



The International Health Workforce
Collaborative, London U.K., May 12, 2015



Canadian Institute
for Health Information

Institut canadien
d'information sur la santé

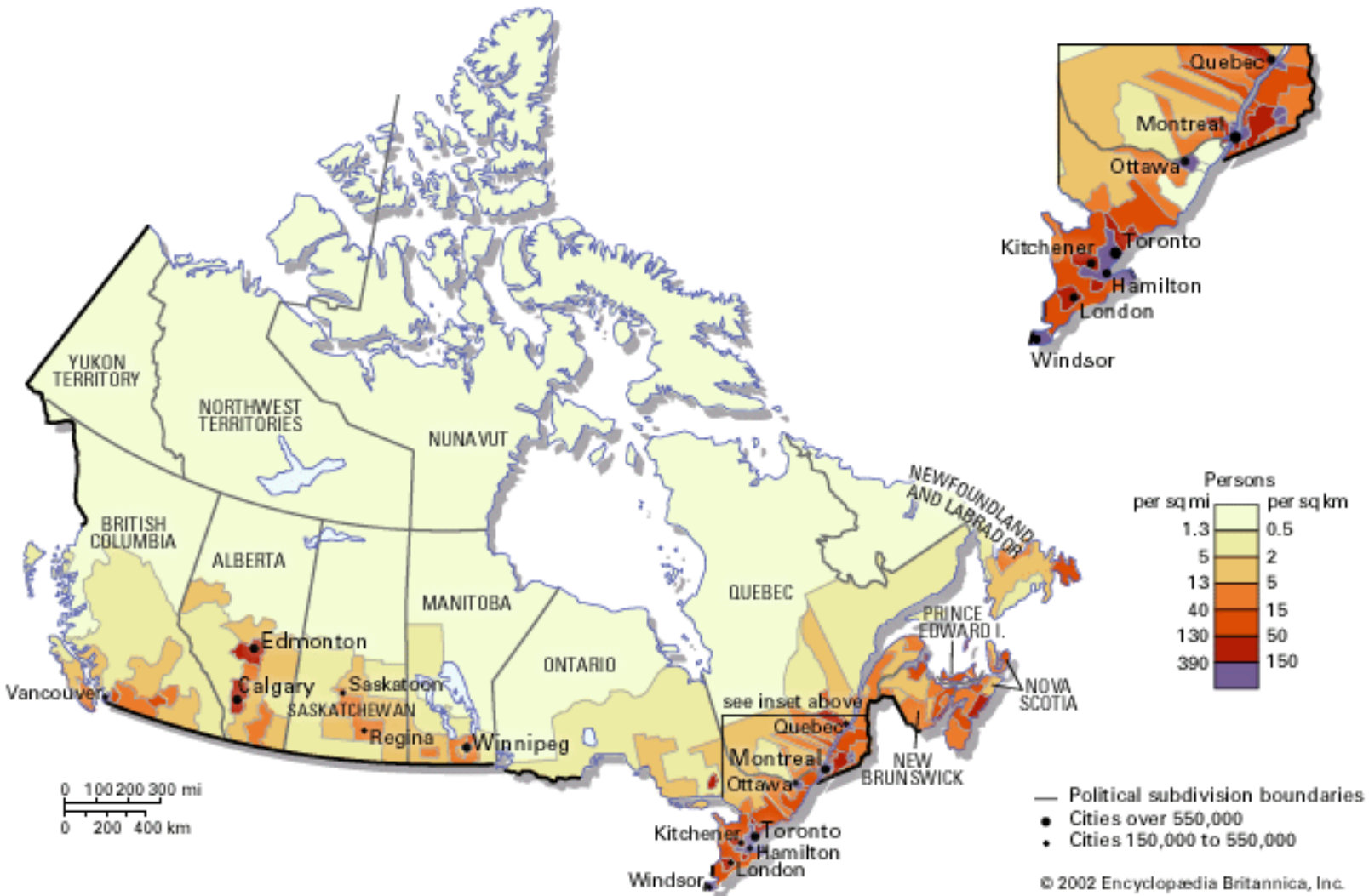


State of the Data:

National Data to Support HHR Planning in Canada

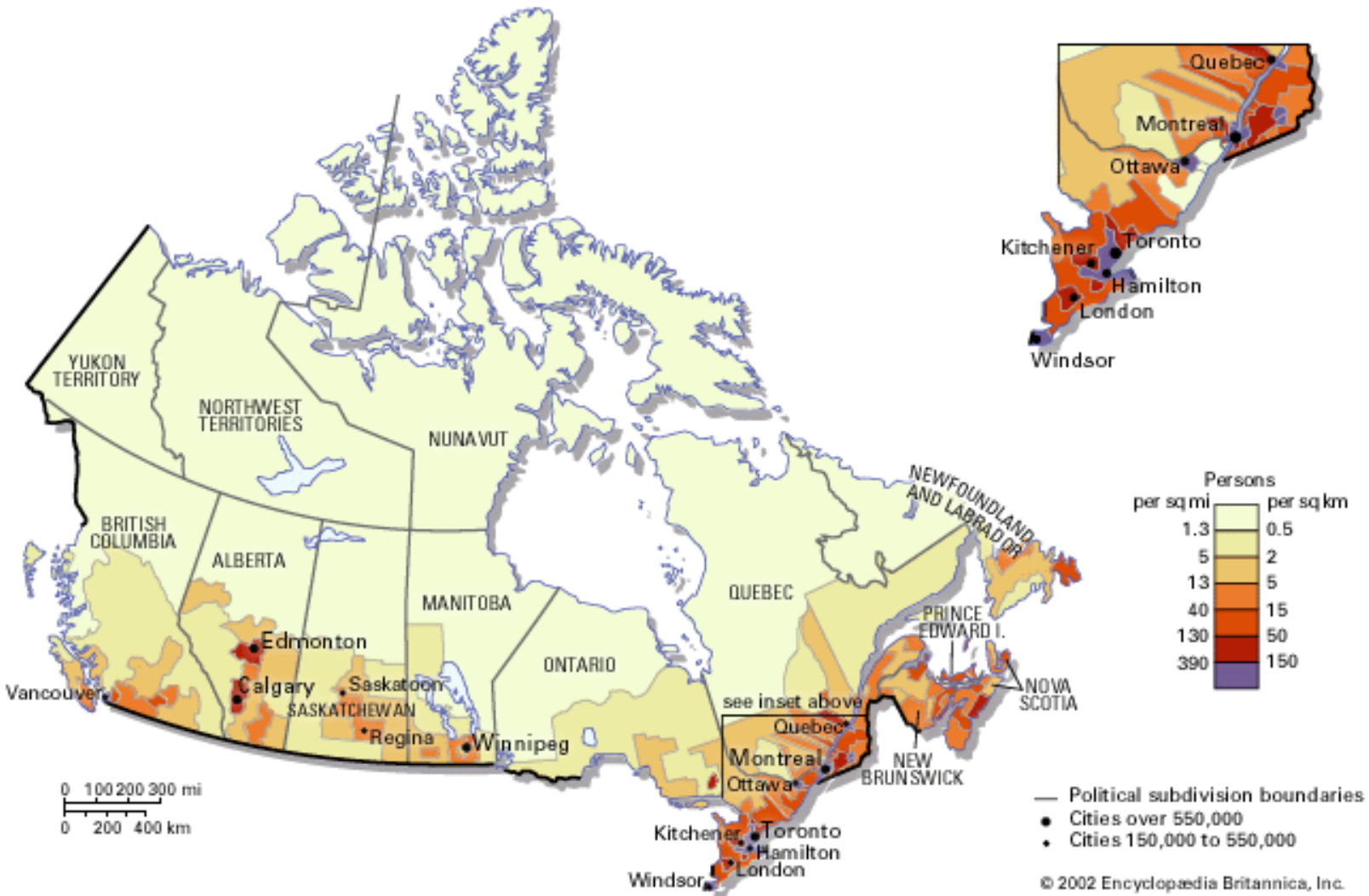


There are 36 million people in Canada...

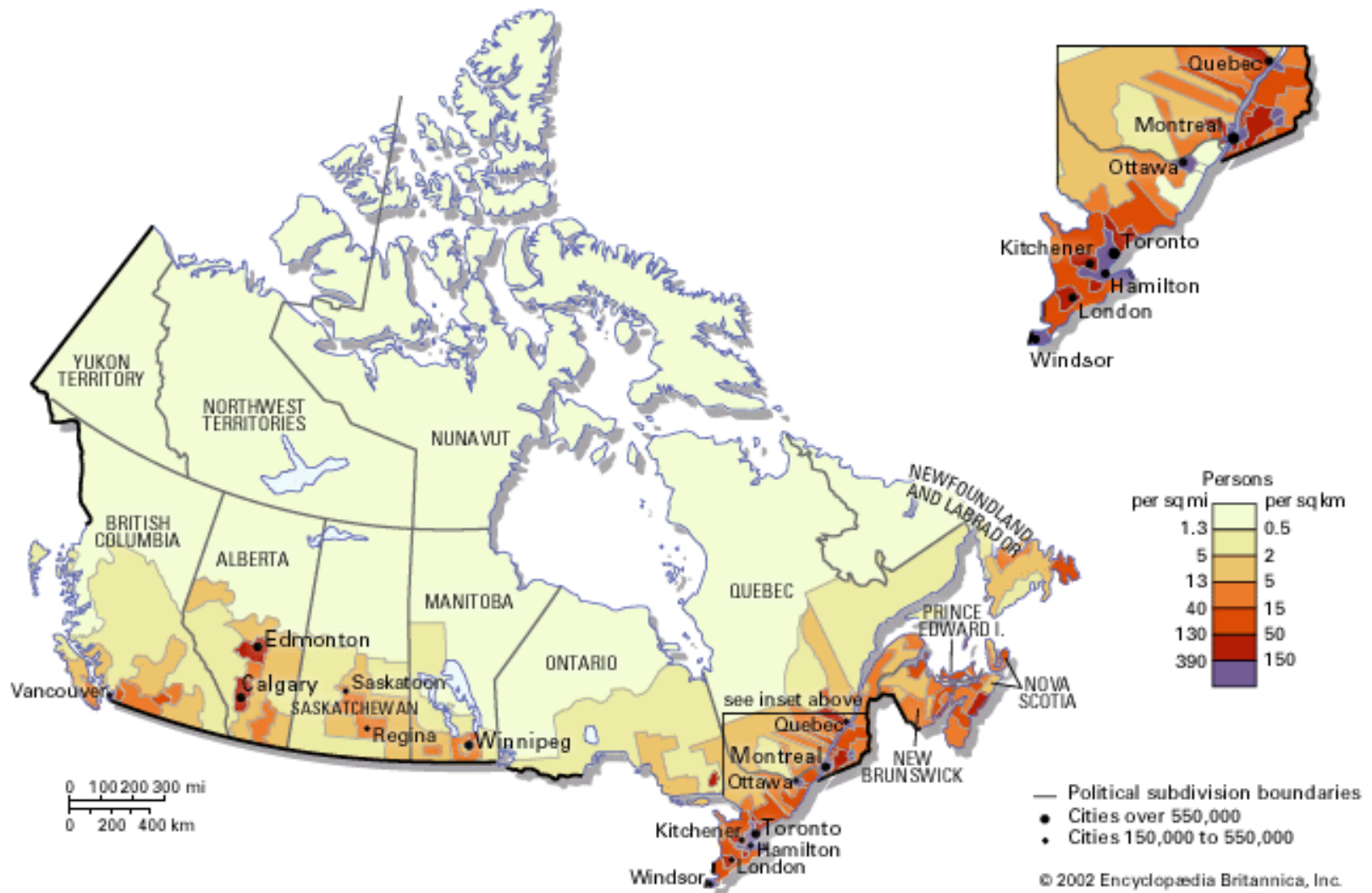




There are 13 Health Care Systems...



There are 13 Sources of Disparate Health Data...





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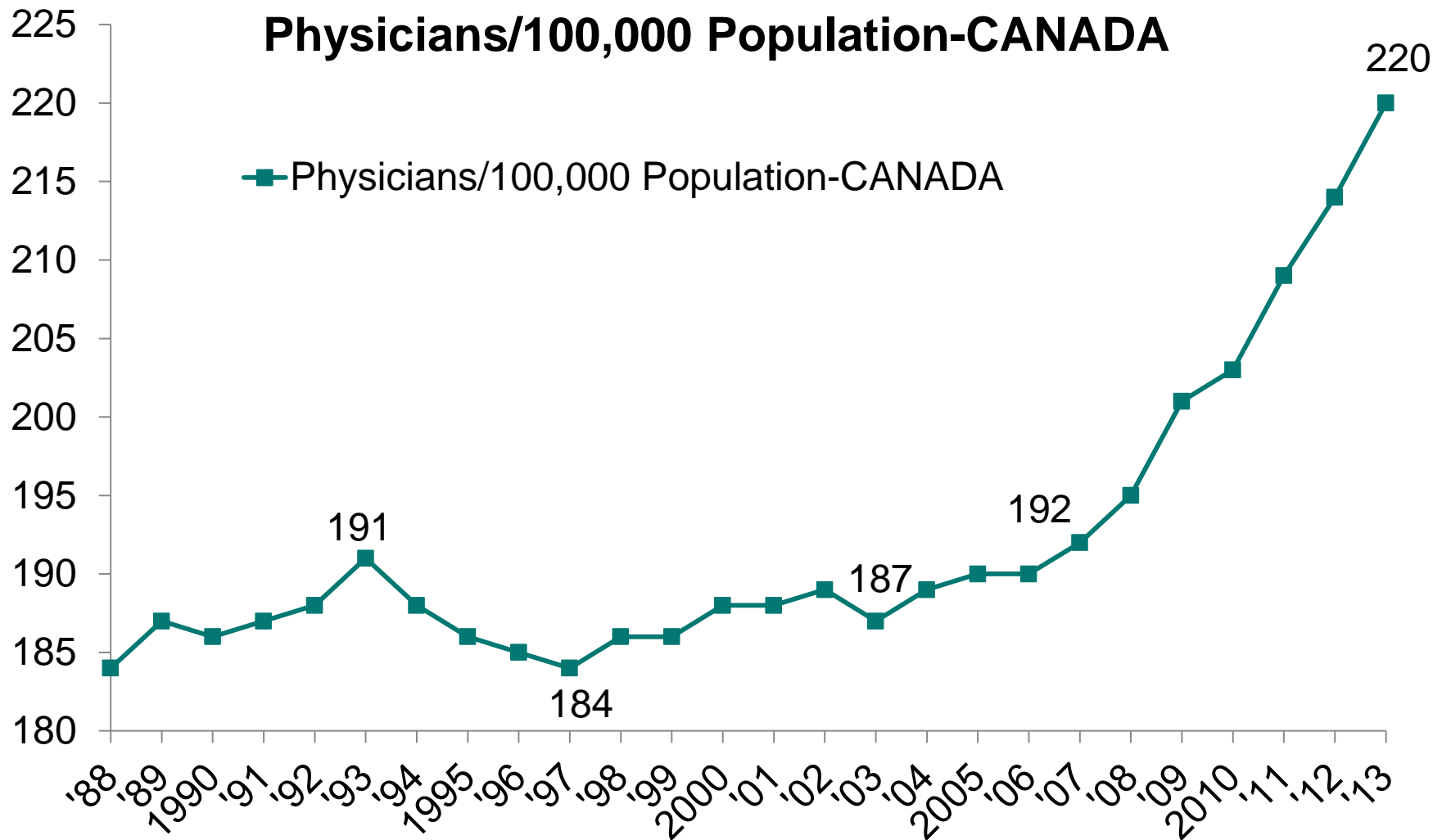
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www.cihi.ca

Who CIHI is...

- Our vision: **Better data. Better decisions. Healthier Canadians.**
- 28 pan-Canadian databases that cross health sectors
- Over one third (11) of the databases are specific to the health workforce.

Physician Supply Continues to Climb Higher...

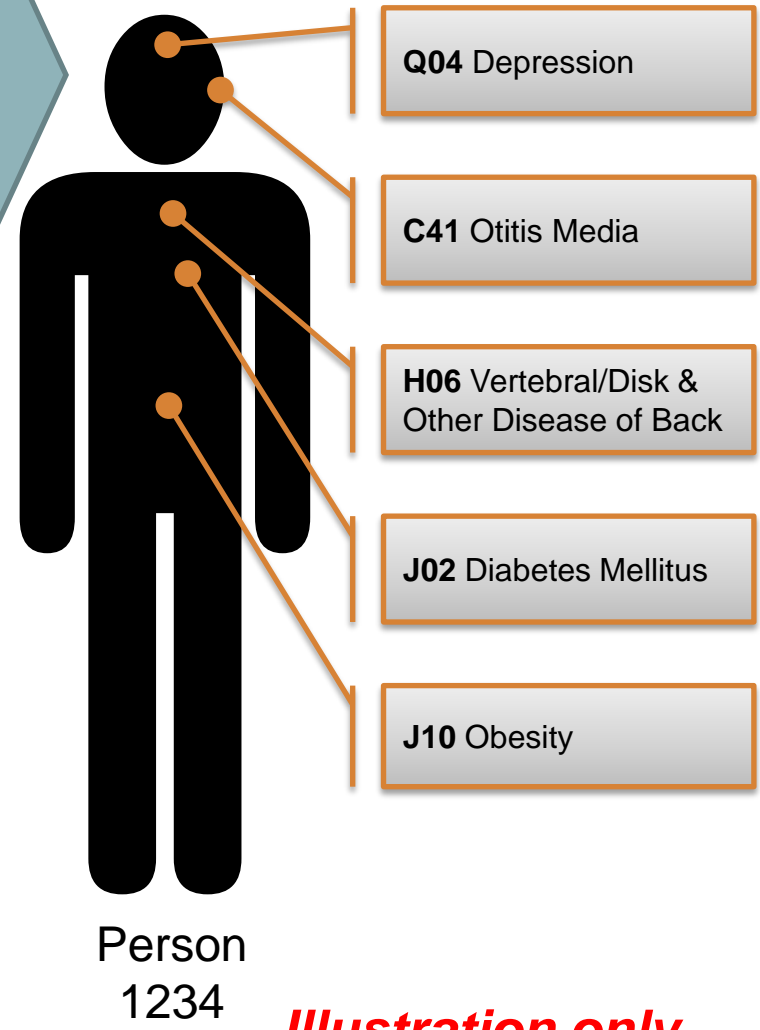


Source: CIHI, Scott's Medical Database (SMDB)

Examples of National Data Innovations...

- <http://yourhealthsystem.cihi.ca/>
- Patient level physician billing (PLPB) data in a...
- “*Made in Canada*” Predictive Population Risk Adjustment Grouping Methodology (PRAG)

Person ID	Data source	Date	ICD code	PRAG cell mapping
1234	DAD inpatient	2010-10-31	E11.12	J02
			E66.0	J10
1234	PLPB	2010-10-31	250	J02
1234	PLPB	2010-12-12	311	Q04
1234	PLPB	2011-04-04	7245	H06
1234	PLPB	2011-04-07	7241	H06
1234	PLPB	2011-05-25	311	Q04
1234	PLPB	2011-09-10	3050	Q07
1234	PLPB	2011-11-01	7241	H06
1234	PLPB	2011-12-14	311	Q04
1234	PLPB	2012-02-14	311	Q04
1234	PLPB	2012-03-20	3829	C41



Additive classification starts with mapping of ICD codes to PRAG health conditions

AND

Considers the data source of the ICD code, when the condition was problematic to the person, and how many times the patient sought care for it.



PROVIDER REQUIREMENTS—“How many providers are required to ensure sufficient ‘flow’ of health care services to meet the needs of the population?”

Production Component Need for Service Component

$$N^{rt} = \left(\frac{N}{Q} \right)^t \times \sum_{ij} \left[\left(\frac{Q_{ij}}{H_{ij}} \right)^t \times \left(\frac{H_{ij}}{P_{ij}} \right)^t \times P_{ij}^t \right] \quad (9)$$

↑ ↑ ↑ ↑

Productivity Level of Epidemiology Demography
Term Service

Source: Birch et al (2007)

Questions? or, Comments!



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