

Data, Indicators, Rankings: What do they matter, what do they measure?

Glenda Yeates

President and CEO

February 2008

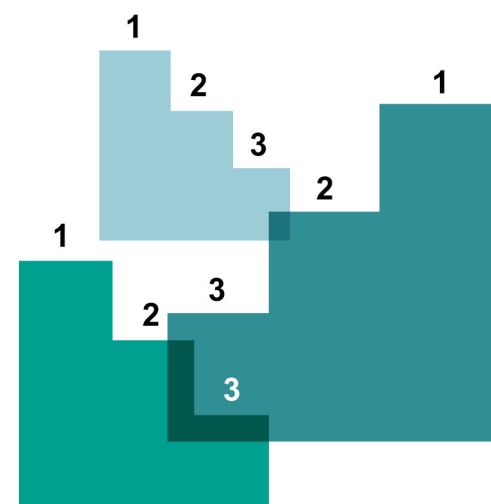
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INDICATORS

X	120
Y	97
Z	65

RANKINGS



- CIHI has 27 databases
RAW DATA
- CIHI stores 500 million records
- Some databases receive more than 400,000 patient abstracts a month

40%
28%

Age-Standardized Average Length of Hospital Stay (in Days)

Province or Territory [†]	1995–1996	2007–2008	1-Year Percent Change [‡]	12-Year Percent Change [§]
Newfoundland and Labrador	8.1	7.7	1.8	-4.6
Prince Edward Island	7.8	8.2	2.5	5.1
Nova Scotia	7.3	8.6	2.7	16.6
New Brunswick	6.9	7.3	4.1	5.3
Quebec	9.5	*	*	*
Ontario	6.9	6.1	2.0	-10.7
Manitoba	9.4	8.9	-1.1	-5.3
Saskatchewan	6.9	6.0	0.0	-13.0
Alberta	6.3	7.7	4.2	21.5
British Columbia	6.6	7.1	1.7	6.6
Yukon	4.8	5.8	-0.7	21.0
Northwest Territories	5.4	5.1	-1.3	-4.7
Nunavut	6.3	3.0	-4.3	-51.3
Canada (excluding Quebec)	7.0*	6.8*	-1.0*	-2.0*

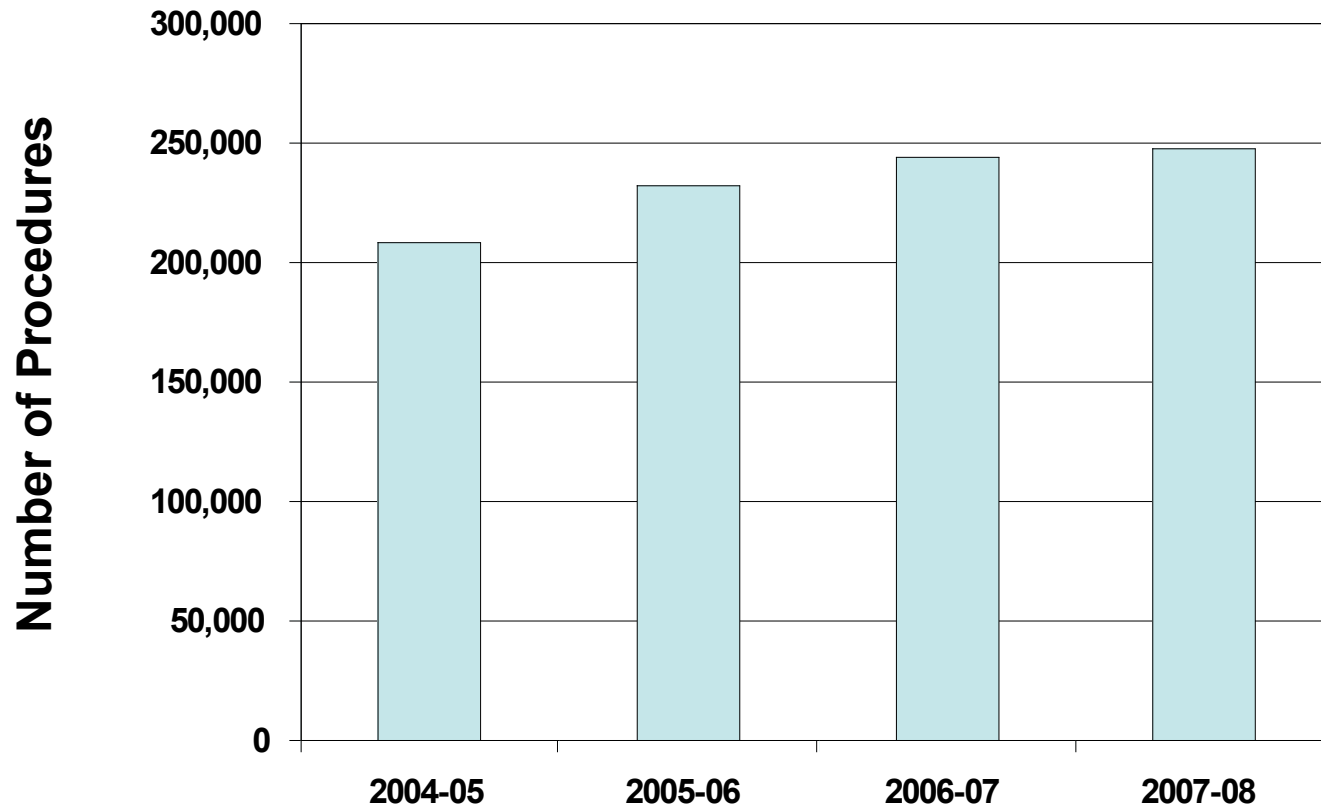


Health Human Resources

- The average licensed practical nurse was 43.9 in 2007, a decrease from 44.4 in 2003. This is the only regulated nursing profession where the average age is dropping.
- In 2007, 23% of registered psychiatric nurses were men.
- For the fourth year in a row, more physicians returned to Canada than left: 142 versus 122
- 90% of occupational therapists in Alberta are in permanent positions. The province has the lowest percentage of temporary or casual employees (3.4%).
- Ontario has the largest proportion of self-employed OTs (20.2%), substantially higher than the other jurisdictions.



Cataract Operations



Sources

Discharge Abstract Database, National Ambulatory Care System, Canadian Institute for Health Information; Alberta Ambulatory Care.



CIHI Portal Custom Reports

CIHI

Shared Reports My Reports Create Report Create Document History List Preferences Search Help Logout

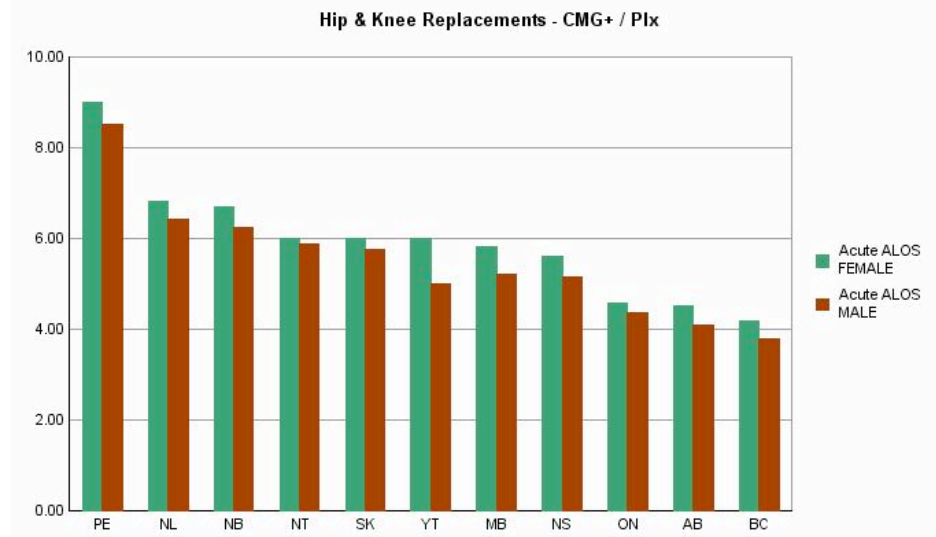
Discharge Abstract Database (DAD) > Shared Reports > CIHI Reports > Portal Demo Reports > Hip & Knee Replacements - CMG+ / Plx

File View Data Format

ARIW (CMG+) Values Font Size B I U \$ % +.00 -.00

PAGE-BY: DC Fiscal Yr: 2007 CMG+: 321:Unilateral Knee Replacement Facility Province: AB PLUS RIW Atypical: 00:Typical

Facility Region	Gender	Metrics	Total Cases	Acute ALOS	Avg ELOS (CMG+)	ARIW (CMG+)	Total RIW (CMG+)
4821 Chinook Regional Health Authority	FEMALE		224	4.85	5.02	1.77	396.14
	MALE		147	4.64	5.13	1.79	262.78
	Total		371	4.77	5.06	1.78	658.92
4822 Palliser Health Region	FEMALE		105	6.26	5.09	1.78	186.92
	MALE		51	5.63	5.35	1.79	91.32
	Total		156	6.05	5.18	1.78	278.24
4823 Calgary Health Region	FEMALE		825	4.69	5.04	1.77	1462.32
	MALE		570	4.35	5.24	1	
	Total		1,395	4.55	5.13	1	
4824 David Thompson Regional Health Authority	FEMALE		194	3.91	5.28	1	
	MALE		134	3.27	5.04	1	
	Total		328	3.65	5.18	1	
4825 East Central Health	FEMALE		45	4.84	5.16	1	
	MALE		53	4.53	5.09	1	
	Total		98	4.67	5.12	1	
4826 Capital Health	FEMALE		592	3.95	5.07	1	
	MALE		440	3.64	5.10	1	
	Total		1,032	3.82	5.08	1	
4827 Aspen Regional Health Authority	FEMALE		59	4.32	5.00	1	
	MALE		63	4.13	5.11	1	
	Total		122	4.22	5.06	1	
4828 Peace Country Health	FEMALE		82	6.23	5.10	1	
	MALE		36	5.94	5.13	1	
	Total		118	6.14	5.11	1	
Total		3,620	4.39	5.11	1		



Raw Data

Strengths:

- Granular
- Comprehensive

Challenges:

- Time-consuming
- Potentially overwhelming
- “Hard to see the forest for the trees”



Health Indicators

INDICATORS

- Standardized, summary measures that represent key dimensions of the health care system or related to the health system
- Used to compare performance of different jurisdictions
- CIHI has more than 40 health indicators

X	120
Y	97
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health care

health system
ong



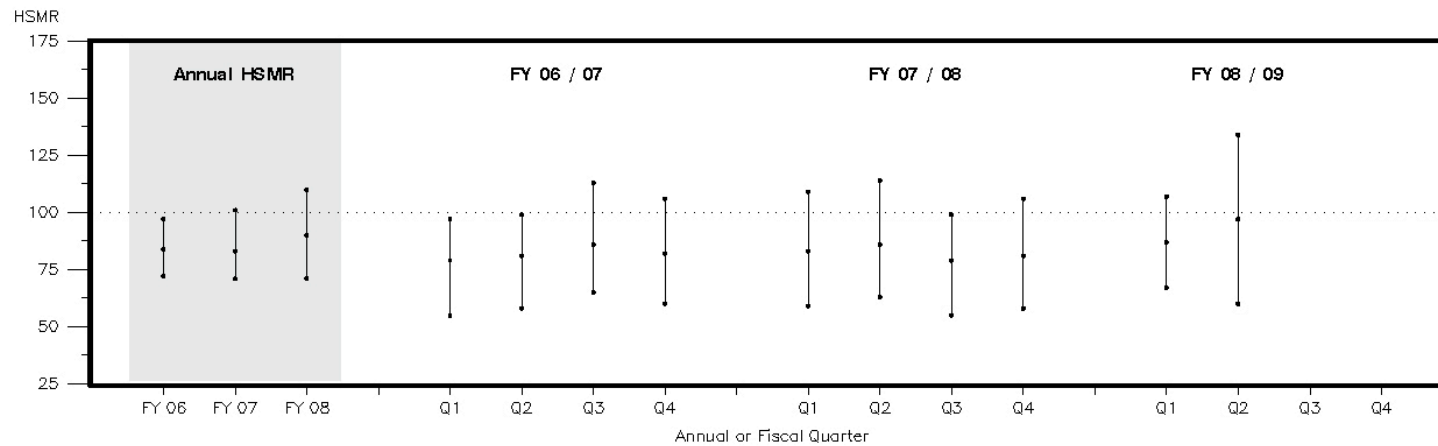
Hospital Standardized Mortality Ratio (HSMR)

- HSMR is designed to track changes in hospital mortality rates
- Used to inform quality of care efforts in hospitals
- While not every in-hospital death is preventable, many health care providers have made reducing mortality a goal
- Based on diagnosis groups that account for 80% of deaths and adjusted for factors affecting mortality



HSMR

Institution Name



Fiscal Quarter	Cases	Deaths	HSMR	95% CI	Significance*	Peer Range	Peer QR
Q1 Apr-Jun 2008	562	48	87	67 - 107	No		
Q2 Jul-Sep 2008	178	19	97	60 - 134	No		
Q3 Oct-Dec 2008	-	-	-	-	-		
Q4 Jan-Mar 2009	-	-	-	-	-		
YTD FY2008-2009	740	67	90	71 - 110	No	62-127	73-109



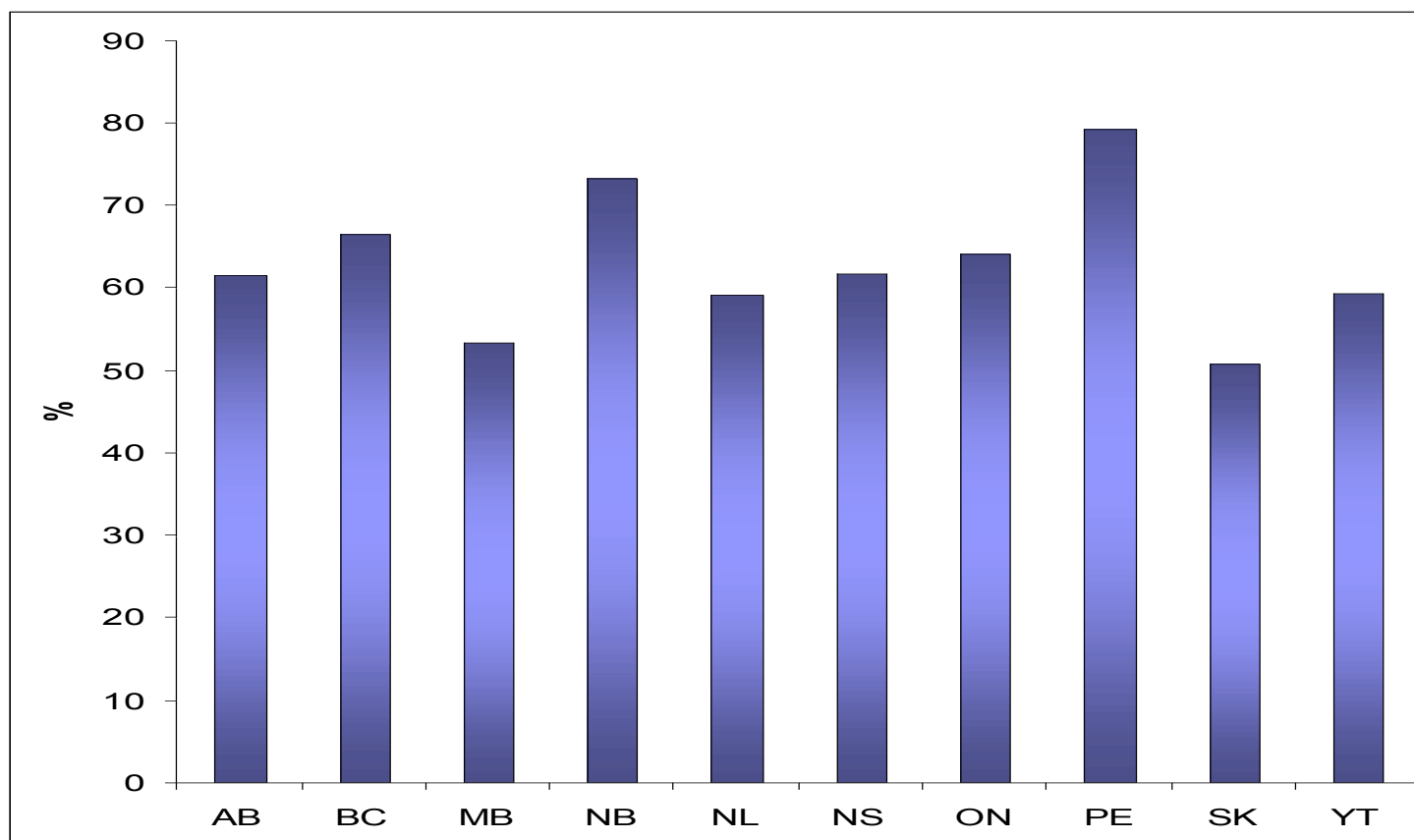
Wait Time for Hip Fracture Repair

- Operative delay in older patients with hip fracture is associated with a higher risk of postoperative complications and mortality
- Wait time for surgery following hip fracture provides a measure of the access of care
- In 2005, pan-Canadian benchmarks for selected procedures were announced as part of the F/P/T ministers of health agreement to establish evidence-based benchmarks for medically acceptable wait times
 - For hip fracture fixation: within 48 hours

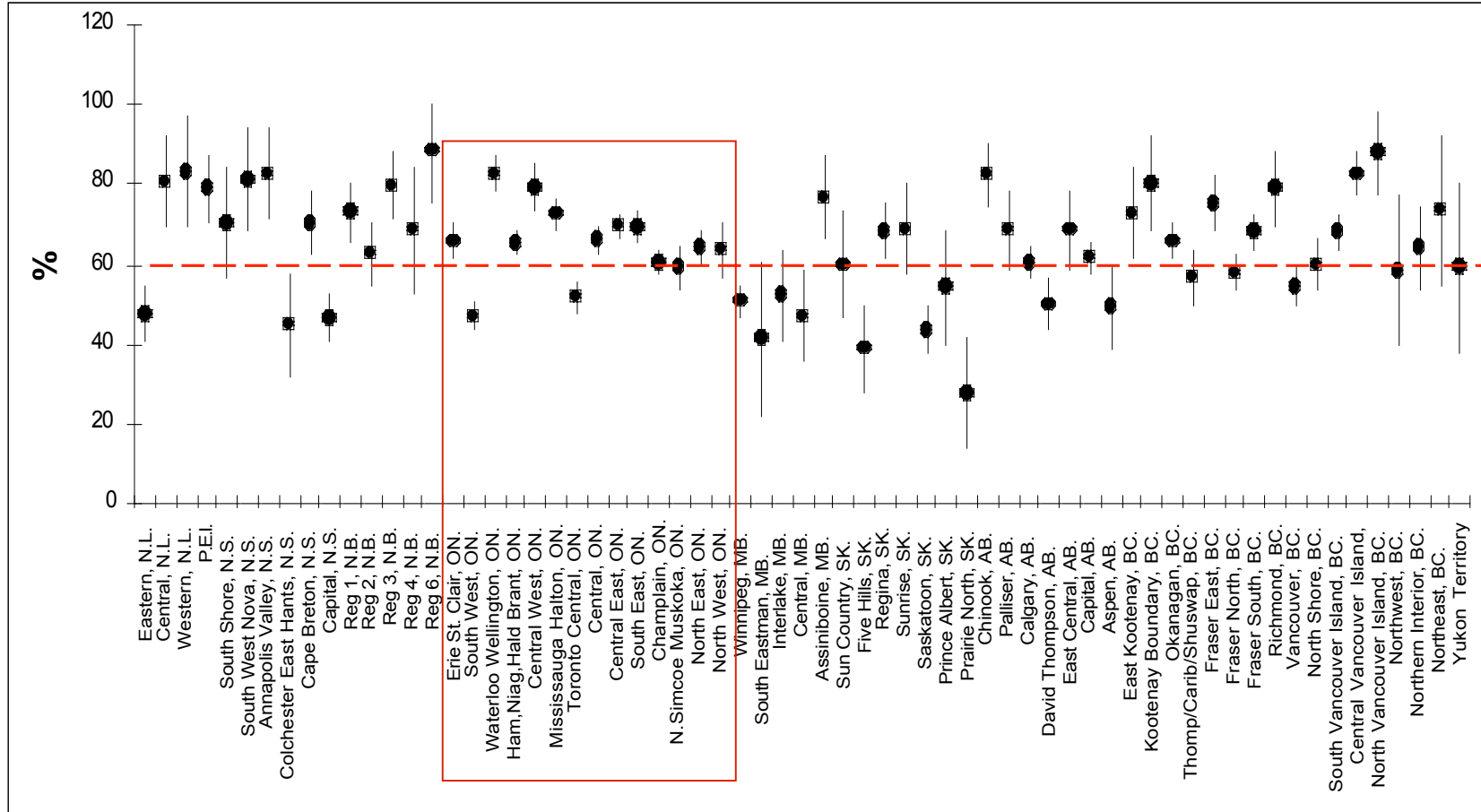


Wait Time for Hip Fracture Surgery

by Province, 2006–2007



Wait Time For Hip Fracture Surgery (Same/Next Day) by Region, 2006–2007



Health Indicators

Strengths:

- Meaningful
- Manageable
- Focuses attention

Challenges:

- Complicated
- Not always intuitive
- Numerous (“indicatoritis”)



Examples of

International Health Rankings

- **Canada ranked 11th** among 24 countries
- **Canada ranked 23rd** among 30 countries

The graphic consists of two overlapping teal-colored shapes. The top shape is a vertical bar with a white '1' at the top and a white 'Z' on its right side. The bottom shape is a horizontal bar with a white '1' at the top and a white 'Z' on its right side. In the center, there is a white newspaper icon with the title 'The News' and a small illustration of a person in a hospital bed. To the right of the newspaper icon is a news article snippet with a blue header 'Top Stories' and a white background. The article title is 'Canadian health care system lags behind Europe', dated 'Updated Mon. Jan. 21 2008 10:16 AM ET', by 'CTV.ca News Staff', and the lead sentence is 'Canada ranks a dismal 23rd out of 30'. A white arrow points from the newspaper icon towards the news article snippet.

Who won the 2008 summer Olympics medal race?



Who Won the Medal Race?

Overall Total

- 1 United States (110)
- 2 China (100)
- 3 Russia (72)
- 4 Great Britain (47)
- 5 Australia (46)
- 6 Germany (41)
- 7 France (40)

Gold Medal Total

- 1 China (51)
- 2 United States (36)
- 3 Russia (23)
- 4 Great Britain (19)
- 5 Germany (16)
- 6 Australia (14)
- 7 South Korea (13)



Clear as Mud . . .

“China has won the most gold medals and the United States of America won the most total.

“I believe each country will highlight what suits it best. One country will say ‘gold medals.’ The other country will say ‘the total tally counts.’

“We take no position on that.”

IOC President Jacques Rogge



Have Canada's public health policies and health care systems succeeded in promoting the health of its citizens?



“Canada Ranks 11th”

- Canada ranked 11th among 24 countries belonging to the Organisation for Economic Co-operation and Development (OECD) in terms of overall health performance
- The ranking considered life expectancy, rates of death and disease, immunization rates, self-reported health and certain risk factors (such as rates of obesity)

“Canada Ranks 23rd”

- Canada ranked 23rd among 30 countries according to a Euro–Canada Health Consumer Index
- This incorporated measures of patient rights and information, waiting times for treatment, clinical outcomes, generosity of public health care systems and provision of pharmaceuticals

Making Sense of Health Rankings

CIHI
ICIS

- Methodology paper designed to help:
 - Interpret information that ranks health care performance
 - Identify strengths and weaknesses in ranking methodologies
 - Assist in better understanding and evaluating ranking reports



Rankings

Strengths:

- Simple
- Easy to understand
- Easy to communicate

Challenges:

- Over-simplified
- Highly affected by methodology, measures and motive
- Comparability is often questionable

Data, Indicators, Rankings . . .

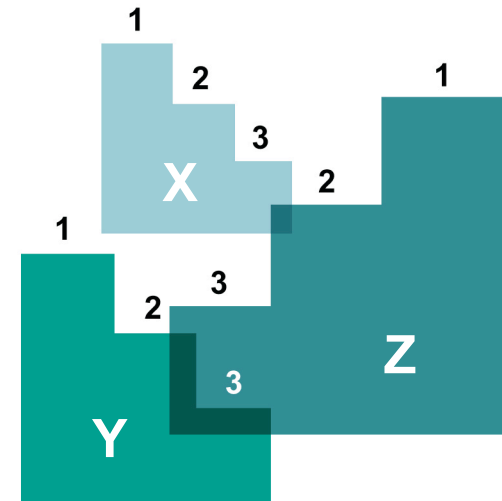
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RANKINGS



CIHI
ICIS

Thank You!

*Taking health information further
À l'avant-garde de l'information sur la santé*



Canadian Institute
for Health Information

Institut canadien
d'information sur la santé

Health Data, Indicators and Rankings

Dr. Brian Postl

President and CEO,

Winnipeg Regional Health Authority

February 19, 2009



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À l'écoute de notre santé



Dataphile



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Uses of Data

- Planning



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Monitoring

- Over Time
- By Site
- By Demographic
- By Workforce



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Funding



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Mythbusting

- “We are the best in”
- Length of Stay



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Accountability

- Clinical
- Management
- Political



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Stages of Data Denial

- Data is wrong
(Is it in the ballpark?)



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Stages of Data Denial

- Data is old
(How new does it have to be?)



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Stages of Data Denial

- We have already changed
(I hope so)



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Stages of Data Denial

- This is a different place



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Stages of Data Denial

- We tried that
(It didn't work)



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Stages of Data Denial

- Connie Curran
(Administrative Plot/Flavor of the day)
- We didn't want to change



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Stages of Data Denial

- Let's Begin



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Stages of Data Denial

- Synthesis



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Stages of Data Denial

- Incorporation



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Need Champions



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Impacts of Data on Change

- Self-Evident



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Impacts of Data on Change

- Data Clean-up (very important)



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Impacts of Data on Change

- Comparisons by Site (or Region)
 - Public Disclosure
 - Early Impacts (Are they sustained?)
 - P4P
 - Huge investments required
 - Marginal improvements



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Gaming of Data

- For Funding
- For posturing

“Everyone else does it”



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Media

- Disclosure attracts ***NEGATIVE*** attention
- Likely dampens over time

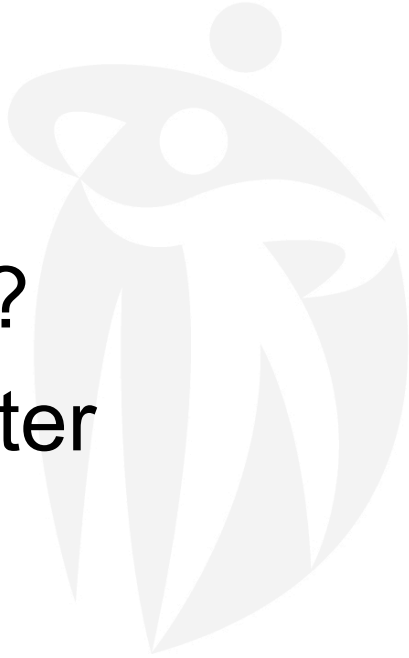


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Public Use & Understanding

- Educates
- Extinguishes?
- Doesn't register



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