Health system assessment and health system performance assessment
An overview

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Health system assessment (HSA) vs. health system performance assessment (HSPA): What is the difference?
Review of national health systems assessments (HSAs)

Identifies 4 rationales of HSAs

i. to motivate health systems reform

ii. to promote harmonisation and alignment across actors in the health system

iii. to help translate health systems reforms into meaningful ways to track performance

iv. to facilitate learning through cross-country comparisons

Does not differentiate between HSA and HSPA as such; the main difference is the rationale or purpose that drives assessment
## Uses of health system assessments

<table>
<thead>
<tr>
<th>Use</th>
<th>Likely Instigator of Assessment</th>
<th>Data Collection Method and Focus of Analysis</th>
<th>Examples</th>
</tr>
</thead>
</table>
| To motivate health systems reform      | Government                                                                                     | In-depth assessment, most likely with long-term, strategic view, that seeks to identify health systems weaknesses and propose reform measures to address them                                                                                             | Bhore Committee Report (1946), India  
Lalonde report (1974), Canada  
High Level expert group on Universal Health Coverage (2011), India  
National Health Insurance in South Africa (2011) |
| To promote consistency across actors   | Government and development partners                                                           | Routine review, conducted on a regular (typically annual or biennial) basis, focus upon reviewing implementation and delivering on health system commitments                                                                                       | Joint Annual Reviews, conducted under International Health Partnership program |
| To translate health reforms into demonstration of systems performance | Government and/or NGOs and civil society                                                       | Routine review, publication of data that tracks indicators of health systems performance, may be disaggregated to district or provincial level, disseminated among multiple stakeholders to inform decision making and/or evaluate reforms | District Health Barometer, South Africa  
Balanced Scorecards, Afghanistan |
| To promote learning through cross-country comparisons | International organizations, international researchers                                      | Make use of varied formats, from databases of key indicators to in-depth profiles of health systems. Aims to provoke comparative analysis that casts insights on desirable health systems features                                           | European Observatory Health in Transition series  
OECD and WHO databases on health systems  
Commonwealth Fund profiles of health systems |

Source: Bennett & Peters (2014)
Are HSA and HSPA different?

- HSA tools reviewed for this face-to-face meeting tend to have more of a 'diagnosis' character
  - Describe what a given system does well and does not do that well
  - Identify areas for improvement
- HSPA in its original intention seeks to "monitor, evaluate and communicate the extent to which various aspects of the health system meet their key objectives" (Smith et al., 2009)

However...

- HSPA exercises across Europe are often at the 'diagnosis' stage (~ HSA)
  - Monitoring and evaluation element comes with the continuing process of assessment, and only a few countries have as yet entered this continuing process (e.g. Netherlands, Belgium, England)
2014 review of the HSPA initiative in Belgium

- Aims of HSPA vary across countries as does its influence on the policy process
  - to promote the accountability of national institutions
  - inform policy
  - improve transparency and understanding
  - hold devolved entities to account
- Nature and extent to which HSPA influences policy also varies
  - direct impacts: feeding into governmental decision-making
  - indirect mechanisms: informing the political debate
- Stimulation of new data collection efforts in a number of countries
- Use of international datasets (e.g. OECD) providing opportunity to draw attention to gaps in national data
- **But:** identifying appropriate ways of linking HSPA with policy processes remained underdeveloped
  - approaches likely to vary depending on institutional arrangements
## Reported impacts of HSPA on national policy making, 2014

<table>
<thead>
<tr>
<th>Country</th>
<th>Impact of HSPA on national policy making</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>HSPA provides an important source for identifying areas of action for policy makers. It provided the analytical background for target-setting within the 2013 Austrian health reform (“Health System Governance by Objectives”) for policy makers but it remains a challenge to embed the current HSPA framework more deeply in the policy making process to facilitate target setting based on HSPA analyses.</td>
</tr>
<tr>
<td>Belgium</td>
<td>The HSPA report aims to provide a transparent and accountable view of and inform health authorities about the performance of the health system. While supporting policy making was not an objective at the outset it has progressively become an issue. Reports provide recommendations for policy-makers and point out priorities, also for data collection; the usefulness of reporting for decision-making has as yet to be demonstrated.</td>
</tr>
<tr>
<td>Malta</td>
<td>National HSPA framework in process of development and link with policy cycle yet to be established. The aims are to monitor the health system’s ability to cater for the nation’s health needs, to increase accountability, transparency and sustainability of health system and to determine future policy directions.</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>HSPA reports are used for agenda setting and for accountability of the ministry of health to parliament. While the reports are well embedded in a network of expert researchers and health care professionals, it remains a major challenge to improve its policy impact and ‘actionability’.</td>
</tr>
<tr>
<td>Portugal</td>
<td>HSPA supports efforts of the Ministry of Health to improve the performance of the health system and contributes to gathering the critical evidence base to inform the national health plan. It motivated key experts and policy-makers to engage in the development of the new national health plan and it helped to clarify system goals, so introducing a health system perspective into the national plan. Gaps in health information remain a major challenge, limiting the capacity to support transparency and accountability through public reporting of results.</td>
</tr>
<tr>
<td>Sweden</td>
<td>HSPA reports are used to inform decision-making locally (county councils) and nationally. The development of indicators and measures can inform local improvement work. It remains a challenge to prioritise among different measures and to determine how to best translate the information being compiled into health care improvement.</td>
</tr>
<tr>
<td>United Kingdom (England)</td>
<td>The Outcomes Framework for the NHS is aimed at holding NHS England (the national public body leading the NHS in England) to account for improving health outcomes and reducing health inequalities; two further outcomes frameworks for public health and for adult social care seek set out to improve and protect the public’s health and to support transparency and local benchmarking. It may be challenging to establish how improvements have been arrived at.</td>
</tr>
</tbody>
</table>

Source: Peer Review Health System Performance Assessment (Brussels, 19-20 May 2014)
What is the purpose of HSPA?

• Growing concern about *accountability* as a key driver behind many efforts to measure and evaluate performance of health services and system
  – help holding various actors to account by informing stakeholders and so enabling them making decisions

• Performance assessment should *support policy action* helping policy makers to
  – select interventions and policies in response to different health problems
  – decide the allocation of resources considering different priorities and demands, with a short, medium or long-term perspective

• Other objectives
  – enabling the identification of areas of poor performance and centres of excellence
  – facilitating the selection and choice of providers by service users and purchasers of health care
  – encouraging provider behaviour change
  – providing epidemiological and other public health data

• Challenges remain regarding the design and implementation of performance assessment initiatives, in terms of scope, policy usefulness and impact.
Defining ‘performance’

- Initial focus: inputs and activity
- World Health Report 2000: Efficiency
  - extent to which resources used by a given health system achieve the system’s objectives
- “Multidimensional concept that, along with efficiency, incorporates dimensions of quality (safety, effectiveness, quality of services rendered [appropriateness, timeliness] and perceived quality of services [responsiveness]) and equity.” (Girard & Minvielle 2002)
- Performance measurement “seeks to monitor, evaluate and communicate the extent to which various aspects of the health system meet their key objectives” (Smith et al. 2009)
What are the objectives of health systems?

There is a ‘fair degree of consensus’ that health system objectives can be summarised under a defined set of headings (Smith et al. 2009)

- Health conferred on citizens
- Responsiveness to the legitimate expectations of the population
- Protection against the financial risk of illness
- Productivity, i.e. the extent to which resources are used efficiently
Health System Performance Assessment: international and national frameworks
World Health Report 2000

Health systems: improving performance

Functions the system performs

- Stewardship (oversight)
- Creating resources (investment and training)
- Financing (collecting, pooling and purchasing)
- Delivering services (provision)

Objectives of the system

- Responsiveness (to people's non-medical expectations)
- Fair (financial) contribution
- Health

Source: adapted from World Health Report, 2000
Framework OECD Health Care Quality Indicator Project
Donabedian framework to assess performance

**Inputs**
- Policies
  - right to health laws
  - composition of essential services package
  - private sector regulation
- Funding/Financing
  - level of health expenditures
  - modes of financing
  - fee schedules/provider salaries
- Organization
  - private/public provider mix
  - distribution of facilities/providers
  - management and information systems

**Outputs/Process Indicators**
- Access to care
  - availability
  - utilization
  - timeliness
- Quality of care
  - safety
  - efficacy
  - continuity
- Access for disadvantaged groups
- Quality for disadvantaged groups
- Participation/accountability
- Adequacy of funding
- Costs and productivity
- Administrative efficiency

**Outcomes/Impact**
- **Effectiveness**
  - Health status improvement
  - Patient satisfaction
- **Equity**
  - Health status improvement for disadvantaged groups
  - Fair financing
  - Risk protection
- **Efficiency**
  - Maximizing value of resources

**Source:** Krug & Freedman 2008

Fig. 1. Framework for health systems performance measures.
Bi-annual Health at a Glance reports

Health at a Glance 2013
OECD INDICATORS

Source: OECD

Health status
(Chapter 3)

Non-medical determinants of health
(Chapter 4)

Health care system performance
How does the health system perform?
What is the level of quality of care and access to services?
What does this performance cost?

Quality of care
(Chapter 8)
Access to care
(Chapter 7)
Health expenditure and financing
(Chapter 9)

Health care resources and activities
Health workforce
(Chapter 5)
Health care activities
(Chapter 6)

Demographic and economic context, and health expenditure and financing
(Annex A)

Source: Adapted from Kelley, E. and J. Hurst (2006).
Performance of the Belgian health system

Source: KCE, 2016
Performance of the Maltese health system

Report on the Performance of the Maltese Health System

Ministry for Energy and Health
Parliamentary Secretary for Health

2015

Source: Grech et al., 2015
European Commission Expert Group on Health Systems Performance Assessment
The Commission Communication on Effective, Accessible and Resilient Health Systems proposes the following:

**EU agenda for effective, accessible and resilient health systems**

- **Strengthening effectiveness**
  - Health systems performance assessment
  - Patient safety and quality of care
  - Integration of care

- **Increasing accessibility**
  - A fit-for-purpose health workforce
  - Access to innovative medicines
  - Optimal implementation of 2011 Directive on cross-border healthcare

- **Improving resilience**
  - Health technology assessment (HTA)
  - Information for better governance
  - eHealth, mHealth
The Council working party on public health at senior level invited the Commission in 2014 to set up an expert group on health systems performance assessment.

With this mission:

1. Facilitate the exchange of knowledge
2. Identify tools and methodologies to support national policy-makers
3. Focus on priority areas
4. Strengthen cooperation with international organisations
The Expert Group on Health Systems Performance Assessment

OECD

WHO

European Observatory
Expert group on HSPA
Strands of activity

- Annual work on priority areas
- Sharing of national experiences
- Tailored country-specific activities
- HSPA advocacy

2015: Quality of care
2016: Integrated care
2017: Primary care
2018: Efficiency
2019: Resilience
EC Expert Group on HSPA: A simplified version of the OECD framework

Source: Expert Group on Health Systems Performance Assessment, 2016
HSPA reports

April 2016

SO WHAT?
Strategies across Europe to assess quality of care


March 2017

TOOLS AND METHODOLOGIES TO ASSESS INTEGRATED CARE IN EUROPE

Donabedian framework to assess performance

Figure 5: Proposed approach to conceptualise the measurement of the performance of integrated care

- **OUTCOMES**
  - By population groups / disease areas
  - Patient-reported experience measures
  - Service proxies

- **PROCESSES**
  - Care transitions
  - Task shifting

- **SYSTEMS LEVERS**
  - Information technology
  - Financing and payment
  - Regulatory and incentive framework
  - Workforce
Performance assessment is one among several (policy?) instruments

- Performance assessment is an important means to assess whether and to what extent a given health sector achieves its goals, but it is only one instrument for system improvement.

- For performance measurement to be effective it needs to be aligned with other levers for improvement such as financing, market structure, accountability arrangements and regulation.

- A key requirement will be to develop a clear vision and framework of how performance assessment sits within the overall accountability relationships if measurement is to ultimately improve health system performance.
  
    
    - substantial opportunity to drive health system improvement and for health sector organisations to engage in learning about how best to achieve desired health system outcomes.
    
    - but: incentives for organisations to change may be relatively weak in the context of broader policy and funding settings.
Thank you!

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Analysing Health Systems and Policies
Conceptual problems

Definitions

- What is a health system?
- Attribution of outcomes to activities in the health system
Defining health system boundaries for performance measurement

Advantages:
- Easier to hold relative stakeholders to account.
- Identifies areas which relative stakeholders have the capacity to make changes.

Advantages:
- Provides a more realistic view of all factors that influence health.
- Identifies interactions between sectors, institutions, people that can influence health.

Disadvantages:
- Most factors influencing health are not included in the framework.
- It may be difficult to disentangle the effect health care has on outcomes from other determinants.

Disadvantages:
- Many determinants identified are difficult, if not impossible to change in the short run.
- Does not provide clarity on managerial roles.
- More difficult to assign responsibility and hold stakeholders to account.

Source: Smith & Papanicolas 2012
What to measure?

Selection of indicators

- Variation in information needs
- Link between measures of input/process of care and health outcomes
- Not all outcomes valued by society measurable

- Availability and comparability of data
- Appropriateness of available data: are we measuring what is important, not just what is available?
## Variation in information needs

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Examples of needs</th>
<th>Data requirements</th>
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</table>
| **Government**                       | • Monitoring population health  
• Setting health policy goals and priorities  
• Assurance that regulatory procedures are working properly  
• Assurance that government finances are used as intended  
• Ensuring appropriate information and research functions are undertaken  
• Monitoring regulatory effectiveness and efficiency | • Information on performance at national and international levels  
• Information on access and equity of care  
• Information on utilization of service and waiting times  
• Population health data |
| **Purchaser organisations**          | To ensure that the contracted providers deliver appropriate and cost-effective health services | • Information on health needs and unmet needs  
• Information on patient experiences and patient satisfaction  
• Information on provider performance  
• Information on the cost effectiveness of treatments  
• Information on health outcomes |
| **Citizens**                         | • Assurance that appropriate services will be available when needed  
• Holding government and other elected officials to account | Broad trends in, and comparisons of, system performance at national and local level across multiple domains of performance: access, effectiveness, safety and responsiveness |

Source: Smith et al. 2009
### Dimensions of performance (1)

<table>
<thead>
<tr>
<th>Measurement area</th>
<th>Description</th>
<th>Motivation for inclusion</th>
<th>Examples of measures</th>
</tr>
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</table>
| **Population health** | Measures of aggregated data on the health of the population                 | • Facilitates population health comparisons within and across countries from broad aggregated perspective  
• May allow for comparative assessment of the contribution of health systems to population health                                              | • Life expectancy  
• Age- and cause specific mortality  
• Morbidity  
• Avoidable mortality  
• Health risk factors as predictors of future population health |
| **Health service outcomes** | Measures of the services and care patients receive to achieve desired outcomes | • Facilitates comparative assessment of how health services assist individuals in realising their health potential                                                                                                         | • Health service outcomes  
• Health service processes                                                                                                                   |
| **Responsiveness**    | Measures of the way individuals are treated and the environment in which they are treated during interactions with the health system | • Facilitates comparative assessment of how satisfied health systems leave the patients with whom they come into contact                                                                                                     | • Patient satisfaction  
• Patient choice  
• Respect of patients’ dignity  
• Prompt attention to medical needs                                                                                                          |

*Source: adapted from Smith et al. 2009; Smith & Papanicolas 2012*
<table>
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<th>Motivation for inclusion</th>
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<tr>
<td><strong>Equity</strong></td>
<td>Measures of the extent to which there is equity in health, access to health care, responsiveness and financing</td>
<td>• Allows assessment of inequalities in health among different population/demographic/social groups within and between countries&lt;br&gt;• Allows of inequalities in access and/or utilisation of services among different population/demographic/social groups within and between countries&lt;br&gt;• Allows assessment of inequalities in responsiveness of health services among different population/demographic/social groups within and between countries</td>
<td>• Distribution of health status by population/demographic/social groups&lt;br&gt;• Distribution of access/utilisation of health services by population/demographic/social groups&lt;br&gt;• Progressivity of financing system&lt;br&gt;• Distribution of responsiveness of health services by population/demographic/social groups</td>
</tr>
<tr>
<td><strong>Financial protection</strong></td>
<td>Measures of the extent to which citizens are financially protected from the consequences of ill health</td>
<td>• Enables comparative assessment of how the health system protects citizens from the financial consequences of ill health</td>
<td>• Out-of-pocket spending&lt;br&gt;• Catastrophic expenditures on health care&lt;br&gt;• Impoverishing expenditures on health care&lt;br&gt;• Fairness of financing</td>
</tr>
<tr>
<td><strong>Efficiency</strong></td>
<td>Measures of the extent to which health services are delivered efficiently</td>
<td>• Facilitates comparative assessment that allows policymakers to pinpoint which parts of the health system are not performing as well as they should, based on the experience of other health systems</td>
<td>• Value for money of services&lt;br&gt;• Waste of resources&lt;br&gt;• Effective coverage&lt;br&gt;• Disease costs</td>
</tr>
</tbody>
</table>

*Source: adapted from Smith et al. 2009; Smith & Papanicolas 2012*
# Examples of indicators for population health

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Policy uses</th>
<th>Limitations</th>
</tr>
</thead>
</table>
| **Generic indicators:** | Broad indicators of achievement of desired population health outcomes | • Broad indicator of population health  
• Does not consider morbidity  
• Does not disaggregate for contributions of specific causes of ill health  
• Requires further disaggregation by age and cause of death |
| Life expectancy  
Age-standardised death rates | | |
| **Age/disease-specific indicators:** | Allows more detailed analysis of specific health system and service outcomes | • Susceptible to variation in recording and reporting practices  
• Rely on precise definitions that are not always adhered to in practice (e.g. perinatal death)  
• Captures the impacts of the broader determinants of health  
• Can be based on small numbers  
• Need to be interpreted in the context of risk factors and disease prevalence, as well as policies in other sectors  
• Survival rates have to be interpreted alongside incidence and mortality rates |
| Perinatal/infant mortality  
Age-cause-specific mortality  
Survival rates | | |
| **Morbidity indicators:** | Available morbidity data provide limited insight into the contribution of health systems to population health; potential of disease registries | • Reporting bias of self-reported data  
• Variation in notification requirements and practice  
• Population coverage (may exclude private sector, marginalised populations)  
• Representativeness of utilisation data (only reflects people who access the health service) |
| Self-report data  
Disease notifications  
(health service utilisation) | | |
| **Summary indicators:** | Indicators of population health that combine the mortality and morbidity experience in population | • Methodology under discussion (age and disability-weightings)  
• Limited availability of required health status data, especially over time |
| Health-adjusted life expectancy, DALYs | | |

*Source: adapted from Smith et al. 2009; Smith & Papanicolas 2012*
## Examples of indicators for health service outcomes

<table>
<thead>
<tr>
<th>Indicator</th>
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<th>Limitations</th>
</tr>
</thead>
</table>
| **Hospital outcome indicators:**              | Indicators consider the contributions hospitals make to health outcomes over time | • Hospital standardised mortality rates do not account for preventable deaths and that the majority of deaths are unavoidable  
• Differences across hospital systems and records challenge comparability within and across countries  
• Readmission data difficult to interpret because of differences in definitions; also evidence on association between readmission rates and quality of care delivered in hospital remains uncertain |
| • Hospital standardised mortality rates        |                                                                             |                                                                                                                                                                                                          |
| • Case fatality acute myocardial infarction,  |                                                                             |                                                                                                                                                                                                          |
|      stroke                                    |                                                                             |                                                                                                                                                                                                          |
| • Hospital readmission rates                   |                                                                             |                                                                                                                                                                                                          |
| **Patient-reported outcome measures (PROMs):**  | PROMs capture aspects of health that are of most concern to patients; essential for the assessment of patient need and patient-provider communication in routine care | • Data collection is resource intensive (require interviews)  
• Comparability issues as it relates to content validity and relative importance of different criteria  
• May be regarded as ‘soft information’ by some stakeholders |
| • SF-36                                        |                                                                             |                                                                                                                                                                                                          |
| • EQ5D                                         |                                                                             |                                                                                                                                                                                                          |
| **Indicators for primary care:**               | Primary care has a pivotal role in the prevention of illness and premature death and with regard to a more equitable distribution of health in populations | • Variation in organisation and financing of primary care across countries challenges scope for uniform data collection  
• Data collection in primary care is lagging behind hospital data collection and often has to rely on hospital administrative systems (e.g. avoidable hospitalisations)  
• There is good evidence on the usefulness of data on avoidable hospitalisations and selected process indicators for comparative use although data availability remains limited |
| • Avoidable hospitalisation                    |                                                                             |                                                                                                                                                                                                          |
| • Process indicators                           |                                                                             |                                                                                                                                                                                                          |

Source: adapted from Smith et al. 2009; Smith & Papanicolas 2012
## Examples of efficiency indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
<th>What are the assumptions and what does it ignore?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency department visits</td>
<td>Proportion of ED visits that should have been seen in other settings</td>
<td>Ignores quality of care; depends on definitions</td>
</tr>
<tr>
<td>Average length of hospital stay</td>
<td>The number of days per hospital inpatient stay</td>
<td>Assumes that cases are identical, both in terms of outcomes and in terms of intensity</td>
</tr>
<tr>
<td>Unit costs</td>
<td>Estimates of costs</td>
<td>Assumes uniform treatment and uniform accounting methods; ignores quality</td>
</tr>
<tr>
<td>Case-mix adjusted cost per episode of care</td>
<td>The average costs for treating a certain condition</td>
<td>Assumes that cases are identical, in terms of outcomes and intensity; Assumes uniform treatment and uniform accounting methods</td>
</tr>
<tr>
<td>Duplicate medical tests</td>
<td>Number of tests that are done more than once for the same patient</td>
<td>Assumes that any duplicate test is inefficient, regardless of the context</td>
</tr>
<tr>
<td>Share of total expenditure spent on administration</td>
<td>Percentage of total health care expenditure dedicated to administration</td>
<td>Assumes that a greater share of administrative expenditure is inefficient without accounting for scale; highly dependent on accounting method used</td>
</tr>
<tr>
<td>Disease costs</td>
<td>That average cost per case of treating a certain disease</td>
<td>Can be difficult to calculate without linking patient data across providers; assumes uniform case-mix; highly dependent on accounting measures used</td>
</tr>
<tr>
<td>Effective coverage</td>
<td>Share of actual health gains achieved relative to maximum potential health gains for a given intervention</td>
<td>Difficult to measure need and quality</td>
</tr>
</tbody>
</table>

*Source: adapted from Smith & Papanicolas 2012*