

Population and Public Health Indicators for British Columbia

The Population and Public Health Evidence
and Data Expert Group

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BACKGROUND AND INTRODUCTION

British Columbia, like the rest of Canada, faces a mounting burden of disease from chronic conditions and other preventable illnesses. This challenge has put increasing pressure on population health and threatens the sustainability of the health care system in BC.

Preventing the development or mitigating the effect of chronic illness requires an examination of those factors and conditions that predispose, enable, and reinforce certain health outcomes. As such, there must be a focus on the antecedents to health-compromising behaviours and conditions. Preventive activities must therefore focus not only on individual determinants of health, but on the environmental and societal determinants as well.

The determinants of health provide a conceptual basis on which to understand population health, but are ill-equipped to provide evidence of it on their own. Health indicators that are derived from health determinants are the measured and self-reported numerations of health and related phenomena—they give evidence of the state of population health.

In BC, the office of the Provincial Health Officer has kept a comprehensive list of relevant indicators that have been used to monitor and report on population health in the province. This list was last updated in 1999.

Recently, Dr. Perry Kendall, the Provincial Health Officer and Andy Hazlewood, Assistant Deputy Minister, Population Health and Wellness, expressed their interest in updating the Province's health indicator list. Responding to feedback from its members, the Population and Public Health Data Expert Group (PPHEDEG), an inter-sectoral committee consisting of various Ministries and authorities on health and whose mandate is to establish priorities, gather, coordinate, analyze, interpret and disseminate key population and public health data and evidence in BC, has taken up the task of updating the indicator list.

Health Indicator Criteria

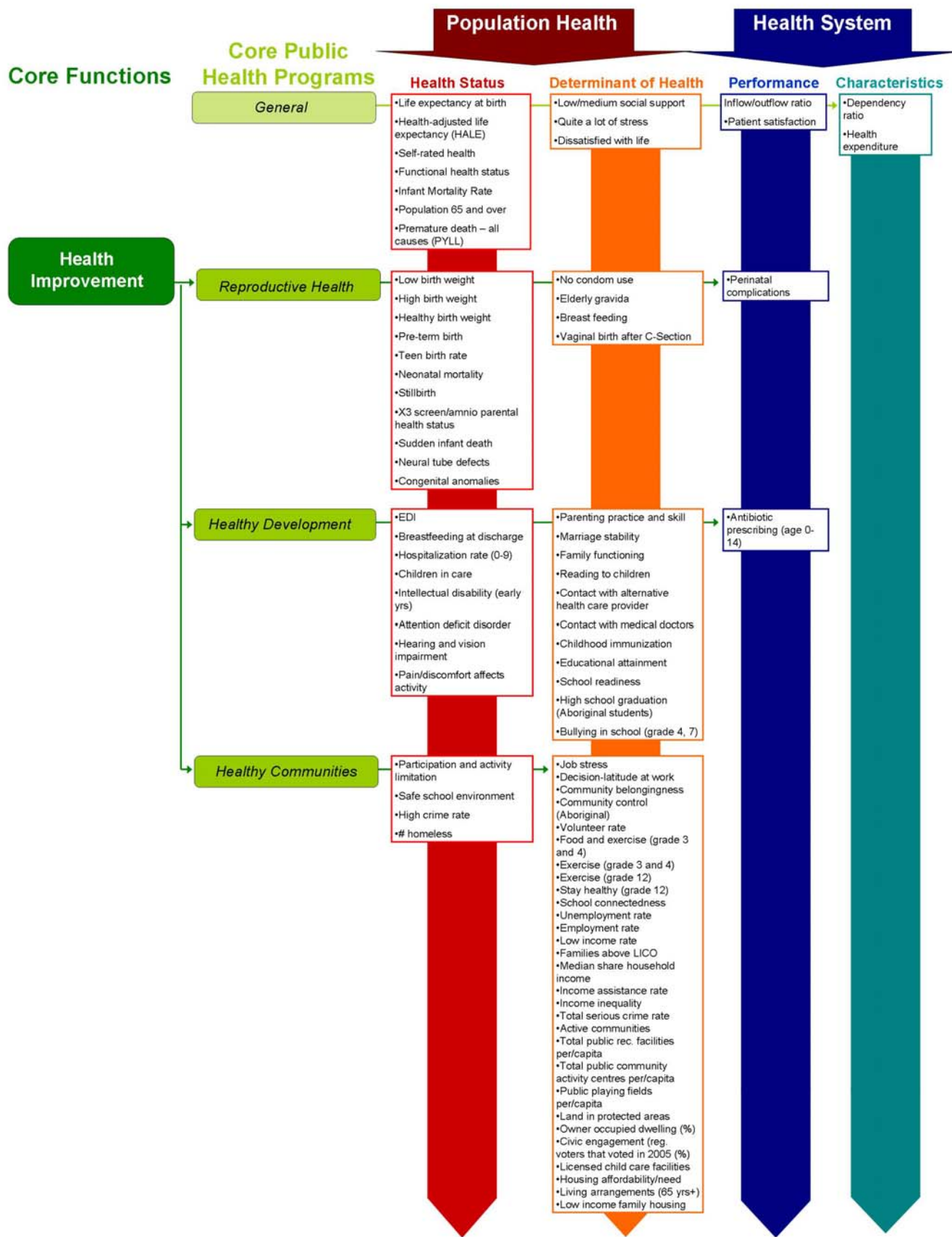
The selection of indicators was based predominantly on their relevance to population health and the health care system. Indicators were required to have acceptable methodological standards and representative data sources for BC or at least the Greater Vancouver Regional District. Indicators were also selected on a basis of their fit with the new Public Health Act and the core functions and public health programs described therein.

Framework for Health Indicators

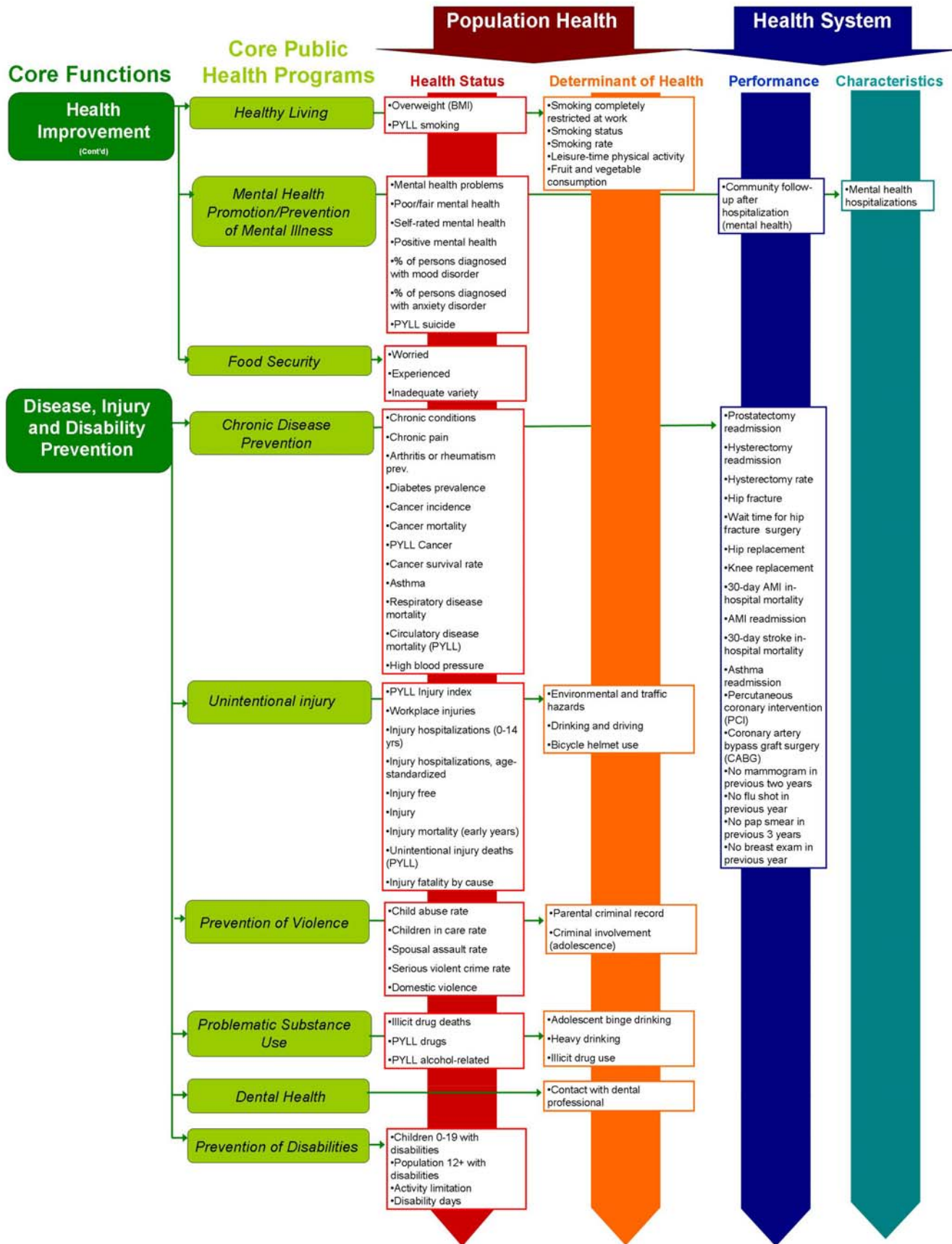
The list of updated health indicators has been set within a modified Canadian Institute for Health Information framework characterized by *health status*, *determinant of health*, *health system performance*, and *health system characteristics* (see figure 1) and core functions and core public health programs detailed by the Ministry of Health:

Core functions include long-term core programs, representing the minimum level of public health services that health authorities would provide in a renewed and modern public health system, and also include public health strategies that can be used to implement these core programs. (Ministry of Health 2005)

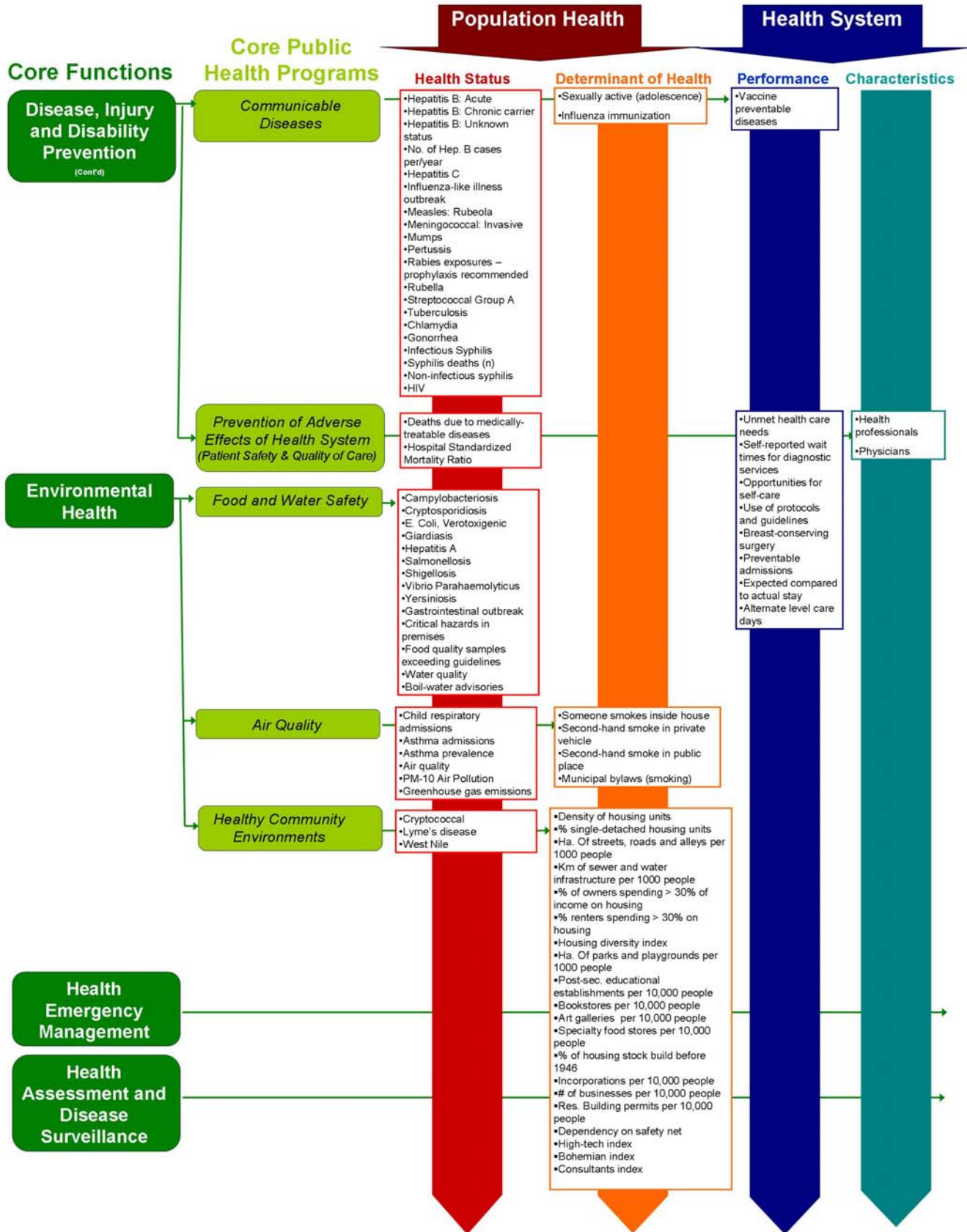
**Figure 1: Health Indicator Framework
Population and Public Health Indicators for BC**



Population and Public Health Indicators for BC



Population and Public Health Indicators for BC



The Indicators

Indicators were identified through various secondary source documents, such as regional indicator lists held by the Province's Health Authorities and other organizations involved in data development (e.g., BC Stats, Smart Growth BC, Canadian Institute for Health Information). Primary data sources with representative coverage of populations in BC and the GVRD were verified and recorded, along with their names and definitions (see Appendix 1).

Limitations

The indicators listed here are an update of the Provincial Health Officer's previous list, dated 1999. They do not represent a complete set of relevant indicators for population health in BC, as they are limited by the availability of data sources and acceptable methodology. By looking at the indicator framework one can also see those core areas that require further indicator development, such as *health emergency management* and *health assessment and disease surveillance*.

PPHEDEG has identified that an application of gender and diversity lenses to the indicator list would be a valuable exercise to undertake in the future.

Conclusion

It is the hope of the PPHEDEG that this updated indicator list increases the capacity of the Ministry of Health, and its partners, to conduct population health surveillance and make sound evidence-based decisions that improve the health of British Columbians.

References

Ministry of Health (March 2005). "Public Health Renewal in British Columbia: An Overview of Core Functions In Public Health." *Population Health and Wellness*. Retrieved: 22/11/2007 from <http://www.health.gov.bc.ca/prevent/pdf/phrenewal.pdf>. pp. 1-13.

Appendix 1: Health Indicator Index

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|-------------------------------------|--|--|--|---|
| Health Improvement | | | | |
| General | Life expectancy at birth | Life expectancy is the number of years a person would be expected to live, starting from birth | StatsCan, Vital Stats, Death database and demography div. (pop. Est.) | ActNow Indicator Framework |
| | Health-adjusted life expectancy (HALE) | Health Adjusted Life Expectancy (HALE) is an indicator of overall population health. It combines measures of both age and sex-specific health status, and age and sex-specific mortality into a single statistic. HALE represents the number of expected years of life equivalent to years lived in full health, based on the average experience in a population. In this sense, HALE is not only a measure of quantity of life but also a measure of quality of life. | NPHS, Institutional Component for HUI of persons living in institutions (1996-1997 cross-sectional sample), 2001 Census for counts of persons in long-term health care institutions (to match with sampling frame of the NPHS), CCHS Cycle 1.1 (2000-2001) 2000/2001 abridged life tables. | Healthy BC: BC's report on nationally comparable performance indicators (Nov. 2004) |
| | Self-rated health | Portion of the population age 12 and up that rate their own health status as "excellent" or "very good" | CCHS, 2003 | ActNow Indicator Framework |
| | Functional health status | Proportion of household population who reported having moderate or severe functional health status. This indicator is based on the self-reporting of measures of overall functional health, based on eight dimensions of functioning (vision, hearing, speech, mobility, dexterity, feelings, cognition and pain). | StatsCan & CIHI: Health Indicators 2007 | VIHA Core Program Indicators |
| | Infant mortality rate | Infants who die in the first year of life, expressed as a rate per 1,000 live births | StatsCan, Vital Stats, birth and death database | ActNow Indicator Framework; BC Vital Stats 2005 Annual Report |
| | Population 65 and over | -- | StatsCan | |
| | Premature death – all causes (PYLL) | The rate of potential years of life lost before age 75 per 1,000 person-years at risk for all causes of death | BC Vital Stats | PHO's annual reports |
| | Low/medium social support | % of persons aged 12 and over reporting low or medium social support 2005 | CCHS 3.1, 2005; National Population Health Survey (StatsCan) | VIHA Core Program Indicators |
| | Quite a lot of stress | % of persons aged 12 and over reporting poor or fair mental health 2005 | CCHS 3.1, 2005 | VIHA Core Program Indicators |
| | Dissatisfied with life | % of persons aged 12 and over reporting poor or fair mental health 2005 | CCHS 2.1, 2003 | VIHA Core Program Indicators |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|-------------------------------------|----------------------|---|---|--|
| | Inflow/outflow ratio | A ratio of the number of separation from acute care hospitals within a given region divided by the number of acute care hospital discharges generated by residents of that region. An overall ratio is calculated for discharges associated with any diagnosis or procedure and separately for CABG, hip replacement, knee replacement and hysterectomy procedures. | Hospital Morbidity database, CIHI; discharge abstract database, CIHI | ActNow Indicator Framework |
| | Patient satisfaction | Population aged 15 and over receiving health services in the past 12 months who rate their level of satisfaction with those services as either “very satisfied” or “somewhat satisfied”. Perceived rating of the quality of services received rated as “excellent” or “good” is another component of this indicator. ‘Health services’ are broken down as follows: Overall health care services; hospital care; physician care, community-based care; and telephone health line or tele-health services. | CCHS, 2005, 2003, 2000/01 Health File | Wellbeing Indicator Working Model |
| | Dependency ratio | The ratio of the combined child population (age 0-14) and elderly (age 65+) to the working age population (15-64). This ratio is presented as the number of dependents for every 100 people in the working age population | StatsCan & CIHI: Health Indicators 2007; | ActNow Indicator Framework |
| | Health expenditure | Total health expenditure includes any type of expenditure for which the primary objective is to improve, or prevent the deterioration of, health status. Presented in current dollars and as a proportion of gross domestic product (GDP). This definition allows economic activities to be measured according to primary purpose and secondary effects. Activities that are undertaken with the direct purpose of providing or maintaining health are included. Other activities are not included, even though they may impact health. For example, funds aligning with housing and income support policies that have social welfare goals as their primary purpose are not considered to be health expenditure, yet they are recognized as powerful factors in determining population health. | StatsCan & CIHI: Health Indicators 2007; National Health Expenditure Database, CIHI | Wellbeing Indicator Working Model; CIHI Health Indicator reports |
| Reproductive Health | Low birth weight | Live births with birth weight less than 2500 grams per 1,000 births, 2000-2004 | BC Vital Stats Agency: annual rpt. 2004; Analysis of Status Indians in BC, BC Ministry of Health Planning | VIHA Core Program Indicators |
| | High birth weight | Live births with gestational age < 37 weeks per 1,000 births, 2000-2004 | BC Vital Stats (StatsCan); BC Ministry of Health Planning | Child Health Framework |
| | Healthy birth weight | Healthy birth weight indicates positive future development of babies. The ideal weight for newborns is between 2,500 and 4,499 grams. | BC Vital Stats | BC Wellness Atlas |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|-------------------------------------|--|---|--|------------------------------|
| | Pre-term birth | A birth that is less than 37 completed weeks or 259 days | BC vital Stats Agency: annual rpt. 2004 | VIHA Core Program Indicators |
| | Teen birth rate | The rate of birth among mothers 15-19 years of age, per 1,000 population | BC Vital Stats | |
| | Neonatal mortality | Number of deaths during the first 28 days of life per 1,000 live births, 2005 | BC Perinatal database registry: annual rpt. 2005 | VIHA Core Program Indicators |
| | Stillbirth | Number of stillbirths per 1,000 total births | BC Vital Stats Agency: annual rpt. 2004 | VIHA Core Program Indicators |
| | x3 screen/amnio parental health status | The triple screen or maternal serum screen (MSS) is an optional blood test available to all pregnant women in British Columbia. | MOH, but uncertain of data quality | Child Health Framework |
| | Sudden infant death | Sudden infant death syndrome (SIDS) is the unexplained death of an apparently healthy infant, usually during sleep. The condition is also known as crib death. | BC Vital Stats; StatsCan; Analysis of Status Indians in BC | Child Health Framework |
| | Neural tube defects | Interference in the closure of neural tubes occurring around the 30 th day of human embryonic development | BC Vital Stats, Health status Registry | PHO's annual reports |
| | No condom use | % of high school students reporting that they did not use a condom during last sexual encounter 2003 | McCreary Society 2003, Adolescent Health Survey; National Population Health Survey, StatsCan | VIHA Core Program Indicators |
| | Elderly gravida | Live births to mothers 35 & over per 1,000 live births | BC vital Stats Agency: annual rpt. 2004 | VIHA Core Program Indicators |
| | Congenital anomalies | Number of newborns with congenital anomalies per 1,000 live births 1993-2002 | BC vital stats agency: Health status registry rpt. 2005 | VIHA Core Program Indicators |
| | Breast feeding | Children under 3 who are being breastfeed or have been | NLSCY, cycle 3 (1998/99) | Child Health Framework |
| | Vaginal birth after C-section | According to the American College of Obstetricians & Gynecologist, VBAC is safer in most cases than a scheduled repeat caesarean and up to 80% of woman with prior caesareans can go on to birth their subsequent babies vaginally. | Ministry of health, Vital Stats | Child Health Framework |
| | Perinatal complications | Number of newborns experiencing medical complications shortly before, during or after birth per 1,000 live births, 1999-2003 | BC vital Stats Agency: annual rpt. 2004 | VIHA Core Program Indicators |
| Healthy Development | Early Development Instrument (EDI) | The Early Development Instrument assesses physical health and well-being, social competence, emotional maturity, language and cognitive development; and communication skills and general knowledge in children. | UBC, Human Early Learning Program | BC Wellness Atlas |
| | Breastfeeding at discharge | % of new mothers reporting that they are breastfeeding at discharge 2003/2004 | BC Perinatal database registry: annual rpt. 2005 | VIHA Core Program Indicators |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|--|--|--|---|------------------------------|
| | Hospitalization rate (0-9) | No of children 0 to 9 hospitalized/1000 population (age standardized) | Ministry of Health, Purfect database | VIHA Core Program Indicators |
| | Educational attainment | Educational attainment takes into account the rates of grade 12 completion, drop-out, university/college enrolment and attendance completion. | High School & Post Sec. Grad. (StatsCan, 1996 and 2001 Census--20% sample); | BC Wellness Atlas |
| | High school graduation (Aboriginal students) | The grade 12 graduation rate for students of Aboriginal origin | Ministry of Education | VIHA Core Program Indicators |
| | Bullying in school | Self-reported bullying or teasing at school for student population grade 4, 7 and others | School Satisfaction Survey, Ministry of Education | Child Health Framework |
| | School readiness | How prepared a child is for school | NLSCY, 1991and 2001 Census, StatsCan, BC Ministry of Education | Child Health Framework |
| | Children in care | Children in care per 1,000 population age under 18, Dec 2005 | Ministry of Children and Family Development | Child Health Framework |
| | Intellectual disability (early yrs) | Intellectual disabilities are used to define children who do not, for whatever reason, have the intellectual functioning of the average children. Reasons could be autism, down syndrome or some other intellectual impairment | StatsCan | Child Health Framework |
| | Attention deficit disorder | ADD is defined in the Diagnostic Statistic Manual of Mental disorders as a set of chronic and impairing behaviour patterns that display abnormal levels of inattention, hyperactivity, or their combination. | National Longitudinal Survey of Children and Youth, 1998/99 (parent questionnaire) | Child Health Framework |
| | Hearing and vision impairment | Impairment in hearing or vision that inhibits learning and development | MOH; CCHS; National Population Health Survey; National Longitudinal Survey of Children and Youth (1998/99), Parent Questionnaire. | Child Health Framework |
| | Pain/discomfort affects activity | Proportion of household population who reported having pain or discomfort that prevents or limits a few, some or most activities on a continuing basis. | StatsCan & CIHI: Health Indicators 2007 | VIHA Core Program Indicators |
| | Parenting practice and skill | Parental practices and skills include parental involvement with the child, economic status, parental discipline and parental monitoring | NLSCY | Child Health Framework |
| | Marriage stability | A situation in a marriage where there is little evidence or evidence of marriage breakdown | StatsCan | Child Health Framework |
| | Family functioning | Family time can represent time families spend together in rest and relaxation, being there, and just being together. | NLSCY, HRDC and StatsCan | PHO's annual reports |
| | Reading to children | The act of reading to a child for a certain period of time a day. | NLSYCY | Child Health Framework |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|--|---|---|---|-------------------------------|
| | Contact with alternative health care provider | Proportion of household population aged 12 and over reporting that they have consulted with alternative health care providers in the past 12 months. Alternative health care providers include massage therapists, acupuncturists, homeopaths or naturopaths, Feldenkrais or Alexander teachers, relaxation therapists, biofeedback teachers, rolfers, herbalists, reflexologists, spiritual healers, religious healers, etc. | StatsCan & CIHI: Health Indicators 2007 | CIHI Health Indicator reports |
| | Contact with medical doctors | Proportion of household population aged 12 and over reporting that they have consulted with a medical doctor in the past 12 months. Medical doctor includes family or general practitioners, as well as specialists such as surgeons, allergists, orthopedists, gynecologists or psychiatrists. For population aged 12 to 17, includes pediatricians. | StatsCan & CIHI: Health Indicators 2007 | CIHI Health Indicator reports |
| | Childhood immunization | Portion of children who, by their second birthday, have been fully immunized Against diphtheria, pertusisi, tetanus, polio, Haemophilus influenzae Type B, measles, mumps, and rubella, according to defined schedule | Public Health and Preventive Division, Min. of Health | PHO's annual reports |
| | Antibiotic prescribing (age 0-14) | Children 0 to 14, diagnosed with otitis media (middle ear infection) and who receive a prescription for antibiotics after visiting a general practitioner | MSP and PharmaNet | PHO's annual reports |
| Healthy Communities | Participation and activity limitation | Proportion of household population who reported being limited in selected activities (home, school, work and other) because of a physical condition, mental condition or health problem that has lasted or is expected to last six months or longer. | StatsCan & CIHI: Health Indicators 2007 | VIHA Core Program Indicators |
| | Safe school environment | Each member of the school community will ensure a secure environment for children where the worth and dignity of the individual will be upheld | NLSCY | Child Health Framework |
| | High crime rate | The number of Criminal Code offences expressed as a rate per 100,000 population, for violent crimes, property and other crimes, and total. Violent crimes are "person offences", which include homicide, attempted murder, sexual and non-sexual assault, abduction, and robbery. The crime rate is based on the number of incidents reported to or by the police | StatsCan, Canadian Centre for Justice Stats; Uniform Crime Reporting Survey | Child Health Framework |
| | # homeless | Number of homeless without a place of their own to stay for 30+ days (Point-in-Time or Annual Prevalence), by Census Metropolitan Area (CMA) | CPHI | |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|--|-----------------------------------|---|---|------------------------------|
| | Job stress | % of persons reporting work as quite or extremely stressful, 2003 | CCHS 2003 | VIHA Core Program Indicators |
| | Decision-latitude at work | Degree of control that individuals have over their work circumstances (who agree or disagree with the statement "I have a lot to say about what happens in my job." and "My job allows me the freedom to decide how I do my job."). Refers to population aged 15 to 74 who worked at a job or business at any point in the past 12 months before the interview. | National Population Health Survey, StatsCan | PHO's annual reports |
| | Community belongingness | % of persons reporting somewhat weak or very weak sense of belonging to their local community, 2005 | CCHS 3.1, 2005 (from Health Indicators on CIHI website) | VIHA Core Program Indicators |
| | Community control (Aboriginal) | Proportion of community self-governance, including local control over local health and social services | BC Treaty Commission; Health Canada, Medical Service Branch; BC Min. of Education; BC Min. of Children and Families | VIHA Core Program Indicators |
| | Volunteer rate | defined as the percentage of population who performed a service without pay in the last 12 months preceding the survey | National Survey of Giving, Volunteering, and Participation (1997) | PHO's annual reports |
| | Food and exercise (grade 3 and 4) | % of students who did not respond "many times" or "all of the time" to- At school, are you learning about healthy food and exercise? 2005 | Department of Education Satisfaction Survey 2005 | VIHA Core Program Indicators |
| | Stay healthy (grade 12) | % of students who did not respond "many times" or "all of the time" to- At school, are you learning about how to stay healthy? 2005 | Department of Education Satisfaction Survey 2005 | VIHA Core Program Indicators |
| | Exercise (grade 3 and 4) | % of students who did not respond "many times" or "all of the time" to- At school, do you get exercise (for example, physical activity or sports)? 2005 | Department of Education Satisfaction Survey 2005 | VIHA Core Program Indicators |
| | Exercise (grade 12) | % of students who did not respond "many times" or "all of the time" to- At school, are you learning about how to stay healthy? 2005 | Department of Education Satisfaction Survey 2005 | VIHA Core Program Indicators |
| | School connectedness | % of high school students reporting that they do not feel highly connected to their school 2003 | McCreary Society 2003, Adolescent Health Survey | VIHA Core Program Indicators |
| | Unemployment rate | The rate of unemployment for those aged 15 and up reporting having no job during the reference period (those who haven't worked in past week but were available to work) | StatsCan, Labour force survey, special tabulations | ActNow Indicator Framework |
| | Employment rate | The rate of employment for those aged 15 and up, reporting positive job status | StatsCan, Census 2001 | BC Wellness Atlas |
| | Low income rate | The annual proportion of families and unattached individuals below the low income cut-off (LICO). | StatsCan, 1996-2001 census (20% sample) | ActNow Indicator Framework |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|--|---|--|--|-------------------------|
| | Families above LICO | The census proportion of economic families above the low income cut-off (LICO) | StatsCan, Census 2001 | BC Wellness Atlas |
| | Median share household income | Proportion of income (from all sources, pre-tax, post-transfer) held by households whose incomes fall below the median household income. | StatsCan, Census 1996 and 2001(20% sample), special tabulations | BC Wellness Atlas |
| | Income assistance rate | Proportion of the population receiving British Columbia Employment and Assistance (BCEA) benefits, the provincial government program that provides financial assistance to individuals and families in need. | BC Ministry of Social Development and Economic Security admin. Files and BC Stats pop. Estimates | PHO's annual reports |
| | Income inequality | The income share of the bottom half (poorest) families. That is, the proportion of the population's household income that accrues to households earning less than the median income. | Census, StatsCan (special tabulations) | PHO's annual reports |
| | Total serious crime rate | The total crime rate for violent crime as well as property crime per 1,000 population | BC Stats | BC Wellness Atlas |
| | Active communities | Proportion of BC population involved in the Active Community initiative, which promotes, through an overall strategy, integration of physical activity into daily living. | BCRPA | BC Wellness Atlas |
| | Total public rec. facilities per/capita (1,000 population) | Public recreation facilities are more specialized than community centres and may include swimming pools or gyms | BCPRA with per capita calc. using pop. Estimates from BC Stats | BC Wellness Atlas |
| | Total public community activity centres per/capita (1,000 population) | Community centres are facilities where the public may gather and engage in activities, social support, receive public information, etc. | BCPRA with per capita calc. using pop. Estimates from BC Stats | BC Wellness Atlas |
| | Public playing fields per/capita (1,000 population) | Eg. Baseball field, soccer pitch | BCPRA with per capita calc. using pop. Estimates from BC Stats | BC Wellness Atlas |
| | Land in protected areas | Areas protected, as a per cent of British Columbia's land base. In British Columbia, protected areas include national parks, ecological reserves, class A and C parks, recreation areas, and protected areas that fall under the Environment and Land Use Act. | BC Land Use Coordination Office and BC Parks | PHO's annual reports |
| | Owner occupied dwelling (%) | The proportion of dwelling owned by the current occupant | StatsCan, Census 2001 | BC Wellness Atlas |
| | Civic engagement (reg. voters that voted in 2005 (%)) | The proportion of registered voters who voted in elections for the collection period of 2005 | Elections BC, Boundary translations by BC Stats | BC Wellness Atlas |
| | Licensed child care facilities | The proportion of licensed child care facilities in the population | BC Ministry of Child and Family Development | Child Health Framework |
| | Housing affordability/need | Nature of obtaining adequate, affordable housing where rent or mortgage plus taxes are 30% or less of the household's gross income | CMHC, data from Census, StatsCan | PHO's annual reports |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|--|---|---|---|-----------------------------------|
| | Living arrangements (65 yrs+) | The living arrangements of individuals age 65 and over—if they live alone, with a spouse, with extended family members, in an institution | Census, StatsCan | PHO's annual reports |
| | Low income family housing | Proportion of housing targeting families below the low income cut-off | Canadian Mortgage and Housing Corp. and Census, StatsCan | Child Health Framework |
| Healthy Living | Overweight (BMI) | A BMI of greater than 30 is associated with high health risk. BMI is calculated by dividing body weight (in kilograms) by height (in metres) | National Population Health Survey, StatsCan | PHO's annual reports |
| | Smoking PYLL | Potential years of life lost due to premature mortality from smoking-related diseases | BC vital Stats Agency: annual rpt. 2004 | VIHA Core Program Indicators |
| | Smoking completely restricted at work | The proportion of worksites where smoking is completely restricted on the premises | CCHS 3.1, 2005 | BC Wellness Atlas |
| | Smoking status | Proportion of population aged 12 and up or aged 12 to 19, who reported being a current smoker on either a daily or occasional basis | CCHS, 2003 | ActNow Indicator Framework |
| | Smoking rate | The rate of smoking for teenagers who are regular smokers | National Population Health survey, StatsCan; CCHS, StatsCan; Adolescent Health Survey, McCreary | Wellbeing Indicator Working Model |
| | Leisure-time physical activity | Proportion of population 12 and up reporting active or moderately active levels of physical activity, based on responses to questions about the frequency, duration and intensity of their participation in leisure time physical activity over past 3 months | CCHS, 2003 | ActNow Indicator Framework |
| | Fruit and vegetable consumption | % of population aged 12 and over who eat less than five servings of fruits and vegetables per day | StatsCan & CIHI: Health Indicators 2007 (CCHS 2005, 2003, 2000/01) | VIHA Core Program Indicators |
| Mental Health Promotion/Prevention of Mental Illness | Mental health problems | Individuals reporting mental health issues or problems with their emotional well-being in the past month | National Population Health Survey, StatsCan | PHO's annual reports |
| | Poor/fair mental health | % of persons aged 12 and over reporting poor or fair mental health 2005 | CCHS 3.1, 2005 | VIHA Core Program Indicators |
| | Self-rated mental health | This measurement is defined by the portion of the population that rate their own mental health status as "excellent" or "very good" | CCHS 2005 | BC Wellness Atlas |
| | Positive mental health | Individuals reporting good mental health and emotional well-being in the past month | National Population Health Survey, StatsCan | PHO's annual reports |
| | % of persons diagnosed with mood disorder | % of population aged 12 & over who report they have been diagnosed with a mood disorder 2003 | CCHS 2.1, 2003 | VIHA Core Program Indicators |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|--|---|---|--|------------------------------|
| | % of persons diagnosed with anxiety disorder | % of population aged 12 & over who report they have been diagnosed with an anxiety disorder 2003 | CCHS 2.1, 2003 | VIHA Core Program Indicators |
| | PYLL suicide | Potential years of life lost due to premature mortality from suicide 2000-2004 | BC vital Stats Agency: annual rpt. 2004 | VIHA Core Program Indicators |
| | Community follow-up after hospitalization (mental health) | Proportion of persons hospitalized for a mental health diagnosis who receive at least one contact with a community mental health centre or a fee-for service psychiatrist or general practitioner within 30 days of discharge. Hospitalizations are based on in-patient separations (all levels of care) for patients age 15 to 64 with a primary diagnosis of ICD-9 290-314, V61 or V62. | Hospital Morbidity Database; Client/Patient Information Management LAN database; MSP claims database | PHO's annual reports |
| | Mental health hospitalizations | The number of hospital admissions due to mental disorders (ICD-9 290-319, principal diagnosis, acute care), expressed as a rate per 1,000 population, and average length of stay in hospital. | Hospital Morbidity Database | PHO's annual reports |
| Food Security | Worried | % of persons 18+ who indicated that they "sometimes" or "often" worried that there would not be enough food because of a lack of money during the previous 12 months, 2003 | CCHS 2.1, 2003 | VIHA Core Program Indicators |
| | Experienced | % of persons 18+ who indicated that someone in their household "sometimes" or "often" did not have enough to eat because of a lack of money during the previous 12 months, 2003 | CCHS 2.1, 2003 | VIHA Core Program Indicators |
| | Inadequate variety | % of persons 18+ who indicated that someone in their household "sometimes" or "often" did not have enough variety to eat because of a lack of money during the previous 12 months, 2003 | CCHS 2.1, 2003 | VIHA Core Program Indicators |
| Disease, Injury and Disability Prevention | | | | |
| Chronic Disease Prevention | Chronic conditions | Those reporting long-term conditions that have lasted or are expected to last 6 months or more and have been diagnosed by a health professional | National Population Health Survey, StatsCan | PHO's annual reports |
| | Chronic pain | Those reporting long-term pain that have lasted or are expected to last 6 months or more | National Population Health Survey, StatsCan | PHO's annual reports |
| | Arthritis or rheumatism prev. | Proportion of population 12 and up who reported a diagnosis, by a health professional, of arthritis or rheumatism | CCHS, 2003 | ActNow Indicator Framework |
| | Diabetes prevalence | Proportion of population 12 and up who reported a diagnosis, by a health professional, of diabetes | CCHS, 2003 | ActNow Indicator Framework |
| | Cancer incidence | Age-standardized rate of new primary sites of cancer (malignant neoplasms) per 100,000 population, for all cancers. | StatsCan, Canadian Cancer Registry | ActNow Indicator Framework |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|-------------------------------------|--------------------------------------|--|--|---|
| | Cancer mortality | Crude rate and age-standardized rate of death from cancer per 100,000 population: for all cancers (ICD-10 C00-C97) and for specific sites: colorectal (ICD-10 C18-C21), lung (ICD-10 C33- C34), female breast (ICD-10 C50) female specified (ICD-9 174), and prostate cancer (ICD-10 C61). BC Vital Stats: C00-C97 Age Standardized Mortality Rate per 10,000 standard population (Canada 1991 Census). | StatsCan, BC Vital Stats, Death database and demography div. (pop. Est.) | ActNow Indicator Framework; BC Vital Stats 2005 Annual Report |
| | PYLL cancer | Potential years of life lost (PYLL) for all malignant neoplasms (ICD-10 C00-C97) and for specific sites: colorectal (ICD-10 C18-C21), lung (ICD-10 C33-C34), female breast (ICD-10 C50), and prostate cancer (ICD-10 C61) is the number of years of life "lost" when a person dies "prematurely" from any cancer – before age 75. A person dying at age 25, for example, has lost 50 years of life. | StatsCan, Vital Stats, Death database and demography div. (pop. Est.) | |
| | Cancer survival rate | Rates of survival from Cancer | BC Cancer Agency | Child Health Framework (McAdam-Crisp) |
| | Asthma | Proportion of population 12 and up who reported a diagnosis, by a health professional, of asthma | CCHS, 2003 | ActNow Indicator Framework |
| | Respiratory system disease mortality | Crude rate and age-standardized rate of death from diseases of the respiratory system per 100,000 population:, for all respiratory diseases (ICD-10 J00-J99), pneumonia and influenza (ICD-10 J10-J18), bronchitis/emphysema/asthma (ICD-10 J40-J43, J45-J46) and all other diseases of the respiratory system (ICD-10 J00-J06, J20-J22, J30- J39, J44, J47, J60-J70, J80- J84, J85-J86, J90-J94, J95-J99). BC Vital Stats: J00-J99, Age Standardized Mortality Rate per 10,000 standard populations (Canada 1991 Census). Total percentage may not add up to 100 due to rounding. + Denotes the number of cases is less than fi ve. Non-residents are excluded. Total includes unknown gender | StatsCan, Vital Stats, Death database and demography div. (pop. Est.) | ActNow Indicator Framework; BC Vital Stats 2005 Annual Report |
| | Circulatory disease mortality (PYLL) | The rate of potential years of life lost before age 75 per 1,000 person-years at risk for death from circulatory disease | StatsCan, Vital Stats, Death database and demography div. (pop. Est.) | BC Wellness Atlas |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|-------------------------------------|------------------------------------|---|--|--|
| | High blood pressure | Proportion of population 12 and up who reported a diagnosis, by a health professional, of high blood pressure | CCHS, 2003 | ActNow Indicator Framework |
| | No mammogram in previous two years | % of female population aged 50 to 69 who have not had a mammogram during previous 2 years, 2005 | CCHS 3.1, 2005; Screening Mammography Program of BC, BC Cancer Agency | VIHA Core Program Indicators |
| | No flu shot in previous year | % of population aged 12 & over who have not had a flu shot during previous 12 months, 2005 | CCHS 3.1, 2005 | VIHA Core Program Indicators |
| | No pap smear in previous 3 years | % of female population aged 18 to 69 who have not had a pap smear during previous 3 years, 2005 | CCHS 3.1, 2005; Cervical Cancer Screening Program, BC Cancer Agency | VIHA Core Program Indicators |
| | No breast exam in previous year | % of female population aged 12 & over who have not had a breast exam by a health professional during previous 12 months, 2003 | CCHS 2.1, 2003 | VIHA Core Program Indicators |
| | Prostatectomy readmission | The risk-adjusted rate of unplanned readmission following discharge for prostatectomy (occurring within 28 days) | discharge abstract database, CIHI; national ambulatory care reporting system, CIHI | ActNow Indicator Framework |
| | Hysterectomy readmission | The risk-adjusted rate of unplanned readmission following discharge for hysterectomy. A case is counted as a readmission if it is for a relevant diagnosis and occurs within 28 days of initial hysterectomy admission. | discharge abstract database, CIHI; national ambulatory care reporting system, CIHI | ActNow Indicator Framework |
| | Hysterectomy rate | Age-standardized rate of hysterectomy provided to patients in acute care hospitals or same-day surgery facilities, per 100,000 women aged 20 and over. | Hospital morbidity database, CIHI; discharge abstract database, CIHI | ActNow Indicator Framework |
| | Hip fracture | Age-standardized acute care hospitalization rate for fracture of the hip, per 100,000 population age 65 and over | Hospital morbidity database, CIHI; discharge abstract database, CIHI | ActNow Indicator Framework; VIHA Core Program Indicators |
| | Hip replacement | Age-standardized rate of unilateral or bilateral hip replacement surgery performed on inpatients in acute care hospitals, per 100,000 population age 20 years and over | Hospital morbidity database, CIHI; discharge abstract database, CIHI | ActNow Indicator Framework |
| | Wait time for hip fracture surgery | Proportion with surgery same or next day: Risk-adjusted proportion of hip fracture patients aged 65 and older who underwent hip fracture surgery on the day of admission or the next day. Proportion with surgery same, next day or day after: Risk-adjusted proportion of hip fracture patients aged 65 and older who underwent hip fracture surgery on the day of admission, the next day or the day after that. | StatsCan & CIHI: Health Indicators 2007 | VIHA Core Program Indicators |
| | Knee replacement | Age-standardized rate of unilateral or bilateral knee replacement surgery performed on inpatients in acute care hospitals, per 100,000 population | Hospital morbidity database, CIHI; discharge abstract database, CIHI | ActNow Indicator Framework |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|--|---|--|--|------------------------------|
| | 30-day AMI in-hospital mortality | The risk-adjusted rate of all-cause in-hospital death occurring within 30 days of first admission to an acute care hospital with a diagnosis of AMI | Hospital morbidity database, CIHI; discharge abstract database, CIHI | ActNow Indicator Framework |
| | AMI readmission | The risk-adjusted rate of unplanned readmission following discharge for acute myocardial infarction. A case is counted as a readmission if it is for a relevant diagnosis and occurs within 28 days of initial AMI admission. | discharge abstract database, CIHI; national ambulatory care reporting system, CIHI | ActNow Indicator Framework |
| | 30-day stroke in-hospital mortality | The risk-adjusted rate of all-cause in-hospital death occurring within 30 days of first admission to an acute care hospital with a diagnosis of stroke | Hospital morbidity database, CIHI; discharge abstract database, CIHI | ActNow Indicator Framework |
| | Asthma readmission | The risk-adjusted rate of unplanned readmission following discharge for asthma (occurring within 28 days) | discharge abstract database, CIHI; national ambulatory care reporting system, CIHI | ActNow Indicator Framework |
| | Percutaneous coronary intervention (PCI) | Age-standardized rate of percutaneous coronary intervention performed on patients in acute care hospitals, same-day surgery facilities or catheterization laboratories, per 100,000 population aged 20 years and older | Hospital morbidity database, CIHI; discharge abstract database, CIHI | ActNow Indicator Framework |
| | Coronary artery bypass graft surgery (CABG) | Age-standardized rate of coronary artery bypass graft surgery performed on inpatients in acute care hospitals, per 100,000 population aged 20 and over | Hospital morbidity database, CIHI; discharge abstract database, CIHI | ActNow Indicator Framework |
| | No mammogram in previous two years | % of female population aged 50 to 69 who have not had a mammogram during previous 2 years, 2005 | CCHS 3.1, 2005; Screening Mammography Program of BC, BC Cancer Agency | VIHA Core Program Indicators |
| | No flu shot in previous year | % of population aged 12 & over who have not had a flu shot during previous 12 months, 2005 | CCHS 3.1, 2005 | VIHA Core Program Indicators |
| | No pap smear in previous 3 years | % of female population aged 18 to 69 who have not had a pap smear during previous 3 years, 2005 | CCHS 3.1, 2005; Cervical Cancer Screening Program, BC Cancer Agency | VIHA Core Program Indicators |
| | No breast exam in previous year | % of female population aged 12 & over who have not had a breast exam by a health professional during previous 12 mths, 2003 | CCHS 2.1, 2003 | VIHA Core Program Indicators |
| Unintentional Injury | PYLL Injury index | Potential years of life lost (PYLL) due to injuries | BC vital stats agency: VISTA database | VIHA Core Program Indicators |
| | Workplace injuries | No. of Workplace BC Claims Per 1,000 Population, 2005 | Workers' Compensation Board of BC | PHO's annual reports |
| | Injury hospitalizations (0-14 yrs) | Hospitalizations of persons aged 0-14 for injuries/1000 population, 2004/2005 | BC Stats | VIHA Core Program Indicators |
| | Injury hospitalizations, age-standardized | Age-standardized rate of acute care hospitalization due to injury resulting from the transfer of energy (excludes poisoning and other non-traumatic injuries), per 100,000 population. Injury is defined by the first valid documented external cause of injury code mtg CIHI's def'n of trauma. | StatsCan & CIHI: Health Indicators 2007 | VIHA Core Program Indicators |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|-------------------------------------|--|---|---|---|
| | Injury free | Population aged 12 and over who have not sustained injuries in the past 12 months. | CCHS 3.1, 2005 | BC Wellness Atlas |
| | Injury | Population aged 12 and over who sustained injuries in the past 12 months. Includes all injuries serious enough to limit one's normal activities, but does not include repetitive strain injury. For those with more than one injury in the past 12 months, refers to "the most serious injury" as identified by the respondent. | Statistics Canada, Canadian Community Health Survey 2005, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1994/95, 1996/97 and 1998/99, cross sectional sample, health file and North component | Child Health Framework; *modified for wider inclusion |
| | Unintentional injury mortality (early years) | Injury mortality refers to accidental death due to causes such as vehicle accidents, burns, falls, drowning, and poisoning. Ages 0-1, 1-14, 15-24, etc. available from BC Vital Stats | Canadian Vital Stats, Mortality database (StatsCan); BC Vital Stats (<i>check with Rosemary Armour for most up to date data</i>) | Child Health Framework; BC Vital Stats 2005 Annual Report |
| | Unintentional injury deaths (PYLL) | Crude rate and age-standardized rate of death from unintentional injuries per 100,000 population. Unintentional ("accidental") injuries includes injuries due to causes such as motor vehicle collisions, falls, drowning, burns, and poisoning, but not medical misadventures/complications | StatsCan, Vital Stats, death database and demography div. (pop. Est.) | VIHA Core Program Indicators |
| | Injury fatality by cause | number of accepted fatal claims per 100 person-years of WorkSafeBC-covered employment, by cause of death | WorkSafe BC statistics 2006 | VIHA Core Program Indicators |
| | Environmental and traffic hazards | Hazards in the surrounding environment that increase the risk of injury | Inventory of Federal, Provincial and Territorial Environmental and Occupational Health Data | Child Health Framework |
| | Drinking and driving | The act of operating a motor vehicle while under the influence of alcohol. | StatsCan | Child Health Framework |
| | Bicycle helmet use | Proportion of bicycle riders who say they always wear a helmet when riding a bike. | NPHS, CCHS | PHO annual report - 2002 |
| Prevention of Violence | Child abuse rate | Child abuse cases per 1,000 population aged under 18 (based on location of office handling case), 2003 | BC Stats | VIHA Core Program Indicators |
| | Children in care rate | Children in care per 1,000 population age under 18, Dec 2005 | BC Stats | VIHA Core Program Indicators |
| | Spousal assault rate | Three year average spousal assault charges per 1,000 population 2002-2004 | BC Stats | VIHA Core Program Indicators |
| | Serious violent crime rate | Three year average of serious violent crimes (involving a weapon, bodily harm or abductions) 2002-2004 | BC Stats | VIHA Core Program Indicators |
| | Domestic violence | Domestic violence and emotional abuse are behaviours used by one person in a relationship to control the other. | Uniform crime reporting system, Canadian Justice Statistics; Policy services div., BC Ministry of Public Safety and Solicitor General | Child Health Framework |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|--|------------------------------------|---|---|-------------------------------|
| | Parental criminal record | Parents who have been convicted of a crime | Uniform crime reporting system, Canadian Justice Statistics; Policy services div., BC Ministry of Public Safety and Solicitor General | Child Health Framework |
| | Criminal involvement (adolescence) | Involvement with deviant behaviour that violates prevailing norms, specifically cultural standards prescribing how humans ought to behave to avoid illegal activity | Uniform crime reporting system, Canadian Justice Statistics; Policy services div., BC Ministry of Public Safety and Solicitor General | Child Health Framework |
| Problematic Substance Use | Illicit drug deaths | Illicit drug deaths per 1,000 population, 1997-2004 | BC Coroners Service and population figures from PEOPLE 30 | VIHA Core Program Indicators |
| | PYLL drugs | Potential years of life lost due to premature mortality from drug-related diseases 2000-2004 | BC vital Stats Agency: annual rpt. 2004 | VIHA Core Program Indicators |
| | PYLL alcohol related | Potential years of life lost due to premature mortality from alcohol-related diseases 2000-2004 | BC vital Stats Agency: annual rpt. 2004 | VIHA Core Program Indicators |
| | Adolescent binge drinking | % of high school students who use alcohol who reported binge drinking on 3 or more days in past month, 2003. | McCreary Society 2003, Adolescent Health Survey | VIHA Core Program Indicators |
| | Heavy drinking | % of the population aged 12 and over who regularly consume 5 or more drinks at least once a week, 2003 | CCHS 2.1, 2003; National Population Health Survey (reg. heavy drinking) | VIHA Core Program Indicators |
| | Illicit drug use | % of the population aged 12 and over who have used illicit drugs, excluding one time use of cannabis, 2003 | CCHS 2.1, 2003 | VIHA Core Program Indicators |
| Dental Health | Contact with dental professional | Proportion of household population aged 12 and over reporting that they have consulted with a dental professional in the past 12 months. Dental professionals include dentists or orthodontists. | StatsCan & CIHI: Health Indicators 2007 | CIHI Health Indicator reports |
| Prevention of disabilities | Children 0-19 with disabilities | Children 0 to 19 with selected disabilities and handicapping conditions per 1000 children, 2002 | BC vital stats agency: health status registry rpt., 2005 | VIHA Core Program Indicators |
| | Population 12+ with disabilities | % of persons 18 and over with activity limitation, 2005 | CCHS 3.1, 2005 (from Health Indicators on CIHI website) | VIHA Core Program Indicators |
| | Activity limitation | Population aged 12 and over who report being limited in selected activities (home, school, work and other) because of a physical condition, mental condition, or health problem which has lasted or is expected to last six months or longer. | National Population Health Survey, StatsCan | PHO's annual reports |
| | Disability days | Population aged 12 and over who stayed in bed or cut down on normal activities because of illness or injury, on one or more days in the past two weeks. | National Population Health Survey, StatsCan | PHO's annual reports |
| Communicable Diseases | Hepatitis B: Acute | Reported cases per 100,000 2001-2005 | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|-------------------------------------|--|---|---|------------------------------|
| | Hepatitis B: Chronic carrier | Reported cases per 100,000 2001-2005 | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |
| | Hepatitis B: Unknown status | Reported cases per 100,000 2001-2005 | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |
| | No. of Hep. B cases per/year | Reported cases per 100,000 2001-2005 | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |
| | Hepatitis C | Reported cases per 100,000 2001-2005 | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |
| | Influenza-like illness outbreak | Reported cases per 100,000 2001-2005 | BCCDC Influenza outbreak database, Jan. and Aug. 2006 | VIHA Core Program Indicators |
| | Measles: Rubeola | Reported cases per 100,000 2001-2005 | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |
| | Meningococcal: Invasive | Reported cases per 100,000 2001-2005 | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |
| | Mumps | Reported cases per 100,000 2001-2005 | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |
| | Pertussis | Reported cases per 100,000 2001-2005 | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |
| | Rabies exposures – prophylaxis recommended | Reported exposures needing prophylaxis per 100,000 (2003-2005) | BCCDC Impromptu Web Reports, March 7, 2006; BC level data from BCCDC Aug. 2006 | VIHA Core Program Indicators |
| | Rubella | Reported cases per 100,000 2001-2005 | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |
| | Streptococcal Group A | Reported cases per 100,000 2001-2005 | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |
| | Tuberculosis | Reported cases per 100,000 2001-2005 | BCCDC STD Cube, obtained Feb. 2006 | VIHA Core Program Indicators |
| | Chlamydia | Reported cases per 100,000 2001-2005 | BCCDC STD Cube, obtained Feb. 2006 | VIHA Core Program Indicators |
| | Gonorrhea | Reported cases per 100,000 2001-2005 | BCCDC STD Cube, obtained Feb. 2006 | VIHA Core Program Indicators |
| | Infectious Syphilis | Reported cases per 100,000 2001-2005 | BCCDC STD Cube, obtained Feb. 2006 | VIHA Core Program Indicators |
| | Syphilis deaths (n) | The proportion of deaths caused by infectious syphilis | BCCDC STD Cube, obtained Feb. 2006 | |
| | Non-infectious syphilis | Reported cases per 100,000 2001-2005 | BCCDC STD Cube, obtained Feb. 2006 | VIHA Core Program Indicators |
| | HIV | Reported cases per 100,000 2004-2005 | BCCDC HIV Cube, obtained Feb. 2006 | VIHA Core Program Indicators |
| | Sexually active (adolescence) | Sexually active teens are those who say they have had sexual intercourse in the three months prior to the survey. | National Population Health Survey, StatsCan; Adolescent Health Survey, McCreary | Child Health Framework |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|---|--|---|--|------------------------------|
| | Influenza immunization | Population aged 12 and over (aged 65 and over for data from the National Population Health Survey) who reported when they had their last influenza immunization (flu shot). | Pop. 65 years and older: Epidemiological services, BCCDC and BC Stats population estimates; Statistics Canada, Canadian Community Health Survey 2005, 2003, 2000/01, health file; Statistics Canada, National Population Health Survey, 1996/97, cross sectional sample, health file | PHO's annual reports |
| | Vaccine preventable diseases | Preventable diseases that include measles, mumps, rubella, and pertussis. | Epidemiology Services, BCCDC | PHO's annual reports |
| Prevention of Adverse Effects of the Health System (patient safety and quality of care) | Deaths due to medically-treatable diseases | The definitions of medically treatable diseases were taken from a paper written by WW Holland. This was based on earlier work from JRH Charlton. The types of medically treatable diseases mentioned in Charlton originally came from a paper by DD Rutstein. All results were age-standardized according to the age group considered for reasonable odds of survival. These age-standardized rates per 100,000 reflect these age groups, not the total population. | BC Vital Stats Agency | PHO's annual reports |
| | Hospital Standardized Mortality Ratio | Hospital Standardized Mortality Ratios (HSMR) track changes in hospital mortality rates in order to: – Reduce avoidable deaths in hospitals – Improve quality of care | CIHI | VIHA Core Program Indicators |
| | Unmet health care needs | Self-reported unmet health care needs in the past 12 months prior to survey | National Population Health Survey, StatsCan | PHO's annual reports |
| | Self-reported wait times for diagnostic services | Reported median wait time for diagnostic services in general public. Distribution of reported wait times for diagnostic services | StatsCan, Health Services Access Survey, supplement to CCHS 2005, 2003 (note: indicator has high variability - use with caution) | VIHA Core Program Indicators |
| | Opportunities for self-care | General practitioner office visits for Time-Limited Acute Symptoms (TLAS), expressed as a rate per 1,000 population (age standardized). TLAS are common illnesses and symptoms such as colds, influenza, back ache, headache, and skin rashes, that are considered appropriate for self or home care. | MSP, Professional Support Branch | PHO's annual reports |
| | Use of protocols and guidelines | Estimated reductions in medical services usage and expenditures that occur due to the adoption of protocols and guidelines. Estimates are based on the difference between actual utilization and projected utilization of fee items for which protocols and | MSP | PHO's annual reports |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|-------------------------------------|----------------------------------|--|---|-------------------------------|
| | | guidelines have been adopted by the Guidelines and Protocols Steering Committee. | | |
| | Breast-conserving surgery | Proportion of female breast cancer surgery patients (ICD-9 diagnosis code of 174, acute, rehab, and day surgery levels of care) who receive breast-conserving surgery (Breast-conserving surgery includes all procedure codes 97.21, 97.22, 97.11, 97.27 or 97.28 and no code of 97.12, 97.14, 97.16 or 97.18. All breast cancer surgeries include all procedure codes 97.21, 97.22, 97.11, 97.27, 97.28, 97.15, 97.14, 97.16 or 97.18.) | Hospital Morbidity Database | PHO's annual reports |
| | Preventable admissions | Hospitalizations for "ambulatory care sensitive conditions", conditions where hospital admission is usually not needed, if patients have timely access to high quality care in the community. | Hospital Morbidity Database | PHO's annual reports |
| | Expected compared to actual stay | Average days that acute care patients spend in hospital, compared to their Expected Length of Stay (ELOS). Expected Length of Stay depends on the patient's diagnosis, their age, and whether they have complications that make their care more complex. | Hospital Morbidity Database | PHO's annual reports |
| | Alternate level care days | The number of days that Alternate Level of Care patients spend in acute care hospitals, as a proportion of all inpatient hospital-days. Alternate Level of Care patients are those who no longer require acute care or who are assessed or to be assessed for eligibility in extended care or intermediate care, but who remain in an acute care hospital pending transfer to a suitable facility or the necessary alternative care arrangements are made in the community. | Hospital Morbidity Database | PHO's annual reports |
| | Health professionals | Number of health professionals (selected professions) per 100,000 population. Nursing professionals (RNs, LPNs): Rates reflect nurses registered with active-practising status and who are employed in registered/practical nursing. Rates will differ from data published by provincial/territorial regulatory authorities due to the CIHI collection, processing and reporting methodology. Registered nurses (RNs): Data from the territories include secondary registrations. Please consult Workforce Trends of Registered Nurses in Canada, 2005 for more detailed methodological notes and data quality issues. Other health professional data reflect personnel regardless of employment status and include the number of licensed pharmacists, licensed dentists, registered dental hygienists, | StatsCan & CIHI: Health Indicators 2007 | CIHI Health Indicator reports |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|--|-------------------------|--|--|-------------------------------|
| | | registered dietitians, active registered occupational therapists, active registered physiotherapists, registered chiropractors, active registered optometrists and active registered psychologists. Personnel-per-population ratios are revised annually using the most recent Statistics Canada population estimates and therefore may differ slightly from previously published figures. Please consult Health Personnel Trends in Canada, 1995 to 2004 for more detailed methodological notes, data quality issues and profession-specific information. | | |
| | Physicians | Physician counts include all active general/family practitioners and specialist physicians as of December 31 of the reference year (2005). Physicians in clinical and non-clinical practice are included. Residents and unlicensed physicians who have requested that their information not be published are excluded. For all jurisdictions and data years, specialist physicians include certificants of the Royal College of Physicians and Surgeons of Canada (RCPSC) and/or the College des médecins du Québec (CMQ) | StatsCan & CIHI: Health Indicators 2007 | CIHI Health Indicator reports |
| Environmental Health | | | | |
| Food and Water Safety | Campylobacteriosis | The rate of campylobacteriosis per 100,000 population | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |
| | Cryptosporidiosis | The rate of cryptosporidiosis per 100,000 population | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |
| | E. Coli, Verotoxigenic | The rate of E. Coli, verotoxigenic per 100,000 population | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |
| | Giardiasis | The rate of giardiasis per 100,000 population | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |
| | Hepatitis A | The rate of Hepatitis A per 100,000 population | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |
| | Salmonellosis | The rate of salmonellosis per 100,000 population | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |
| | Shigellosis | The rate of shigellosis per 100,000 population | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |
| | Vibrio Parahaemolyticus | The rate of vibrio parahaemolyticus per 100,000 population | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |
| | Yersiniosis | The rate of yersiniosis per 100,000 population | BCCDC Impromptu Web Reports, March 7, 2006 | VIHA Core Program Indicators |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|-------------------------------------|---|---|---|--|
| | Gastrointestinal outbreak | Infections caused by various food and water borne organisms | BCCDC laboratory services, Feb. and Sept. 2006 | VIHA Core Program Indicators |
| | Critical hazards in premises (food) | Proportion of inspected food facilities, as part of the routine, complaint or follow up process, rated as "high" in critical hazard. Critical hazards are health hazards that require immediate attention. Food premises include restaurants and other establishments that serve meals to the public, food stores, and other facilities as defined by Food Premises Regulations. | BC Min. of Health, Public Health Protection Branch | PHO's annual reports |
| | Food quality samples exceeding guidelines | Either due to the source or process of preparation, food is considered unsafe for consumption | BCCDC, Provincial Laboratory | PHO's annual reports |
| | Water quality | Water quality index: Per cent of waterbodies rated excellent or good based on a composite index that measures the degree to which the various water uses are protected. | BC Ministry of Water, Land and Air Protection; water management Branch, BC Min. of Environment, Lands and Parks | Wellbeing Indicator Working Model; PHO's report 2002 |
| | Boil-water advisories | The number of boil-water advisories in place at a given point in time. Boil-water advisories are used to notify the public that water is unsafe for human consumption because of microbiological contamination | BC Min. of Health, Public Health Protection Branch | PHO's annual reports |
| Air Quality | Child respiratory admissions | Age-standardized rate of hospitalizations per 1,000 among persons 0-14 for respiratory diseases, 2003-2004 | BC Stats, Regional Profiles | VIHA Core Program Indicators |
| | Asthma admissions | Age-standardized rate of hospitalizations per 1,000 for asthma, 2003-2004 | Ministry of Health, Purfect database | VIHA Core Program Indicators |
| | Asthma prevalence | % of persons 12 and over reporting a diagnosis of asthma, 2005 | CCHS 3.1, 2005 (from CIHI website) | VIHA Core Program Indicators |
| | Air quality | The state of the ambient air within an area. | BC Ministry of Water, Land and Air Protection | Wellbeing Indicator Working Model |
| | PM ₁₀ Air Pollution | Percentage of monitored communities exposed to health risks from fine particulates for more than 18 days. Fine particulate (PM10) levels exceeding 25 micrograms per cubic metre, are known to have adverse health effects. Data are based on measurements taken at sampling stations at locations throughout the province. Monitoring sites are often in communities where air quality is a concern; therefore, data do not necessarily reflect the average air quality in British Columbia. | Air Resource Branch, BC Min. of Environment, Lands and Parks | PHO's annual reports |
| | PM _{2.5} Air Pollution | Particles 2.5 micrometres or less pose a serious risk to health | Air Resource Branch, BC Min. of Environment, Lands and Parks | PHO's annual reports |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|-------------------------------------|---|---|---|------------------------------|
| | Greenhouse gas emissions | A substance that pollutes, especially a waste material that contaminates air, soil, or water. Total greenhouse gas emissions in megatonnes of carbon dioxide equivalents. | Environment Canada | PHO's annual reports |
| | Someone smokes inside house | % of persons 12 and over reporting that someone smokes in their home, 2003 | CCHS 2.1, 2003 | VIHA Core Program Indicators |
| | Second-hand smoke in private vehicle | % of persons 12 and over reporting that they have been exposed to second hand smoke in a private vehicle during previous 12 months, 2005 | CCHS 3.1, 2005 (from CIHI website) | VIHA Core Program Indicators |
| | Second-hand smoke in public place | % of persons 12 and over reporting that they have been exposed to second hand smoke in a private vehicle during previous 12 months, 2005 | CCHS 3.1, 2005 (from CIHI website) | VIHA Core Program Indicators |
| | Municipal bylaws (smoking) | Population distribution covered by municipal no smoking bylaws | MOH, Tobacco Control Section | BC Wellness Atlas |
| Healthy Community Environments | Cryptococcal | Reported cases per 100,000 2001-2005 | BCCDC Cryptococcus Database, Sept. 2006 | VIHA Core Program Indicators |
| | Lyme's disease | Reported cases per 100,000 2001-2005 | BCCDC Impromptu Web Reports, March 7 | VIHA Core Program Indicators |
| | West Nile | Reported cases per 100,000 2001-2005 | BCCDC Impromptu Web Reports, March 7 | VIHA Core Program Indicators |
| | Density of housing units | Total number of housing units divided by the municipality's taxable land-base, minus lands in the Agricultural Land Reserve | Canada census, 2001 | Smart Growth Indicators |
| | % single-detached housing units | This is one measure of the efficiency with which land and infrastructure are being used. However, the indicator does not take into account the number of secondary suites. | Canada census, 2001 | Smart Growth Indicators |
| | % of owners spending > 30% of income on housing | A measure of housing affordability. However, some communities spending a smaller proportion of their income on housing may also be more affluent. | Canada census, 2001 | Smart Growth Indicators |
| | % renters spending > 30% on housing | A measure of housing affordability. | Canada census, 2001 | Smart Growth Indicators |
| | Housing diversity index | Based on mix of single-detached, ground-oriented units, and apartments - a measure of the kinds of housing options that will be available for a variety of individuals and families. | Canada census, 2001 (CUSTOM ANALYSIS BY STATSCAN) | Smart Growth Indicators |
| | Kilometres of Sewer & Water Infrastructure Per 1,000 People | Compact communities generally require fewer kilometres of sewer and water mains per capita. The same caveat applies as in #4. | Canada census, 2001 | Smart Growth Indicators |
| | Ha. Of streets, roads and alleys per 1000 people | Provides a measure of the efficiency of the road network. Sprawled communities tend to require more road surface per capita. However, in some cases, roads are also used extensively to service the agricultural community. | Canada census, 2001 | Smart Growth Indicators |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|--|--|---|---|-------------------------|
| | Ha. Of parks and playgrounds per 1000 people | Within the municipality - a measure of green space within a community. However, it does not give an indication of a community's proximity to other recreational lands. | "area and population of incorporated municipalities as of December 31,2001, local government services and infrastructure, BC ministries of community aboriginal and women's affairs | Smart Growth Indicators |
| | Post-sec. educational establishments per 10,000 people | A rough proxy for the educational opportunities available to residents. Note that it gives equal weight to large universities and small trade schools, so it is not a measure of the number of educational spaces available per capita. | Canada Business Patterns, June 2001, StatsCan | Smart Growth Indicators |
| | Bookstores per 10,000 people | One indication of the kinds of cultural services available, especially important from the perspective of the "creative class" | Canada Business Patterns, June 2001, StatsCan | Smart Growth Indicators |
| | Art galleries per 10,000 people | One indication of the kinds of cultural services available, especially important from the perspective of the "creative class" | Canada Business Patterns, June 2001, StatsCan | Smart Growth Indicators |
| | Specialty food stores per 10,000 people | One measure of the diverse products and experiences that are available in a community. | Canada Business Patterns, June 2001, StatsCan | Smart Growth Indicators |
| | % of housing stock build before 1946 | A proxy for the number of potential heritage houses and sense of place that a community possesses. It doesn't describe their condition or actual heritage value. | Canada census, 2001 | Smart Growth Indicators |
| | Incorporations per 10,000 people | A proxy for the health of the local business climate. Consistent data on business bankruptcy rates would have been helpful but were not available. | BC Stats, community fact sheets\population; 2001Canada Census | Smart Growth Indicators |
| | # of businesses per 10,000 people | A proxy for the health of the local business climate. | Canada Business Patterns, June 2001, StatsCan | Smart Growth Indicators |
| | Res. Building permits per 10,000 people | Level of activity in the housing sector reflects on the health of the economy as a whole. | BC Stats, community fact sheets\population; 2001Canada Census | Smart Growth Indicators |
| | Dependency on safety net as a % of Total Income | A measure of the robustness of the local economy and the degree to which people can support themselves without dependence on the safety net. | Canada census, 2001 | Smart Growth Indicators |
| | High-tech index | Tech businesses as % of total businesses - A measure of the strength of these "new economy" sectors in the local economy. | Canada Business Patterns, June 2001, StatsCan | Smart Growth Indicators |
| | Bohemian index | a measure of the number of "cultural creatives," as defined by Richard Florida - Measures the potential critical mass of creative people who are a big attractor for the new economy industries. | StatsCan, 2001: National Occupational Classification for Statistics (CD ROM) | Smart Growth Indicators |

| Core Function/Public Health Program | Indicator | Definition | Source | Secondary Source |
|---|-------------------|---|---|-------------------------|
| | Consultants index | Consulting businesses as a % of total businesses - One measure of the number of knowledge-intensive firms in a community. | Canada Business Patterns, June 2001, StatsCan | Smart Growth Indicators |
| Health Emergency Management | | | | |
| Health Assessment and Disease Surveillance | | | | |
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