HEALTH CARE QUALITY INDICATORS

Meeting of OECD Health Data National Correspondents
11-12 October, 2012

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» Mandate to develop indicators for international comparisons on quality of care

» Bi-annual reporting in *Health at a Glance*, most recently in 2011

» Ministerial conference in 2010 asks OECD to analyse and compare quality policies of member states and to suggest how to strengthen health information infrastructure

» Expert group meets twice a year (next meeting 15-16 November 2012)
Indicator areas

» Primary Care: potentially preventable hospital admissions for chronic conditions

» Acute Care: 30-day case fatality rates after hospital admission for AMI and stroke

» Mental Health Care: re-admission rates

» Cancer Care: survival, mortality and screening rates

» Patient Safety Indicators

» Patient Experiences

» Infectious diseases (immunisation rates)
Set of indicators and countries is expanding over time

New round of data collection amongst OECD member states in late fall 2012 and winter 2013

2012/2013 data collection will be finalised during the next HCQI meeting (15-16 November 2012)
Prescription medications monitoring in primary care:
- Use of antibiotics
- Treatment of diabetes in primary care
- Anti-anxiety/sedative medication use in the elderly (benzodiazepine)

New patient safety indicators:
- Post-operative haemorrhage or haematoma
- Post-operative wound separation (dehiscence)
- Accidental punctures and lacerations in children

New mental health indicators:
- Premature mortality of patients with diagnosed serious mental illness
- Suicide rates of people in contact with mental health services
Which primary care characteristics are related to better health outcomes?

Can performance differences between countries in cancer care be explained by cancer governance policies? (forthcoming spring 2013)

New analytical work proposed for 2013:

- Can performance differences between countries in the control of cardiovascular disease and diabetes be explained by governance policies?
- Should the OECD explore internationally comparable quality indicators reported at the level of hospitals?
» Korea – Raising Standards published in February 2012
» Israel report forthcoming October/November 2012
» Denmark quality review underway with report forthcoming Q1 2013
» Sweden quality review planned
In 2010, Health Ministers called for improvement in national information infrastructure to provide the evidence base needed for health care quality and system performance improvements.

Health Committee endorsed

- Development of a survey to enable international comparisons of the adoption and use of ICTs in health
- Further work to support development of health information systems to provide comparable health care quality indicators
1. Electronic health record (HER) system development and its potential use to monitor health care quality and system performance DELSA/HEA/HCQ(2012)11

2. Benchmarking the adoption and use of ICTs in health DELSA/HEA(2012)17

3. Health and health care monitoring and research using personal health data and the protection of information privacy DELSA/HEA/HCQ(2012)11

1. ELECTRONIC HEALTH RECORD SYSTEM DEVELOPMENT AND ITS POTENTIAL USE TO MONITOR HEALTH CARE QUALITY

KEY FINDINGS
25 countries participated in an HCQI survey

- National plans to implement EHRs (22)
  - Includes data use for monitoring/research (18)
- National governing bodies responsible for national clinical terminology and interoperability standards (18)
- Implementation started (20)
- Minimum data sets defined (18)
- Use clinical terminology standards for key elements in all records (diagnosis and medications) (11)
- Databases for health care monitoring/research already built from EHR records (12)
Over the next 5 years:
How likely is it your country will use any data from EHRs for national health care quality monitoring?

<table>
<thead>
<tr>
<th>Country</th>
<th>Likelihood</th>
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</thead>
<tbody>
<tr>
<td>Finland</td>
<td>Very</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Very</td>
</tr>
<tr>
<td>Singapore</td>
<td>Likely</td>
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<tr>
<td>Sweden</td>
<td>Likely</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Unsure</td>
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<tr>
<td>Belgium</td>
<td>Likely</td>
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<tr>
<td>Canada</td>
<td>Likely</td>
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<tr>
<td>Estonia</td>
<td>Likely</td>
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<tr>
<td>France</td>
<td>Likely</td>
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<tr>
<td>Iceland</td>
<td>Likely</td>
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<td>Japan</td>
<td>Likely</td>
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<td>Poland</td>
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<td>Slovakia</td>
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<tr>
<td>Denmark</td>
<td>Likely</td>
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<tr>
<td>Israel</td>
<td>Unsure</td>
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<tr>
<td>Slovenia</td>
<td>Unsure</td>
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<tr>
<td>Spain</td>
<td>Unsure</td>
</tr>
<tr>
<td>United States</td>
<td>Unsure</td>
</tr>
<tr>
<td>Mexico</td>
<td>Unlikely</td>
</tr>
<tr>
<td>Austria</td>
<td>Very</td>
</tr>
<tr>
<td>Germany</td>
<td>Unlikely</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Unlikely</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Unlikely</td>
</tr>
</tbody>
</table>
### Barriers

- Legislative barriers
- Data privacy/security concerns
- Shortages of resources/skills
- Lack of standards
- Interoperability problems
- Lack of unique identifiers
- Data quality
- Data sharing
- Reluctance among health professionals

### Facilitators

- Governance of EHR implementation and data use
- National standards - clinical content and interoperability
- Legal/regulatory requirements
- Certification of vendors
- Incentives/penalties
- Auditing of clinical content
- Evaluation of data usability
2. INTERNATIONAL COOPERATION TO ACHIEVE COMPARABLE MEASURES OF HEALTH ICT ADOPTION AND USE

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Why develop comparable measures of adoption and use?

- Countries are investing heavily in health ICTs
- Significant challenges to effectively using ICTs
- Costs, disruption, technical and work-flow challenges
- Challenges and facilitators are likely similar across countries
- Benchmarking enables countries to benefit from shared learning
- Previous efforts to measure and benchmark are not sufficiently precise and not internationally comparable
Measure availability and use of ICTs in ambulatory care and hospital settings

Focus on activities in four broad areas:
- Provider-centric electronic record: EMR, EHR, EPR, etc.
- Patient-centric electronic record: Personal Health Record
- Health Information Exchange: Sharing of clinical data between providers across institutions
- TeleHealth: Telehome care/Telemedicine (remote monitoring)

Selection of measures
- Address priority information needs
- Measures used in national surveys/evaluated

Pilot testing
- EC (EU-27), Nordic countries, Brazil, Korea, & Poland offered to pilot test
3. SECONDARY USE OF PERSONAL HEALTH DATA TO MONITOR HEALTH, HEALTH CARE QUALITY AND HEALTH SYSTEM PERFORMANCE

KEY FINDINGS
Survey of 20 countries on the use of personal health data to monitor health and health care quality to:

- Understand the potential, the barriers and the best practices in the linkage of personal health data
- Explore the privacy and data security environment
- Found considerable cross-country variation – linked to differences in risk-management in balance of data access and data privacy
All countries have the legal authority to collect personal health data and all are collecting identifiable personal health data at a national level.

- All reported hospital in-patient data; mortality data; population census or registry data; and survey data.
- All countries report using national health data to regularly monitor some aspects of health care quality.
- All countries report having legislation that speaks to the protection of personal information. Some have legislation specific to the protection of health information.
Evidence about the outcomes of care for performance-based governance

Two key prerequisites

- Collection and storage of data at the level of individual patients/persons
  - E.g. registries, administrative data, surveys
- Capacity to follow patients through the cycle of care to relate care to outcomes
  - Often requires data linkage because few databases have all of the information needed
## Country variation

<table>
<thead>
<tr>
<th>National Data linkage projects on a regular basis…</th>
<th>Most national data with a unique patient identifying number (UPI)</th>
<th>Most national data with other patient identifiers</th>
<th>Some national data with a unique patient identifying number (UPI)</th>
<th>Few national databases with patient identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>with 7+ national databases</td>
<td>Denmark, Finland, Israel*, Republic of Korea, Sweden, United Kingdom</td>
<td>United States</td>
<td></td>
<td></td>
</tr>
<tr>
<td>with 5-6 national databases</td>
<td>France, Singapore</td>
<td>Australia</td>
<td></td>
<td></td>
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<tr>
<td>with 3-4 national databases</td>
<td>Belgium, Canada, Malta, Norway</td>
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<td></td>
<td></td>
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<tr>
<td>with 2 national databases</td>
<td></td>
<td></td>
<td>Cyprus*, Portugal</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>Japan</td>
<td>Poland, Switzerland</td>
<td>Germany</td>
<td></td>
</tr>
</tbody>
</table>

Source: OCED HCQI Questionnaire, Secondary Use of Health Data, 2011/12
Sources of variation

» Whether or not...
  » An exemption to patient consent requirements may be granted?
  » Authorities holding data needed for a project (data custodians) will share data and with whom...
  » With another national authority?
  » With an academic researcher?
  » With a foreign organisation/researcher?
  » There are a few or many data custodians?
  » It is clear with whom to request approval and what is the criteria to obtain approval?
  » There is one approval body or many?
  » There are mechanisms for privacy respectful access to data?
Concerns about the future

» Failing to maintain current capacity to generate evidence due to the costs of project vetting, linkages, and data access services

» Moving backward in the generation of evidence due to:
  » Increasingly strict interpretations of existing legislations
  » New legislations speaking to data privacy protection legislation due to EU reforms, ICTs, new projects
4. JOINT CONSULTATION OF THE HCQI EXPERT GROUP AND THE OECD WORKING PARTY ON INFORMATION SECURITY AND PRIVACY
Joint dialogue with experts in data privacy

» Proposal to open a joint dialogue with the Working Party on Information Security and Privacy endorsed by the Health Committee in June 2011

» Work undertaken by the HCQI Expert Group

» HCQI and WPISP members met together on May 11, 2012

» To begin to achieve a common understanding of privacy protection challenges in the use of personal health data

» To identify potential joint international actions
The group recognised that:

» The implementation of OECD privacy guidelines in the field of health care has been heterogeneous across countries

» Excess variability reduces access to complete data and undermines internationally comparable indicators

» Privacy and health experts have trouble communicating with each other because they lack a common vocabulary
Countries would benefit from an international effort to:

» Categorize different forms of data and data uses according to their risks to data privacy

» Provide a portfolio of best practices

» Illustrate how best practices may be translated into local implementation

» An on-going dialogue will be needed to provide direction regarding new forms of health data, e.g. ICTs
NEXT STEPS FOR THE HCQI EXPERT
GROUP INFORMATION
INFRASTRUCTURE PROJECT
Next steps

1. Findings from the HCQI surveys consolidated in a final published report forthcoming 2013

2. Proposed on-going monitoring of the development of electronic health record systems and the use of these data for health care quality monitoring through a 2015 survey of countries.

3. A complete draft questionnaire of proposed measures of ICT adoption and use expected this autumn.
   - Work led by the OECD and in collaboration with Harvard (Dr Ashish Jha) with support from the Commonwealth Fund
   - Second meeting of countries to be co-convened by the EC and the OECD in early 2013
4. Proposed on-going monitoring of the development of personal health data and the use of these data for health and health care quality monitoring and research through a 2013 survey of countries.

5. Proposal to develop:
   » An international **health data privacy lexicon** providing common terms of reference for privacy and health experts
   » A **taxonomy of risk** in the usage of health data, determining which procedures should be implemented for any specific level of risk
   » **Promising practices** including privacy by design and privacy-enhancing technologies enabling secure access to each category of data.
Any questions about the HCQI programme of work? (data collection, analytical work, work on strengthening health information infrastructure)