Evaluation of NHS and Social Care Outcomes
Frameworks for Monitoring Quality, Performance
and Accountability in Integrated Care Systems

outcomesbasedhealthcare



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#### Background

As the NHS moves towards delivering more integrated care, quality measurement needs to evolve to span multiple providers, to enable strategic commissioners to hold the whole system to account for the health of each person in a local geography.

Outcomes measurement naturally extends across an entire health and care system, and measures the whole system's success in keeping their population well, improving the things that really matter to them, and reducing illness. This makes the measurement of outcomes for a population a critical quality dimension to monitor quality, performance and accountability in Integrated Care Systems (ICSs).

However, as ICSs navigate the complexities of new models of care provision, delivery and contracting, many are turning to publicly available outcomes frameworks to evaluate the care in their geography. Many of these frameworks were not developed with this purpose in mind, and some indicators have significant limitations for monitoring quality, performance and accountability across integrated care.

This report describes the output of an in-depth evaluation to assess the technical integrity of indicators used across 5 publicly available health and social care outcomes frameworks:

- The NHS Outcomes Framework (52 indicators)
- The Incentives Framework for ACOs DRAFT (subsequently re-released in August 2018 as the Incentives Framework for ICPs - DRAFT) (41 indicators)
- The Quality and Outcomes Framework (77 indicators)
- The Adult Social Care Outcomes Framework (35 indicators)
- The CCG Improvement and Assessment Framework (69 indicators)

This evaluation was carried out by Outcomes Based Healthcare, in partnership with Centene UK, **between December 2017 and February 2018** to support Greater Nottingham's transition to an ICS, but is applicable to any ICS.

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Technical appendices are available on request

#### **Definitions**

**Accountability:** Accountability, in this report, refers to health and care organisations in a local area being held to account as a single integrated system for the improvement of health outcomes. This includes forms of outcomes-based commissioning, but also includes any collaborative and transparent focus on improving outcomes, whether or not the improvement in those outcomes is contractualised.

**Integrated Care System:** In the NHS, "Integrated care systems (ICSs) have evolved from STPs and take the lead in planning and commissioning care for their populations and providing system leadership. They bring together NHS providers and commissioners and local authorities to work in partnership in improving health and care in their area." <sup>1</sup>

**Outcome:** A positive outcome is a change for the better in a person's health. Outcomes are the "things that really matter to people", the end result of all health care interventions and experiences in combination. They are distinct from processes and outputs of care.<sup>2</sup>

**Outcomes-Based Commissioning:** Outcomes-based commissioning is a contractual solution for incentivising the collective achievement of a set of outcomes, regardless of the usual boundaries between provider roles, supporting care organised around the individual, rather than around the system.<sup>2</sup>

**Population Health Management:** NHS England definition - "Population Health Management is an approach aimed at improving the health of an entire population and population health management improves population health by data driven planning and delivery of care to achieve maximum impact for the population."<sup>3</sup>

#### The Frameworks

274 indicators were evaluated across the following five outcomes frameworks:

**The NHS Outcomes Framework (NHSOF):** The NHSOF is a framework of indicators used by the Secretary of State to monitor performance of NHS England at a national level.<sup>4</sup>

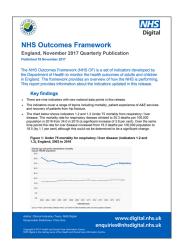
The Incentives Framework for ACOs (IF ACOs): "The incentives framework for ACOs is intended to provide a view of the overall performance of the ACO itself and the contribution that the ACO is making to the wider health economy." An updated version of the framework was renamed as the "Incentives Framework for ICPs" in August 2018. Only a small number of indicators changed between the two versions. The findings of the evaluation undertaken of the original version of the IF ACOs in early 2018 are therefore largely still applicable to the subsequently released version.

**The Quality and Outcomes Framework (QOF):** The QOF is a voluntary incentive scheme for primary care, introduced in 2004. It is the world's largest pay-for-performance scheme in primary health care,<sup>7</sup> and includes mainly process and output measures.

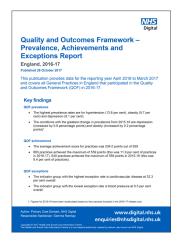
**The Adult Social Care Outcomes Framework (ASCOF):** The ASCOF is a framework of indicators designed to measure the achievement of outcomes by care and support services.<sup>4</sup>

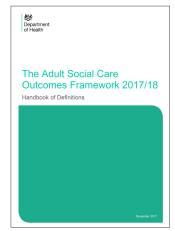
**The CCG Improvement and Assessment Framework (CCGIAF):** The CCG Improvement and Assessment Framework was developed to fulfil NHS England's statutory duty (under the Health and Social Care Act (2012)) to conduct an annual assessment of every CCG.<sup>8</sup>

Appendices provide more detail about the process used for selecting these five outcomes frameworks (Appendix A) and a more detailed description of each of these outcomes frameworks (Appendix B).











#### The Evaluation Approach

The aim of the evaluation was to understand the technical measure integrity and therefore viability behind each indicator. A number of sources of information published by the developers of the Outcomes Frameworks were used to understand precisely how each indicator is being measured (for example, the numerator, denominator, data sources, calculation). OBH drew from their clinical, analytics and NHS data experience to capture considerations such as data availability, accuracy and robustness over time (described below) for each indicator.

This information was used to assign a technical integrity level of high, medium or low as follows:

#### **High Technical Integrity**

Indicators that could be used in an accountability framework from a technical perspective as they stand. This is not always to say that the indicator is measuring something important, but that from a technical and data availability perspective, there are no major concerns about the indicator. There may still be considerations to be aware of, but these considerations should not limit usability.

Sometimes alternative measures may still be recommended, as even if of a high integrity level, it might be possible to improve on the indicator usability by employing local, linked, patient-level datasets, to obtain more up-to-date data, which can be further filtered by demographic characteristics.

#### **Medium Technical Integrity**

Indicators that could be used as part of an accountability framework, but there are issues related to the indicator, which may significantly impact interpretation.

#### **Low Technical Integrity**

Indicators with issues that make them unsuitable for use in an accountability framework. This is not to say that the indicator is not measuring something important, but that from a technical and data availability perspective, there are major concerns about the indicator.

## Evaluation Considerations Used to Assign Technical Measure Integrity

The considerations evaluated and described vary for each indicator and depend on the methodology and information available. Some of the main factors considered as part of this analysis are described below. These are the considerations that are most likely to drive the indicator integrity level.

#### **Data availability**

Review of timelines and dates of data published for each indicator, as well as the level the data was reported at (eg. national, regional, CCG). The following are examples of some of the considerations identified:

- Only a limited number of historical data points are published and available
- There is a long time lag between the data period and the publication date
- The publication has been delayed beyond the expected publication date
- Data are only available for two or three years combined, rather than single years
- Data are not available by CCG (e.g. only available by local authority or region)

#### Accuracy, reliability, and coverage

Review of the accuracy (in terms of whether the indicator is measuring what it was intended to measure, to a high level of precision), reliability (in terms of reproducibility of the indicator, or whether the indicator is subject to high random variation), and coverage (in terms of 'who' the indicator includes in the analysis). The following are examples of some of the considerations identified:

- Data used is based on self-reported survey data
- National surveys typically only survey a sample of the eligible population, therefore indicators based
  on national surveys only include a small subset of the population (e.g. see Table 1, which shows that
  less than 1.5% of the total English population participated in the 2018 GP Patient Survey)
- Clinical coding or data quality issues
- The indicator only includes a subset of the target population (e.g. only children in year 6, instead of all children)
- Low volume indicators, with a high margin of error at local level
- CCG data is only an estimate based on data originally collected at another geography or for another organisation

	England
ONS 2017 mid-year population (England)	55,619,400
Total survey forms distributed	2,221,068
Total completed forms received	758,165
Response rate (%)	34.14%
Proportion of the population to whom survey forms were distributed	3.99%
Proportion of population who participated	1.36%

Table 1: Proportion Of The Population In England Who Participated In The 2018 GP Patient Survey 9

#### Comparability over time

Review of indicator data sources and methodology over time to understand whether data can be compared between publication dates. The following are examples of some of the considerations:

- Any major changes to methodology over time
- Any major changes to clinical codes used in the indicator
- New indicators introduced recently or indicators retired recently

#### Type of indicator

Although not used in the evaluation of technical measure integrity, the type of indicator was also noted (i.e. whether it was an outcome, or a different type of quality metrics, such as an input, process or output measure). Outcomes are the end results of care, across the entire pathway, and the things that matter most to people receiving care. They also tend to be more stable over time, in terms of importance to the individual, than other types of quality metric.



# Data availability

- Limited historical data
- Long time lag
- Delayed publication
- Data only available for combined year periods
- Data not available by CCG



Accuracy/reliability/coverage

#### Self-reported survey data

- Small sample size of surveys
- Clinical coding or data quality issues
- Subset of the target population
- Low volume indicators
- Estimate derived from another data point



- Changes to methodology
- Changes to clinical codes
- New indicators introduced recently or indicators retired recently

Figure 1: Summary Of Main Criteria Used For Indicator Evaluation

## General Limitations that Apply to All Publicly Available Frameworks

Publicly available frameworks can be used for a range of purposes. These include monitoring quality at a national or regional level, and benchmarking providers against one another, to highlight variation in care provision, and examples of the best care. They provide transparency for regulators as well as the public, holding individual providers to account for providing high quality care, and the wider system to account for avoiding 'postcode lotteries' around the country.

Although these publicly available frameworks can be helpful, where more tailored, up-to-date local solutions are not available, there are several important limitations to using aggregate data from national frameworks, for the purpose of ensuring accountability in an integrated care setting. These limitations apply to all of the five frameworks assessed here:

- Match with local commissioning requirements: the data published for each indicator has already been aggregated based on specific rules, which may not match with local commissioning requirements. For example, the indicator measuring 'potential years of life lost from causes considered amenable to healthcare', in the NHSOF (NHSOF 1a.i) is specific to people aged 20 and over. If the age range for local commissioning purposes is different (e.g. 18 and over), it is not possible to measures potential years of life lost for a different age band (without access to the underlying source data).
- **Frequency of reporting:** similarly, often only a single annual figure is available which limits the ability to monitor in-year progress. More frequent data updates (e.g. monthly) would be useful for providers and commissioners in an integrated care setting.
- Timeliness of data: indicator data from these sources is often reported with approximately a year (and sometimes a considerably longer) time lag. For example, QOF data is collected between April of one year until March the following year. Aggregated annual figures are released in October with a 7-month time lag. Data published by the National Diabetes Audit, as reported in the CCGIAF (CCGIAF 103a diabetes patients who have achieved the recommended treatment targets) often has a variable time lag, which can extend to several years, due to data acquisition/collection, processing and validating. Typically, publicly available datasets and indicators within national frameworks are subject to such significant delays, that their usefulness for the purpose of ensuring accountability in an integrated care setting is limited to benchmarking and data validation, rather than as potentially 'contractable' outcomes metrics/measures.
- Completeness of data: examples of data incompleteness include indicators in frameworks such as ASCOF, where surveys are used that are distributed to only a sample of the population (though could be statistically representative of the wider population), or where the data extraction only occurs for 3 months of any year, to produce an annual result.
- **Cohort identification:** for example, some indicators measure outcomes for people with mental health conditions, where only those people in contact with mental health services are included in the eligible population. These indicators wouldn't therefore necessarily include all people with a mental health diagnosis.
- Accuracy of published data: Publicly available datasets are typically based on a single-provider
  dataset, which does not provide a complete view of population health (e.g. due to issues such as
  undercoding, and single settings not capturing interactions across the whole care pathway). In
  addition, with the use of single provider-level and aggregated publicly available data for outcome
  measurement, numerator or denominator definitions for the same indicator may use different data
  sources, even for outcomes for a specific population segment.

#### Detailed Examples of Measure Integrity Assessments

### NHSOF 3.6.i Proportion of older people still at home 91 days after discharge from hospital into reablement / rehabilitation services

**Definition:** The proportion, expressed as a percentage, of older people aged 65 and over discharged from hospital to their own home or to a residential or nursing care home or extra care housing for rehabilitation, with a clear intention that they will move on/back to their own home (including a place in extra care housing or an adult placement scheme setting), who are at home or in extra care housing or an adult placement scheme setting 91 days after the date of their discharge from hospital.

#### Main considerations:

- This indicator only measures the outcomes of those people 65 and over who have been discharged to re-ablement/rehabilitation (estimated at 2.9% of total discharges in people 65 and over)
- Only discharges between 1st October and 31st December each year are accounted for in this
  measure
- Checks to see whether the patient is at home on day 91, are often carried out manually by care teams using systems or phone calls
- Published at local authority-level only (not CCG sometimes geographical boundaries for local authorities and CCGs are not identical)
- Published annually

**Conclusion:** Whilst this is an important outcome to measure (reflecting quality of hospital care, appropriateness of discharge, availability and effectiveness of care in the community post-discharge, as well as the integration between the two care settings), this version of the indicator is subject to important limitations. Although the measure only includes a small subset of the population segment for whom this outcome could also be relevant for (i.e. all older people with frailty who are discharged from hospital), the most important issues are that it is reliant upon manual data collection, which is likely to be of varying quality, and that data is only collected during a small period of each year, therefore providing no visibility on this outcome over 9 months of each year.

**Measure integrity:** This indicator was rated as a low integrity indicator, and would generally be unsuitable for use in an accountability framework as it stands.

#### IF ACOs H1.1 Health-related quality of life for people with LTCs

**Definition:** A measure of health-related quality of life for people who identify themselves as having one or more long-standing health conditions.



Low

Health-related quality of life refers to the extent to which people:

- Have problems walking about;
- Have problems performing self-care activities (washing or dressing themselves);
- Have problems performing their usual activities (work, study etc.);
- Have pain or discomfort;
- Feel anxious or depressed.

#### Main considerations:

- This indicator is based on self-reported data from the GP Patient Survey\*, and is dependent upon self-identification of long-term conditions
- The indicator is based on a sample, not the whole population segment. In the 2017 survey 2,157,769 questionnaires were sent out nationally, and 808,332 were returned completed between 3rd January and 31st March 2017. This represents a response rate of 37.5%.
- There were changes to the definition of long-term conditions over time (e.g. learning disability was removed from 2015/16 onwards)
- From 2016/17, instead of having two waves of data collection, in July-Sept and Jan-March, they
  have condensed this into a single period, from Jan-March. The sample size remains the same,
  but the change in data collection period could potentially have an impact on comparability with
  earlier years.

**Conclusion:** This indicator is subject to many of the limitations generally associated with measuring outcomes based on survey data, reliant upon self-reporting of long-term conditions and covering a relatively small sample size in some areas. In addition, there have been changes to the definition/survey methodology which may impact trend analysis.

**Measure integrity:** This indicator was rated as a medium integrity indicator, it could be included in an accountability framework, but the above factors may impact interpretation of the indicator, and awareness of these considerations is therefore required.

\*Note: Since the evaluation, the set of EQ5D questions (used to measure health-related quality of life) was removed from the GP Patient Survey, so this indicator will be reliant upon an alternative data source going forwards. It is currently not known whether there will be any further reporting of this indicator at a local level.

#### CCGIAF 104a – Injuries from falls in people aged 65 and over

**Definition:** Age-sex standardised rate of emergency hospital admissions for injuries due to falls in persons aged 65+ per 100,000 population.



#### Main considerations:

- Published at CCG-level
- Published quarterly (for rolling 12 month periods), however [at the time of analysis] data points were only available from 2015/16 Q4 to 2017/18 Q4
- Only counts falls that have been coded in the cause field and injuries in primary diagnosis field
  in Secondary Uses Services (SUS) data. However, falls and injuries can be coded in secondary
  diagnosis fields, and therefore can result in an underestimation for this indicator.
- SUS inpatient data are generally considered to be complete and robust. However, this indicator relies on the quality of external cause coding and differences in admission thresholds. PHOF notes for the same measure state that there may be variation in the way hospital admissions are coded. There may be variation in data recording completeness. Injury information could potentially be missing in the admission episode record but added instead to a subsequent episode record. In addition, some transfers which are also coded as episode order 1 (episode 1) and emergency could lead to double counting.

**Conclusion:** Despite the potential for slight under-identification of falls in this indicator, and currently limited available historical data, data points are updated frequently, and the indicator will capture the majority of falls that lead to injury that occur.

**Measure integrity:** This indicator could be used in an accountability framework from a technical perspective as it stands. There are some considerations that should be taken into account, but this should not impact usability of the indicator for accountability purposes at a local level.

#### **Evaluation Findings**

Overall, of the 274 indicators technically assessed for the purpose of accountability in ICSs, OBH evaluated 18% as having high measure integrity i.e. could reliably be used from a technical perspective in an ICS accountability and performance. A further 45% were evaluated as having medium measure integrity and 21% as having low measure integrity, which would not be advised to use in an accountability framework. 16% of indicators were not graded as they were either not in active use, or a methodology could not be found. For example, indicators that had been retired, or were under development, and not yet fully defined. This is shown in Figure 2.

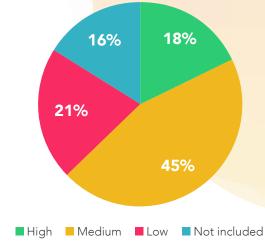


Figure 2: Level Of Integrity Of Indicators Across The Five Frameworks

When reviewing the types of indicators available across the outcomes frameworks, overall, **only** 

**around 30% of the indicators assessed were outcome measures**. The majority of the remainder were input, process and output measures. Inputs, processes and outputs of care in these frameworks are already measured extensively by individual care settings. **There is a clear gap in the measurement of the end results of care, across the entire pathway** – the things that matter most to people receiving care, and that would be most relevant for monitoring quality, performance and accountability of integrated care.

A more in-depth, but not exhaustive, analysis of each outcomes framework is described below, describing key distinguishing features:

#### The NHS Outcomes Framework (NHSOF)

- The NHSOF is intended to measure performance of the NHS as a whole. It therefore includes indicators at various geographic levels, with many only at national or regional level. There are no indicators which publish data at CCG-level. The lowest level of geography is local authority.
- The framework includes some indicators based on survey data. These are subject to certain limitations, such as self-reported information, and data collection from only a sample of the eligible population.

#### The Incentives Framework for ACOs (IF ACOs)

- First published in August 2017, there are no technical specifications available at time of writing. The documentation only specifies what the source will be for each indicator.
- The framework includes a wide range of types of indicator, from survey measures, to measures using administrative data sources from secondary care, to local measures, to CQUINS.
- Many measures are in fact composite indicators, made up of many sub-indicators. Without technical specifications, it is not clear how these indicators should be combined/weighted to provide a single indicator value.
- Data are currently not published through the framework, although the documentation states that a
  dashboard is in development. Where possible, data therefore currently has to be obtained from the
  original data source.

#### The Quality and Outcomes Framework (QOF)

- Measures in the QOF are well established, with detailed accompanying business rules and coding algorithms.
- As an established incentives scheme, data quality and collection is likely to be high. However, for QOF, the maximum time lag between initial data input and final publication is over one year.
- Contrary to its name, this framework is mainly made up of process and output measures, rather than
- Payment awarded to each practice is calculated based on the score achieved for each indicator.

These scores usually depend on whether a threshold for the proportion of people receiving a particular process or achieving a particular output has been met. When used locally by ICSs, OBH would recommend that actual values are used (e.g. blood pressure values, HbA1c values), where possible, rather than the proportion meeting the threshold, or the associated points achieved.

#### The Adult Social Care Outcomes Framework (ASCOF)

- A high proportion of the indicators in this framework are based on data derived from national surveys sent to patients. These are subject to certain limitations, such as self-reported information, and data collection from a sample of the eligible population.
- The data sources for many of the indicators in the ASCOF have changed over time, therefore limiting comparability over an extended period.
- The indicators are only published by local authority, rather than CCG.

#### The CCG Improvement and Assessment Framework (CCGIAF)

- The CCGIAF has only existed since 2016/17, and two iterations have been published, the 2016/17
  and the 2017/18 frameworks. There were many changes between these two frameworks, with some
  indicators retired, others added, and others subject to methodology changes. This has a big impact
  on comparability over time.
- Sometimes the information in the technical documentation does not include sufficient detail about the original data sources to make a full assessment of the indicator integrity.
- A limited number of data points are published for many indicators, often less than two years of data, therefore meaningful historical trend analysis can be difficult.

A summary of the proportion of high, medium and low measure integrity indicators for each Outcomes Framework is shown in Figure 3. This shows QOF having the highest proportion of high measure integrity indicators, whilst NHSOF has the highest proportion of low measure integrity indicators.

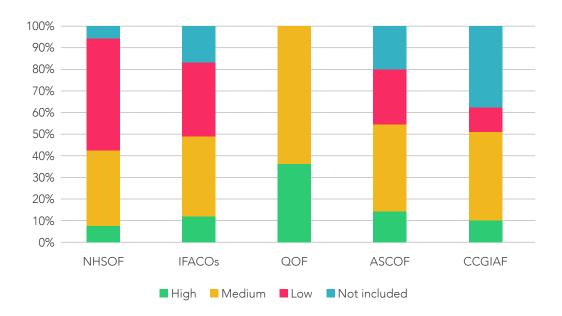


Figure 3: Level Of Integrity Of Indicators By Framework

## Evaluating the availability and use of outcome measures for specific population segments in the five publicly available outcomes frameworks

When measuring and monitoring outcomes at a local-level it is essential to measure outcomes for people who share similar health and care needs and circumstances (the same outcomes will not be important to everyone in the population). This is why OBH recommend that an outcomes framework to monitor quality, performance and accountability in integrated care should be organised around a segmented population, with broadly homogenous health needs, and should provide sufficient coverage of each population segment.

Given that existing national outcomes frameworks were not designed or developed around a personcentred population segmentation model, many indicators typically apply to the whole population, rather than specific to precisely one population segment.

#### **Application in Greater Nottingham**

Figure 4 shows the 6 population segments selected for use in Greater Nottingham, a local adaptation with Centene UK, of OBH's data-driven version of the Bridges to Health Model. 11,12

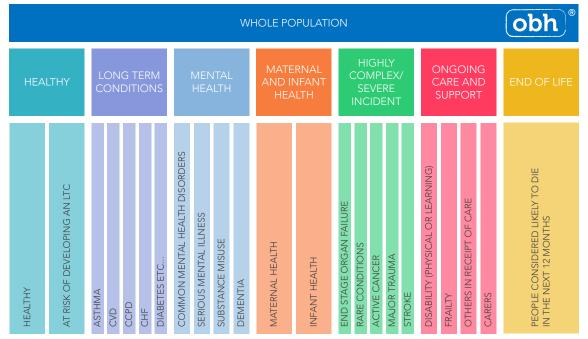


Figure 4: Greater Nottingham Population Segmentation Model 11,12

Each of the 218 indicators in the above five frameworks (excluding the 43 indicators that were not graded, and a further 13 indicators not relevant to a specific segment (e.g. financial outcomes, staff satisfaction)) were assigned to the most relevant of the 6 population segments ie. where an outcome for a specific population cohort was being measured. Where the indicator was relevant to the whole population, and not a specific population segment, they were labelled as such. A small number of indicators were relevant to more than one population segment.

Some indicators were included in multiple segments, for example, an indicator for people receiving social care support for a mental health condition would be included both in the 'Mental Health' segment, and the 'Ongoing Care and Support' segment. There were also duplicates of some indicators within a single segment where the same indicator was included in multiple frameworks. Retired indicators, and indicators that do not relate to a patient group (e.g. measures related to staff, leadership, structure, financial, and planning) were excluded from this analysis.

The results of this are shown in Figure 5 below:

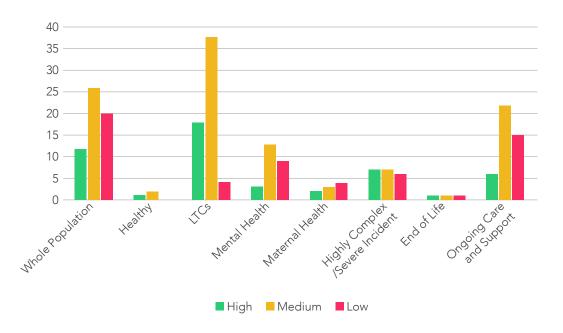


Figure 5: The Number Of Indicators At Each Integrity Level By Segment

This clearly highlights gaps in the measurement of outcomes for specific population segments when limited to using only indicators from publicly available frameworks.

Whilst there are many indicators for some population segments (for example in the Long Term Conditions segment), there are very few indicators for other segments (e.g. the Healthy segment and the End of Life segment). In addition, there are a relatively low proportion of high integrity indicators in some segments (e.g. the Mental Health segment and the Ongoing Care and Support segment).

Further detail about the availability of indicators for each segment across these five publicly available frameworks, along with the main limitations associated with indicators for each segment, is provided in Appendix D.

#### Conclusion and Recommendations

The key findings from the evaluation of measure integrity across five publicly available outcomes frameworks are described below:

#### 1 - Technical Measure Integrity

Overall, under 20% of all indicators evaluated were considered to be of a 'high integrity' level (i.e. technically appropriate for use in their current format in a local accountability and performance framework). Certain issues characterised some frameworks more than others (e.g. one framework included a high number of composite indicators, another framework included very little data at CCG-level).

#### 2 - Type/Category of Quality Measure

Overall, only around 30% of the indicators assessed were considered to be outcome measures. The majority of the remainder were activity, input, process and output measures. There is therefore a gap in the measurement of the end results of care, across the entire pathway, across integrated care, and the things that matter most to people receiving care.

#### 3 - Indicator Coverage for Specific Population Segments

Whilst there was a reasonably good coverage by indicators for the population as a whole, and for groups such as people with long term conditions, other areas were much less well covered (particularly for people who are currently healthy, maternal health, highly complex patients and those at the end of life).

In summary, all five frameworks contain some indicators that could be used in a local whole system accountability and performance framework. However, there are some important issues, considerations and gaps that impact how easily these indicators can be used. Most notably significant time lag to publication, frequency of reporting, and whether the indicators match and provide sufficient coverage of the population segments of interest.

The relative importance of the different considerations depends on the precise local use, and the precise local configuration of the outcomes-based accountability and performance framework. This is a challenging area, given the multiple perspectives required in developing robust segmentation and outcomes configurations. Caution is recommended with the use of any publicly available national indicators, to ensure that they are fit for the local purpose intended, with sufficiently frequent data releases, and a definition that matches local requirements. Furthermore, it is recommended that, even if national metrics are selected for local incentivisation, local versions of these are reported using local, linked datasets from multiple providers covering the CCG registered population, to improve timeliness, accuracy, and interrogation of the metrics. All outcomes measures developed by OBH are derived and calculated from local, linked, patient-level data often from multiple providers (and are therefore subject to the local availability of these datasets).

Integrated Care Systems are recommended to consider the following key recommendations when developing local accountability and performance frameworks:

- 1. A greater focus on outcomes over processes and outputs (which are already extensively measured using existing frameworks) will support shared accountability across complete care pathways, rather than 'siloed' care and measurement by provider. Well-constructed outcomes measures which span multiple providers will provide a much clearer view of how well Integrated Care Systems are progressing than individual provider metrics.
- 2. A well-defined and locally configured segmentation model ensures that outcomes measured reflect specific needs of homogeneous populations locally, and that the entire population is included. When developing an accountability and performance framework in the context of an Integrated Care System, a key consideration is to ensure that the outcomes selected reflect, are specific to, and provide adequate coverage of the distinct needs of people in each core population segment. Population segmentation enables a better understanding of the health and care needs and circumstances of the population, to more accurately plan, deliver and pay for services, whilst making the best of the resources available.
- 3. Local agreement on outcomes across the health and care system to ensure shared understanding and local ownership of outcomes. Outcomes should be selected, prioritised and configured carefully, involving all local Integrated Care System stakeholders, to avoid ambiguity and reduce the risk of false incentives. These should be measures for the end results of care, the things that matter to people across all of their care, and often measuring the effectiveness of integrated care.
- 4. **System data for measurement** using local linked datasets, across all providers, allows measurement of true outcomes for specific population segments in near-real time. Measuring outcomes using locally-linked datasets would resolve many of the technical issues identified with indicators in this evaluation exercise. Furthermore, it would greatly enhance the ability of Integrated Care Systems to understand impactable sub-cohorts, and support improvement of individual outcomes locally. This in turn would be reflected in comparative national measures.

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#### **About Outcomes Based Healthcare**

OBH are a health data analytics organisation, using the power of technology to support commissioners and providers in making a reality of value-based healthcare strategies, outcome measurement and outcomes-based contracts. OBH use integrated health and care data, across multiple care settings, to derive accurate and meaningful insights about local population outcomes, to support service transformation. Built around the GP registered list, OBH's approach supports localities pursuing accountable care approaches, whether at neighbourhood, locality, CCG, STP, or ICS level.

A team of clinicians, data analysts, developers, data scientists, economists, and public health specialists, who all share a deep commitment to supporting health and care organisations transform the way success in health and care is measured and funded, to those things that matter to people.

OBH have worked with an extensive range of commissioners and providers across the UK. Our relationships are long-lasting, collaborative, trusted, and supportive.

#### www.outcomesbasedhealthcare.com

#### **About Centene UK**

Centene UK is a health and care organisation with a specific focus on supporting and enabling integration. We establish long-term partnerships with the NHS and other public sector organisations to improve outcomes for patients and citizens through the delivery and coordination of care.

Centene UK is part of the Centene group of organisations including Ribera Salud and is able to draw on international experience in the application of integrated care in the UK.

www.centeneuk.co.uk