Measurement in the new NHS: Outcomes and beyond

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Aims

- discuss the role of outcomes measurement: nationally and locally
- explain the need for differentiated approaches to measurement at different levels of the health care system
- discuss structure, process, outcome measures
- highlight the need to use a mix of indicators locally for commissioning and operational purposes
- give some examples.
The NHS Outcomes Framework

‘healthcare outcomes the primary purpose of the NHS… means ensuring accountabilities through the system are squarely focussed on outcomes, not the processes by which they are achieved.’

‘outcomes framework is a set of national outcome goals for measuring the overall performance of the NHS’

‘nationally, the focus will be on outcomes... locally, it is legitimate to measure effectiveness, safety, patient experience using a mix of structure, process and outcome measures.’
NHS OUTCOMES FRAMEWORK

Domain 1
Preventing premature death

Domain 2
Enhancing QOF for people with LTCs

Domain 3
Helping recovery

Domain 4
Ensuring positive experience of care

Domain 5
Safe environment & protection from avoidable harm

NICE quality standards - 150 conditions

Commissioning outcomes framework

Commissioning guidance

Provider payment mechanisms:
Tariff, standard contract, CQUIN, QOF

Commissioning Clinical commissioning groups
Commissioning Outcomes Framework

Commissioners will be:
› expected to commission for improved outcomes
› judged on performance on improving outcomes
› rewarded on improved outcomes (through quality premiums)

This requires commissioners to:
› use performance measures appropriately to improve outcomes for local populations and patients
› measure outcomes and what delivers improvements in outcomes

Context:
› more localism implies greater diversity in local contractual and management arrangements
› enhances need for robust use of information by commissioners locally

The King's Fund Ideas that change health care
Indicator types

› Donabedian: identified three dimensions of performance:
  structure, process and outcome

› ‘outcomes remain the ultimate validators of the effectiveness and quality of
  medical care’ but they ‘must be used with discrimination’

› important to know also about:
  - processes of care (whether medicine is properly practiced)
  - environment in which care occurs (measures of structure)

› Outcomes depend on having right structures and processes in place:
  **Structure + Process = Outcome**

› Donabedian principles applied internationally for measuring health care
  system performance
Structure indicators

› describe desirable infrastructure or provider level attributes, eg:
  - patients treated on a specialist stroke unit
  - attributes relating to clinicians (eg, board certification, training)
  - staffing ratios
  - surgical volumes

Process indicators

› describe processes or aspects of care for populations/providers, eg:
  - preventive services: cancer screening, immunisation
  - aspirin on discharge from hospital for AMI
  - VTE prophylaxis for surgical patients

Outcome indicators

› reflect end result of health care (and often other factors also), eg:
  - population outcomes eg, cancer mortality, hospital admission rates
  - clinical care outcomes eg, mortality, readmission rates
  - adverse events eg, falls in hospital
  - patients’ experience of care
  - patient-reported outcomes (PROMs)
S/P/O indicators: pros and cons

**Structure indicators:**
- useful markers of quality **BUT**
- few structure indicators available generally

**Process indicators:**
- the strongest evidence base
- easily measured, large numbers of process indicators available
- covering all dimensions of health care
- risk-adjustment not required
- a timely, actionable basis for improving performance **BUT**
- high specificity, intuitively unappealing

**Outcome indicators:**
- useful for measuring progress in end results
- can drive improvement in specific contexts eg, cardiac surgery **BUT**
- time lag, need for risk-adjustment, effects of factors unrelated to quality, attribution
- limited contexts for use: mainly used in acute services, surgery, where link between intervention and outcome is more direct, timely and amenable to risk-adjustment
- few robust outcome measures for primary, ambulatory and medical care
NICE Quality Standards

- evidence-based markers of high-quality, cost-effective care for specific conditions
- standards for each topic are supported by structure, process, outcome measures
- ‘at present there are limited health outcome measures that can be used as quality measures... therefore, the focus of the quality measures is on improving processes of care that are considered to be linked to health outcomes’
- standards to be reflected in COF, commissioning guidance, QOF from 2013
- beyond that, use of NICE standards is not mandatory
- likely scenario:
  - discretionary, selective use locally by commissioners and providers
  - use as audit tools to support local contractual arrangements, CQUIN
  - will require additional data collection by commissioners, providers and clinicians
CCGs will need to use a mix of:

(a) population-based indicators to:
- assess local health care needs, inequalities
- work with LAs to improve public health
- monitor access, quality and outcomes of health care

(b) provider-based indicators to:
- plan and commission services
- monitor quality, outcomes of services
- manage contracts and P4P schemes

Use of indicators to:
- benchmark, highlight variations
- monitor trends over time
- inform corrective and improvement interventions

Indicators will be needed for a range of conditions and population groups

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Ideas that change health care
National to local: a diversified approach to measurement

- compelling case for using a broad mix of S/P/O indicators locally:
  - outcome goals need to be ‘operationalised’ into mechanisms for delivering improved outcomes
  - important to know where local action needs to be targeted
  - S/P/IO indicators more timely for monitoring trajectory of progress
  - important dimensions of quality that should be monitored locally are not outcomes eg, access, waiting, integration, care coordination, efficiency

- a changing indicator mix from national to local use is therefore useful for:
  - promoting use of structures and processes that improve outcomes
  - monitoring outcomes and improvement mechanisms
  - use in contracts and P4P schemes
  - identifying poor performance and monitoring remedial action

- examples follow:
  - cancer
  - US hospital quality improvement programme
Example Cancer

› cancer survival in England compares poorly with OECD countries

› delays in diagnosis and treatment, variations in access and quality of treatment

› cancer a priority in NHS and public health Outcomes Frameworks

› cancer strategy January 2011, cancer commissioning guidance July 2011

› CCGs as commissioners and GPs as gatekeepers have a key role to play
Cancer (example indicators)

Risk factors & prevention

 Rates of:
- incidence O
- smoking, diet, alcohol etc IO
- population awareness P
- screening P
- smoking services P
- smoking quitters O
(JSNA/public health with LAs)

Diagnosis, treatment, end of life care

 Rates of:
- referrals, diagnostic tests, time to results P
- detection rates O
- stage at diagnosis O
- access, waiting times P
- cancers detected at emergency presentation P
- surgical volumes S
- treatment (surgery, radiotherapy) rates P
- information for patients P
- length of stay, readmission, mortality rates O
-1 yr survival: proxy for late diagnosis O
- management by a MDT P
- staff skills, training S
- adherence to guidelines P
- access to end of life care P
- patient experience and wellbeing O
- place of death O
- participation in national clinical audits S

Key
Population-based indicators
Provider (practices, acute trusts etc) based indicators
S=structure measures
P=process measures
IO=intermediate outcomes
O=outcome measures
US Centers for Medicare and Medicaid Services: Hospital inpatient quality reporting program

- Medicare: federal health insurance scheme for 65+, covering 45m people
- Medicaid: state administered scheme for low income groups, covering 53m people

Data submitted by providers are used for:
- Benchmarking
- Quality improvement
- Payment
- Information for patients and the public
- Accreditation by The Joint Commission

Standardised quality measures published for >4000 hospitals

- 105 measures covering*: participation in clinical audit, data quality, AMI, heart failure, pneumonia, surgical care, asthma, VTE, stroke, prevention (pneumococcal and flu vac, patient experience, 30 day risk-adjusted mortality and readmission rates for AMI, heart failure and pneumonia, several AHRQ safety indicators, hospital acquired conditions (eg, falls, infections, pressure ulcers, poor glycaemic control)

Key:
S=structure measures 4
P=process measures 70
O=outcome measures 31
The indicator mix depends on the level of accountability

TIERS OF ACCOUNTABILITY

National: SoS ← NHSCB

NHSCB ← CCGs

CCG operational roles

Functions of CCGs:
- needs assessment, public health
- commissioning
- contract management, P4P schemes
- improving quality and outcomes
- improving efficiency
- reducing inequalities
- etc

Accountability of CCGs for delivery on COF, NICE standards etc

Accountability of NHSCB for delivery on NHS outcomes framework
Conclusions

- Informed use of information at local health economy level is critical for effective commissioning.

- Requires judicious use of indicators at population and provider level for different conditions and population groups.

- Outcome indicators: useful for monitoring progress on goals. 
  Structure and process indicators: useful operationally as timely, actionable levers.

- Looking ahead:
  - Need to learn from the past: outcomes not new
  - Building on NHS measurement initiatives, indicators to date
  - New measurement challenges
  - Prevention, chronic disease management, tackling inequalities and variations in medical practice are key for quality improvement and cost-containment
  - Measuring and commissioning along care pathways (eg, cancer, LTCs) is increasingly important
  - Information for independent health care providers?
Next steps:

Slide pack for commissioners to follow, with guidance on:
- roles of S/P/O indicators
- tips on using data
- useful information sources
OECD framework of healthcare system performance

Figure 1.1: Conceptual framework of health care system performance

- **Health**: How healthy are the Dutch?
- **Non-healthcare determinants of health**

**Healthcare system performance**

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- **Healthcare needs**
  - Staying healthy
  - Getting better
  - Living with illness or disability
  - End-of-life care

**Efficiency**

**Equity**

Design and contextual information specific to the Dutch healthcare system that is necessary for interpreting health system performance

(Source: Arah et al., 2006)