

Appendix 1 (as supplied by the authors): definitions and data sources for each indicator

	Data Source	Definition	Inclusion/Exclusion	Limitations
Mortality data	Saskatchewan Ministry of Health's Vital Statistics Branch	Deaths are those that occur to SHR residents using data from 1991-2006 from Saskatchewan Vital Statistics, Alberta Vital Statistics, and CIHI hospital separations for deaths occurring in all other provinces. ICD-9 codes are used for all deaths before calendar year 2000 and after this date ICD-10 codes are used	Includes those persons with Saskatchewan recorded as their province of residence.	Conversion between ICD-9 and ICD-10 codes can be problematic for certain disease conditions because the codes are not comparable. Vital Statistics data is based on the underlying cause of death, which is limited to one diagnosis, unless there is an injury, then there is a separate code for the external cause. Readers should note that there may be more than one contributing cause of death, but that only the most responsible cause is used.
Birth data	Saskatchewan Ministry of Health's Vital Statistics Branch	Births occurring to SHR residents from 1991 to 2006 using data from Saskatchewan Vital Statistics, Alberta Vital Statistics, and CIHI hospital separations for births occurring in all other provinces.	Includes only those mothers who have put Saskatchewan as their province of residence	See Mortality data

Hospital Discharge (Hospitalization) data	Saskatchewan Ministry of Health's year-end hospital files.	Data include all acute care inpatient and psychiatric inpatient hospitalizations. This data is based on total number of hospital discharges, irrespective of how many times the same individual is discharged. For example, one person could present five times in a fiscal year for a mental disorder, and it would be counted as five discharges. As well, a resident may be admitted to one hospital, and be transferred to another hospital which would count as two discharges, even though the individual was hospitalized for the same event.	ICD-9 codes are used for all hospital separations prior to 2000/01 fiscal year, and ICD-10 are used after this date. Some 2001-02 data and 1997-98 to 2003-04 are based on converted codes (to ICD-9 to ICD-10-CA). Differences between data coded in ICD-10 and ICD-9 occur for several reasons. The conversion tables are not perfect due to differences in the structure of the two coding systems.	All acute care inpatient and psychiatric inpatient hospitalizations of SHR residents in Saskatchewan and out-of-province/country hospitals.
Physician Billing data	Saskatchewan Ministry of Health's Medical Services Branch.	Data include diagnosis codes that physicians use when patients come to see them. Diagnosis is in ICD-9 format for all years.	Only one diagnosis code is captured, and is of questionable data quality	Data is not captured for services by salaried physicians (approx. 30% of provincial physician supply).
Sexually Transmitted Infections	Ministry of Health, Integrated Public Health System (iPHIS)	Data include all new communicable diseases (CD) cases reportable to the Regional Health Authority under the Public Health Act, Reportable Disease Regulations, excluding reportable sexually transmitted infections (Chlamydia, gonorrhoea, syphilis), HIV/AIDS and tuberculosis.		Gross fluctuations in the trend over a short period of time may be an artefact. Changes in testing methodologies, changes and/or differences in case definitions, improved method of reporting (electronic versus paper), fluctuation in the population denominator, and recent change in the public interest in a particular disease can all affect the trends without there being an actual increase in the true rates. Similarly, calculated rates that are based on small numbers are more prone to fluctuation over time.

Immunizations	Saskatchewan Immunization Management System	Percent of children grouped by year turned 2 years of age, disparity quintile and gender who had received 2 doses of vaccine protective against measles, mumps and rubella by their second birthday.	Of over 37,000 children in both the 2010 and 2012 extracts born within our years of interest extract over 10,000 have a new address, this means that within 2 years about over 25% of the children will have moved at least once and may no longer be recorded in the their previous disparity area.
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