

CENTRE for SOCIAL IMPACT



THE CHANGE COLLECTION

ORIENTING YOUR JOURNEY:

an approach for indicator assessment and selection

Stephen Bennett

Rebecca Reeve

Kristy Muir

Axelle Marjolin

Abigail Powell

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The purpose of The Change Collection is to build the capacity of everyone working towards a more effective social impact system. The collection provides the foundation knowledge and tools for social change:

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- Measuring Outcomes
- Collaboration
- Funding Outcomes
- Leadership
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THE CHANGE COLLECTION INCLUDES:

- The Compass: your guide to social impact measurement
- The Travel Companion: your guide to working with others for social outcomes
- · Orienting Your Journey: an approach for indicator assessment and selection

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We believe in a stronger society for all

ABOUT THE CENTRE FOR SOCIAL IMPACT

The Centre for Social Impact is a collaboration between the University of New South Wales, the University of Western Australia and Swinburne University of Technology.

CSI's mission is to create beneficial social impact in Australia through teaching, research, measurement and the promotion of public debate. We aim to consider and promote best practice and thought leadership in the context of a systems thinking approach to social purpose.

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Indicator assessment and selection is an important process for outcomes measurement, evaluation and research. Indicators provide the information and data to demonstrate what change, if any, is occurring. In this guide, we put forward an approach for indicator assessment and selection to support the sector's capacity in choosing appropriate indicators and improve the quality of data.

The approach to assessing and selecting indicators outlined in this guide draws on the findings from a cross-disciplinary systematic review of good practice indicator development and selection. This approach is for everyone who wants to be able to understand and demonstrate the impact of what they do.

A step-wise approach for indicator assessment and selection

STEP 1 PLANNING THE REVIEW

STEP 2 DETERMINING THE REVIEW CRITERIA

STEP 3 SEARCHING FOR EXISTING INDICATORS

STEP 4 REVIEWING INDICATORS AGAINST CRITERIA

STEP 5 SELECTING INDICATORS



Indicator assessment and selection should be guided by your purpose, process and performance. For help understanding these foundational elements see **The Compass: your guide for social impact measurement.**

WHAT ARE INDICATORS AND MEASURES AND WHAT CAN THEY TELL US?

Indicators are the measurable markers that show whether change has occurred in an underlying condition or circumstance [1, 2]. Indicators can be qualitative or quantitative and can be used in a range of methods, tools and approaches such as surveys, interviews or focus groups.

They can provide varied information, such as the prevalence or severity of an issue; the patterns of change over time; signals of upcoming problems or areas for action; or the results of actions or programs. That is, indicators can demonstrate the process (what's occurring), the outcome (what's happened) or the context. They can be used to inform decision–making, quality improvement and accountability and can capture many different aspects of a society, economy or environment [3–8].

Indicators can be measured at different levels from the population, to the community or organisation level, or at the individual level. Their conceptual fit with the underlying condition — that is the degree to which the indicator measures the underlying condition — can be direct, partial or indirect. For example, life expectancy is an indirect measure of an individual's health. Indicators can be lagging (following an event) or leading (preceding an event), for example, weight as opposed to calorie intake as lagging and leading indicators of a healthy diet respectively.

Indicators are comprised of measures, defined as the standard unit of a condition. Indicators can be constructed as a single measure or a composite made up of several measures, such as the Kessler psychological distress scale [4]. There are three important concepts for indicators:

First, there may be multiple measures for a single indicator. For instance, if we are interested in measuring distance, a range of different measures such as centimetres, metres, inches or lightyears can be used. The most appropriate measure will depend on context, in this case, the expected distance.

Condition	Indicator	Measures
Distance	Length of space between two points	Centimetres Meters Inches Lightyears

Secondly, the environment or context influences what indicators will be appropriate and how they can be interpreted. Factors such as the need for accuracy, the cost or time to administer, the feasibility of self-assessment or the population group under observation may affect the appropriateness of an indicator.

For example, there are many different indicators that could be used to indicate healthy weight, including Body Mass Index (BMI), Waist Circumference or using a Magnetic Resonance Imaging (MRI) machine[5]. For a community health initiative interested in healthy weight, BMI might be an appropriate indicator as cost and time to administer might be more important than accuracy, in contrast to a health screening where greater accuracy may be paramount.

Lastly, there may be different ways to interpret an indicator depending on the population under observation. For example, the BMI result can be interpreted differently depending on the age and ethnicity or Indigenous status of the person.

CSI'S INDICATOR ASSESSMENT CRITERIA

To support practitioners reviewing the enormous range of possible indicators and measures, we outline ten criteria, based on our systematic review and experience, for the effective assessment of indicators. The criteria are grouped into two categories, technical and contextual.

Technical criteria focus on the evidence to support the quality of an indicator, for example an indicator's reliability, as demonstrated through external evidence or documentation.

The contextual criteria take into consideration the current situation or environment of the assessor or user of an indicator, for instance an indicator's feasibility requires understanding the resources or skills necessary to collect the indicator.

The criteria include:

Technical

- Specific: the level of clarity and detail in what the indicator is trying to measure, its key terms and variables
- Validated: the evidence to support that the indicator measures what it intends to measure. For example, whether
 the indicator has been tested in a controlled study or validated through consensus amongst practitioners and/or
 experts
- Reliable: the degree to which an indicator produces consistent results
- **Comparable:** the degree to which the indicator is comparable across spatial areas, groups and against existing benchmarks or target levels

Contextual

- **Important:** the extent to which the indicator is important and relevant to the stakeholders and audiences that may use it
- **Accessible:** the extent to which the indicator is accessible to its audience and stakeholders, for example, whether it is simple to understand and interpret
- Acceptable: the extent to which the indicator is acceptable to those who will respond to it
- Appropriate: the extent to which the indicator is appropriate for the context or situation in which it will be applied
- Useable: the extent to which stakeholders and audiences can use and interpret the indicator
- **Feasible:** the extent to which it is feasible to use the indicator. This may cover the practicality of collecting the data (cost/time/expertise) or the availability of existing data

TECHNICAL CRITERIA

The technical criteria assess underlying evidence that supports an indicator with the aim to identify those of highest quality. High quality indicators and measures can help increase users' confidence in the data and understanding of the underlying outcome; minimise errors; and reduce variation between what is measured and what is occurring [9]. We outline four technical criteria: specific, validated, reliable, and comparable.

Specific

The specific criterion assesses the level of detail available on what the indicator is intending to measure. This could include a description, a list of data elements or variables, specifications on how the data elements are to be collected, the population on which the measure is constructed, the timing of the data collection and reporting, the analytical models used and the format of the results [9].

Also important is information to identify the indicators' conceptual fit with the underlying condition, that is, if it is direct, partial or indirect. Although not all indicators need to or can be direct measures, it is important to understand the level of directness and if it would be appropriate or "reasonable" to use a partial or indirect indicator [3].

Factors to consider when assessing specificity:

- Is it clear what the indicator is intending to measure?
- Is it well defined? This could include key terms, definitions and standard formats [7], data collection points, sample information or other relevant information.
- Is the indicator a direct, partial or indirect measure of the condition or outcome?

Validated

The validity criterion assesses the type and level of evidence that demonstrates and supports whether an indicator actually measures what it intends to measure [2, 9-11]. Validity is crucial as it provides information for the assessor to make an informed decision on whether the indicator accurately measures the underlying condition and in what contexts. Validity is often hard to demonstrate due to the time and/or expertise required to review the supporting evidence or the availability of that evidence [7].

Assessing an indicator's validity can be done through identifying and reviewing the available scientific evidence or rationale for its use [12]. This may include identifying evidence that demonstrates an indicator's content or underlying theory [12–14]; the implied causal relationships between the indicator and condition [12, 15]; assessment accuracy [12, 16]; and the indicator's sensitivity to changes in the underlying condition [2, 3, 6, 10, 12, 16]. It is also important to consider and assess the type and strength of the supporting evidence[12].

Where evidence is lacking, assessing if there is consensus amongst experts or practitioners to use the indicator in particular situations may be appropriate [2b, 3]. Again, there are different levels of consensus ranging from expert panels to general stakeholder engagement or it may be enough to demonstrate that the indicator is collected or reported by an appropriate researcher or institution (e.g. the Australian Bureau of Statistics) as evidence to support the validity of an indicator.

Factors to consider when assessing validity:

- Is it feasible to review the underlying evidence when assessing each indicator?
- Is there evidence to support that the indicator is conceptually valid? Sources may include theory, review by an expert panel or pilot testing [9]
- Is it a direct, partial or indirect measure? If it is a partial or indirect measure, is it "reasonable to expect that the indicator would be representative of the overarching theme or element"? [3]
- Where scientific evidence or literature is not available, is there consensus on the indicator's appropriateness or use to measure the underlying condition? [2b, 3]

Reliable

The reliability criterion assesses the degree to which indicators are consistent in measuring what they intend to measure i.e. produce the same results on repeated trials [2, 7, 15, 17]. For example, if a tape measure is used to determine length in centimetres and is reliable, we would expect that a centimetre in any given context would be equal.

There are different types of reliability assessment including: test-retest (assesses whether the same results are produced under the same conditions); inter-rater or intra-rater (assesses whether consistent results are achieved when conducted by the same person, or by different people respectively); and internal consistency (assesses whether different measures of the same condition produce similar results) [9]. Evidence of reliability may be found in supporting information or demonstrated through longitudinal data collection.

Given the nature of measurement, there are expected variations due to the influence of external factors (interventions), natural variability or human errors. It is therefore important to also understand and document if there are expected variations prior to an indicator's selection and use [13] so that we can minimise human error and control for natural variability when identifying an intervention or program is having an effect. For instance, labour force participation is influenced by seasonal variation which may affect interpretation and analysis.

Factors to consider when assessing reliability:

- Is there evidence to support the stability of measurements over time and at regular intervals [7, 9, 18]?
- Has the indicator been previously used as part of a time series or longitudinal study [3, 6, 18]?
- What are the possible errors of measurement or variability that may occur or apply to the indicator [13]?

Comparable

The comparability criterion assesses the evidence to support if an indicator can be aggregated across spatial areas (geography or regions); and compared across groups, or against existing benchmarks or target levels.

In this context, aggregation is the ability to bring similar or consistent information together (or the inverse to separate information). Aggregation is important when you want to bring data together to look at the big picture or to break information down to look at what is occurring across different regions or groups. We may be interested in an outcome for an overall population or for a subgroup within the population. In this case the ability to aggregate or disaggregate data is important, and indicators collected at a granular level (which can be summed together) rather than national data may be favoured.

It is also important to consider if the indicators are comparable to external benchmarks or target levels [10, 19]. This is often an important consideration of stakeholders' needs for data. For example, if performance measures or benchmarks are required, consistently used or popular indicators may be more appropriate. Considering the goals of the measurement and reporting to be undertaken is thus critical.

Factors to consider when assessing comparability:

- To what degree can the indicator be compared across areas or aggregated?
- Are consistent scales, weights or analysis required for comparison?
- Can the indicator be applied across all demographic groups or should cohorts not be compared?
- Does it provide fair comparisons between organisations or regions?

CONTEXTUAL CRITERIA

The contextual criteria take into account the situation, environment, circumstances and stakeholder needs. Assessors should consider these different factors in the selection process and weighting of the criteria.

Important

Importance assesses the extent to which an indicator matters to the stakeholders and audiences who will use it. If an indicator is not important to those who will use it, it is probably not valuable to collect and report. Due to the wide range of available indicators, assessing an indicator's importance to relevant stakeholders and audiences is critical to make a judgement on an indicator's value [3, 6, 7, 10, 17, 19, 20].

One approach for assessing importance is a stakeholder 'materiality' assessment, which involves identifying and mapping stakeholders and their needs and priorities around what they need to know and when.

Factors to consider when assessing importance:

- What is important may differ depending on the level or perspective of measurement. For example what is important to demonstrate at a macro or population level may not be important for an individual.
- Is the indicator linked to a key objective or goal (social, health, environmental or economic)? [6, 7]
- Is the indicator material or relevant to one or more stakeholder group?
- Is the indicator recommended for use in domestic and international reporting?
- Does the indicator represent a significant leverage point for achieving the goal? [7]
- Is the indicator aligned with the organisation's mission or objective?
- Does the indicator measure activity essential for day-to-day business operation? [21]

Accessible

The accessibility criterion relates to the degree to which audiences and stakeholders can understand, interpret and communicate the indicator[16]. Considerations may include stakeholder and audience needs and the purpose for which an indicator will be used. For example, if knowledge exchange and communication are key priorities then using a simple indicator may be better than using an indicator that needs expertise to be understood.

Factors to consider when assessing accessibility:

- Is the indicator simple to understand and interpret or does it require specific technical skills or competencies?[6, 7, 10, 18]
- Is broader engagement important? Consider who will use the indicator and for what purpose (communication, benchmarking or reporting) [7, 14, 16, 22].
- Is it clear what skills are required to analyse, interpret and report the indicator? [7, 16, 18]

Acceptable

The acceptable criterion assesses the extent to which an indicator is agreeable to those who will respond to it, for example, its cultural acceptability. When conducting measurement it is critical to adhere to ethical and responsible research practice. It is therefore crucial to consider if an indicator is acceptable and sensitive to those from whom the data will be collected or who will be impacted by the results of the data collection and analysis.

This is both a contextual and ethical consideration which might be more important for indicators that examine sensitive issues like physical and mental health, alcohol and other substance abuse, or vulnerable groups, such as children or Aboriginal and Torres Strait Islander peoples.

Factors to consider when assessing acceptability:

- Is the indicator acceptable to those who will respond to it? [19]
- Is the indicator suited for the target population, i.e. is it culturally sensitive, does it use appropriate language or structure, is there evidence to demonstrate that is has been tested for certain groups?
- Are there risks that the indicator may cause stress or harm to the respondent when the indicator is being collected or interpreted? If so, what measures can be put in place to reduce these risks?

Appropriate

The appropriate criterion assesses the extent to which the indicator is suited for the context or situation in which it will be applied. This is distinct from acceptability in that an indicator may be acceptable for those who will respond to it but the context may not be appropriate for the indicator to be applied. For example, when measuring the distance between planets, we could use kilometres but this would not be very appropriate to the context.

Factors to consider when assessing appropriateness:

- Is the indicator suitable and sensitive to the cohort under observation?
- Is there evidence to support its use in this context?
- To what extent do other indicators exist that may be more appropriate to the current context?

Useable

Useability relates to the ability for stakeholders to use the indicator in practice, for example, can the indicator be influenced through policy or decision making or is it for understanding the prevalence of a condition? Assessment of this criterion can include the level of skills or expertise required to make a judgement from the indicator [16]; or the completeness and accuracy of reporting. Usability is closely related to importance and to the technical criterion of validity as they provide evidence to demonstrate how an indicator may be used or reported.

Factors to consider when assessing useability:

- Can the indicator be used for decision making [19, 23]?
- Is the indicator relevant to policy and/or representative of one or several issues around which key policies are formulated [10, 20]?
- Can users or stakeholders make judgements from analysing or observing the indicator? Does it provide an early warning about, possibly irreversible, trends where possible [18]?
- · Are the appropriate methods for analysis and interpretation clearly defined and understood [16, 18]?
- Does the indicator allow for statistical analysis [14]?
- Is other relevant data required and available to enable appropriate analysis and interpretation, such as the date of collection, pre or post policy changes or confounding variables?
- Is there reasonable completeness and accuracy in the reporting of the indicator [16]?

Feasible

The feasibility of an indicator relates to the ability to operationalise (collect or acquire) it in the assessor's situation. For some indicators, good quality data may be publicly available. However, others may need to be purchased or collected, which requires skills, expertise, time and resources [10]. Where data are available it is important to consider at what level (individual, community, population) or at what time points the data are collected and reported as this will impact on the use and/or analysis of the indicator. For indicators that are not readily available, it is important to consider the capacity and resources available to collect the data.

Factors to consider when assessing feasibility:

- Are 'good quality' data available freely or at a reasonable cost [6]?
- Are the data publicly available updated regularly [24]? Delays in accessing the data can diminish the indicator's quality and useability
- Is it practical to collect the measures required for the indicator? Consider if methods for sampling and measuring the variables are technically feasible, appropriate and efficient [13].
- · Are baselines, comparisons or targets available?

A STEP-WISE APPROACH

There are many different ways to conduct an indicator review. They can range from a short targeted internal assessment, to an in-depth extensive consensus building approach with multiple review rounds [25]. Depending on your context and needs your approach may vary. Regardless of the approach the process takes time, resources, expertise, commitment and communication. To help you on your journey, we have identified six essential steps for a successful review:

STEP 2 DETERMINING THE REVIEW CRITERIA

STEP 3 SEARCHING FOR EXISTING INDICATORS

STEP 4 REVIEWING INDICATORS AGAINST CRITERIA

STEP 5 SELECTING INDICATORS

STEP 1 - PLANNING THE REVIEW

To begin with it is important to think about the review process as a whole and to plan the various elements before you start. This is essential for a successful review process. There are many different interrelated elements to consider, plan and manage. These include:

Scope

The main purpose of defining scope is to set clear boundaries around the review process by focusing on the purpose and goals of the review. What outcomes and indicators are the focuses of the review? Does the review need to be broad/narrow/deep/shallow? For example, considering different national and international indicators, indicators for different cohorts, life stages or vulnerabilities?

Having a clearly defined scope allows clear communication with the assessors and stakeholders who may rely on the outcomes of the review, and clarity on the expectations and results of the review.

Time

Estimating how much time is allocated to the review project can help refine and inform expectations around the quality of the review or the size of the review process. For example, with limited time it may be difficult to conduct a comprehensive review of all possible indicators.

Resources

Similar to time, estimating the amount of resources available to conduct the review can help refine and inform the expectations around the scope. This can also be used to identify where supports are needed or if existing reviews should be prioritised as a source to guide the search and review process.

Stakeholders

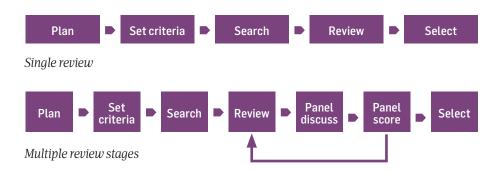
Involving your stakeholders is an important part of the process. However, who and to what extent they should be involved at different parts of the review process depends on their needs. Consider their information needs, how they will use or engage with the indicators and the level of interest and commitment to being involved in the process.

Review panel

An important part of the review process is assembling your assessment team. This includes identifying roles and responsibilities across the process. For example, who will conduct the search? Is expert knowledge required on the review panel? Do you need a range of stakeholder perspectives? When identifying and selecting your review panel it is important to communicate what will be involved, the commitment and level of engagement required.

Process

From our research and experience, there are many different ways to organise and manage the review process. Depending on your scope and resources this could range from a short internal review, to a process involving multiple review rounds and extensive stakeholder consultation. There is no incorrect approach; however different features may be more appropriate to meet your needs. Examples of review process are illustrated below.



STEP 2 – DETERMINING THE REVIEW CRITERIA

In order to undertake the review process, it is important to determine how you are going to apply the review criteria. This involves consulting with stakeholders to identify what criteria are important and in what order they should be applied. For example, if you are limited by time to collect the data the indicator's feasibility may be more important than its useability.

Our review identified that in general a holistic assessment of an indicator across each criterion is the most appropriate method for assessment, however, hierarchies of criteria may exist for "priority" areas [6].

McGlynn [7] suggests "If a measure is not important, its other characteristics are less meaningful. If a measure is not scientifically acceptable, its results may be at risk for improper interpretations. If a measure is not interpretable, we probably do not care if it is feasible. If a measure is not feasible, alternative approaches to acquiring important information should be considered."

We recommend reflecting on your context and engaging with your stakeholders to identify how you will apply or weigh the criteria [9]. This could include identifying "priority" criteria or other weightings, such as preferencing indicators for which existing data are available or requiring that indicators must be appropriate for a certain cohort. Understanding how your stakeholders (internally and externally) will use the indicators is important for establishing the appropriate criteria for assessment.

STEP 3 – SEARCHING FOR EXISTING INDICATORS

There are many different approaches to search for existing indicators. Depending on the scope and resources, this could involve a quick internet search to a comprehensive systematic review. We will not go into detail on how to conduct this review; however it is important to document what sources have been reviewed. Some examples of indicator resources include:

- Australian Bureau of Statistics' Measures of Australia's Progress
- · Australian Institute of Health and Welfare's Children's Headline Indicators
- Organisation for Economic Co-operation and Development's Compendium of OECD well-being indicators

Information to look out for when collating indicators include evidence on how the indicator was developed, the context or situations it is appropriate or tested for, information related to its appropriate use, and if population data exists, what population this is for and at what times the information will be reported. Information on around an indicators development may not always be available.

STEP 4 – REVIEWING INDICATORS AGAINST CRITERIA

The review process involves assessing identified indicators across the selection criteria. Depending on the scope of your review this could include debate and scoring by an expert review panel and involve multiple iterations across different criteria. To reduce risk of bias, it is important to be consistent with how the criteria are applied. Using consistent scales for scoring and capturing reviewer comments and feedback is one approach to do this. However, it is important to consider the time and resource implications when collating feedback from multiple reviewers across multiple indicators.

To support the review process we have prepared a simple toolkit for assessors (see Criteria scoring page on 19). This toolkit uses a score from 1 to 5 (1 the lowest rated and 5 the highest rated) across each criterion. Higher scores would indicate a higher ranked indicator.

It is important to document the review process to keep record of how decisions were made, who was consulted and what resources were used.

STEP 5 – SELECTING INDICATORS

Once the review process has concluded, the final indicators can be selected for use and communicated to your stakeholders. Communicating and engaging with your stakeholders regarding the final set of indicators is important to communicate how they will be used and reported and to identify any final concerns that they may have.

CONCLUSION

High quality indicators are important for evaluation and outcomes measurement. Having a well-documented and thorough approach to their selection is a step in the right direction to increase confidence in the information used for decision—making and policy development to support individuals, families and communities in our society.

This guide is designed to assist practitioners in various contexts to navigate their way through the often vast array of possible indicators available to them. In that way it provides direction rather than a fixed set of rules but is based on robust evidence from multiple disciplines and can be tailored to fit specific circumstances or needs.

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SELECTION CRITERIA SUMMARY - CONTEXTUAL

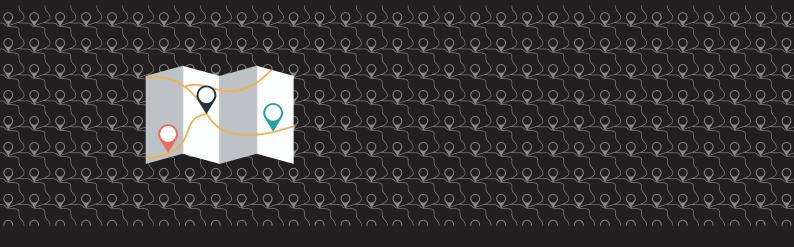
Criterion	Questions to consider							
Important	• Is the indicator linked to a key objective or goal (social, health, environmental or economic)? [6,7].							
The extent to which the indicator	Is the indicator material or relevant to one or more stakeholder group?							
is important and relevant to the	- Is the indicator recommended for use in domestic and international reporting?							
stakeholders and audiences that may use it	• Does the indicator represent a significant leverage point for achieving the goal? [7]							
,	Is the indicator aligned with the organisation's mission or objective?							
	Does the indicator measure activity essential for day-to-day business operation? [21]							
Accessible	Is the indicator simple to understand and interpret or does it require specific technical skills or competencies?[6,7,10,18]							
The extent to which the indicator is accessible to its audience and stakeholders; for example,	- Is broader engagement important? Consider who will use the indicator and for what purpose (communication, benchmarking or reporting.) $[7,14,16,22]$							
whether it is simple to understand and interpret	• Is it clear what skills are required to analyse, interpret and report the indicator? [7, 16, 18]							
Acceptable	Is the indicator acceptable to those who will respond to it? [19]							
The extent to which the indicator is acceptable to those who will	• Is the indicator suited for the target population i.e. is it culturally sensitive; does it use appropriate language or structure; is there evidence to demonstrate that is has been tested for certain groups?							
respond to it	• Are there risks that the indicator may cause stress or harm to the respondent when the indicator is being administered? If so, what measures can be put in place to reduce these risks?							
Appropriate	Is the indicator suitable and sensitive to the cohort under observation?							
The extent to which the indicator	Is there evidence to support its use in this context?							
is appropriate for the context or situation in which it will be applied	• To what extent do other indicators exist that may be more appropriate to the current context?							
Usable	Can the indicator be used for decision making or policy [19, 23]?							
The ability for stakeholders and audiences to use and interpret the	• Is the indicator relevant to policy and/or representative of one or several issues around which key policies are formulated [10, 20]?							
indicator	Can users or stakeholders make judgements from analysing or observing the indicator? Does it provide an early warning about, possibly irreversible, trends where possible [18]?							
	• Are the appropriate methods for analysis and interpretation clearly defined and understood [16, 18]?							
	Does the indicator allow for statistical analysis [14]?							
	• Is other relevant data required and available to enable appropriate analysis and interpretation, such as the date of collection, pre or post policy changes or confounding variables?							
	• Is there reasonable completeness and accuracy in the reporting of the indicator [16]?							
Feasible	Are 'good quality' data available freely or at a reasonable cost [6]?							
The extent to which it is feasible to use the indicator. This may cover	Are the data publicly available updated regularly [24]? Delays in accessing the data can diminish the indicator's quality and useability							
the practicality of collecting the data (cost/time/expertise) or the	Is it practical to collect the measures required for the indicator? Consider if methods for sampling and measuring the variables are technically feasible, appropriate and efficient [13].							
availability of existing data	Are baselines, comparisons or targets available?							

SELECTION CRITERIA SUMMARY - TECHNICAL

Criterion	Questions to consider
Specific The level of clarity and detail in what the indicator is trying to measure, its key terms and variables Validated The evidence to support that the indicator measures what it is intends to measure	 Is it clear what the indicator is intending to measure? Is it well defined? This could include key terms, definitions and standard formats [7], data collection points, sample information or other relevant information. Is the indicator a direct, partial or indirect measure of the condition or outcome? Is it feasible to review the underlying evidence when assessing each indicator? Is there evidence to support that the indicator is conceptually valid? Sources may include theory, review by an expert panel or pilot testing [9] Is it a direct, partial or indirect measure? If it is a partial or indirect measure, is it "reasonable to expect that the indicator would be representative of the overarching theme or element"? [3] Where scientific evidence or literature is not available, is there consensus on the indicator's appropriateness or use to measure the underlying condition? [2b, 3]
Reliable the degree to which an indicator produces consistent results over time	 Is there evidence to support the stability of measurements over time and at regular intervals [7, 9,18]? Has the indicator been previously used as part of a time series or longitudinal study – is it accepted practice [3, 6, 18]? What are the possible errors of measurement or variability that may occur or apply to the indicator [13]?
Comparable The degree to which the indicator is comparable across spatial areas, groups and against existing benchmarks or target levels	 To what degree can the indicator be compared across areas or aggregated? Are consistent scales, weights or analysis required for comparison? Can the indicator be applied across all demographic groups or should cohorts not be compared? Does it provide fair comparisons between organisations or regions?

CRITERIA SCORING PAGE

Outcome description	Со	ntex	xtua	ıl cr	iteri	a sc	ores (1 to 5)	Te	chni	cal	crite	ria scores(1 to 5)	
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