



**VALUE DRIVEN HEALTH CARE DELIVERY:  
MEASUREMENT AND IMPLEMENTATION CHALLENGES IN  
OECD COUNTRIES**

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# organization for economic cooperation and development (OECD)

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- Health Care as part of the broader Economy
- From well-fare economics towards wellbeing and value
- Health Care Quality Indicator program since 2002
- Mandate to broaden statistics to patient reported outcomes since 2017



# HAG 2017 life expectancy at birth

3.1. Life expectancy at birth, 1970 and 2015 (or nearest year)

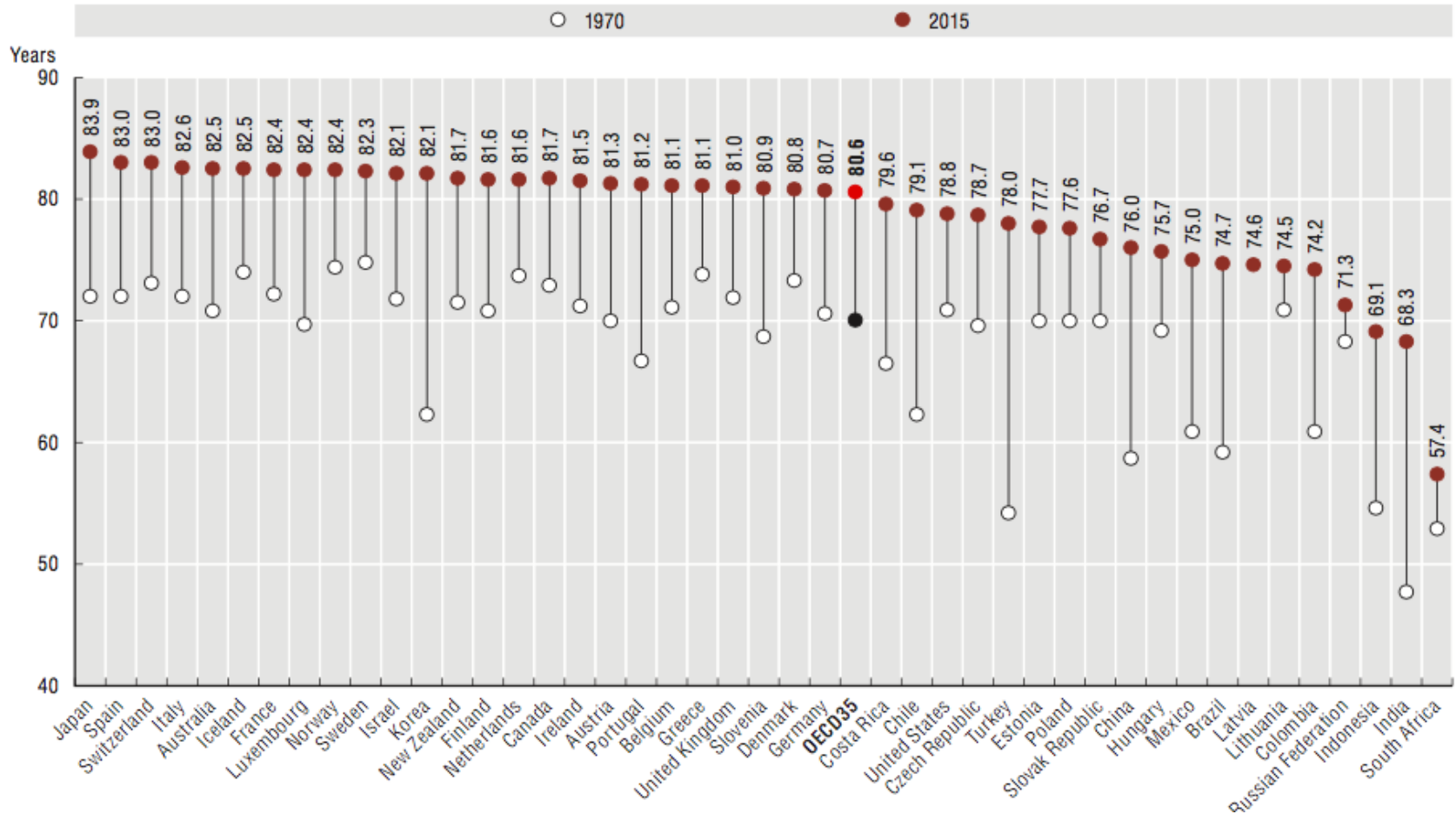
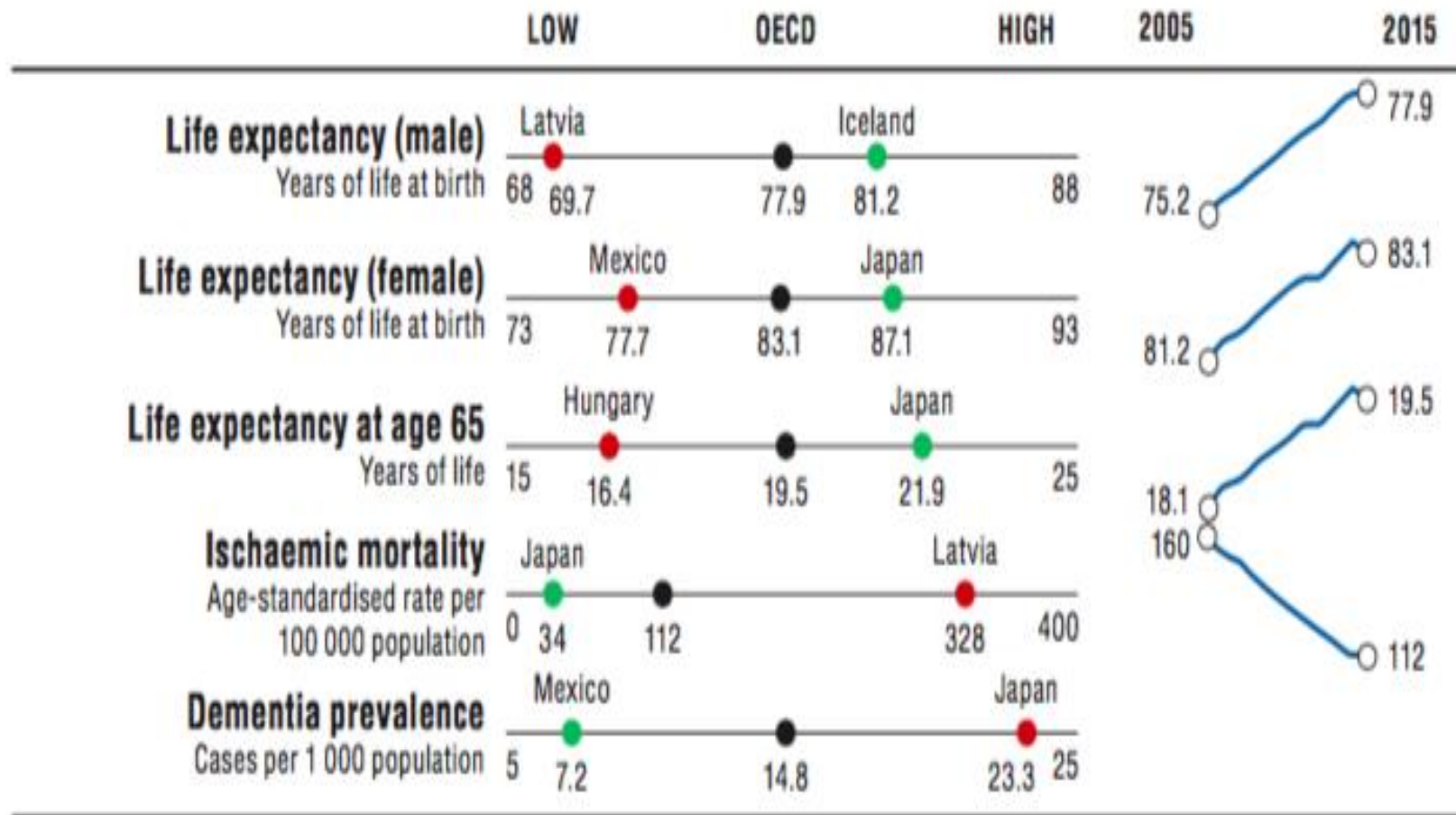
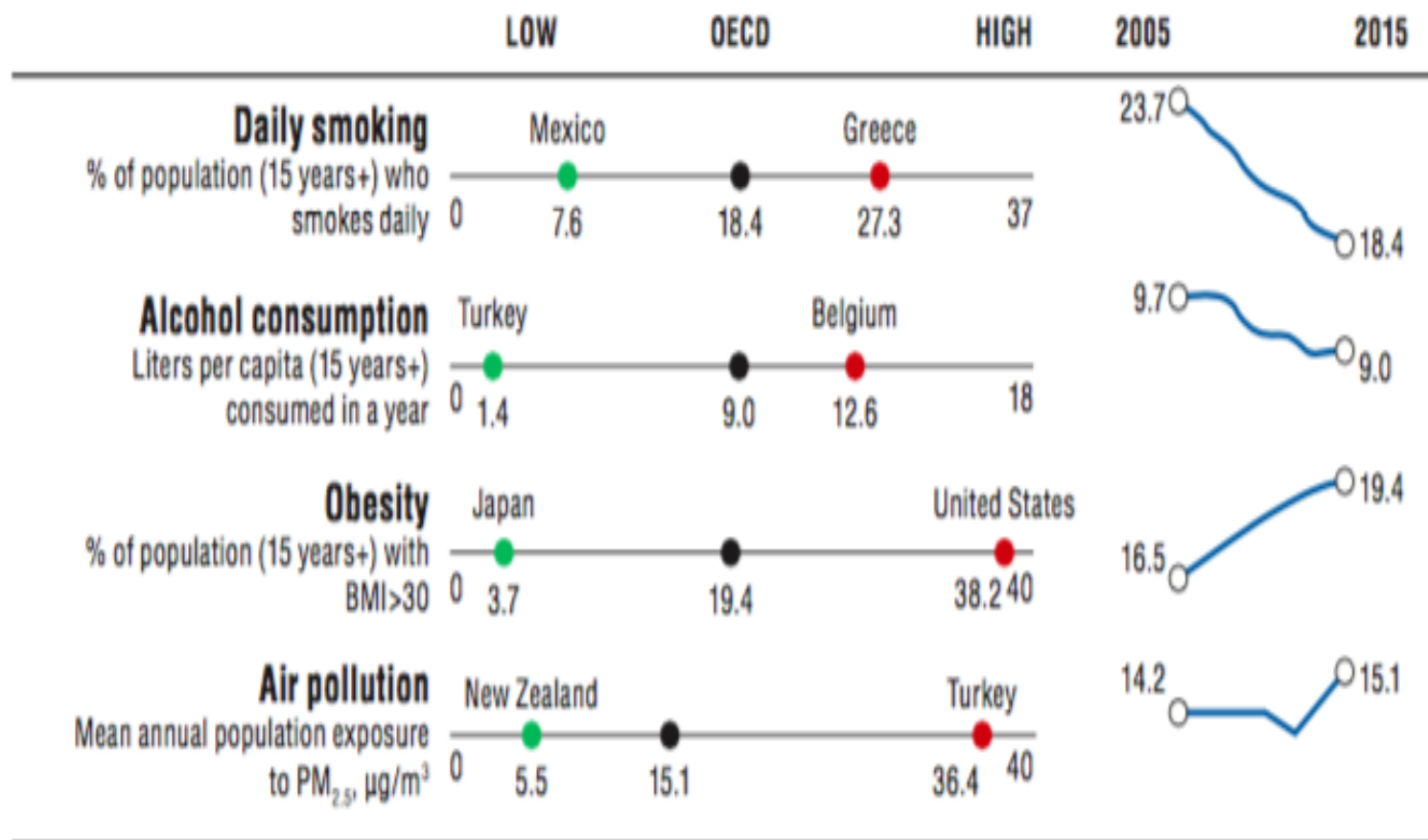


Figure 1.1. Snapshot on health status across the OECD



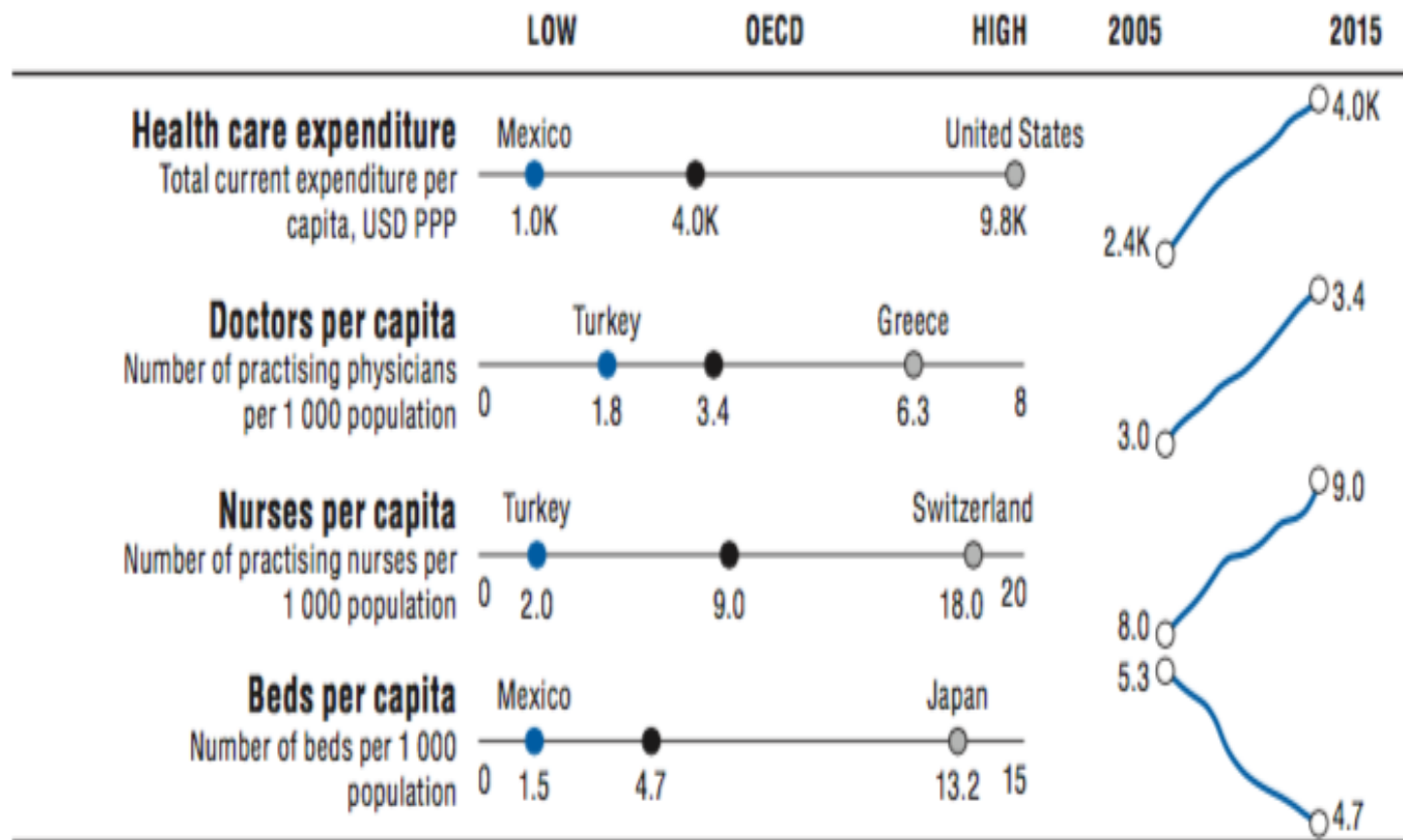
Note: the Y-axis for OECD trends is standardised to have fixed height, based on the minimum and maximum values of the indicator. The high-low X-axis is standardised with constant distance from the OECD average whenever the indicator is not truncated at 0.

Figure 1.2. Snapshot on risk factors for health across the OECD



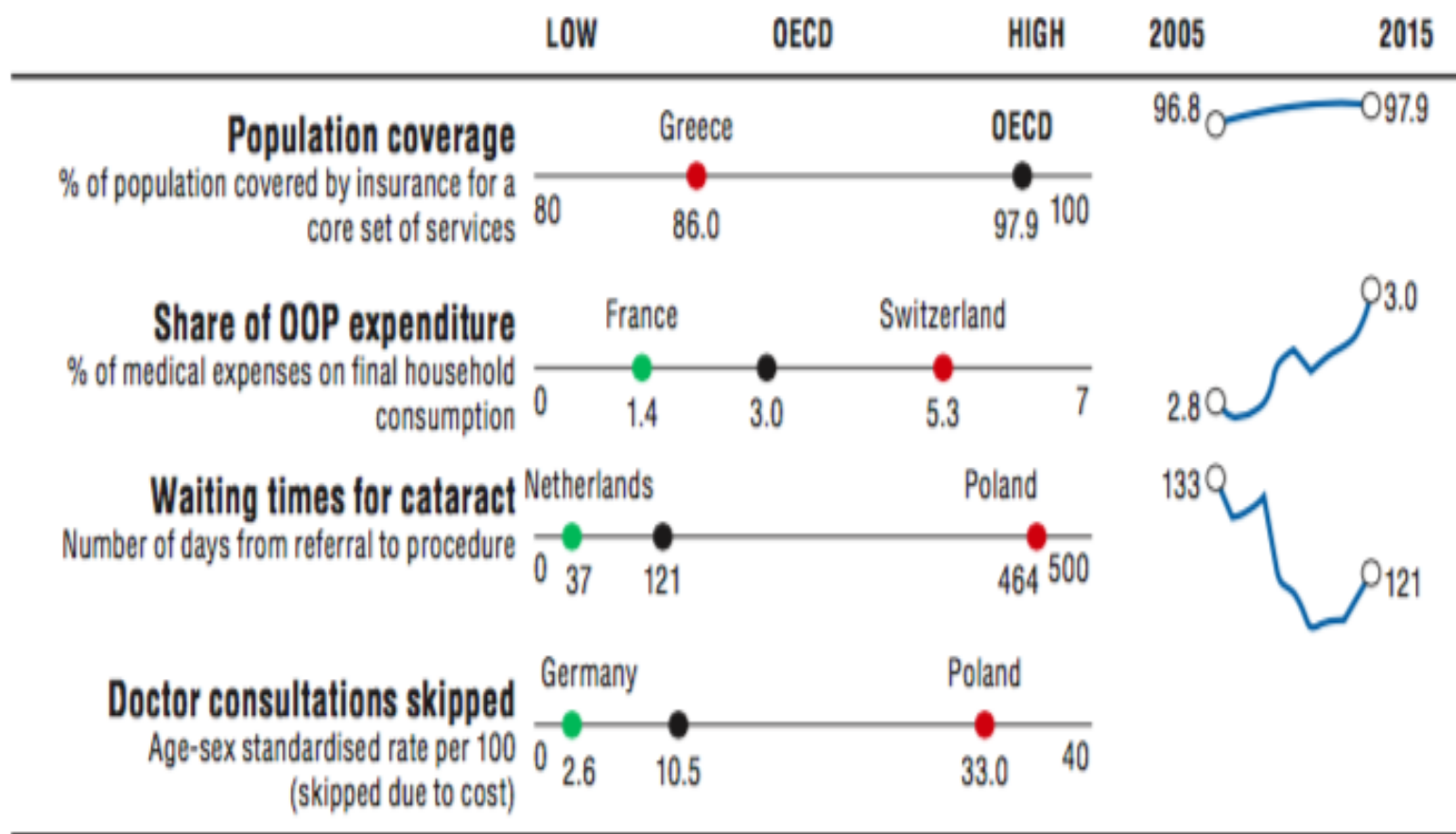
Note: The Y-axis for OECD trends is standardised to have fixed height, based on the minimum and maximum values of the indicator. The high-low X-axis is standardised with constant distance from the OECD average whenever the indicator is not truncated at 0. Air pollution shows data for 2005 and 2010 to 2015.

Figure 1.5. Snapshot on health care resources across the OECD



Note: the Y-axis for OECD trends is standardised to have fixed height, based on the minimum and maximum values of the indicator. The high-low X-axis is standardised with constant distance from the OECD average whenever the indicator is not truncated at 0.

Figure 1.3. Snapshot on access to care across the OECD

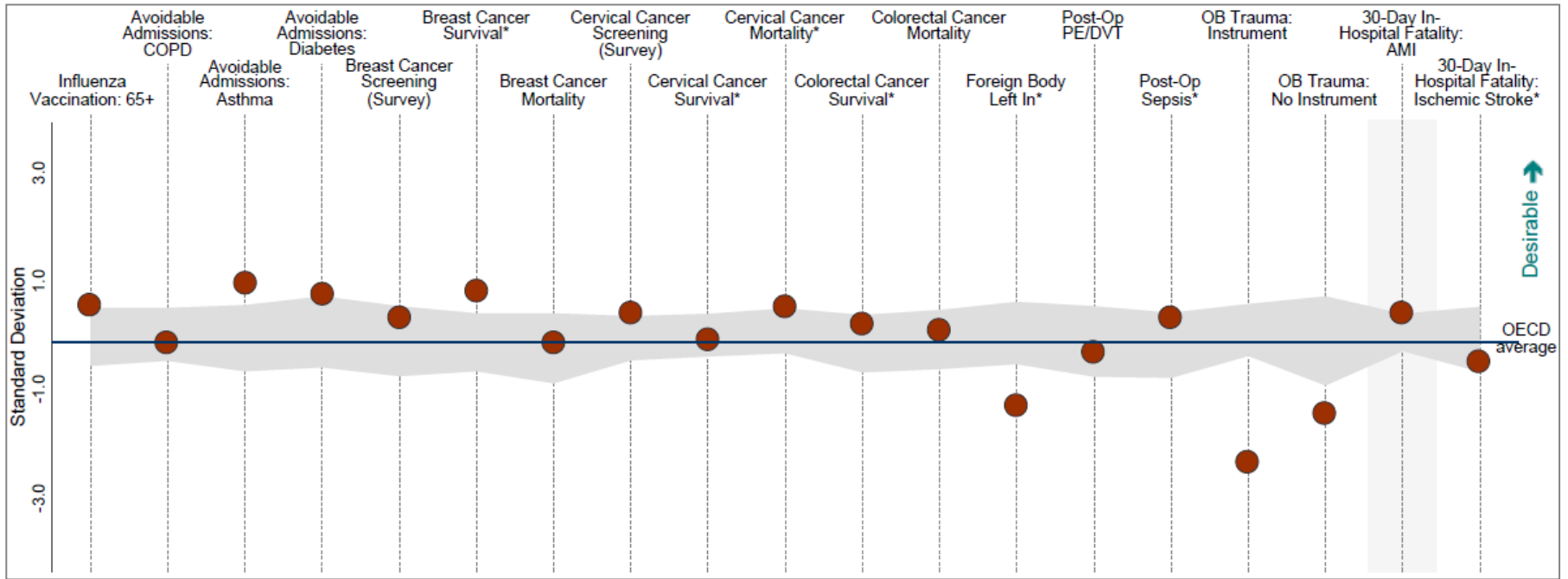


Note: the Y-axis for OECD trends is standardised to have fixed height, based on the minimum and maximum values of the indicator. The high-low X-axis is standardised with constant distance from the OECD average whenever the indicator is not truncated at 0.





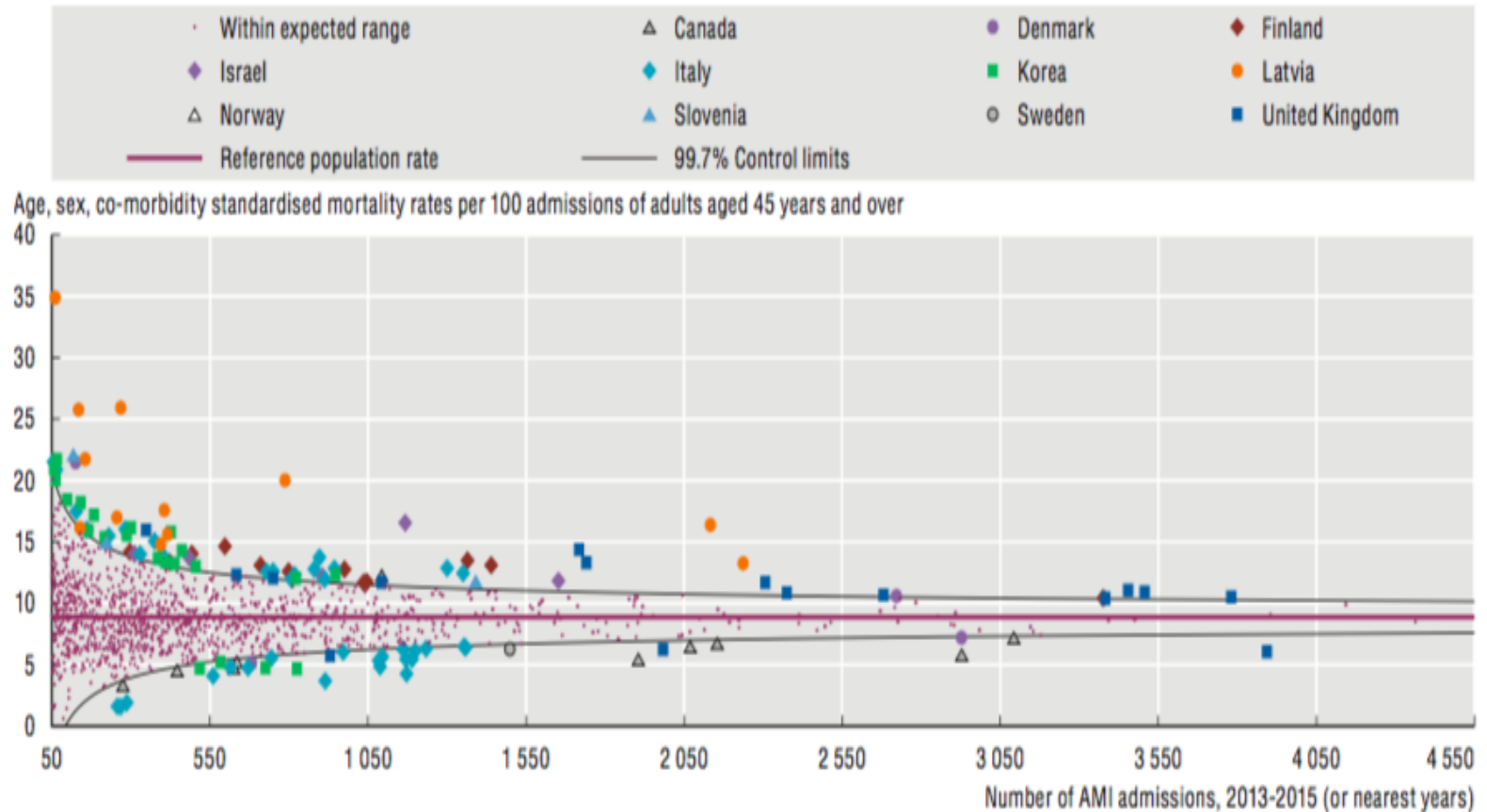
# Canada compared with Health Care Quality Indicators from a selected group of OECD countries



Source: Canadian Institute for Health Information, 2014



## 6.20. Thirty-day mortality after admission to hospital for AMI based on linked data, 2013-2015 (or nearest years)



Note: Each dot in the figure represents a single hospital, unless otherwise stated. Results for Canada do not include deaths outside of acute care hospitals. UK data are limited to England and is presented at trust-level (i.e. multiple hospitals).

Source: OECD Hospital Performance Data Collection 2017.

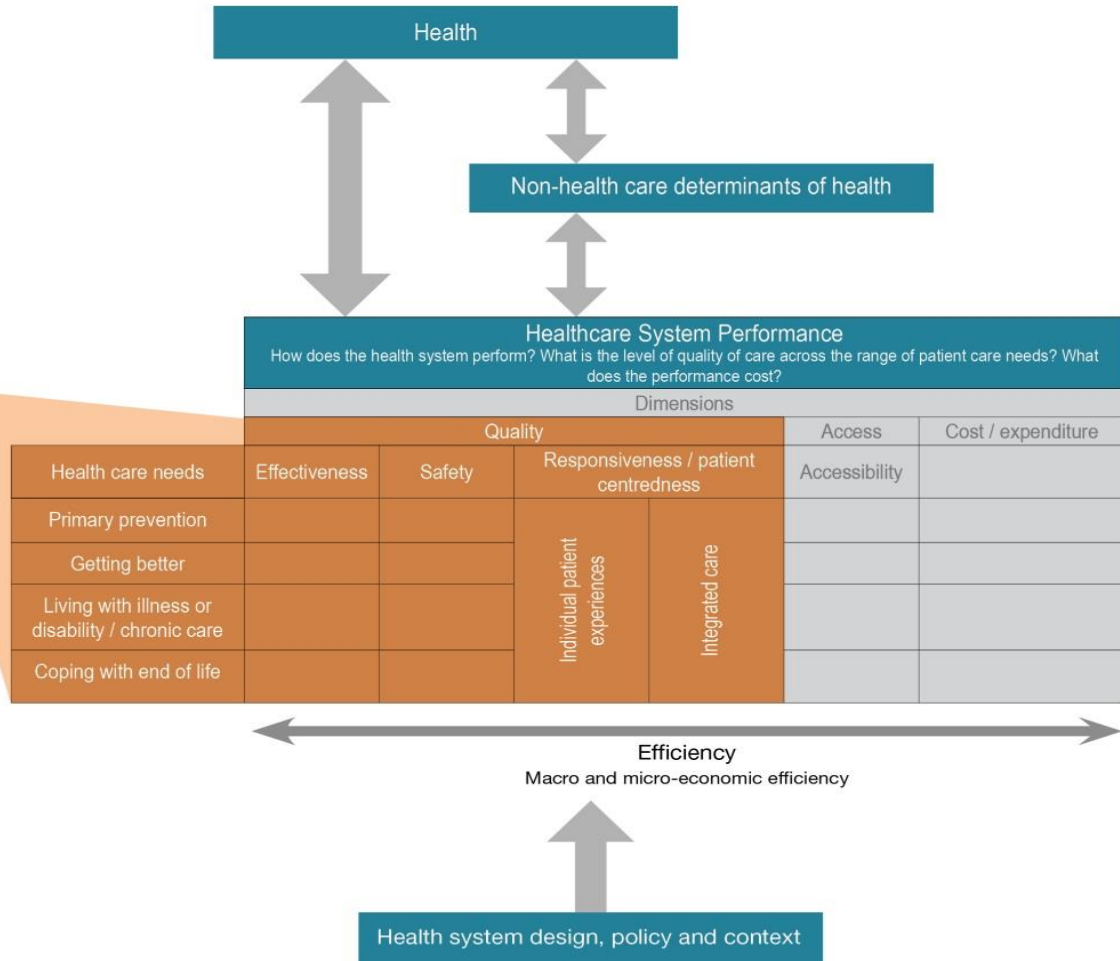


# OECD framework data collection Health Care Quality Indicators



## OECD Framework for Health System Performance Measurement

Current focus of HCQI project

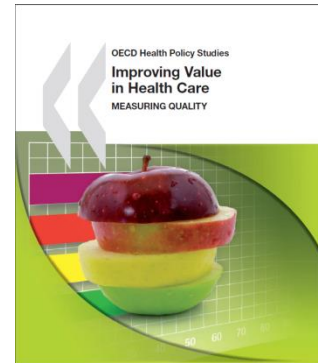


- The OECD Health Data Questionnaire collects data on a range of variables related to health status, non-medical determinants of health, the pharmaceutical market, waiting times, long-term care resources and utilisation, and public and private health insurance coverage.
- The OECD/Eurostat/WHO-Europe Joint Questionnaire on Non-Monetary Health Care Statistics collects data on health care resources (human and technical) and health care activities.
- The OECD/Eurostat/WHO Joint Health Accounts Questionnaire collects data on health expenditure by function, provider and financing scheme, based on the *System of Health Accounts*.
- The OECD/Eurostat Purchasing Power Parity (PPP) Questionnaire collects data on the prices of a selected set of health services and goods (for the purpose of developing health-specific and economy-wide PPP indices).
- The OECD Health Care Quality Indicators Questionnaire collects data on quality of care (including health outcomes and patient safety).



# Where we come from

- Start Health Care Quality Indicator (HCQI) work in 2002 (with input from CWF and Nordic Council)
  - [A conceptual framework for the OECD Health Care Quality Indicators Project](#)
  - [OECD Health Care Quality Indicator Project. The expert panel on primary care prevention and health promotion](#)
- Work on indicators on acute care, primary care, cancer and infectious diseases
  - Publication in OECD Health at a Glance (HAG) since 2007
- Work on patient safety indicators
  - Publication in OECD HAG since 2011
  - [International comparability of patient safety indicators in 15 OECD member countries: a methodological approach of adjustment by secondary diagnoses](#)
- Work on mental health and patient experience indicators
  - Publication in OECD HAG since 2013
- Revision of framework and set of HCQI in 2013
  - [Towards actionable international comparisons of health system performance: expert revision of the OECD framework and quality indicators](#)
- Work on health information infrastructure since 2011





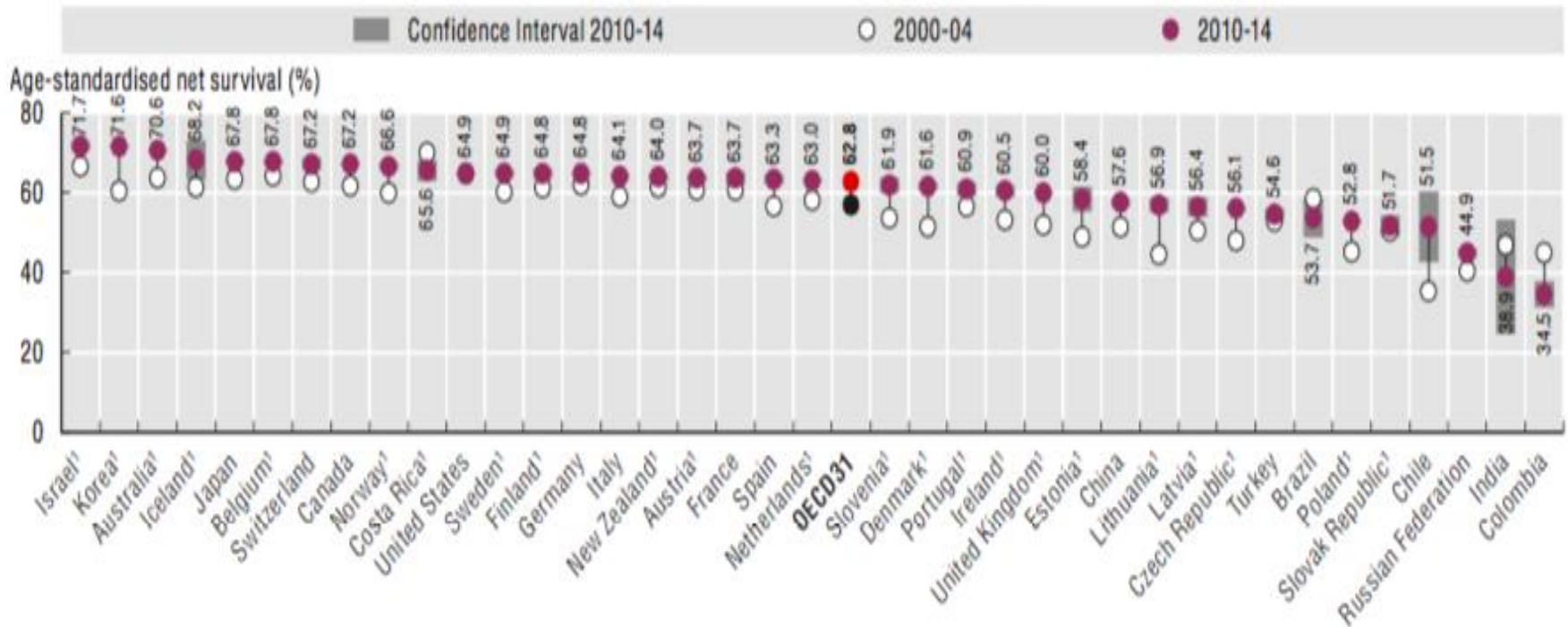
## Where we are going .....

<b>Deaths</b> ↓	<ul style="list-style-type: none"><li>• Mortality and life-expectancy<ul style="list-style-type: none"><li>• data source: death registries</li></ul></li></ul>
<b>Diseases</b> ↓	<ul style="list-style-type: none"><li>• Prevalence and incidence of diseases<ul style="list-style-type: none"><li>• medical/clinical perspective</li><li>• data source: administrative &amp; clinical data</li></ul></li></ul>
<b>Disability</b> ↓	<ul style="list-style-type: none"><li>• How health system deals with disabilities<ul style="list-style-type: none"><li>• DALY, QALYs, SF36</li><li>• data sources: registries and surveys</li></ul></li></ul>
<b>Wellbeing</b>	<ul style="list-style-type: none"><li>• Things that matter to <u>patients, carers, families &amp; populations</u><ul style="list-style-type: none"><li>• Wellbeing, function, pain,</li><li>• Quality of Life</li><li>• Generic (e.g. EQ-5d; SF-12; Picker) and disease specific (HOOS, Oxford....)</li><li>• <u>Validated, sensitive &amp; objective tools</u></li></ul></li></ul>



# Quality indicators on cancer care

6.36. Colon cancer five-year net survival, 2000-04 and 2010-14



Note: 95% confidence intervals have been calculated for all countries, represented by grey areas. Expected updates in the data may reduce the survival estimate for Chile to 43.9, and may also reduce the estimate for Costa Rica. Updates may also lead to very small changes in the survival estimates for Canada and for the OECD average.

<sup>1</sup>. Data with 100% coverage of the national population.

Source: CONCORD programme, London School of Hygiene and Tropical Medicine.



## Link with cancer policies

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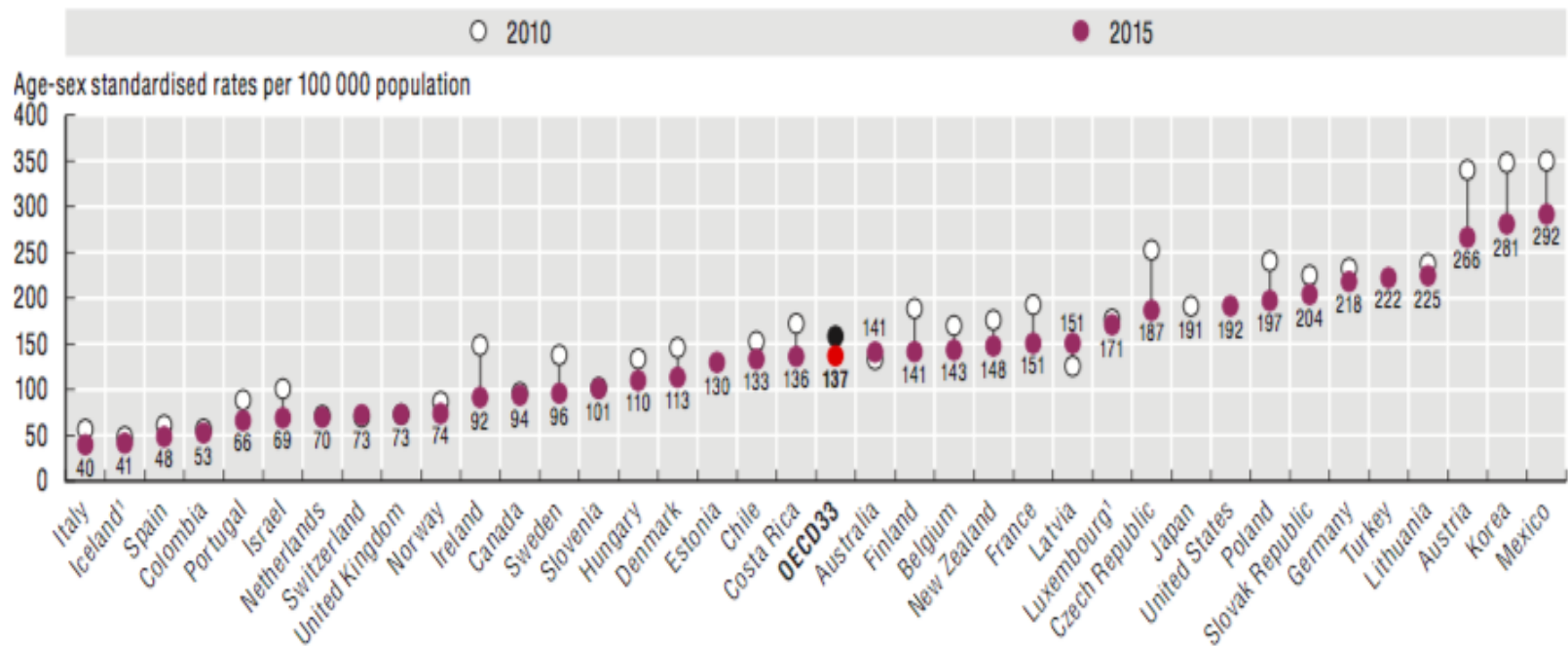
- Cancer Care; assuring quality to improve survival (OECD report 2013)
- Existence cancer registries
- National cancer governance
- National screening programs
- Volume norms (minimal numbers of cancer patients treated) concentration of services
- Access cancer drugs






# Quality indicators on primary care

## 6.11. Diabetes hospital admission in adults, 2010 and 2015 (or nearest year)



1. Three-year average.

Source: OECD Health Statistics 2017.

StatLink  <http://dx.doi.org/10.1787/888933603545>



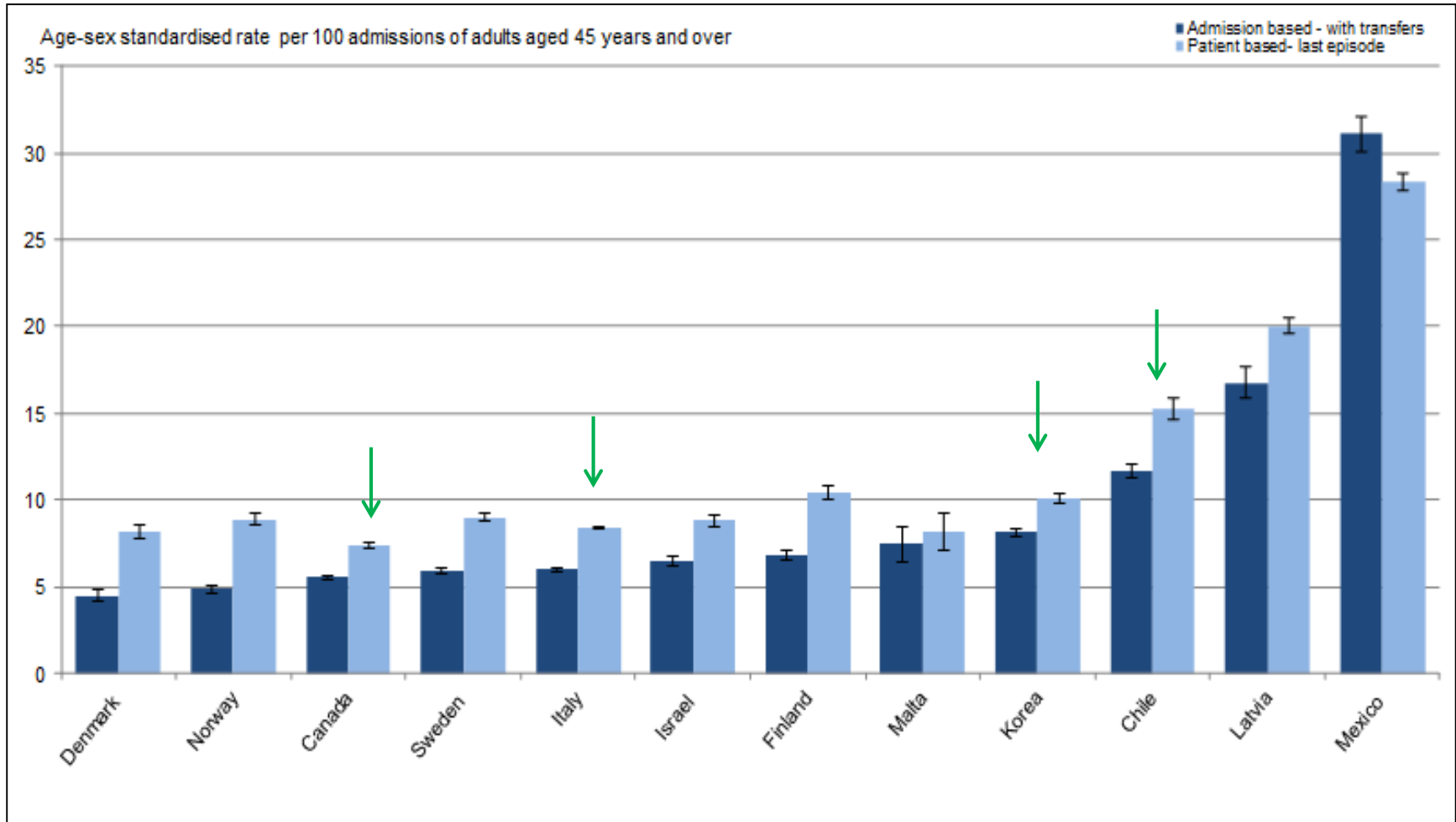
## Link with policies to strengthen primary care

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- Primary Care Models assuring access, population health, equity, effectiveness and efficiency (OECD report 2019)
- Link with policies on integrated care and OECD report on lessons learned from quality reviews in 15 countries (2017)



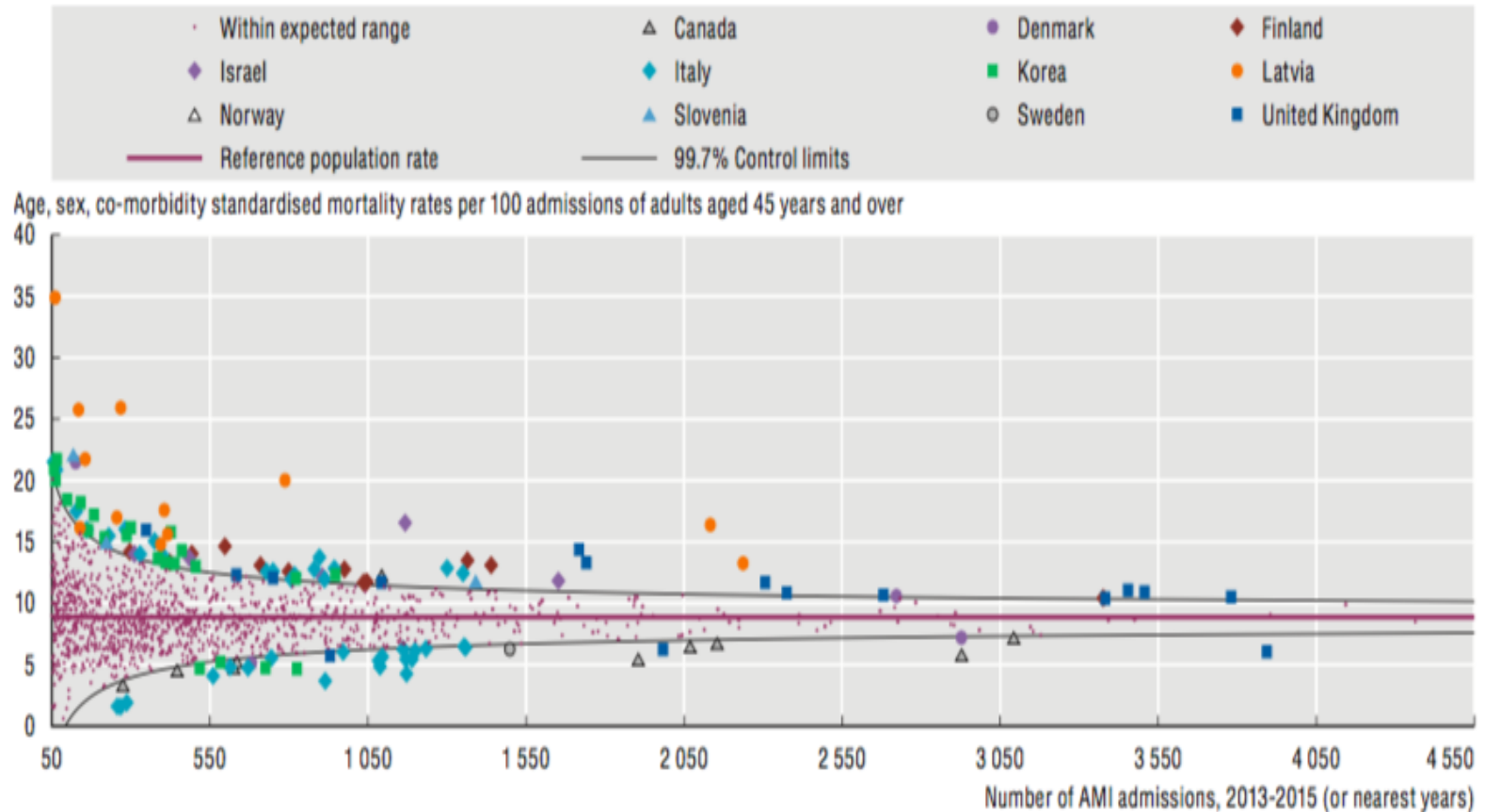
# Variation across countries in 30d AMI fatality rates



Note: Mexico admission and patient-based rates are drawn from different samples of national data and are not directly comparable.



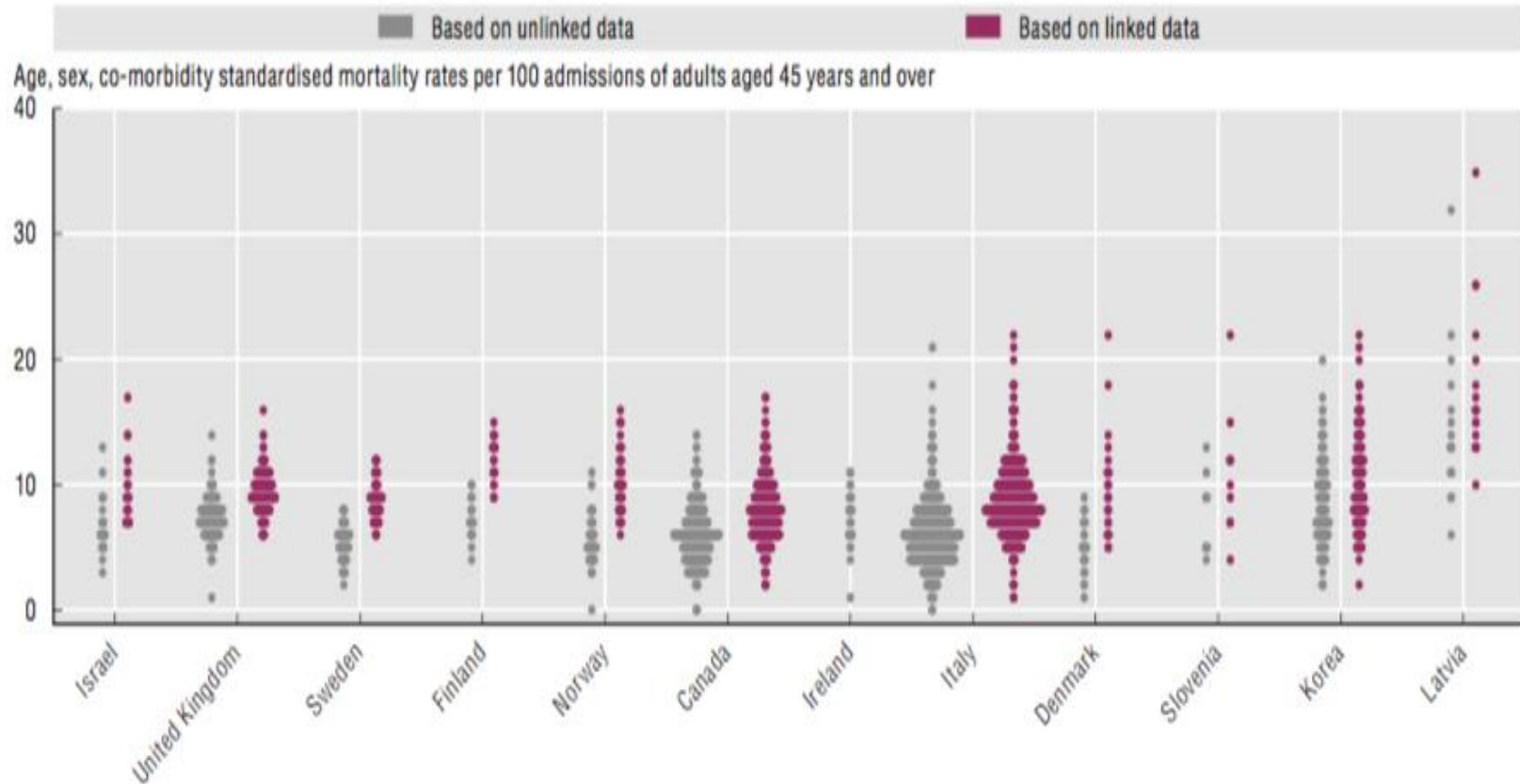
## 6.20. Thirty-day mortality after admission to hospital for AMI based on linked data, 2013-2015 (or nearest years)



Note: Each dot in the figure represents a single hospital, unless otherwise stated. Results for Canada do not include deaths outside of acute care hospitals. UK data are limited to England and is presented at trust-level (i.e. multiple hospitals).

Source: OECD Hospital Performance Data Collection 2017.

## 6.21. Thirty-day mortality after admission to hospital for AMI based on linked and unlinked data, 2013-2015 (or nearest years)



Note: The width of each line in the figure represents the number of hospitals (frequency) with the corresponding rate. Data for Canada not linked to death statistics. UK data are limited to England and presented at trust level (i.e. multiple hospitals). Ordered by inter quartile range of admission-based data. Rates based on linked data are also standardised for previous AMI.

Source: OECD Hospital Performance Data Collection 2017.



## Link with policies on cardiovascular care

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- Cardiovascular Disease and Diabetes; policies for better health and quality of care (OECD 2015)
- Effectiveness cardio-vascular pathways
- Planning intervention facilities (ambulance, CCU, catheterization facilities)



# Data Sources used in the HCQI program

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- Mortality Statistics
  - Registries
  - Administrative Data-bases
  - (electronic) Health Records
  - Surveys
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- Data linkage capacity
  - Extent and quality of coding



# Methodological Challenges

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- Reliability of measures
- Validity of measures
- Actionability of measures
- International Comparability



The image shows the cover of a report titled 'PaRIS Patient-Reported Indicators Survey'. The top half features a light blue background with a pattern of colorful dots (blue, green, yellow, pink) that recede into the distance, creating a sense of depth. Below this, a photograph shows a female healthcare worker in colorful scrubs talking to a male patient. The worker is holding a tablet. The bottom right corner of the cover has a dark blue triangle containing the OECD logo and tagline.

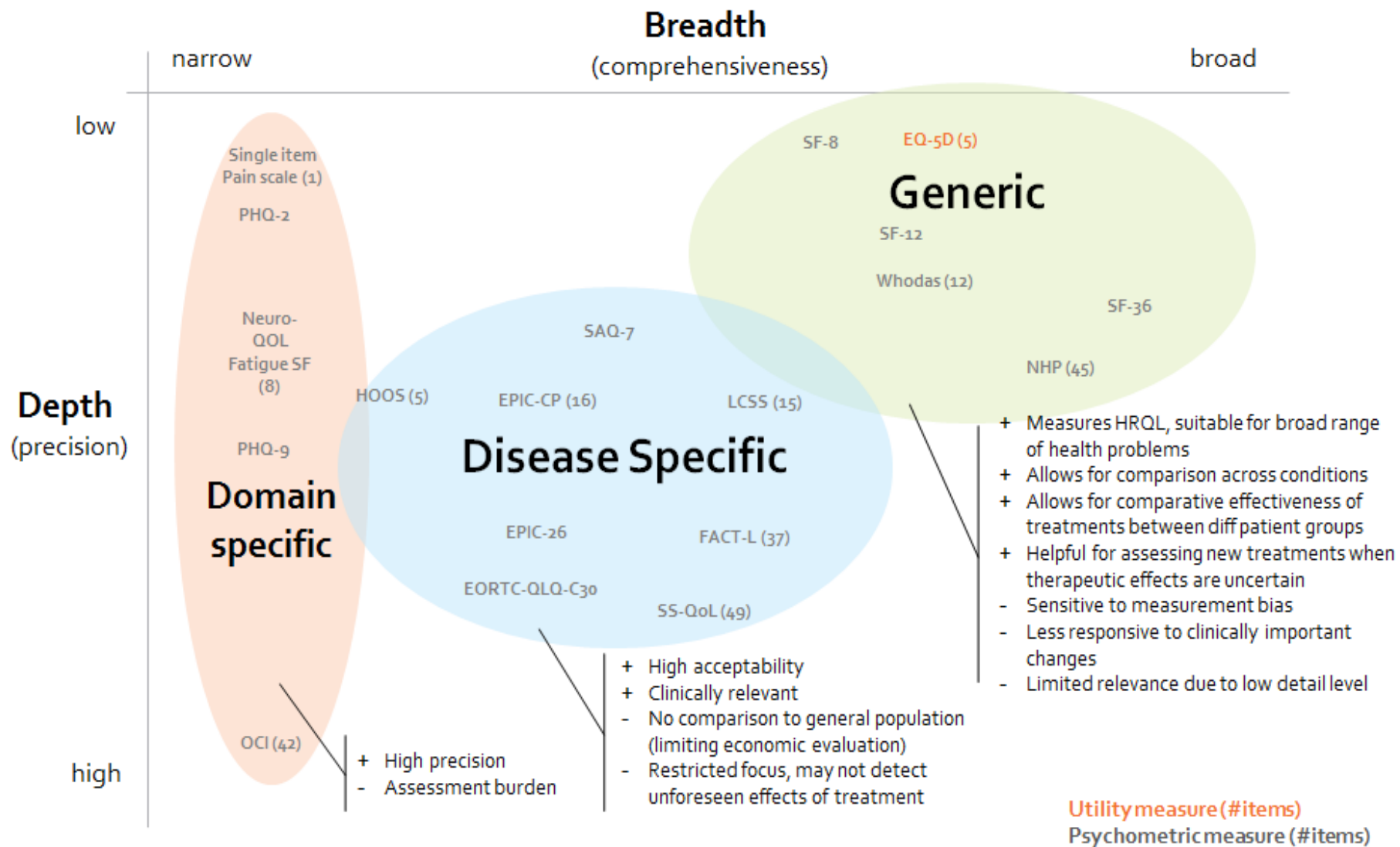
# PaRIS

## Patient – Reported Indicators Survey

The next generation of OECD health statistics

“We, the OECD Health Ministers, welcome the advice from the OECD High-level Reflection Group on Health Statistics to invest in better cross-country comparative measures of patients’ own experience of medical care and health care outcomes, and **we ask the OECD to further engage in the analysis and development of such comparative measures.**”

# PROM types are: Domain, Disease, or Generic. The ideal (combination of) PROM is determined by specific needs/goals



Utility measures are used in cost-benefit analyses to evaluate the trade-off between the quality and quantity of life in the calculation of quality-adjusted life years (QALYs) for economic evaluation (cost effectiveness) and policy research



## Link to policies (PaRIS initiative)

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- Introduction of patient reported outcome measures (PROMS)
- International benchmarking on hip/knee, breast cancer and mental health
- Development of a new survey for persons with chronic conditions treated in primary care



# Better use of health data

- Scope to improve quality of care:
  - Linking data across providers
  - Providing access via EHR systems
- Data privacy protection issues
- OECD Council Recommendation
  - Establish effective governance:
    - 12 high-level principles
    - ongoing monitoring of progress





## Linking cost and quality

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- Economics of Patient safety (from failure costs towards prevention costs)
- Broadening Outcome Measurement
- Short and long-term health care episodes
- Substitution in setting and person
- Performance of services in a health system context (P4P, Bundled Payment, Population Based Payment Mechanisms and ACO's)



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