NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health and Social Care Directorate

NICE indicator process guide

December 2019

About this guide

This guide describes the process NICE uses to develop indicators from NICE quality standards, NICE guidance and NICE accredited sources.

This is an update to the indicator process guide (originally published in April 2014).

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Minor updates following publication

Page number	Reference	Change	Date
20	5	Update link to the newly published NICE principles	January 2020
17	3.5	Reference to ‘NICE accredited guidance’ replaced with ‘sources of high quality evidence’	March 2020

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Introduction

About NICE

The National Institute for Health and Care Excellence (NICE) is the independent body responsible for driving improvement and excellence in the health and social care system. We develop guidance, standards and information on high-quality health and social care. We also advise on ways to promote healthy living and prevent ill health.

Our aim is to help practitioners deliver the best possible care and give people the most effective treatments, which are based on the most up-to-date evidence and provide value for money, in order to reduce inequalities and variation.

Our products and resources are produced for the NHS, local authorities, care providers, charities, and anyone who has a responsibility for commissioning or providing healthcare, public health or social care services.

To find out more about what we do, visit our website: www.nice.org.uk and follow us on Twitter: @NICEComms

1 The NICE Indicator Programme

1.1 What is a NICE indicator?

NICE indicators generally measure outcomes that reflect the quality of care or processes linked by evidence to improved outcomes. Outcomes are ideally, but not always, related to NICE quality standards. Process indicators are evidence-based and underpinned by NICE quality standards, NICE guidance or other sources of high-quality evidence.

NICE indicators differ from quality measures within NICE quality standards because the measures used in quality standards are not formally tested and are often intended to be adapted for use at a local level.

The term ‘NICE indicator’ is used in this guide to describe outputs of this formal process.

1.2 Components of a NICE indicator

A NICE indicator is made up of the following:

- a denominator, describing the target population included in an indicator
- a numerator, describing the number of people in the denominator who have the specified intervention, treatment or outcome
- a description of the inclusions, exclusions and exceptions.

Other elements of a NICE indicator may be:

- a short and long indicator title
- a detailed overview of the indicator, which includes:
  - a description of the purpose of the indicator
  - the reasoning for the indicator
  - data source, reporting mechanisms and other technical details
  - links to further information
- a cost-effectiveness and resource–impact analysis.

1.3 How NICE indicators can be used

NICE indicators are published in a ‘menu’ on NICE’s website. NICE indicators may be used in a number of different settings to support high-quality care. This may include:

- measuring the quality of care and outcomes for defined populations
- setting priorities for quality improvement
- supporting the development of local performance dashboards
- benchmarking performance against national data
- demonstrating progress that local systems are making on improving outcomes (for example, in the Public Health Outcomes Framework)
- supporting national performance schemes (for example, the Quality and Outcomes Framework [QOF] and the Clinical Commissioning Group Outcome Indicator Set [CCG OIS])
- informing commissioning decisions.

1.4 Key principles and activities of the NICE indicator programme

The NICE indicator programme operates according to the NICE core principles. These include using:

- a comprehensive evidence base (as described by NICE quality standards, NICE guidance or other sources of high-quality evidence)
- an independent advisory committee
- input from experts, patients, service users and carers
- transparent processes and decision-making
- public consultation
- effective dissemination and implementation
- regular review.

The key activities of the NICE indicator programme are to:

- produce indicators as part of a menu of indicators that measure the delivery of safe, effective and cost-effective care and services
- identify how indicators can be used to improve outcomes, including quality of life and satisfaction with care and experience
- give stakeholders and respondents (including the public) an opportunity to contribute through an inclusive, open and transparent consultation process
- consider the resource impact of indicators
- consider the equality impact of indicators
- consider the sustainability of indicators
- regularly review and update indicators
- align with other national quality initiatives.
- ensure indicators are held within the National Indicator Library, hosted by NHS Digital.

2 Who is involved in developing NICE indicators?

2.1 The NICE indicator advisory committee

2.1.1 Membership of the committee

The NICE indicator advisory committee comprises members with a range of expertise who are independent of NICE. They include GPs, commissioners, primary and secondary care health professionals, lay members, researchers, social care practitioners, public health specialists and quality improvement experts.

For a list of indicator advisory committee members and terms of reference see the indicator advisory committee on the NICE website.

Additional topic experts and co-opted members may be invited to attend the committee to advise members on a topic by topic basis to assist in discussions.

2.1.2 How indicator advisory committee members are appointed

The indicator advisory committee chair and members are recruited through open public advertisement. They are appointed in line with the NICE policy on appointments to advisory bodies.

2.1.3 The role of the indicator advisory committee

The role of the indicator advisory committee includes:

- reviewing results of testing or piloting, consultation, equality impact and any cost-effectiveness analysis
- recommending indicators for publication on the NICE menu
- reviewing existing indicators.

For the full details of the role of the indicator advisory committee see the terms of reference for the NICE indicator advisory committees.

2.2 Work undertaken in NICE

2.2.1 NICE indicator team

The NICE indicator team is responsible for:

- managing the prioritisation process for the development of new indicators
- preparing briefings for the indicator advisory committee on prioritised areas for indicator development
- facilitating the drafting of potential indicators
- analysing and presenting the results of public consultation
- providing or sourcing cost-effectiveness reports if appropriate
- commissioning and quality-assuring the results of indicator testing
- preparing committee minutes for publication
- producing the guidance to be published alongside new indicators
- ensuring NICE's published process and methods for developing indicators are followed in line with agreed timelines and standards of quality.

The NICE indicator team is committed to improving practice and methods by regularly reviewing and evaluating its processes and methods.

2.2.2 Resource impact assessment

NICE assess the resource impact of the changes needed to improve against indicators at a national level using costing reports produced for underpinning guidance. NICE identify the potential costs and savings and highlight indicators that may be particularly useful for commissioners. The resource impact work may also explore the impact on individual sectors of the health and care system.

2.3 Other organisations

NICE works closely with many professional, NHS and public sector organisations, including those representing patients, service users and carers. Key partners of the indicator programme include NHS England, Public Health England, the Department of Health and Social Care, the National Collaborating Centre for Indicator Development (NCCID), NHS Digital and the devolved administrations in Northern Ireland and Wales.

- NHS England, Public Health England and the Department of Health and Social Care can establish priority areas for indicator development.
- The devolved administrations in Wales and Northern Ireland can help to establish priority areas for indicator development.
- The NCCID is contracted by NICE to support specific aspects of the indicator development process, such as:
  - scoping indicators during early stages of development
  - drafting indicator wording
  - assessing potential data sources
  - testing potential indicators.
- NHS Digital works with NICE to help develop and test potential new indicators, develop technical specifications and business rules.
- In England the content of the Quality and Outcomes Framework (QOF) is determined through negotiations between NHS England and the General Practitioners Committee (GPC) of the British Medical Association (BMA). NICE indicators are considered for inclusion in the QOF during these negotiations. Separate but similar negotiations take place in the devolved administrations of Northern Ireland and Wales.

3 Process for developing indicators

This section outlines the process for identifying, developing and quality-assuring indicators.

3.1 *Prioritising areas for indicator development*

Indicator development will reflect priorities agreed with NHS England, Public Health England, the Department of Health and Social Care and the devolved administrations in Northern Ireland and Wales. These organisations in turn may establish processes to engage with other stakeholders and respondents.

Initial suggestions are based on publication of:

- new national policy, for example, the NHS Long Term Plan
- new or updated NICE quality standards or guidance
- new or updated reports of current national performance.

The NICE indicator work programme is agreed on at least an annual basis and more frequently if demand requires it. Indicators may also be developed or assured for organisations that commission NICE to undertake specific pieces of indicator related work. A summary of all indicators in development or under review will be available on the NICE website.

3.2 *Indicator advisory committee consideration*

Areas for indicator development (see section 3.1) are presented to the indicator advisory committee alongside relevant guidance recommendations and current practice data. The indicator advisory committee advises on progression to the development stages by examining current variation in practice, opportunities to improve clinical outcomes, early feasibility assessment and the content of evidence-based guidance.

To utilise externally developed indicators and avoid system wide duplication of effort, the indicator advisory committee may also use the criteria outlined in appendix B to assess the validity of indicators developed by external organisations for inclusion on the NICE menu.

3.3 Indicator development stages

3.3.1 Indicator drafting

Drafting indicator wording and specification is an iterative process undertaken primarily by NICE and the NCCID. Advice may be sought from NHS England, Public Health England, the Department of Health and Social Care, experts on the indicator advisory committee, and from experts involved in developing relevant NICE quality standards or guidelines.

3.3.2 Testing

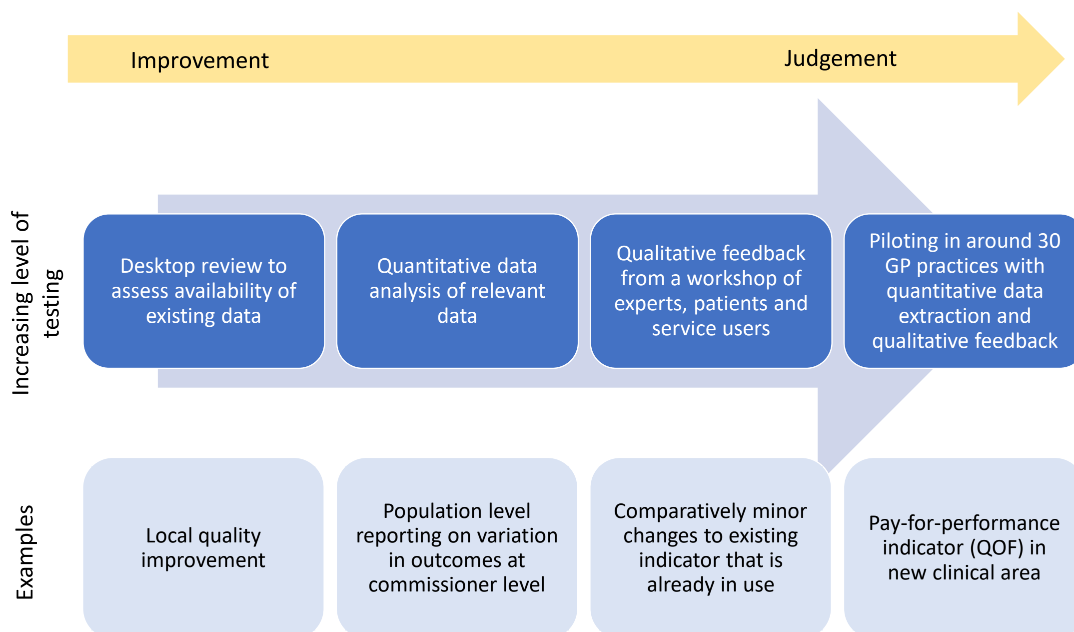
All NICE indicators undergo testing to assess feasibility and acceptability. Testing is undertaken primarily by the NCCID and NHS Digital. The approach to testing indicators is agreed with partner organisations and the indicator advisory committee and should be appropriate to:

- the indicator's intended use (for example, as an aid for quality improvement purposes only or inclusion within a national pay-for-performance framework)
- the existence of similar indicators that are already being used in practice.

The testing options available include, but are not limited to:

- desktop review to assess availability of existing data sources
- quantitative data analysis of relevant and available data
- qualitative feedback from a workshop of experts, patients and service users
- piloting general practice level indicators in around 30 GP practices with quantitative data extraction and qualitative feedback from GPs and practice staff.

Figure 2. Illustrative example of how testing may be used



3.3.3 Consultation

NICE asks for comments from stakeholders and respondents (including patient organisations and professional groups) on potential new indicators during a 4 week public consultation. They are asked to comment on:

- risk of unintended consequences
- barriers to implementation
- impact on equality groups.

Stakeholders and respondents may also be asked specifically about any important areas for consideration that have been identified.

NICE informs stakeholders and respondents in advance about the public consultation by email and on the NICE website. Once it begins stakeholders and respondents can see the proposed indicators on the NICE website and submit comments on a comments proforma. Comments received after the deadline for submission will not be considered. Responses to comments will be made available on the NICE website alongside committee minutes.

3.3.4 Cost-effectiveness analysis

Indicator development may include a consideration of cost effectiveness when indicators are intended for inclusion within a pay-for-performance framework.

3.4 Indicator advisory committee review

3.4.1 Testing and consultation review

The indicator advisory committee considers the results of indicator development (including the testing results, equality analysis and any cost-effectiveness analysis) alongside comments submitted during the public consultation. The indicator advisory committee advises on progression to the NICE indicator menu using criteria to assess the validity of indicators as outlined in Appendix B. Committee considerations against each of these criteria will be published irrespective of the indicator's inclusion in the NICE menu, however they will not be used to assign a grading or score.

3.4.2 Resource impact analysis

High-level assessment of resource impact is considered for all indicators in development. This considers the likely resource impact of additional activity resulting from the implementation of new indicators. For more information see resource impact on the NICE website.

3.4.3 Threshold setting

NHS England and the devolved administrations in Northern Ireland and Wales may ask the indicator advisory committee to propose achievement thresholds if indicators are intended for inclusion within a pay-for-performance framework. Setting of thresholds is usually based on factors such as the baseline level of achievement, maximum expected levels of achievement and current levels of variation.

3.5 NICE Guidance Executive

Indicators recommended for progression to the NICE menu are presented to the NICE Guidance Executive for final approval before publication. When considering indicators for publication, the NICE Guidance Executive assesses whether:

- the agreed process and methods have been followed
- the indicators are consistent with NICE quality standards, NICE guidance or other sources of high-quality evidence
- the indicators promote equality and avoid unlawful discrimination.

If a major issue is identified, the NICE indicator team will work to resolve it with assistance from the indicator advisory committee chair and members. The NICE Guidance Executive does not comment at other stages of indicator development.

3.6 Publication

Indicators that progress to the NICE indicator menu are available on the website and may be accompanied by:

- a summary which includes:
  - purpose
  - indication of the intended use (for example, as an aid for quality improvement purposes only or for inclusion within a pay-for-performance framework)
  - indication of the minimum population level at which the indicator is feasible
  - methodology used in constructing the indicator including available data sources, inclusions, exclusions and exceptions
  - expected review date.
- assessment of validity using the criteria outlined in Appendix B
- cost-effectiveness analysis (if relevant)
- resource impact analysis
- equality impact assessment.

3.7 Reviewing NICE indicators

3.7.1 Maintaining indicators on the NICE menu

NICE will review published indicators using the assessment criteria in Appendix B when they reach their review date or the underlying guidance is updated. The indicator advisory committee will advise on actions required to ensure the indicators continue to be valid or retirement from the NICE menu (including the need for consultation on indicators to be retired). Development of new indicators based on updated recommendations will follow section 3.3.

An indicator may also be reviewed when an unanticipated risk or consequence is identified or a patient safety alert is published. Corrections or changes to a published indicator will be made if an error:

- puts people using services at risk, or negatively impacts on their care **or**
- damages NICE's reputation **or**
- significantly affects the meaning.

If an error in a published indicator is identified, we will follow NICE’s internal policy for dealing with errors. The individual or organisation who reported the error will be contacted in writing, and we will explain our rationale for the decisions and actions taken. Routine maintenance changes may also be made after publication of a NICE indicator. These include minor changes such as updating or fixing broken links or updating standard text in line with agreed template changes.

4 Stakeholder involvement

4.1 How stakeholders are involved

NICE indicators are subject to consultation with stakeholders. Stakeholders are organisations with an interest in a particular topic for which an indicator is being developed; they may represent people whose practice or care is directly affected.

Stakeholders include: national organisations for people who use health and social care services, their families and carers, and the public; local Healthwatch

organisations; national organisations that represent health and social care practitioners and other people whose care may be affected by the NICE indicators, this may include; public sector providers and commissioners of care or services; private, voluntary sector and other independent providers of care or services; companies that manufacture drugs, devices, equipment or adaptations, and commercial industries relevant to public health; organisations that fund or carry out research; government departments and national statutory agencies.

Individual members of the public can also respond to consultations.

To ensure the appropriate stakeholders are involved in the development of indicators, NICE:

- identifies potential stakeholders using the list of organisations registered as stakeholders for the NICE quality standards, NICE guidance or NICE accredited guidance on which the indicators are based
- tells potential stakeholders how to get involved in the indicator programme on the NICE website.

4.2 Respondents

Tobacco organisations (for example, tobacco companies, those who speak for them or are funded by them) with an interest in a particular topic. The term 'respondent' acknowledges NICE's commitment to Article 5.3 of the WHO Framework Convention on Tobacco Control. This sets out an obligation to protect the development of public health policy from any vested interests of the tobacco industry. We will still carefully consider all consultation responses from the tobacco industry and from those with links to the industry. Disclosures will be included with the published consultation responses and with evidence presented to the committee.

4.3 How NICE communicates with stakeholders

NICE emails stakeholders to tell them the consultation dates. Information about the consultation is also published on the NICE website when it opens. Stakeholders are invited to submit comments using a dedicated email address.

5 Advancing equality and making social value judgements

NICE is committed to ensuring that the indicator development process fully meets duties under the Equality Act (2010) to have due regard to the need to eliminate discrimination, foster good relations and advance equality of opportunity in relation to people who share the protected characteristics of age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, and sexual orientation, including the public sector equality duty to tackle discrimination and provide equality of opportunity for all enables it to meet requirements under the Human Rights Act (1998).

NICE's equality objectives and equality programme 2016–2020 summarises NICE's legal and other equality obligations and describes NICE's approach to meeting them, particularly the process of equality impact assessment. NICE uses this approach to consider not just equality in relation to groups sharing the characteristics protected by the Equality Act (2010) but also health inequalities arising from socioeconomic factors or associated with the shared circumstances, behaviours or conditions of particular groups (for example, looked-after children, people who are homeless, people who misuse drugs and people in prison). Identifying such groups is an aspect of NICE's compliance with both general public law requirements to act fairly and reasonably, and human rights obligations.

Two aspects of NICE's process for developing indicators that are of particular relevance to equality issues are stakeholder involvement and equality analysis.

NICE indicators, and the procedures NICE uses to develop them, also take account of the NICE principles.

5.1 Stakeholder involvement

NICE aims to involve as wide a range of stakeholders as possible in its activities, including in developing indicators. We encourage professional, patient, service user, carer, community and voluntary organisations, as well as organisations of groups protected by the equality legislation, to take part in

consultations. See section 4 for more information about stakeholder involvement.

5.2 Equality analysis

NICE has a systematic approach to equality analysis. It considers equality issues and formally records conclusions at key stages of the indicator development process. This record is used to assure the NICE Guidance Executive and stakeholders that equality impact has been assessed. Equality analyses are published alongside with final indicators included in the menu on the NICE website.

6 Transparency

NICE is committed to making the process of developing indicators transparent to stakeholders and respondents and the public.

6.1 Public access to meetings for NICE's indicator advisory committee

Committee meetings are open to members of the public and press. This enables stakeholders and respondents and the public to understand how indicators are developed and how consultation comments are taken into account.

To promote public attendance at committee meetings, NICE publishes a notice with a draft agenda alongside a registration form on its website at least 20 working days before the meeting. Members of the public who wish to attend the meeting should return the completed registration form 10 working days before the meeting. Most committee meetings for the indicator work programme are held at NICE's office in Manchester, which is accessible to the public, including people with limited mobility. Up to 20 places are available, depending on the size of the venue. To allow wide public access, NICE reserves the right to limit attendees to 1 representative per organisation. The final meeting agenda is published on the website 5 working days before the meeting. For further details see information for people attending a NICE committee meeting.

If an item on the agenda includes in-confidence information, either commercial or academic, it is discussed at a separate session of the meeting from which the public is excluded. The decision to hold a separate session is made by the Committee Chair and the responsible NICE Director.

6.2 Access to documents

To ensure that the process is as transparent as possible, NICE makes information relevant to the development of indicators publicly available. The following supporting documents for the indicator advisory committee are therefore published on the NICE website:

- agenda

- minutes (NICE aims to have the committee minutes published within 1 month of the advisory committee meeting)
- membership.

6.3 Freedom of Information Act 2000

Nothing in this document will restrict any disclosure of information by NICE that is required by law (including, in particular but without limitation, the Freedom of Information Act 2000).

7 Updating this process guide

The formal process for updating this process guide will begin 3 years after publication. In exceptional circumstances, and only if significant changes to the process of developing indicators are anticipated, this interval will be reduced to 2 years.

We welcome comments on the content of this process guide and suggested subjects for inclusion. These should be addressed to: indicators@nice.org.uk

Minor changes that may be made without further consultation are those that:

- do not add or remove a fundamental stage in the process
- do not add or remove a fundamental methods technique or step
- will not disadvantage any stakeholders and respondents
- will improve the efficiency, clarity or fairness of the process.

Changes that meet all of these criteria will be published on the NICE website. The process guide will be updated and changes from the previous version of the guide will be listed. Stakeholders and respondents involved in indicators under development at the time of the change will be notified if they are affected by the change. Stakeholders and respondents in indicators not yet under development will be advised to consult the website at the start of the project to familiarise themselves with the updated indicators development process.

Any other changes will be made only after a public consultation that will normally last for 3 months.

8 Further information

Further information about the Indicator Programme is available on the indicator pages of the NICE website.

Information on the indicator advisory committee is available on the NICE website including minutes, agendas and committee membership.

9 Complaints

Formal complaints about the administration of the Indicator Programme should be made in accordance with NICE's complaints policy and procedure.

Appendix A: Acknowledgements

The following teams within NICE have contributed to the preparation and development of this document.

- The publishing team
- Corporate office
- Health and Social Care Directorate
- Committee chair and vice chair.

The following organisations outside NICE have contributed to the preparation and development of this document.

- NHS Digital – NHS Digital play a key role in the operationalisation and implementation of indicators. There are therefore strong links between NICE and NHS Digital, not just in the development of this guide, but in the delivery of the Indicator Programme.

- NHS England, Public Health England– these organisations have an important role in setting the strategic direction for the services and frameworks in which NICE indicators are used. It is therefore important that NICE has these engaged with these organisations to develop this process and ensure their priorities are reflected in the outputs of the Indicator Programme. NICE will, however, retain independence in the delivery of the programme.

Appendix B: Criteria to appraise the validity of indicators

The indicator advisory committee advises on the progression of indicators in development using the following criteria to assess validity[1]:

Domain	Criteria
Importance	The indicator reflects a specific priority area identified by NHS England or Public Health England. The indicator relates to an area where there is known variation in practice. The indicator will lead to a meaningful improvement in outcomes. The indicator addresses under or over-treatment.
Evidence base	The indicator is derived from a high quality evidence base. The indicator aligns with the evidence base.
Specification	The indicator has defined components necessary to construct the indicator, including numerator, denominator and exclusions. The indicator has a minimum population level.
Feasibility	The indicator is repeatable. The indicator is measuring what it is designed to measure. The indicator uses existing data fields or the burden of additional data collection is acceptable.
Acceptability	The indicator assesses performance that is attributable to or within the control of the audience. The results of the indicator can be used to improve practice.
Risk	The indicator has an acceptable risk of unintended consequences.

[1] Modified from MacLean et al (2018) Time Out — Charting a Path for Improving Performance Measurement N Engl J Med 2018 378:1757-1761