health-Observatory/Documents/Reports-Publications/TowardsEquityinImmunization_Final.pdf
5. Saskatoon Health Region. Annual report 2012-2013 [Internet]. Saskatoon (SK): Saskatoon Health Region; 2013. 58 p. Available from: www.saskatoonhealthregion.ca/about/Documents/Reports-Publications/2012-13_Annual_Report_Final_w_bookmarks.pdf
6. Lemstra M, Neudorf C. Health disparity in Saskatoon: analysis to intervention.
7. Saskatoon (SK): Saskatoon Health Region; 2008. 365 p. Available from: www.caledoninst.org/Special%20Projects/CG-COP/Docs/HealthDisparityRept-complete.pdf
8. Lemstra M, Neudorf C, Opondo J, Toye J, Kurji A, Kunst A, Tournier C. Disparity in childhood immunizations: limited association with Aboriginal cultural status. Paediatr Child Health. 2007; 12(10):847-852.
9. Opondo J, Wright J, Findlater R, Grauer K, Ugolini C. The H1N1 pandemic: Medical Health Officer's report on the Saskatoon Health Region's response to the global influenza pandemic 2009 – 2010. Saskatoon (SK): Public Health Services, Saskatoon Health Region; 2011 Mar. 33 p.

This resource is part of the *Influenza and Influenza-like Illness Project,* a collaboration of the six National Collaborating Centres for Public Health about prevention and control of influenza. The joint project addresses recognized knowledge gaps and needs of public health and primary care professionals, topics such as burden of influenza, surveillance methods, the effectiveness of vaccination and other prevention strategies, and interventions to advance health equity. Learn more at www.nccid.ca/influenza

Contact Information
National Collaborating Centre for Determinants of Health (NCCDH)
St. Francis Xavier University
Antigonish, NS B2G 2W5
nccdh@stfx.ca
tel: (902) 867-5406 fax: (902) 867-6130

www.nccdh.ca
Twitter: @NCCDH_CCNDS

We gratefully acknowledge staff at the Saskatoon Health Region who supported the preparation of this case example. This document was researched and written by Dianne Kinnon. NCCDH staff members Karen Fish and Hannah Moffatt provided guidance throughout the project. Harpa Isfeld-Kiely, National Collaborating Centre for Infectious Disease, and Joanne Smrek, BC's Interior Health Authority, provided external peer reviews.

The National Collaborating Centre for Determinants of Health is hosted by St. Francis Xavier University.

Please cite information contained in the document as follows: National Collaborating Centre for Determinants of Health. (2015). *Learning from Practice: Equity in Influenza Prevention in Saskatoon.* Antigonish, NS: National Collaborating Centre for Determinants of Health, St. Francis Xavier University.

ISBN: 978-1-987901-01-6

Production of this document has been made possible through a financial contribution from the Public Health Agency of Canada through funding for the National Collaborating Centre for Determinants of Health (NCCDH). The views expressed herein do not necessarily represent the views of the Public Health Agency of Canada.

This document is available in its entirety in electronic format (PDF) on the National Collaborating Centre for Determinants of Health website at: www.nccdh.ca

La version française est également disponible au : www.ccnds.ca sous le titre *Apprendre par la pratique : l'équité dans la prévention de la grippe à Saskatoon*