

Population Grouping Methodology



The Canadian Institute for Health Information (CIHI) has developed a population grouping methodology using Canadian data, designed specifically to meet the needs of Canada’s health care systems.

Overview of the methodology

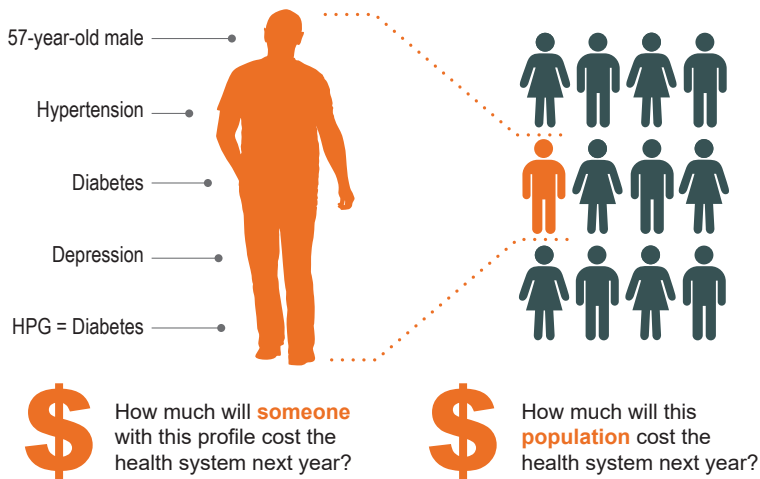
The population grouping methodology builds clinical and demographic profiles for each person in a population, including health system non-users.

- **Clinical profile:** Summarizes all health conditions identified from inpatient, day surgery, emergency department, continuing care, home care and physician claims administrative data.
 - **Health profile group (HPG):** Using the full clinical profile, an individual’s most complex and clinically relevant health condition is identified.
- **Demographic profile:** Comprises age and sex information captured in the insured person’s data. This data includes information maintained by the provinces/territories on all persons eligible to receive publicly funded health services.

These profiles predict person-level health care needs. “Health care need” is measured using a set of indicators, such as the following:

- **Predicted health care costs:** Includes both current and expected future costs to the health system.
- **Predicted use of selected health system resources:** Includes number of primary care visits, number of emergency department visits and the probability of entering long-term care.

Clinical classification and predictive indicators



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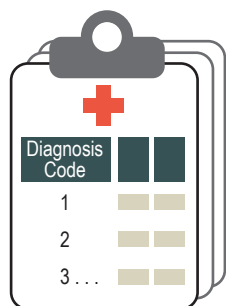
Software and data requirements

Clients who have access to the following data can apply the methodology using CIHI-developed software:

- Clinical data — person-level linkable diagnosis and functional status data over a consecutive 2-year period; data from patient-level physician billings, and on inpatient stays, day surgeries, emergency department visits, and home care and continuing care services
- Demographic data — person-level linkable; data about insured persons (i.e., individuals who have a valid health card number)

Software inputs and outputs

Data for a defined population



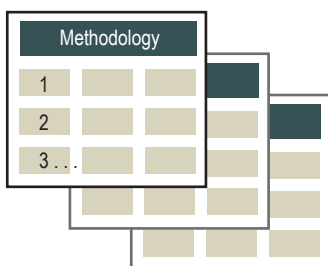
Clinical data

- Hospital
- Long-term care
- Home care
- Physician billing

Demographic data

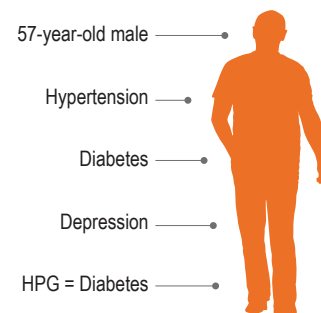
- Date of Birth
- Sex
- Postal Code

Population grouping software (provided by CIHI) is run on the data to apply the methodology



- Software is run on the input data
- Data linked by health card number

Software produces person-level clinical profiles and resource indicators



Results can be aggregated to a population level to support decision-making

Relevance for health care in Canada

CIHI's population grouping methodology will

- Enable health system planners and policy-makers to receive real-time evidence to support decision-making;
- Help CIHI and its clients monitor population health and diseases;
- Predict health care utilization patterns and explain variations in health care resource use;
- Provide a foundation for funding models; and
- Facilitate standardization of populations for interjurisdictional analysis.

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