How Comparable Are the Data?
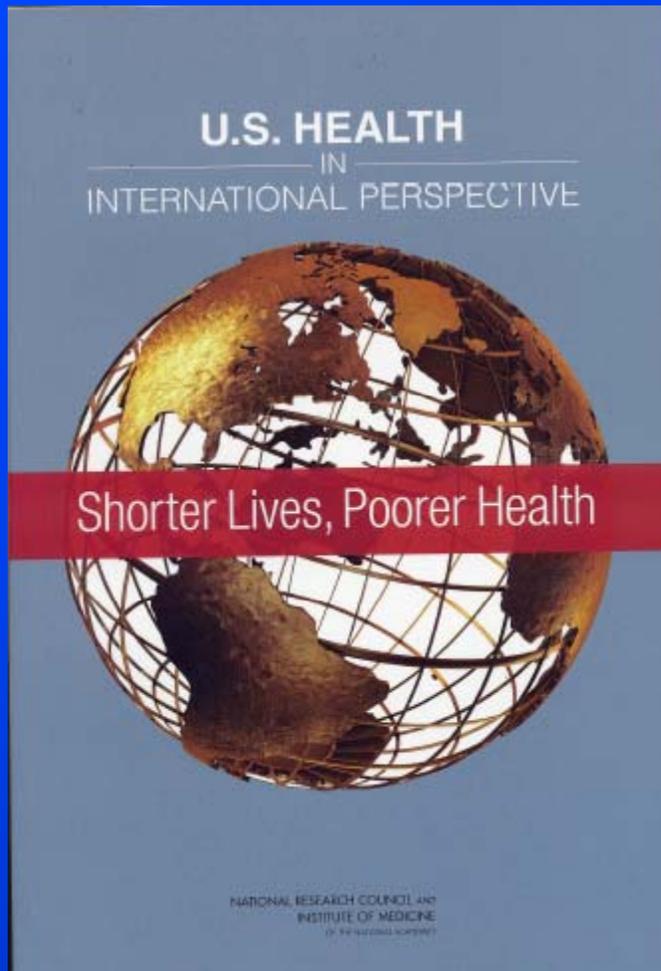## NCHS and International Comparability

Sam Notzon

**Board of Scientific Counselors
National Center for Health Statistics, CDC**

Recommendation 1:

- **NIH and NCHS to work with international partner to improve data quality and consistency to enable accurate comparisons**

Improving International Comparability:

Goal: Improve the quality and comparability of our own data and that of other countries

- **Collaboration with international organizations**
  - OECD
  - WHO
  - UN

- **International collaborations**
  - International Collaborative Efforts (ICEs)
  - Others

- **Bilateral collaborations**

Board of Scientific Counselors
NCHS and OECD

National Center for
Health Statistics

Edward Sondik /Sam Notzon
May 5, 2013

NCHS and OECD

- **NCHS coordinates and supplies data on behalf of the United States to OECD**

  - **Leadership roll in overall data collection – Sam Notzon**

  - **Guidance and consultation in Health Care Quality representing HHS — Ed Sondik**

The Organisation for Economic Co-operation and Development (OECD)

- **Established in 1961**

- **Headquarters: Paris**

- **Membership: 34 countries**

- **Budget: EUR 347 M**
  - **US contribution: 25%**

- **Secretary-General: Angel Gurría**

OECD: Mission

- **To promote policies that will improve the economic and social well-being of people around the world**

- **34 member countries provide a forum in which governments can work together, share experiences and seek solutions to common problems.**

- **Focus on understanding the drivers of economic, social and environmental change.**

OECD: Current Membership

Australia	France	Korea	Slovenia
Austria	Germany	Luxembourg	Spain
Belgium	Greece	Mexico	Sweden
Canada	Hungary	Netherlands	Switzerland
Chile	Iceland	New Zealand	Turkey
Czech Republic	Ireland	Norway	United Kingdom
Denmark	Israel	Poland	United States
Estonia	Italy	Portugal	
Finland	Japan	Slovak Republic	

OECD Health Database NCHS Roles

- Coordinator of US data supplied to OECD -- Sam Notzon

- Health care quality measures: Chair of OECD Health Care Quality Indicators Working Group – Ed Sondik

- Membership in various Health Care Quality Subcommittees on
  - Patient safety
  - Cancer care
  - Care for communicable diseases
  - Care for chronic conditions
  - Prevention

OECD Health Database
Examples of data supplied by NCHS

Life expectancy at birth

Premature mortality

Mortality from various causes

Infant mortality

Low birth weight

Perceived health status

Prevalence/incidence of selected diseases

Tobacco and alcohol use

Overweight/obesity

Hospital and care statistics

Selected avoidable admissions

Obstetric trauma

Screening, survival and mortality for breast and cervical cancers

Screening, survival and mortality for breast cancer

Immunizations for children and adults including

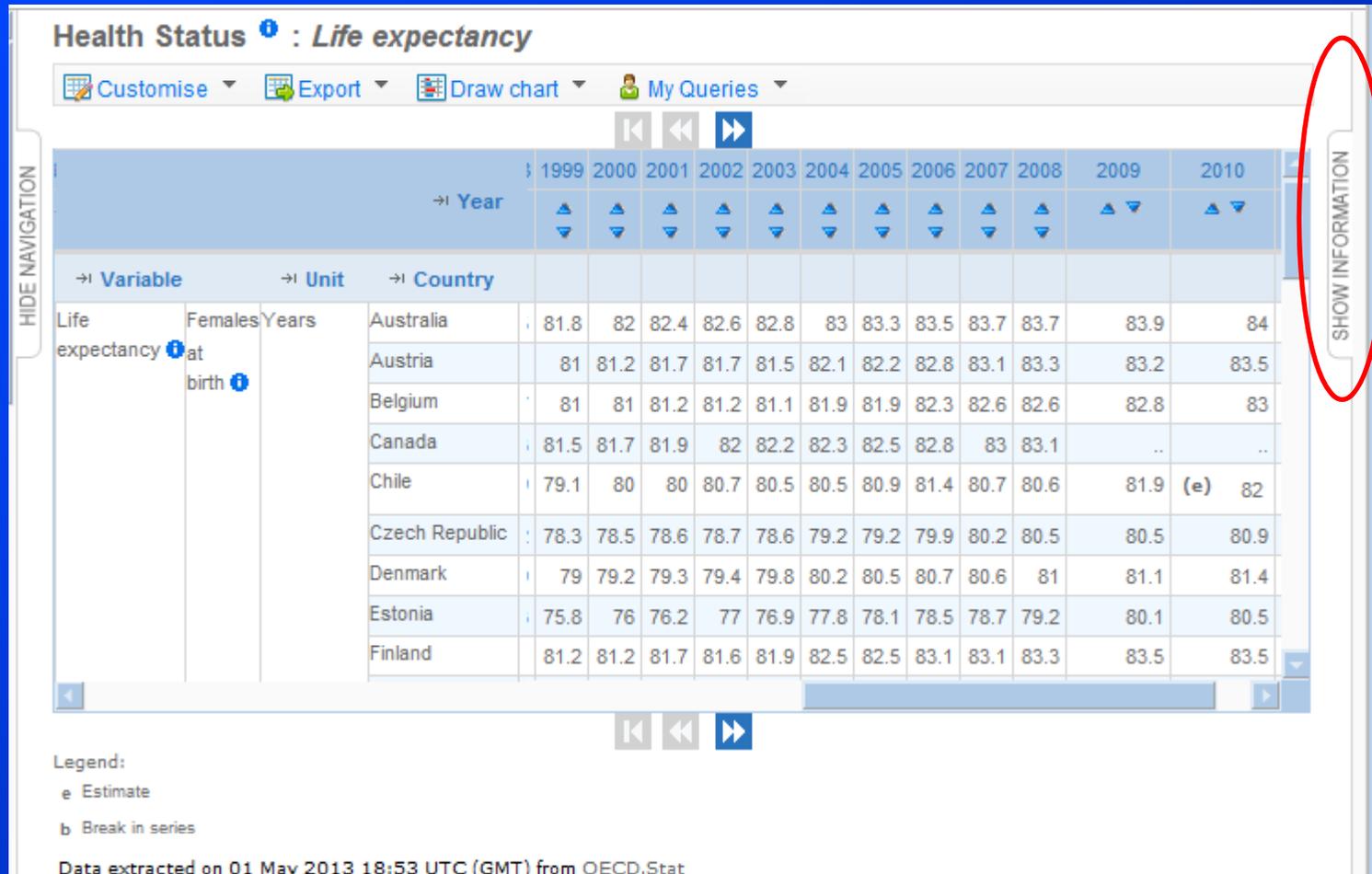Measures of access to care

Waiting times

OECD Health Database:

- **Includes definition for each data item**

- **"Sources and Methods" documents variation from OECD definitions**

- **Annual meeting of "Health Data Correspondents" to highlight:**

  - **Recent developments**

  - **Data trends**

  - **Data comparability**

OECD Health Database:

Health Status ⓘ : *Life expectancy*

📝 Customise ▾   📤 Export ▾   📊 Draw chart ▾   👤 My Queries ▾

Variable	Unit	Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Life expectancy ⓘ at birth ⓘ	Females Years	Australia	81.8	82	82.4	82.6	82.8	83	83.3	83.5	83.7	83.7	83.9	84
		Austria		81	81.2	81.7	81.7	81.5	82.1	82.2	82.8	83.1	83.3	83.2	83.5
		Belgium	81	81	81.2	81.2	81.1	81.9	81.9	82.3	82.6	82.6	82.8	83
		Canada	81.5	81.7	81.9	82	82.2	82.3	82.5	82.8	83	83.1	..	..
		Chile	79.1	80	80	80.7	80.5	80.5	80.9	81.4	80.7	80.6	81.9	(e) 82
		Czech Republic	78.3	78.5	78.6	78.7	78.6	79.2	79.2	79.9	80.2	80.5	80.5	80.9
		Denmark	79	79.2	79.3	79.4	79.8	80.2	80.5	80.7	80.6	81	81.1	81.4
		Estonia	75.8	76	76.2	77	76.9	77.8	78.1	78.5	78.7	79.2	80.1	80.5
		Finland	81.2	81.2	81.7	81.6	81.9	82.5	82.5	83.1	83.1	83.3	83.5	83.5

Legend:

e Estimate

b Break in series

Data extracted on 01 May 2013 18:53 UTC (GMT) from OECD.Stat

OECD Health Database:

Health at a Glance
Biannual report

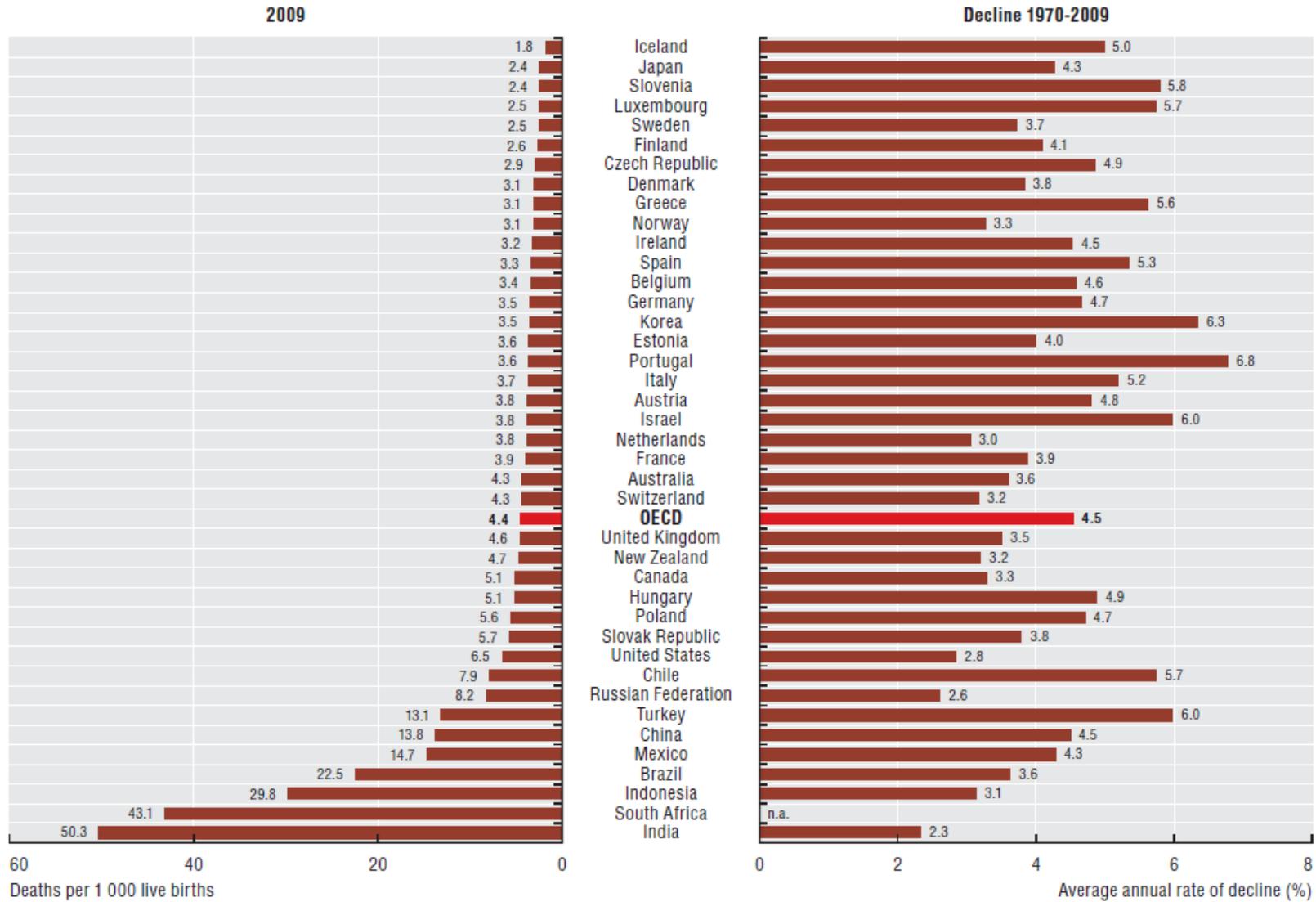**Health at a Glance 2011**
OECD INDICATORS
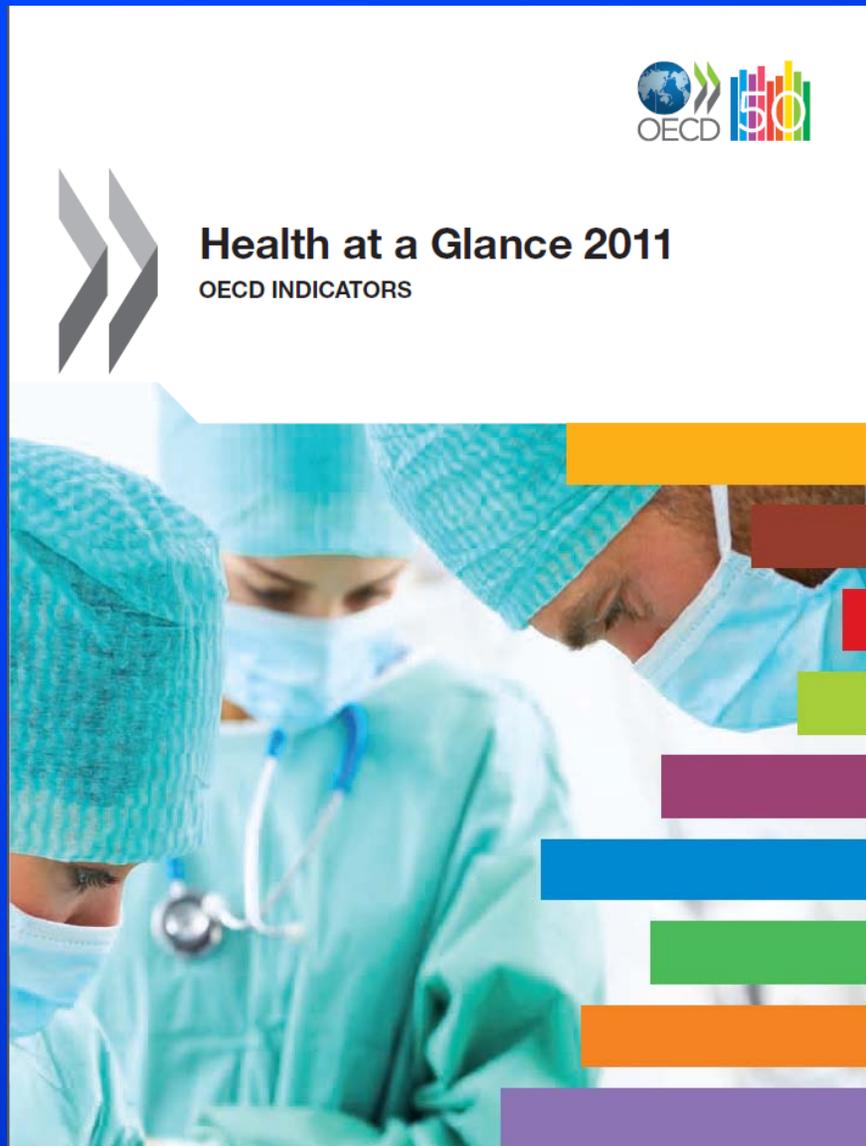
- Chapters --
- 1. Health Status
- 2. Non-medical Determinants of Health
- 3. Health Workforce
- 4. Health Care Activities
- 5. Quality of Care
- 6. Access to Care
- 7. Health Expenditure and Financing

Example: Infant Mortality

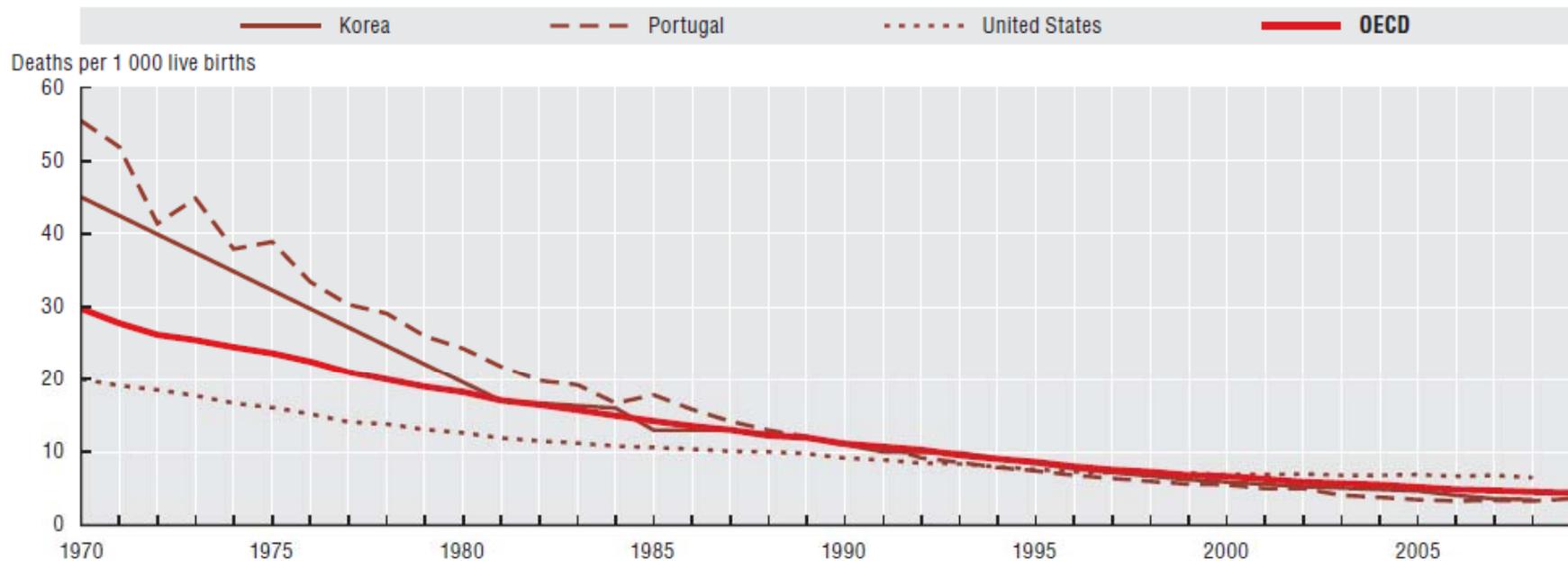## 1.7.1 Infant mortality rates, 2009 and decline 1970-2009 (or nearest year)

2009	Country	Decline 1970-2009
1.8	Iceland	5.0
2.4	Japan	4.3
2.4	Slovenia	5.8
2.5	Luxembourg	5.7
2.5	Sweden	3.7
2.6	Finland	4.1
2.9	Czech Republic	4.9
3.1	Denmark	3.8
3.1	Greece	5.6
3.1	Norway	3.3
3.2	Ireland	4.5
3.3	Spain	5.3
3.4	Belgium	4.6
3.5	Germany	4.7
3.5	Korea	6.3
3.6	Estonia	4.0
3.6	Portugal	6.8
3.7	Italy	5.2
3.8	Austria	4.8
3.8	Israel	6.0
3.8	Netherlands	3.0
3.9	France	3.9
4.3	Australia	3.6
4.3	Switzerland	3.2
4.4	**OECD**	4.5
4.6	United Kingdom	3.5
4.7	New Zealand	3.2
5.1	Canada	3.3
5.1	Hungary	4.9
5.6	Poland	4.7
5.7	Slovak Republic	3.8
6.5	United States	2.8
7.9	Chile	5.7
8.2	Russian Federation	2.6
13.1	Turkey	6.0
13.8	China	4.5
14.7	Mexico	4.3
22.5	Brazil	3.6
29.8	Indonesia	3.1
43.1	South Africa	n.a.
50.3	India	2.3

Deaths per 1 000 live births

Average annual rate of decline (%)

Source: OECD Health Data 2011; World Bank and national sources for non-OECD countries.

StatLink http://dx.doi.org/10.1787/888932523614

Example: Infant Mortality

1.7.2 Infant mortality rates, selected OECD countries, 1970-2009

Korea — Portugal – – – United States · · · · · · OECD

Deaths per 1 000 live births

Source: OECD Health Data 2011.

StatLink http://dx.doi.org/10.1787/888932523633

Example:
Chapter 2: Non-medical Determinants of Health
Tobacco, Alcohol and Overweight

2.3.1 Prevalence of obesity among adults, 2009 (or nearest year)

World Health Organization

- **WHO-FIC (Family of International Classifications) Collaborating Center**
  - International Classification of Diseases
    - Dates to 19th century – one of the first examples of statistical harmonization
    - NCHS supports improved comparability of morbidity and mortality data
    - NCHS contributions to development of ICD11
  - International Classification of Functioning

United Nations

- **Washington Group on Disability Statistics**

- **Involves cooperation between NCHS and the UN Statistics Division and many participating countries**

- **In operation since 2001**

International Collaborations:
ICEs

Goals:

- **Apply lessons learned to improve NCHS data quality**

- **Improve international comparability of data**
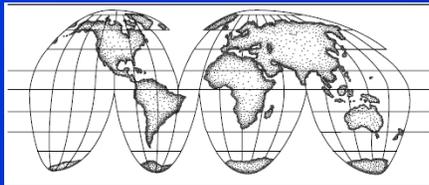
International Collaborations:
ICEs

Topics:

- **Perinatal and Infant Mortality**

- **Aging Statistics**

- **Injury Statistics**

- **Automation of Mortality Statistics**
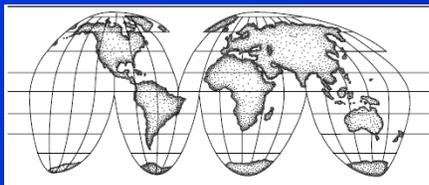
ICE on Automation:

- In existence since 1996

- Ten member countries

- Promotes the use of automated coding for mortality data

- MMDS, the US system, is used in most English-speaking countries

- Provides forum for discussion of issues related to automated coding
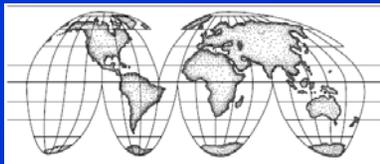
ICE on Automation:

- **Has demonstrated that automation greatly improves coding consistency, quality, and comparability**

- **Has succeeded in its mission to convince countries of the need for automated coding**

- **Working with other countries has improved US interpretation of WHO coding rules, leading to greater data comparability**

- **Has led to development of IRIS, an automated system based on the MMDS but with multilingual capability**
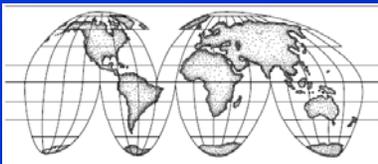
Indigenous Health Measurement

- **Started in 2005**

- **Technical lobbying group from Australia, Canada, New Zealand, USA**

- **Share experiences, problems, solutions**

- **Indigenous and non-Indigenous members, includes statistical agencies**

- **Aim to improve health data quality and comparability for Indigenous populations**
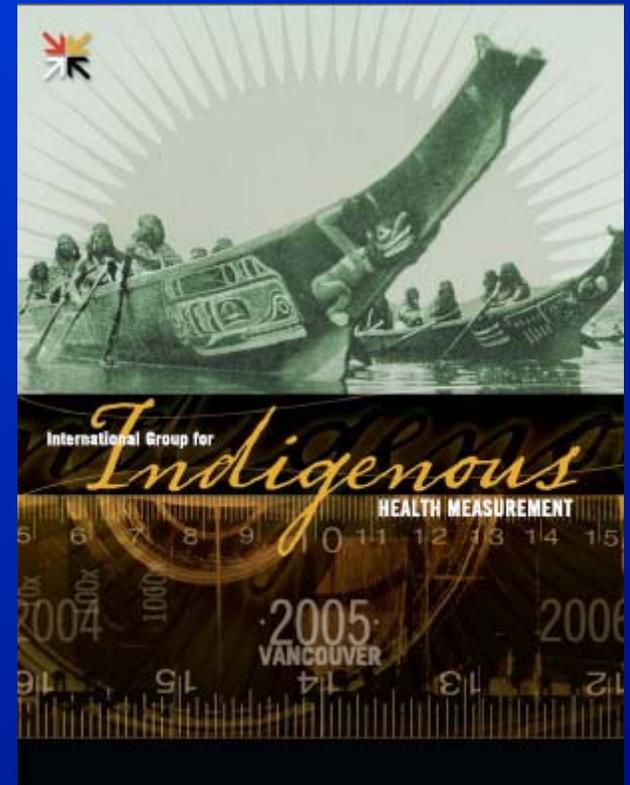
US-Canada Collaboration

- **Annual Interchange meetings between NCHS and health statistics division of Statistics Canada**

- **Sharing of data ideas, discussion of data issues**

- **JCUSH survey is a model of data comparability:**

  - **Identical questionnaire, jointly developed**

  - **Joint cognitive testing**

  - **Same interviewers in both countries**

  - **Shared data analysis**