

# ISO Health Indicators Conceptual Framework

A common health indicators conceptual framework can inform the selection and interpretation of meaningful health indicators. Such a framework identifies what information is required to address questions about health and health care, how these pieces fit together and the interrelationships between them. This framework is based on Canada's health indicator framework.

The health indicators conceptual model is based on a population health, or determinants of health model. This framework reflects the principle, based on the supporting scientific evidence, that health is determined by a complex interaction of factors, including the social and physical environments, wellbeing, prosperity, health care, as well as genetic endowment and individual behavioural and biological response. In other words, according to the population health perspective, health is not determined solely by medical care, but by a range of individual-and population-level cultural, social and economic factors.

Ref: Health informatics-Health indicators conceptual framework technical specification ISO/TS 21667 First edition 2004-04-01.

## Dimensions of this framework

- **Community and health system characteristics**

The dimension of community and health system characteristics contains contextual information which may be useful in interpretation of indicators.

### Sub-dimensions of this framework

- **Health system**

Contextual information about the configuration, organisation, sustainability of utilization of the health care system.

Examples include number of coronary artery bypass graft (CABG) per capita, number of home care services provided per capita.

- **Population**

Contextual information about the characteristics of the population.

Examples include health insurance enrolment, % population over 65 years of age, % residing in urban centres.

- **Resources**

The dimension of community and health system characteristics contains contextual information which may be useful in interpretation of indicators.

- **Health status**

Deaths, or measures of length of life, are perhaps the most widely used and available health status indicators. These include a range of age-specific mortality rates, as well as derived indicators such as life expectancy and potential years of life lost.

### Sub-dimensions of this framework

- **Deaths**

A range of age-specific and condition specific mortality rates, as well as derived indicators.

Examples include infant mortality, life expectancy, potential years of life lost, circulatory deaths, unintentional injury deaths.

- **Health conditions**

Alterations of attributes of the health status of an individual which may lead to distress, interference with daily activities, or contact with health services; it may be a disease (acute or chronic), disorder, injury or trauma, or reflect other health-related states such as emergency, aging, stress, congenital anomaly, or genetic predisposition. Examples include Arthritis, diabetes, chronic pain, depression, food and waterborne diseases, injury hospitalization.

- **Human function**

Levels of human function are associated with the consequences of disease, disorder, injury and other health conditions; they include body function//structure (impairments), activities (activity limitations, and participation (restrictions in participation). Examples include functional health, disability days, activity limitation, health expectancy, disability free life expectancy.

- **Well-being**

Broad measures of the physical, mental and social well-being of individuals. Examples include self-rated health, self-esteem.

#### **Indicators in this framework**

- [National Disability Agreement: b\(1\)-Proportion of people with disability who participate in social and community activities, 2012 Community Services \(retired\)](#), Superseded 23/05/2013
- [National Disability Agreement: b\(2\)-Proportion of people with disability who participate in social and community activities, 2012 Community Services \(retired\)](#), Superseded 23/05/2013
- [National Disability Agreement: b\(3\)-Proportion of people with disability who participate in social and community activities, 2012 Community Services \(retired\)](#), Superseded 23/05/2013

- **Health system performance**

Factors that are able to capture outcomes, or processes that may be related to outcomes that result from contact with the health care system. Nine categories of indicators are considered within this health system performance dimension.

#### **Sub-dimensions of this framework**

- **Acceptability**

All care/services provided meet the expectations of the client, community, providers and payment organisations, recognizing that there may be conflicting, competing interests between stakeholders and that the needs of the clients/patients are paramount.

- **Accessibility**

The ability of clients/patients to obtain care/service at the right place and the right time, based on respective needs.

Examples include waiting times, practice availability and availability of dentists.

- **Appropriateness**

Care/service is relevant to the clients/patients' needs and based on established standards.

Examples include inappropriately used surgery, appropriate use of ACEI at discharge for heart failure.

- **Competence**

An individual's knowledge and skills are appropriate to the care/service being provided.

- **Continuity**

The ability to provide uninterrupted coordinated care/service across programs, practitioners, organisations, and levels of care/service, overtime.

- **Effectiveness**

The care/service, intervention or action achieves the desired result.

Examples include cancer survival, recurrence of hernia after repair, smoking cessation during pregnancy (effectiveness of maternal health care), chronic care management: admission rates for asthma, diabetes, epilepsy.

- **Efficiency**

Achieving the desired results with the most cost-effective use of resources.

Examples include avoidable hospitalizations, cost per casemix-adjusted separation, cost-effective prescribing.

- **Safety**

Potential risks of an intervention of the environment are avoided or minimized.

Examples include hospital-acquired infection rate.

- **Non-medical determinants of health**

Non-medical determinants of health are those that fall outside the sphere of medical/health care, generally speaking, but that have been shown to affect health status and, in some cases, access to health services.

### **Sub-dimensions of this framework**

- **Environmental factors**

Environmental factors with the potential to influence human health. Examples include water quality.

- **Genetic factors**

Factors outside those normally influenced by individual behaviours or by the social, economic or physical environment; genetic factors determine predisposition to certain conditions. Examples include rate of genetically determined diseases.

- **Health behaviours**

Aspects of personal behaviour and risk factors that epidemiological studies have shown to influence health status. Examples include smoking rate and physical activity.

- **Social and community factors**

Measures the prevalence of social and community factors, such as social support, life stress, or social capital that epidemiological studies have shown to be related to health.

Examples include school readiness, social support, housing affordability and literacy.

#### **Indicators in this framework**

- [National Disability Agreement: b\(1\)-Proportion of people with disability who participate in social](#)

[and community activities, 2012](#)

[Community Services \(retired\)](#), Superseded 23/05/2013

- [National Disability Agreement: b\(2\)-Proportion of people with disability who participate in social and community activities, 2012](#)  
[Community Services \(retired\)](#), Superseded 23/05/2013
- [National Disability Agreement: b\(3\)-Proportion of people with disability who participate in social and community activities, 2012](#)  
[Community Services \(retired\)](#), Superseded 23/05/2013

o **[Socioeconomic factors](#)**

Indicators related to the socioeconomic characteristics of the population that epidemiological studies have shown to be related to health. Examples include unemployment rate, low income rate and high school graduation.