**NHS Digital**

**Indicator Supporting Documentation**

**IAP00351 Record of lung cancer stage at decision to treat**

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| IAP Code | IAP00351 |
| Title | Record of lung cancer stage at decision to treat |
| Published by | NHS Digital |
| Reporting period | Annual |
| Geographical Coverage | England |
| Reporting level(s) | CCG and National |
| Based on data from | National Cancer Registration dataset based on a snapshot of Public Health England’s Cancer Analysis System |
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| Rating | Fit for use |
| Assurance date | 13/09/2018 |
| Review date | 06/02/2019 |
| Indicator set | CCG Indicator Outcomes Set |
| Brief Description  | The percentage of cases of lung cancer for which a valid stage field is recorded, given by Clinical Commissioning Group. |
| Purpose | Stage at decision to treat is an indicator of how early the fact that a patient may have cancer was identified, a referral for diagnosis was made and the appropriate diagnostic tests were carried out. It is recognised that the earlier the stage at diagnosis, the greater the chance of successful treatment. The measure is, therefore, an indicator of:* •the extent to which patients are presenting themselves with possible lung cancer symptoms at an early point, and so reflecting the responsibilities of Clinical Commissioning Groups (CCGs) to improve the health of their local populations, such as by promoting understanding of the type of symptoms that should lead a patient to discuss the matter with their GP
* •the extent to which GPs are appropriately identifying patient symptoms that should be referred for diagnostic tests for lung cancer (links into CCG responsibilities for the quality of primary care)
* •the extent to which diagnostic tests are being carried out and their results assessed by an appropriate clinician (which links to CCG commissioning responsibilities for ensuring timely services of appropriate quality)
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| Definition | The percentage of cases of lung cancer for which a valid stage field is recorded, given by Clinical Commissioning Group. |
| Data Source | National Cancer Registration dataset based on a snapshot of Public Health England’s [Cancer Analysis System](http://www.ncr.nhs.uk/).This was previously the [National Cancer Intelligence Network (NCIN)](http://www.ncin.org.uk/home).Postcode to CCG mappings have been derived from the [National Statistics Postcode Lookup (NSPL)](https://data.gov.uk/dataset/national-statistics-postcode-lookup-uk). These are dated May 2015 and maintained by the Office for National Statistics (ONS). |
| Numerator | Of the denominator, the number of patient records where the stage field at the time of decision to treat is completed according to staging rules. |
| Denominator | The number of patients first seen in the respective Lung Cancer Audit year. |
| Calculation | This indicator is calculated by dividing the numerator by the denominator and multiplying by 100 to provide a percentage indicator value. 95% confidence intervals are calculated using the Wilson Score method. |
| Interpretation Guidelines |  |
| Caveats | Not all lung cancers can be staged at decision to treat or it may be undesirable to do so, as it may be detrimental to the patient’s health to carry out the necessary investigations.If people do not attend screening or consult a GP about unexpected pains or body changes, then when the cancer is eventually diagnosed it may be too late to safely determine the stage of the cancer. This could influence rates. |

Indicator Assurance Service

 **Methodology Review Group**

**Applications for consideration**

**7th October 2013**

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| **Document Author:** | *Chris Wilson* |
| **Document Owner:** | *Chris Wilson* |
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1. **Introduction**

Indicators to discuss:

Indicators proposed for inclusion in the 2014/15 CCG Outcome Indicator Set:

* Mortality from breast cancer
* Lung cancer stage at diagnosis
* Cancers diagnosed via emergency routes
* Cancer stage at diagnosis
* Cancers detected at stage 1 or 2

Revision to PROMs Methodology

Revision to NHS Outcomes Framework Domain 4 Methodology

**Indicator(s) For Consideration:**

**CCG Outcome Indicator Set 2014/15 – Cancer indicators**

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| **Introduction** |
| [Brief background on indicators being considered, especially if they form part of a programme of indicators. Provide any general information such as ; urgency of approval / broad timescales; history and direction of any indicator programmes involved e.g. General news about NHS Outcomes Framework; Level of IC’s involvement, e.g. is it commissioned to produce or surface the data ]The Clinical Commissioning Group Outcome Indicator Set (CCG OIS) is an integral part of NHS England’s systematic approach to quality improvement. It is intended to provide clear, comparative information for CCGs, patients and the public about the quality of health services commissioned by CCGs and the associated health outcomes. All of the CCG outcomes indicators have been chosen on the basis that they contribute to the overarching aims of the five domains in the NHS Outcomes Framework and it is intended as a tool for CCGs to drive local improvement and set priorities. Reference: CCG outcomes indicator set, NHS England: <http://www.england.nhs.uk/ccg-ois/>.NHS England has commissioned HSCIC to produce and disseminate the CCG OIS indicators; this is funded via the Grant In Aid funding to HSCIC. Collection of the data for the CCG OIS is via existing data collections. Testing and specification of the indicators is carried out by the Specification Development Service and construction of the indicators is provided by Clinical Indicators via the CI Platform. |

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| Indicator Details | Initial MRG Submission |
| IAS Ref Code: | IAP00344 |
| **Initial Indicator Title** | **Mortality from breast cancer** |
| Date of Initial Discussion | 20/09/13 |
| Rationale / usefulness Evidence and action ability of indicator [take this directly from the application if possible] | Cancer is a major cause of death, accounting for around a quarter of deaths in England. Cancer outcomes in England are poor compared to the best in Europe.Breast cancer is the most common cancer in women in England and also affects a very small number of men. New cases diagnosed in women each year have increased from under 30,000 in 1993 to more than 41,000 in 2010. During the same period, the number of deaths from breast cancer in women has fallen from 12,500 to just over 9,600.There is a trend of increasing incidence because of lifestyle factors and improved detection and decreasing mortality because of earlier detection and improvements in the quality and availability of effective treatments.This indicator is based on NICE Quality Standard 12, linked to Clinical Guidelines 80 and 81.CCGs could impact on breast cancer mortality in a number of ways. They could encourage women to attend breast screening when invited and commissioning appropriate treatment services, etc. However, it could be several years before any effect is noticed, particularly given the existing general downward trend in breast cancer mortality.The indicator has been recommended by NICE for inclusion in the 2014/15 CCG OIS. |
| Data source | ***Denominator:***National Health Application & Infrastructure Services (NHAIS, commonly known as the Exeter System) for the CCG populations.Also: ONS mid-year population estimates (for England ‘standard’ population).***Numerator:***Primary Care Mortality Database (PCMD) from HSCIC:<http://www.hscic.gov.uk/pcmdatabase>.The numerator is derived from data in the ONS mortality database, which does not contain the GP practice code required to report these data at CCG level. The PCMD contains the ONS mortality data with the addition of the GP practice code. |
| Construction | ***Summary description of the calculation:***Deaths registered in the calendar year, directly standardised by age group, females only, using ONS mid-year population estimates as a standard population and aggregated practice lists for CCG populations, given as a rate per 100,000 population. |
| Construction | ***Calculation type:*** Direct age standardisation |
| Construction | ***Denominator:*** CCG female population, by 5-year age group, from aggregated practice populations as at 1 January for the forthcoming calendar year***Numerator:*** The number of registered deaths from breast cancer during the respective calendar year by CCG and 5-year age group, females, all ages.Breast cancer is identified by ICD-10 code: C50. |
| Construction | ***Statistical Methods / Risk adjustment variables:***The directly age-standardised rate (DSR) is the rate of events that would occur in a standard population if that population were to experience the age-specific rates of the subject population. The age-specific rates of the subject population are applied to the age structure of the standard population.Formula to calculate age-specific rates of the subject population are applied to the age structure of the standard population.where:*Oi* is the observed number of events in the local or subject population in age group *i*;*ni* is the number of individuals in the local or subject denominator population in age group *i*, or the population × period at risk (e.g. 'person-years');*wi* is the number (or proportion) of individuals in the reference or standard population in age group *i*. |
| Construction | ***Other (Quality assurance/interpretation/known limitations):***ONS quality assure the mortality data: <http://www.ons.gov.uk/ons/guide-method/method-quality/quality/quality-information/quality-and-methodology-information-reports-by-theme/population/quality-and-methodology-information-for-mortality-statistics-in-england-and-wales.pdf>or here: <http://www.ons.gov.uk/ons/guide-method/user-guidance/health-and-life-events/mortality-metadata.pdf> (pages 35-39). There is no specific document to give details about the PCMD quality assurance process.For practice populations, validation is carried out upon submission to NHAIS. The Organisation Data Services (ODS, now part of HSCIC) exercise quality control over the data system.ONS quality assure the mid-year population estimates:<http://www.ons.gov.uk/ons/guide-method/method-quality/quality/quality-information/social-statistics/quality-and-methodology-information-for-mid-year-population-estimates.pdf> (pages 5-7).Numerous other breast cancer indicators are produced, including many looking at mortality. However, none are currently produced at CCG level.A low rate is desirable. A higher rate might indicate a cause for concern. |
| Potential IssuesHighlight any of the following that apply-data source(s) do not collect 100% of events-data source(s) organisation or geographic coverage shortfalls-codes or filters not matching the policy question-data source(s) definitions not meeting policy question-data source(s) quality problems or inconsistency of reporting-statistical methods not appropriate for test or audience-risk adjustment not considered-long term security of the data source(s)-timing of data availability for use in indicatorpresentation of data likely to mislead or give false confidence in findings | When producing mortality indicators, the usual convention is to use the date of death registration for the analysis of mortality data; therefore, the data can be considered to be complete, even though it does not necessarily include all deaths that occurred in the year. This ensures that the methodology is consistent over time. Mortality data are usually presented for calendar years.Overall, 98.2% of the ONS mortality records are successfully matched to a GP practice in the PCMD; a further 0.7% are allocated geographically. This matching is better for breast cancer deaths.For the 2011 breast cancer mortality data, less than 1% could not be allocated a GP practice code. Most of the remainder could be allocated to a CCG using the deceased’s home postcode. For breast cancer mortality data for 2009 to 2011, 28 deaths (around 0.1% of the total) could not be allocated to a CCG; these are excluded from this analysis. One further death was excluded from the sample data due to age at death being questionable.The registered population is derived from practice populations. All current practices in England are part of a CCG. It is acknowledged that the registered population may be an overestimate of the true population. The registered population is larger than the postcode-based resident population; it is 6.6% larger throughout England, based on 2010 population estimates. Potential causes of this include people not deregistering when moving abroad and people not being removed from the practice list when they die. However, people may live in one area but be registered with a practice (and CCG) in another area, so it is unlikely that the populations will match.While sample data has shown that producing this indicator is feasible (see below), if the general trend of reducing mortality due to breast cancer continues, small numbers could become a concern.There is a possible perverse incentive with this indicator, in that using registered population as the denominator may mean practices are not motivated to ensure their practice lists are accurate and up to date. The registered population is used as the denominator, so if this was artificially high it could have the effect of reducing the value of the indicator. |
| Peer Review Comments | * Title may need some elaboration in order to differentiate it from a number of existing indicators.
* Is registered population “obtained on 1 January for the forthcoming calendar year” the same as registered population “as at 1 January”?
* Further elaboration on the explanation given for why specific confidence interval methodology has been used could be given
* As there is understood to be an overall downward trend in breast cancer mortality, changes as the result of organisational actions may take several years to become apparent.
* The indicator provides a good, robust measure of overarching mortality rates from breast cancer. However, results are not presented by age group or other variables, making more in depth analysis difficult.
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| Supporting DocumentsProvide links to any additional documentation used to support discussion at MRG | NICE Quality Standard 12: Breast cancer – <http://guidance.nice.org.uk/QS12>NICE Clinical Guidelines 80: Breast cancer (early & locally advanced) – <http://www.nice.org.uk/guidance/index.jsp?action=byID&o=12132>NICE Clinical Guidelines 81: Breast cancer (advanced) – <http://www.nice.org.uk/guidance/index.jsp?action=byID&o=11778> |

Additional Information / Sample Data: Deaths Registered in 2011

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| **CCG Name** | **DSR per 100,000** | **LCI 95%** | **UCI 95%** | **Deaths** | **Female population** |
| **Lowest 10** |  |  |  |  |  |
| CCG 001 | 20.2 | 12.8 | 30.4 | 23 | 119,460 |
| CCG 002 | 21.3 | 11.3 | 36.5 | 13 | 64,614 |
| CCG 003 | 22.5 | 13.5 | 35.2 | 19 | 79,029 |
| CCG 004 | 23.5 | 14.1 | 36.7 | 19 | 92,854 |
| CCG 005 | 23.6 | 9.2 | 49.0 | 7 | 34,923 |
| CCG 006 | 23.8 | 14.9 | 36.1 | 22 | 84,826 |
| CCG 007 | 24.4 | 16.3 | 35.0 | 29 | 108,313 |
| CCG 008 | 24.7 | 15.0 | 38.3 | 20 | 96,509 |
| CCG 009 | 24.9 | 14.9 | 39.0 | 19 | 81,372 |
| CCG 010 | 25.3 | 17.2 | 35.9 | 31 | 102,580 |
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| **Highest 10** |  |  |  |  |  |
| CCG 202 | 45.6 | 34.9 | 58.6 | 61 | 120,534 |
| CCG 203 | 46.7 | 33.9 | 62.8 | 45 | 140,541 |
| CCG 204 | 47.1 | 33.3 | 64.6 | 38 | 73,508 |
| CCG 205 | 47.3 | 32.0 | 67.2 | 31 | 55,151 |
| CCG 206 | 47.7 | 32.4 | 67.8 | 31 | 91,640 |
| CCG 207 | 49.4 | 36.5 | 65.4 | 49 | 110,660 |
| CCG 208 | 49.5 | 37.6 | 64.0 | 59 | 99,549 |
| CCG 209 | 49.9 | 34.7 | 69.5 | 35 | 64,771 |
| CCG 210 | 54.9 | 37.7 | 77.2 | 33 | 56,350 |
| CCG 211 | 57.9 | 38.7 | 83.4 | 29 | 53,577 |
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| **Random selection** |  |  |  |  |  |
| CCG A | 36.1 | 26.3 | 48.3 | 45 | 124,885 |
| CCG B | 34.6 | 25.5 | 45.9 | 48 | 134,061 |
| CCG C | 34.8 | 21.5 | 53.3 | 21 | 56,245 |
| CCG D | 27.4 | 18.3 | 39.3 | 29 | 98,558 |
| CCG E | 34.8 | 27.3 | 43.7 | 74 | 220,561 |
| CCG F | 28.7 | 19.9 | 40.1 | 34 | 117,523 |
| CCG G | 32.0 | 26.1 | 38.7 | 104 | 363,426 |
| CCG H | 36.8 | 25.3 | 51.7 | 33 | 120,058 |
| CCG I | 34.5 | 22.1 | 51.4 | 24 | 83,197 |
| CCG J | 34.3 | 23.6 | 48.3 | 33 | 85,051 |

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| Indicator Details | Initial MRG Submission |
| Date of Initial Discussion | 20/09/13 |
| Rationale / usefulness Evidence and action ability of indicator [take this directly from the application if possible] | Lung cancer has one of the lowest survival outcomes of any cancer because over two-thirds of patients are diagnosed at a late stage when curative treatment is not possible. Earlier diagnosis and referral to specialist teams would make a significant difference to survival rates.This indicator is based on the NICE Quality Standard 17: Lung cancer for adults, issued March 2012 http://guidance.nice.org.uk/QS17.This indicator aims to be consistent with the NICE Clinical Guideline 121: The diagnosis and treatment of lung cancer, issued April 2011 http://publications.nice.org.uk/lung-cancer-cg121. The following statements are taken from CG121: 1.3.2 Patients with known or suspected lung cancer should be offered a contrast-enhanced chest CT scan to further the diagnosis and stage the disease. The scan should also include the liver and adrenals.1.3.12 Choose investigations that give the most information about diagnosis and staging with least risk to the patient. Think carefully before performing a test that gives only diagnostic pathology when information on staging is also needed to guide treatment. |
| Data source | The National Lung Cancer Audit. It is expected that the HSCIC National Lung Cancer Audit team will supply the calculated indicator. |
| Construction | ***Summary description of the calculation:***The percentage of cases of lung cancer for which a valid stage field is recorded, given by Clinical Commissioning Group. |
| Construction | ***Calculation type:*** Percentage |
| Construction | ***Denominator:*** The number of patients first seen in the respective Lung Cancer Audit year.The following Audit fields are used to define the denominator:DATE FIRST SEEN (year)SITE CODE OF PLACE FIRST SEEN (in England)***Numerator:*** Of the denominator, the number of patient records where the stage field at the time of decision to treat is completed (according to staging rules).The following Audit fields are used to construct the numerator:Variables used to determine the lung cancer type (used to decide appropriate staging system i.e. TNM or Site-Specific Small Cell Lung Cancer stage):HISTOLOGY (SNOMED)HISTOLOGY (SNOMED) (POST)PRIMARY DIAGNOSIS (ICD)Variables used to define TNM stage:TNM CATEGORY (FINAL PRE-TREATMENT)TNM CATEGORY (PATHOLOGICAL)Variables used to define Site-Specific Small Cell Lung Cancer stage:POST TREATMENT SITE SPECIFIC CLASSIFICATIONSITE-SPECIFIC STAGING CLASSIFICATIONTUMOUR LATERALITY |
| Construction | ***Statistical Methods / Risk adjustment variables:***It is not proposed to standardise or risk adjust this indicator. Confidence intervals will be calculated using the Wilson Score method, as specified in ‘Commonly used public health statistics and their confidence intervals’ (APHO, March 2008).The formulae for the 100(1 – α)% confidence interval limits for the proportion *p* are:$$p\_{lower}=\frac{2O+z^{2}-z\sqrt{\left.z^{2}+4Oq\right.}}{2\left(n+ z^{2}\right)}$$$$p\_{upper}=\frac{2O+z^{2}+z\sqrt{\left.z^{2}+4Oq\right.}}{2\left(n+ z^{2}\right)}$$where:*O* is the observed number of individuals in the sample/population having the specified characteristic (i.e. the numerator);*n* is the total number of individuals in the sample/population (i.e. the denominator);*q* = (1 – *p*) is the proportion without the specified characteristic;*z* is the 100(1 – α/2)th percentile value from the Standard Normal distribution. For example for a 95% confidence interval, α = 0.05, and *z* = 1.96 (i.e. the 97.5th percentilevalue from the Standard Normal distribution). |
| Construction | ***Other (Quality assurance/interpretation/known limitations):***A high percentage is desirable.The audit has collected data on 38,528 patients in Great Britain for the 2011 audit period, representing approximately 93 per cent of the expected number of new lung cancer cases. This is thought to represent almost all cases of lung cancer presenting to secondary care |
| Potential Issues | The NCLA team have advised us that the audit records stage at the time of decision to treat, rather than stage specifically at diagnosis. Given this information, it may be relevant to revise the indicator title to Lung Cancer: Stage at decision to treat. This information was received on the deadline for the MRG papers and so advice is being sought from the National Cancer Intelligence Network (NCIN). They will also be joining the MRG meeting by phone.  |
| Peer Review Comments | None received |
| Supporting DocumentsProvide links to any additional documentation used to support discussion at MRG | * National Lung Cancer Audit Report <http://www.hqip.org.uk/assets/NCAPOP-Library/NCAPOP-2012-13/Lung-Cancer-National-Audit-Report-pub-2012.pdf>
* National Lung Cancer Audit, HSCIC website <http://www.hscic.gov.uk/lung>
* NICE Quality Standard 17: Lung cancer for adults, issued March 2012 <http://guidance.nice.org.uk/QS17>.
* NICE Clinical Guideline 121: Lung cancer: The diagnosis and treatment of lung cancer <http://publications.nice.org.uk/lung-cancer-cg121>.
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Additional Information / Sample Data :

**ISB Compliance**

The National Lung Cancer Audit (the Lung Cancer Data project LUCADA) is approved by ISB ref ISB0064.

**Sample data**

This sample data is for the full-year 2011/12. 74% of CCGs are already achieving a stage completion rate of 85% or over.

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| **CCG** | **Denominator** | **Numerator** | **%** | **CI*lower*** | **CI*upper*** |
| CCG1 | 74 | 29 | 39.2% | 28.9% | 50.6% |
| CCG2 | 118 | 50 | 42.4% | 33.8% | 51.4% |
| CCG3 | 132 | 57 | 43.2% | 35.0% | 51.7% |
| CCG4 | 213 | 120 | 56.3% | 49.6% | 62.8% |
| CCG5 | 145 | 88 | 60.7% | 52.6% | 68.3% |
| CCG6 | 107 | 65 | 60.7% | 51.3% | 69.5% |
| CCG7 | 112 | 69 | 61.6% | 52.4% | 70.1% |
| CCG8 | 104 | 66 | 63.5% | 53.9% | 72.1% |
| CCG9 | 264 | 168 | 63.6% | 57.7% | 69.2% |
| CCG10 | 122 | 81 | 66.4% | 57.6% | 74.2% |
|  |  |  |  |  |  |
| **CCG** | **Denominator** | **Numerator** | **%** | **CI*lower*** | **CI*upper*** |
| CCG202 | 140 | 139 | 99.3% | 96.1% | 99.9% |
| CCG203 | 161 | 160 | 99.4% | 96.6% | 99.9% |
| CCG204 | 230 | 229 | 99.6% | 97.6% | 99.9% |
| CCG205 | 234 | 233 | 99.6% | 97.6% | 99.9% |
| CCG206 | 76 | 76 | 100.0% | 95.2% | 100.0% |
| CCG207 | 84 | 84 | 100.0% | 95.6% | 100.0% |
| CCG208 | 97 | 97 | 100.0% | 96.2% | 100.0% |
| CCG209 | 119 | 119 | 100.0% | 96.9% | 100.0% |
| CCG210 | 252 | 252 | 100.0% | 98.5% | 100.0% |
| CCG211 | 276 | 276 | 100.0% | 98.6% | 100.0% |

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| **Initial Indicator Title** | **Cancers diagnosed via emergency routes** |
| Indicator Set | CCG Outcomes Indicator Set |
| IAS Ref Code: | IAP00346 |
| Date of Initial Discussion: | 20/09/13 |
| Rationale / usefulness Evidence and action ability of indicator [take this directly from the application if possible] | Cancer is a major cause of death, accounting for around a quarter of deaths in England. Cancer outcomes in England are poor compared to the best in Europe.Research into the way in which patients are first diagnosed with cancer shows that about a quarter of cancer patients are diagnosed via emergency routes and that the survival rates for those diagnosed via emergency routes are considerably lower than for other cancer patients.The NCIN has produced the first study to look at how patients first enter secondary care on their way to being diagnosed with cancer. The methodology has been peer-reviewed in the British Journal of Cancer and the results include detailed comparison by type of cancer and results by equality groups. Also included is an analysis of incidence by broad route for breast, colorectal, lung and prostate cancer at PCT level.The study showed that those patients diagnosed following an initial emergency presentation to secondary care had worse outcomes across all cancer types. By identifying the proportion of patients who first present as an emergency, it’s possible to investigate why these patients present as emergencies and how some patients could present earlier through a different route. An increase in the proportion of patients who present through a more managed process will correspond with improved outcomes. An indicator on the proportion of cancers diagnosed via an emergency route is, therefore, a useful proxy for assessing improvements in early diagnosis.In January 2011 the Government published Improving Outcomes – a Strategy for Cancer. This document sets out how the Government plans to improve cancer outcomes, including improving survival rates through tackling late diagnosis of cancer.CCGs could impact on cancer diagnosis routes in a number of ways, including encouraging compliance with screening programmes among their patients and encouraging people to see their GP with potential symptoms of cancer when these first become noticeable, even if the symptoms do not represent an immediate major health issue. However, it could be several years before any effect is noticed and it may be difficult to isolate the effect of local interventions over national awareness programmes. |
| Data source | Data will be provided by the National Cancer Intelligence Network (NCIN) from the Cancer Analysis System (CAS). The CAS contains a fully signed off extract of cancer registrations supplied by the National Cancer Registration Service.Data from this source has not yet been tested due to the current migration of cancer registration data to a single system. It is not yet of a sufficient completeness for use as a baseline and it will continue to evolve during 2013. It is expected that the data will be available to develop the new methodology by October 2013; however, the development of automatically assigning a route to diagnosis to each registration will be completed in late 2014 |
| Construction  | ***Summary description of the calculation:***The percentage of invasive cases of cancer where the first presentation to secondary care on their route to being diagnosed with cancer is traced back to an emergency route. |
| Construction | ***Calculation type:*** Percentage |
| Construction | ***Denominator:*** The number of invasive cases of cancer, excluding non-melanoma skin cancer, diagnosed during the respective year.Note: non-melanoma skin cancer is a non-basal cell carcinoma which is regularly excluded from cancer indicators as its impact on health is much less than other cancers and there are comparatively large numbers of cases which could significantly impact any statistic that includes it.ICD-10 diagnosis codes are C00-C97, excluding C44.***Numerator:*** Of cases of cancer in the denominator, the number with a route to diagnosis of “Emergency Presentation”.A route to diagnosis can be calculated for each tumour using a variety of sources. The methodology for this has been published in the British Journal of Cancer. Tumours are assigned to the emergency presentation route where no screening data exist and data are available in the hospital episode statistics (HES) with a traceable pathway back through episodes to an episode with either:an inpatient admission with method of admission code:* + an emergency via accident and emergency (A&E) services, including the casualty department of the provider (21),
	+ GP (22),
	+ bed bureau, including the Central Bureau (23),
	+ other means, including patients who arrive via the A&E department of another healthcare provider (a transfer) (28),
* an outpatient source of referral with source of referral code:
	+ following an emergency admission (01),
	+ referral from an A&E department (04),
	+ following an A&E attendance (10).

The assignment of a route to diagnosis is based on combining datasets to assign the most likely route. The route is not captured in any one dataset. |
| Construction | ***Statistical Methods / Risk adjustment variables:***The data are not standardised.Confidence intervals are calculated using the Wilson Score method, as specified in “Commonly used public health statistics and their confidence intervals” (APHO, March 2008).The formulae for the 100(1 – α)% confidence interval limits for the proportion *p* are:$$p\_{lower}=\frac{2O+z^{2}-z\sqrt{\left.z^{2}+4Oq\right.}}{2\left(n+ z^{2}\right)}$$$$p\_{upper}=\frac{2O+z^{2}+z\sqrt{\left.z^{2}+4Oq\right.}}{2\left(n+ z^{2}\right)}$$where:*O* is the observed number of individuals in the sample/population having the specified characteristic (i.e., the numerator);*n* is the total number of individuals in the sample/population (i.e., the denominator);*q* = (1 – *p*) is the proportion without the specified characteristic;*z* is the 100(1 – α/2)th percentile value from the Standard Normal distribution. For example for a 95% confidence interval, α = 0.05, and *z* = 1.96 (i.e. the 97.5th percentilevalue from the Standard Normal distribution). |
| Construction | ***Other (Quality assurance/interpretation/known limitations):***England is widely recognised as having one of the most comprehensive cancer registration systems in the world. The methodology for assigning a route to diagnosis has been peer-reviewed in the British Journal of Cancer.A low rate is desirable. A high rate might indicate a cause for concern. Percentages can be compared over time for the same CCG but due to differences in case-mix, cannot be directly compared with other CCGs. |
| Potential Issues  | Data for this indicator will be extracted from the NCIN’s CAS. The CAS contains an extract of cancer registration data for analytical purposes once data have been signed off as complete by the cancer registries. Currently, the most recent year’s data available are for 2011. Data for 2013 will not be available until October or November 2014.The methodology for assigning the route to diagnosis as part of the registration system will be developed in early 2014 and may not be ready until late 2014, which means it will correspond with the availability of cancer registration data for 2013.The assignment of a CCG to a patient will be based on GP or practice code where possible and if not, then on the patient’s home postcode. Where the patient’s practice and postcode are both unavailable, the responsible CCG is the location of the hospital or trust. As the numerator is a subset of the denominator, the same method will be used for any particular patient. |
| Peer Review Comments | * Perhaps change title to ‘Percentage of cancers diagnosed via emergency routes’.
* Include definition of secondary care.
* ICD 10 codes included, along with the exclusion of C44 and that it covers all ages and genders need to be explicitly stated in the indicator definition.
* It isn’t explained how a patient comes to be registered on the NCIN CAS database. Is it at the point of initial cancer diagnosis from whichever location? How long does it take to appear on the NCIN system following diagnosis? The application mentions a link back to HES data for ascertaining whether a patient was an emergency admission or not, what of those patients in private hospitals? Do they appear in the NCIN data and if so, how is admission method determined? Does the HES data consider only emergency cases with a primary diagnosis of cancer or all diagnosis fields? Could a patient potentially have been suspected of having cancer and referred to a specialist and then have an emergency admission whilst awaiting an appointment for something else, be diagnosed whilst in hospital and then appear as an emergency cancer diagnosis?
* The indicator as it stands offers an overall figure to CCGs on performance. However, due to the typical later presentation of males into services, a breakdown by gender may be beneficial to highlight inequalities and allow CCGs the ability to more efficiently targets resources if required. Similarly, an age breakdown may be beneficial as children and older people are likely to be in contact with GPs. If particular age groups are more likely to present late than others, CCGs/Public Health departments can conduct targeted social marketing with these groups. Deprivation breakdown may also be beneficial when looking at health inequalities although small numbers may be an issue.
* Contextual indicators into the main types of cancer, particularly those covered by screening programmes would help CCGs assess where work may need to be targeted. The current definition of ICD 10 codes C00-C97 excluding C45 covers a wide range of cancers and whilst this is good for an overall indicator, there maybe specific issues with certain cancers/cancer services that CCGs wish to address.
* The completeness of the NCIN CAS system is not detailed, only that ‘England is widely recognised as having one of the most comprehensive cancer registration systems in the world.’
 |
| Supporting DocumentsProvide links to any additional documentation used to support discussion at MRG | Routes to Diagnosis – NCIN Data Briefing<http://www.ncin.org.uk/publications/data_briefings/routes_to_diagnosis>Improving Outcomes: a strategy for cancer <https://www.gov.uk/government/publications/the-national-cancer-strategy> |

Additional Information / Sample Data :

Example data have been supplied, indicating the possible layout of the produced indicator.

* **P1.9: Cancers diagnosed via emergency routes**
* The percentage of cases of cancer diagnosed during the respective year where the first presentation to secondary care is traced back to an emergency route
* **95% Confidence Interval calculated using Wilson Score method.**

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| --- | --- | --- | --- | --- | --- | --- |
| **CCG** | **Time period** | **Denominator** | **Numerator** | **Percentage** | **Lower CI** | **Upper CI** |
| CCG 1 | 2013 | 1666 | 265 | 15.9% | 14.2% | 17.7% |
| CCG 2 | 2013 | 1246 | 385 | 30.9% | 28.4% | 33.5% |
| CCG 3 | 2013 | 1665 | 806 | 48.4% | 46.0% | 50.8% |
| CCG 4 | 2013 | 1614 | 291 | 18.0% | 16.2% | 19.9% |
| CCG 5 | 2013 | 1190 | 568 | 47.7% | 44.9% | 50.5% |
| CCG 6 | 2013 | 1385 | 499 | 36.0% | 33.5% | 38.6% |
| CCG 7 | 2013 | 1772 | 565 | 31.9% | 29.8% | 34.1% |
| CCG 8 | 2013 | 1246 | 440 | 35.3% | 32.7% | 38.0% |
| CCG 9 | 2013 | 804 | 347 | 43.1% | 39.7% | 46.5% |
| CCG 10 | 2013 | 991 | 317 | 32.0% | 29.2% | 35.0% |

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| --- | --- |
| Rationale / usefulness Evidence and action ability of indicator [take this directly from the application if possible] | Cancer is a major cause of death, accounting for around a quarter of deaths in England. Currently, it is estimated that more than 40% children born today will develop cancer at some stage in their life. The stage of the tumour at diagnosis is a major determinant of patient outcomes from cancer. A high proportion of cancers with a valid stage recorded allow much deeper and more actionable analyses of outcomes by treatment type, patient pathway, and case-mix.Diagnosis at an early stage of the cancer's development leads to dramatically improved survival chances. Specific public health interventions, such as screening programmes and information/education campaigns aim to improve rates of early diagnosis. An indicator on the proportion of cancers diagnosed at an early stage is therefore a useful proxy for assessing improvements in cancer survival rates. This indicator on the overall proportion of cancers for which a stage is recorded will allow assessment of the completeness of staging data for these purposes.In January 2011 the Government published Improving Outcomes – a Strategy for Cancer. This document sets out how the Government plans to improve cancer outcomes, including improving survival rates through tackling late diagnosis of cancer.CCGs could impact on cancer stage recording by encouraging hospital trusts to record this information as soon as possible and to make sure it is passed on to the cancer registries. CCGs could stipulate this as part of the services they commission. |
| Data source | Data will be provided by the NCIN from the CAS. The CAS contains a fully signed off extract of cancer registrations supplied by the National Cancer Registration Service.Data from this source has not yet been tested due to the current migration of cancer registration data to a single system. It is not yet of a sufficient completeness for use as a baseline and it will continue to evolve during 2013. It is expected that the data will be available to develop the indicator by October 2013. |
| Construction  | ***Summary description of the calculation:***The percentage of all cases of cancer for which a valid stage is recorded, given by CCG. |
| Construction | ***Calculation type:*** Percentage |
|  | ***Denominator:*** The number of new invasive cases of cancer, excluding non-melanoma skin cancer, diagnosed during the respective year.Note: non-melanoma skin cancer is a non-basal cell carcinoma which is regularly excluded from cancer indicators as its impact on health is much less than other cancers and there are comparatively large numbers of cases which could significantly impact any statistic that includes it.ICD-10 diagnosis codes are C00-C97, excluding C44***Numerator:*** Of cases of cancer in the denominator, the number with a valid stage at diagnosis recorded, as defined by the former United Kingdom Association of Cancer Registries (UKACR) registration rules.The full list of UKACR registration rules is available in a separate document. |
| Construction | ***Statistical Methods / Risk adjustment variables:***The data are not standardised.Confidence intervals are calculated using the Wilson Score method, as specified in “Commonly used public health statistics and their confidence intervals” (APHO, March 2008).The formulae for the 100(1 – α)% confidence interval limits for the proportion *p* are:$$p\_{lower}=\frac{2O+z^{2}-z\sqrt{\left.z^{2}+4Oq\right.}}{2\left(n+ z^{2}\right)}$$$$p\_{upper}=\frac{2O+z^{2}+z\sqrt{\left.z^{2}+4Oq\right.}}{2\left(n+ z^{2}\right)}$$where:*O* is the observed number of individuals in the sample/population having the specified characteristic (i.e., the numerator);*n* is the total number of individuals in the sample/population (i.e., the denominator);*q* = (1 – *p*) is the proportion without the specified characteristic;*z* is the 100(1 – α/2)th percentile value from the Standard Normal distribution. For example, for a 95% confidence interval, α = 0.05, and *z* = 1.96 (i.e. the 97.5th percentilevalue from the Standard Normal distribution). |
| Construction | ***Other (Quality assurance/interpretation/known limitations):***England is widely recognised as having one of the most comprehensive cancer registration systems in the world.All data included will have been signed off by the cancer registries and so will have reached the standard required for them to be recognised as newly diagnosed tumours. These data feed the official national cancer statistics at the Office for National Statistics.The assignment of staging conforms to the rules agreed in conjunction with the former UKACR rules.A high rate is desirable. A low rate is a cause for concern.‘Validity’ of stage is assessed according to UKACR rules. As not all cancer types can be validly staged by any staging system, the UKACR adopts a threshold of 70% completeness for this indicator. |
| Potential Issues | Data for this indicator will be extracted from the NCIN’s CAS. The CAS contains an extract of cancer registration data for analytical purposes once data have been signed off as complete by the cancer registries. Currently, the most recent year’s data available are for 2011. Data for 2013 will not be available until October or November 2014.The assignment of a CCG to a patient will be based on GP or practice code where possible and if not, then on the patient’s home postcode. Where the patient’s practice and postcode are both unavailable, the responsible CCG is the location of the hospital or trust. As the numerator is a subset of the denominator, the same method will be used for any particular patient. |
| Peer Review Comments | Indicator title ‘Cancer stage at diagnosis’ could be changed. It actually measures the percentage of new cases per year with a valid stage recorded. ‘Percentage of new cancer cases with a valid stage recorded’ or similar perhaps?The paragraph about validity of stage is a little unclear. Is 70% a target?It isn’t explained how a patient comes to be registered on the NCIN CAS database. Is it at the point of initial cancer diagnosis from whichever location? How long does it take to appear on the NCIN system following diagnosis?It is noted on the application form that a 70% completeness rate is considered to be a valid completeness level for this indicator by the UKACR as not all cancers can be validly staged by any staging method. If not possible to remove those particular cancers, could a note be placed on the data to recognise that 100% may not be achievable through no fault of the CCG? |
| Supporting DocumentsProvide links to any additional documentation used to support discussion at MRG | Improving Outcomes: a strategy for cancer – <https://www.gov.uk/government/publications/the-national-cancer-strategy> |

Additional Information / Sample Data :

Example data have been supplied, indicating the possible layout of the produced indicator.

**P1.10: Cancer stage at diagnosis**

The percentage of all cases of cancer for which a valid stage is recorded, given by Clinical Commissioning Group (CCG).

**95% Confidence Interval calculated using Wilson Score method.**

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| --- | --- | --- | --- | --- | --- | --- |
| **CCG** | **Time period** | **Denominator** | **Numerator** | **Percentage** | **Lower CI** | **Upper CI** |
| CCG 1 | 2013 | 333 | 285 | 85.6% | 81.4% | 89.0% |
| CCG 2 | 2013 | 690 | 458 | 66.4% | 62.8% | 69.8% |
| CCG 3 | 2013 | 993 | 872 | 87.8% | 85.6% | 89.7% |
| CCG 4 | 2013 | 1025 | 878 | 85.7% | 83.4% | 87.7% |
| CCG 5 | 2013 | 562 | 399 | 71.0% | 67.1% | 74.6% |
| CCG 6 | 2013 | 244 | 236 | 96.7% | 93.7% | 98.3% |
| CCG 7 | 2013 | 1130 | 891 | 78.8% | 76.4% | 81.1% |
| CCG 8 | 2013 | 527 | 442 | 83.9% | 80.5% | 86.8% |
| CCG 9 | 2013 | 708 | 329 | 46.5% | 42.8% | 50.2% |
| CCG 10 | 2013 | 1116 | 769 | 68.9% | 66.1% | 71.6% |

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| **Initial Indicator Title** | **Cancers detected at stage 1 or 2** |
| IAS Ref Code: | IAP00350 |
| Indicator Set | CCG Outcomes Indicator Set |
| Date of Initial Discussion | 20/09/13 |
| Rationale / usefulness Evidence and action ability of indicator [take this directly from the application if possible] | Cancer is a major cause of death, accounting for around a quarter of deaths in England. Currently, it is estimated that more than 40% children born today will develop cancer at some stage in their life. The stage of the tumour at diagnosis is a major determinant of patient outcomes from cancer.Diagnosis at an early stage of the cancer's development leads to dramatically improved survival chances. Specific public health interventions, such as screening programmes and information/education campaigns aim to improve rates of early diagnosis. An indicator on the proportion of cancers diagnosed at an early stage is, therefore, a useful proxy for assessing improvements in cancer survival rates.In January 2011 the Government published Improving Outcomes – a Strategy for Cancer. This document sets out how the Government plans to improve cancer outcomes, including improving survival rates through tackling late diagnosis of cancer.CCGs could impact on cancer staging recording by encouraging hospital trusts to record this information as soon as possible and to make sure it is passed on to the cancer registries. CCGs could stipulate this as part of the services they commission. |
| Data source | Data will be provided by the NCIN from the CAS. The CAS contains a fully signed off extract of cancer registrations supplied by the National Cancer Registration Service.Data from this source has not yet been tested due to the current migration of cancer registration data to a single system. It is not yet of a sufficient completeness for use as a baseline and it will continue to evolve during 2013. It is expected that the data will be available to develop the indicator by October 2013. |
| Construction  | ***Summary description of the calculation:***The percentage of new cases of cancer which were diagnosed at stage 1 or 2 for the specific cancer sites, morphologies and behaviour: invasive malignancies of breast, prostate, colorectal, lung, bladder, kidney, ovary, uterus, non-Hodgkin lymphoma and invasive melanomas of skin, given by CCG. Stage will be determined by the National Cancer Registration Service based on the current staging system being used by clinicians for each site. |
| Construction | ***Calculation type:*** Percentage |
| Construction | ***Denominator:*** The number of new cases of cancer diagnosed during the respective year, at any stage or unknown stage, for the specific cancer sites, morphologies and behaviour: invasive malignancies of breast, prostate, colorectal, lung, bladder, kidney, ovary, uterus, non-Hodgkin lymphoma and invasive melanomas of skin.The full list of UKACR registration rules is available in a separate document.***Numerator:*** Of cases of cancer in the denominator, the number diagnosed at stage 1 or 2. |
| Construction | ***Statistical Methods / Risk adjustment variables:***The data are not standardised .Confidence intervals are calculated using the Wilson Score method, as specified in “Commonly used public health statistics and their confidence intervals” (APHO, March 2008).The formulae for the 100(1 – α)% confidence interval limits for the proportion *p* are:$$p\_{lower}=\frac{2O+z^{2}-z\sqrt{\left.z^{2}+4Oq\right.}}{2\left(n+ z^{2}\right)}$$$$p\_{upper}=\frac{2O+z^{2}+z\sqrt{\left.z^{2}+4Oq\right.}}{2\left(n+ z^{2}\right)}$$where:*O* is the observed number of individuals in the sample/population having the specified characteristic (i.e., the numerator);*n* is the total number of individuals in the sample/population (i.e., the denominator);*q* = (1 – *p*) is the proportion without the specified characteristic;*z* is the 100(1 – α/2)th percentile value from the Standard Normal distribution. For example for a 95% confidence interval, α = 0.05, and *z* = 1.96 (i.e. the 97.5th percentilevalue from the Standard Normal distribution). |
| Construction | ***Other (Quality assurance/interpretation/known limitations):***England is widely recognised as having one of the most comprehensive cancer registration systems in the world.All data included will have been signed off by the cancer registries and so will have reached the standard required for them to be recognised as newly diagnosed tumours. These data feed the official national cancer statistics at the Office for National Statistics.The assignment of staging conforms to the rules agreed in conjunction with the former UKACR rules.A high rate is desirable. A low rate is a cause for concern. |
| Potential Issues | Data for this indicator will be extracted from the NCIN’s CAS. The CAS contains an extract of cancer registration data for analytical purposes once data have been signed off as complete by the cancer registries. Currently, the most recent year’s data available are for 2011. Data for 2013 will not be available until October or November 2014.The assignment of a CCG to a patient will be based on GP or practice code where possible and if not, then on the patient’s home postcode. Where the patient’s practice and postcode are both unavailable, the responsible CCG is the location of the hospital or trust. As the numerator is a subset of the denominator, the same method will be used for any particular patient. |
| Peer Review Comments | No comments received |
| Supporting DocumentsProvide links to any additional documentation used to support discussion at MRG | Improving Outcomes: a strategy for cancer – <https://www.gov.uk/government/publications/the-national-cancer-strategy> |

Additional Information / Sample Data :

Example data have been supplied, indicating the possible layout of the produced indicator.

**P1.11: Cancers detected at stage 1 or 2**

Proportion of invasive malignancies of breast, prostate, colorectal, lung, bladder, kidney, ovary, uterus, non-Hodgkin lymphoma and invasive melanomas of skin with a stage recorded of 1 or 2

**95% Confidence Interval calculated using Wilson Score method.**

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| --- | --- | --- | --- | --- | --- | --- |
| **CCG** | **Time period** | **Denominator** | **Numerator** | **Percentage** | **Lower CI** | **Upper CI** |
| CCG 1 | 2013 | 621 | 132 | 21.3% | 18.3% | 24.7% |
| CCG 2 | 2013 | 772 | 107 | 13.9% | 11.6% | 16.5% |
| CCG 3 | 2013 | 931 | 429 | 46.1% | 42.9% | 49.3% |
| CCG 4 | 2013 | 644 | 79 | 12.2% | 9.9% | 15.0% |
| CCG 5 | 2013 | 586 | 81 | 13.8% | 11.2% | 16.8% |
| CCG 6 | 2013 | 1386 | 197 | 14.2% | 12.5% | 16.1% |
| CCG 7 | 2013 | 1178 | 523 | 44.4% | 41.6% | 47.3% |
| CCG 8 | 2013 | 1233 | 415 | 33.7% | 31.1% | 36.4% |
| CCG 9 | 2013 | 618 | 206 | 33.4% | 29.8% | 37.2% |
| CCG 10 | 2013 | 1102 | 368 | 33.4% | 30.7% | 36.2% |

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| **Patient Reported Outcome Measures (PROMs): Modification of way orthopaedic procedures is reported to give separate indicators for primary and revision surgery - applicable to i) hip replacements and ii.) knee replacements** |
| IAP00334 |
| [Brief background on indicators being considered, especially if they form part of a programme of indicators. Provide any general information such as ; urgency of approval / broad timescales; history and direction of any indicator programmes involved e.g. General news about NHS Outcomes Framework; Level of IC’s involvement, e.g. is it commissioned to produce or surface the data ]Under current arrangements, Patient Reported Outcome Measures (PROMs) indicators for orthopaedic procedures (hip and knee replacement) encompass both primary and revision surgery. A proposal has now been put forward to report them separately. Results will continue to be reported on the Oxford Score, EQ-5D index, EQ-5D Visual Analog Scale (VAS). * Oxford score is a condition specific measure of patient reported health. It runs on a scale from 0 to 48
* EQ-5D index is an general measure of self-reported health composed of 5 domains with three levels of self reported health in each. it runs on a scale of -0.594 to 1
* EQ-5D VAS is a measure of health (from 0 to 100) based on a single question "How good or bad is your health today, in your opinion"

Indicators are reported in raw and adjusted form for provider, CCG and National level. Indicators are calculated using National PROMs programme data. Adjusted health gain modifies data using casemix models (one for each indicator) developed by DH. The programme is across the whole of England and covers anyone having a hip or knee replacement aged 12 or over.It is intended that this primary/revision split will be reflected from the November 2013 PROMs publication and apply to data extracted from April 2012 onwards. Provisional data for 2012/2013 that have already been released will be split retrospectively.Part of the PROMs indicator has previously been assured by the Indicator Assurance Service (IAP00054, MRG 08/11/12, IGB 14/02/13). The aspects of the indicator which were assured are listed below:* Estimation: the model and selection of variables
* Generation of predicted scores
* The first step of the aggregation process – the methodology for calculating the relative performance factor (RPF) at patient level, organisation level and national level

It is agreed that previously assured aspects will not be revisited for this submission. Other aspects which were not assured will now be considered with this submission along with the proposed changes. These include the following:* Estimation: the model(s) and selection of variables
* Remaining steps of the aggregation process
* Interpretation
* Format of presentation
* Data sources
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| --- | --- |
| Date of Initial Discussion | 07/10/13 |
| Rationale / usefulness Evidence and action ability of indicator [take this directly from the application if possible] | The ’split‘ indicators will replace the existing combined PROMs indicators for hip and knee replacements. These are Oxford score, EQ-5D index and EQ-5D VASIt is contended that ’splitting‘ the indicators is desirable for both statistical and practical reasons.* Statistical testing suggests that, by splitting the data, case-mix adjustment models which offer a better fit are obtained. Therefore, it is possible to compare the true performance of providers more accurately.
* They perform better (lower RMSE) when tested out of sample for both primaries and revisions (1/3rd of data from 2009-2012 used in test sample).
* Feedback received by the applicant suggests many clinicians are reluctant to accept the findings of combined data - e.g. the average adjusted health gain of different providers. They believe performing a relatively high proportion of revisions skews the results and disadvantages providers that perform a relatively high proportion of revisions.
* Splitting the data in this way is likely to be more useful to patients and commissioners who are likely to be interested in a provider’s performance for a specific procedure.

Clinical advice received by the applicant is that the data be split because of the very different nature of primary and revision procedures. Revision procedures are often complex with often much lower potential for post-operative health gain because of the nature of the damage to the hip of knee joint. Revision procedures are also more heterogeneous in term of the indications and type of surgery required. This makes case-mix adjustment for these types of procedure more complicated.All relevant policies, strategies or programmes are as before.  |
| Data source | HES - Patient Reported Outcome Measures (PROMs) dataset |
| Construction  | ***Summary description of the calculation:***The key indicator is health gain. This is the difference between a patient’s health before, and 6 months after the operation. This is presented in raw and adjusted form. The adjustment is done using separate casemix adjustment models for each indicator. Details of how the adjustment models are formulated are given in the document below: <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216507/dh_133449.pdf>Details of how the data is aggregated is given below: <http://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2013/07/proms-agg-meth-adju.pdf>The primary/revision procedures is defined according to the clinical code definitions, combinations & sites and exclusions listed in the document below: (<http://www.hscic.gov.uk/media/1537/A-Guide-to-PROMs-Methodology/pdf/PROMS_Guide_v5.pdf>) Annex 1: Eligible operation codes included in the PROMs programme |
| Construction | ***Calculation type:*** averaged score (Adjusted and unadjusted health gain) |
| Construction | ***Denominator:*** eligible matched returned PROMS questionnaires All linked records of pre- and post-operative PROMs questionnaires and HES admitted patient care for which all of the following hold true:* patient has not withheld consent for their data to be used for statistical purposes;
* end date of the episode is within the period of coverage for a given analysis1;
* a matched post-operative questionnaire exists in the PROMs data warehouse;
* there exists a record of inpatient hospital activity in the HES APC database, being an elective admission episode for an NHS patient for which the episode record does not record the patient’s date of birth as being less than 12 years prior to the date of the start of the episode, and which is eligible for one or more PROMs procedures (as defined in Annex 1 of the PROMs Guide), and to which the questionnaire record has been successfully linked (in accordance with the matching algorithm specified in the PROMs Guide).
* Details of the proportion matched at each stage can be provided on request by email: indicators@nice.org.uk

For provisional 2011-12 data (published in July 2013), the overall response and linkage rates are summarise below: * the linkage rate of Q1s to HES is approximately 78%
* the linkage rate of Q2s to HES is approximately 84%
* The response rate of Q1s is approximately 75%
* The response rate of Q2s is approximately 74%
* Approximately 87% of the linked dataset is used to build the model for the EQ5D VAS and 89% for the EQ5D Index

Details of the actual number linked can be provided on request by email: indicators@nice.org.uk*Notes:*1. *For some PROMs analyses, an algorithmically-determined questionnaire completion date is used to assign a record to a period of coverage; however, for hospital-centric analyses, including analyses of aggregated casemix-adjusted scores, the date used is that of the HES episode end.*
2. *Some patients may have undergone more than one PROMs procedure in a single eligible episode; hence there will be more procedures than episodes: this is the case for 56 of the 247,688 procedures.*
3. *Q2s returned are, in this provisional dataset, approx. 4,000 lower than would be expected for the finalised full year dataset. Linked Q2s similarly lower.*
4. *Some questionnaires will have linked to HES records in a different data year (consider a questionnaire completed at a pre-operative clinic on 31 March in respect of surgery conducted on 10 May). Accordingly, the diagram is slightly simplified to present the conceptual relationships and is not – nor is intended to be – a true Euler diagram. (A fully accurate diagram would need to be something like a sphere of PROMs questionnaires intersected by multiple planes of HES data years).*

***Numerator:*** Adjusted and unadjusted health gain as measured by the Oxford score (separate patient questionnaires for hip and knee) EQ-5D and EQ-5D VAS. Health gain is post-operative score (6months after operation) minus pre-operative score***Data Source:*** PROMs questionnaire data, Hospital Episode Statistics (HES) episode-level information ***Format of presentation:*** Level of reporting is at provider, CCG and National levelMetrics reported on are: * number of modelled records
* average Q1 score
* average Q2 score
* Health Gain (Q2 average – Q1 average)
* the number of patients who reported score: Increase (Q2>Q1)
* the number of patients who reported score: Same (Q2=Q1)
* the number of patients who reported score: Decrease (Q2<Q1)
* adjusted average Q2 score
* adjusted average health gain
* standard deviation

Further details and screen captures can be provided on request by email: indicators@nice.org.uk. |
| Construction | ***Statistical Methods / Risk adjustment variables:*****Case-mix adjustment method**Case-mix adjustment models have been developed separately for primary and revision procedures. These include individual ones for each outcome measures used for hip and knee procedures - Oxford Score, EQ-5D, and EQ-5D VAS. The algorithms formulated from these models are used to adjust for the differing complexity of procedures faced by providers. This allows meaningful comparisons to be drawn between hospital and commissioner performance. The case-mix adjustment process has three stages: 1. Estimation of the impact of control variables
2. Generation of patient level predicted scores
3. Aggregation to organisation level and case-mix adjustment

The process by which we derive the models and generate the predicted scores (stages a. and b.) has not changed since the publication of the last case-mix methodology documents. Details of these stages can be found in that document <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216507/dh_133449.pdf>The aggregation method (stage c.) changed in July 2013. This is the method we use for these new hip and knee models. Details of the revised aggregation method can be found at:<http://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2013/07/proms-agg-meth-adju.pdf>Although the process of formulating the adjustment models remains the same, the variables in the resulting algorithms have changed. This is because when we consider primary and revisions procedures separately, different covariates are relevant for consideration. This in turn affects which variables have a statistically significant effect on health outcomes. Changes to the list of variables considered, and those that are statistically significant are discussed below.**Changes to existing models***Candidate variables*Firstly, we have excluded the variables that capture the type of prosthesis used in the hip or knee operation. These are within the control of the surgeon (For example, whether the surgeon chooses to use a cemented or un-cemented hip replacement) and are therefore not appropriate for inclusion in the adjustment model. Secondly, we have dropped the dummy variables capturing the number of patient reported comorbidities. These capture similar data to the HES reported co-morbidity variable but are less reliable. Given they are strongly correlated, including both leads to collinearity which reduces the effectiveness of the model. Thirdly, we’ve also dropped the patient reported previous surgery variable, obtained from the PROMs data set. This captures whether or not the patient has had previous surgery in the same location as their current procedure. Given that the data is being split into primary and revisions procedures this variable is redundant.Finally, we’ve added patients’ diagnosis codes. Studies indicate that the indication for treatment can have a significant effect on the outcomes from surgery. Full details of the new list of candidate variables are provide in the ‘Data’ section towards the end of this document.*Changes in the statistical significance of variables*Splitting the data and changing the list of variables that are considered for inclusion in the first stage of model development has an effect on the covariates that are statistically significant, and therefore included in the final model. Variables and coefficients for all 12 models are provided in the supporting documentation. |
| Construction | ***Other (Quality assurance/interpretation/known limitations):***Data Validation and Data Quality rules will be applied to all incoming data submitted by PROMS Framework Contractors. This will include the derivation of indicators to determine whether the outcome measure is complete and can be used to derive indicatorsPROMs DH has published A Methodology for Identifying Potential Outliers below:<https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216250/dh_133579.pdf> 1. Both the EQ-5D index and the condition-specific PROMs (where applicable) will be used to identify potential outliers.
2. We will use the case-mix adjusted average health gain as the primary metric of interest to identify potential outliers.
3. We will use the national mean as the benchmark to identify potential outliers.
4. We will use the funnel plot as the method to identify potential outliers.
5. We will adopt the convention of identifying ‘alarms’ using 99.8% control limits and ‘alerts’ using 95% control limits within the PROMs outlier policy.
6. We will apply symmetric control limits, however in cases where the volume is less than 150 some judgement must be applied if the provider is close to the funnel limit. We propose that the benefit of the doubt is given in favour of providers being ‘in control’ in these cases and that judgements should be applied as consistently as possible.
7. There are currently no grounds for adjusting PROMs data for over dispersion. However, the data should be tested for over-dispersion periodically. If over-dispersion is detected then it should be corrected for.
8. The publication of a list of potential outliers will be published as part of or alongside the quarterly PROMs publication. It would be the responsibility of the provider to take action to explore and improve their performance.
9. We recommend that:
* The IC’s participation and response rates table be used by providers to assess the quality of their data. Where rates are low, providers would be expected to take action to improve them,
* Providers consider if there are other factors which may explain their presented results, other than variation in performance,
* Where possible, comparative information be provided to help organisations identified as potential outliers for example, how they compare with other providers on pre-operative scores or on patient characteristics. This comparative information would be developed with input from providers.
 |
| Potential IssuesHighlight any of the following that apply-data source(s) do not collect 100% of events-data source(s) organisation or geographic coverage shortfalls-codes or filters not matching the policy question-data source(s) definitions not meeting policy question-data source(s) quality problems or inconsistency of reporting-statistical methods not appropriate for test or audience-risk adjustment not considered-long term security of the data source(s)-timing of data availability for use in indicatorpresentation of data likely to mislead or give false confidence in findings | * Because of the relatively small number of revision procedures that are performed, in many cases, data at provider and patient level will have to be supressed for reasons of confidentiality. In these instances, data will be aggregated to the lowest level at which it can be reported without compromising patient anonymity.

**Impact of new adjustment model on provider level scores*** To assess the differences between the new and existing models we analyse the composition of the 276 provider level scores for primary hip replacements in 2010-11. Figure 1 below plots providers’ average adjusted health gain scores calculated by the current method against the score calculated by the new proposed method. Obviously, if there were no change in score we would expect all providers to lie on the 45 degree line. The graph shows that the scores are very similar with the biggest difference in score being +/-2.47238 (on a scale of 0 to 48)

Graph showing average adjusted health gain scores by provider 2010-11**Impact on identification of outliers*** Changes to the methodology for calculating case-mix adjusted scores will also have an impact on those providers who are considered to be outside of the control limits. These are used to identify underperforming (and over-performing) organisations. Comparing the outlier status of providers, in funnel plots, under the two methodologies gives an indication of whether the two approaches are consistent. It also shows whether the new methodology would substantially change the status of any providers. Table 1 below shows the breakdown in outlier status under the two types of estimation as measured by the Oxford Hip Score.

Table 1: Breakdown of composition of provider scores under new and existing method. (2010-11 data)Table 1: Breakdown of composition of provider scores under new and existing method* Of the 276 providers, 74% would remain in the same category under both methodologies when looking at primary hip replacements in isolation.
* The 8 providers that moved out of the lower 99.8% outlier category had an average revision rate of 11% of all hip replacement operations. This is compared to an all provider average of 4.8%. This suggests that those that do a relatively high proportion of this type of operation are disadvantaged under the current case-mix adjustment process.
* At the other end of the spectrum, of the 7 providers that lie above the 99.8% upper control limit in the combined model, only 3 remain when the primary model is used to adjust the data.
* In general, when judging providers based on their adjusted health gain scores for only primary procedures (in 2010/11), there are fewer outliers. This is reflected in a slightly lower standard deviation of provider scores - 1.4 for the combined model, 1.3 for primary.
 |
| Supporting DocumentsProvide links to any additional documentation used to support discussion at MRG | The case-mix adjustment methodology:<https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/216507/dh_133449.pdf>[Patent Reported Outcome Measures (PROMs) – An alternative aggregation methodology for case-mix adjustment](http://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2013/07/proms-agg-meth-adju.pdf)<http://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2013/07/proms-agg-meth-adju.pdf>[A Guide to PROMs Methodology](http://www.hscic.gov.uk/media/1537/A-Guide-to-PROMs-Methodology/pdf/PROMS_Guide_v5.pdf) (HSCIC)<http://www.hscic.gov.uk/media/1537/A-Guide-to-PROMs-Methodology/pdf/PROMS_Guide_v5.pdf>Historic: [PROMs risk adjustment methodology guide for general surgery and orthopaedic procedures](http://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2013/07/proms-ris-adj-meth-sur-orth.pdf) (Contractor on behalf of DH)http://www.england.nhs.uk/statistics/wp-ontent/uploads/sites/2/2013/07/proms-ris-adj-meth-sur-orth.pdf |

Additional Information / Sample Data :

1. The tables below show the variables used in the first stage of the model estimation process and represent all the variables considered for inclusion in the final models for hip and knee replacements (both primary and revision). The variables are grouped by the source of the data. Variables and coefficients for all 12 models are provided in the supporting documentation.

**Patient Reported Outcome Measures (PROMs) Dataset (collected within the PROMs questionnaires)**

|  |
| --- |
| **Variable**  |
| Age  |
| Sex: Female  |
| Q1 score  |
| Q2 score  |
| Assisted at Q1  |
| Assisted at Q2  |
| Living arrangements: Live alone  |
| Disabled at Q1  |
| Patient Reported Condition: Heart Disease  |
| Patient Reported Condition: High blood pressure  |
| Patient Reported Condition: Poor circulation  |
| Patient Reported Condition: Lung disease  |
| Patient Reported Condition: Diabetes  |
| Patient Reported Condition: Kidney Disease  |
| Patient Reported Condition: Nervous system diseases  |
| Patient Reported Condition: Liver disease  |
| Patient Reported Condition: Cancer  |
| Patient Reported Condition: Depression  |
| Patient Reported Condition: Arthritis  |
| Symptom period >1 yr  |
| Symptom period (1-5 yrs)  |
| Symptom period (6-10 yrs)  |
| Symptom period (10+ yrs)  |

The estimation models used data from the 2009/10 and 2010/11 finalised datasets, as well as provisional data from 2011/12 provision. Further information about the PROMs data collection can be found on the HSCIC web site.

**Variables from the Hospital Episode Statistics (HES) dataset**

|  |
| --- |
| **Variable**  |
| Age  |
| Sex: Female  |
|  Ethnicity: Mixed  |
| Ethnicity: Asian  |
| Ethnicity: Black  |
| Ethnicity: Other  |
| Ethnicity: Not given  |
| Day case patient  |
| Patient has 1 HES Reported Comorbidity  |
| Patient has 2 HES Reported Comorbidity  |
| Patient has 3 HES Reported Comorbidity  |
| Self-discharged  |
| Diagnosis codes\* (Primary Diagnosis code relating to the reason for the hip or knee replacement procedure; e.g. Rheumatoid Arthritis, “M059”) |
| Index of multiple deprivation Model uses ‘score’ from the ‘overall’ 2010 versionhttps://www.gov.uk/government/publications/english-indices-of-deprivation-2010 |

**\*Diagnosis codes**

Dummies are created for the main reasons people are admitted for hip or knee replacements. If these significantly affect patents health gain they are included in the adjustment models. I.e. their function is very similar to that of the co-morbidity dummies in the model – if, ceterus paribus, someone with diabetes does not recover as well from a hip operation as well as someone without we need to control for this in the casemix adjustment model.

As with the PROMs data sets, the estimation models used data from 2009/10 and 2010/11 finalised datasets, as well as provisional data from 2011/12. Further information about the HES data collection can be found on the HSCIC web site.

**NHS Outcome Framework**

**Revision to Domain 4 Indicator Methodology**

|  |
| --- |
| NHS Outcomes Framework |
| **NHSOF Domain 4 Indicators - Ensuring that people have a positive experience of care** |
| IAP00352 |
| [Brief background on indicators being considered, especially if they form part of a programme of indicators. Provide any general information such as ; urgency of approval / broad timescales; history and direction of any indicator programmes involved e.g. General news about NHS Outcomes Framework; Level of IC’s involvement, egg is it commissioned to produce or surface the data ]Domain 4 of the NHS Outcome Framework reflects the importance of providing a positive experience of care for patients, service users and carers. It is now standard practice in healthcare systems worldwide to ask people to provide direct feedback on the quality of their experience, treatment and care. This information will be used alongside additional information sources to provide local clinicians and managers with intelligence on the quality of local services from the patients’ and service users’ point of view. This information will help drive improvements in the quality of service design and delivery.DH proposes to adopt amended definitions of all domain 4 indicators explicitly to measure “very poor care”.Values from the current indicators, which measure positive experience of care, would continue to be published alongside the new indicator as contextual information. The indicator values will be based on the same underlying data that is currently used to construct the indicators.It is proposed to replace the existing methodology for all live Domain 4 indicators: 4a.i,ii,iii – Patient experience of primary care4b. – Patient experience of hospital care4.1 – Patient experience of outpatient services4.2 – Responsiveness to inpatients’ personal needs4.3 – Patient experience of A&E services4.4.i and ii – Access to GP and NHS dental services4.5 – Women’s experience of maternity services4.6 – Bereaved carers’ views on the quality of care in the last 3 months of life4.7 – Patient experience of community mental health servicesPlaceholder and in-development indicators will be defined based on the principle of very poor care measurement.The rationale for shifting the emphasis of the indicators to focus on very poor outcomes is twofold:1. It is problematic for anybody to be receiving very poor care.
2. It is justifiable to focus on the worst outcomes because it is intuitively plausible that the social value of moving someone from very poor to a fair experience is greater than a move from fair to very good.

The evidence base for the inclusion of each indicator in the NHSOF is set out in the original relevant assurance application forms submitted when the indicators were first added to the Outcomes Framework, alongside clinical advice and supporting references. |

|  |  |
| --- | --- |
| Revision |  |
| Revision Date: | 20/09/13 |
| General Comments / Reasoning: | All surveys are run centrally and administered by the survey developers (i.e. Ipsos MORI, Picker Institute etc.) with appropriate sample selections to avoid the possibility of health care providers being able to ‘game’ the system.DH propose to adopt amended definitions of all domain 4 indicators explicitly to measure “very poor care”. Values from the current indicators, which measure positive experience of care, would continue to be published alongside the new indicator as contextual information. The indicator values will be based on the same underlying data that is currently used to construct the indicators. The calculation for each indicator is included in the supporting paper. The proposed change will amend the indicator values of all indicators in Domain 4.The rationale for the shift in focus, to measure very poor, rather than average outcomes is as follows:1. It is problematic for anybody to be receiving very poor care.
2. It is justifiable to focus on the worst outcomes because it is intuitively plausible that the social value of moving someone from very poor to a fair experience is greater than a move from fair to very good.

The current construction of the domain 4 indicators fails to adequately reflect very poor care to ensure that health care providers focus on improving the worst outcomes.The data is to be used in the NHS Outcomes Framework to ensure that the care being commissioned by NHS England and/or Clinical Commissioning Groups is not of a very poor standard. |
| Revisions: |  |
| Indicator Title | As previous4a.i,ii,iii – Patient experience of primary care4b. – Patient experience of hospital care4.1 – Patient experience of outpatient services4.2 – Responsiveness to inpatients’ personal needs4.3 – Patient experience of A&E services4.4.i and ii – Access to GP and NHS dental services4.5 – Women’s experience of maternity services4.6 – Bereaved carers’ views on the quality of care in the last 3 months of life4.7 – Patient experience of community mental health services |
| Data source | The source is unchanged from that used currently for each indicator* see supporting information below
 |
| Construction | For each indicator, the numerator definition is the number of survey question responses considered to represent very poor care, the definition for each question and indicator is given in the supporting information below, in the relevant indicator table, column headed "Responses considered to indicate very poor care"The proposed questions for each indicator were published in the NHSOF Technical Appendix 2013/14 and have been presented to OFTAG. The selected questions have not been challenged, nor alternatives proposed.* The indicators will be based on data for full years. The timescales will be unchanged from those for the existing indicators.
* There are no changes to risk adjustment variables relative to current, previously approved indicators.
* There is no change to the quality assurance process relative to that used for current, previously approved indicators.
 |
| Supporting Documents | - |

The applicant has provided the following information in support of the proposal:

**Adopting a methodology for measuring “very poor” care**

1. **Simple indicators**

* 1. **Indicators based on the GP Patient Survey:**

*4a Patient experience of primary care and 4.4 Access to GP and NHS dental services*

* Each indicator uses one question from the survey.
* For 4a and 4.4.i, the possible question responses range from very good to very poor. As such, there are no issues with defining very poor care for these indicators.
* Indicator 4.4.ii is based on whether an individual reported that they were able to get a dental appointment the last time they tried. The “No” response is taken to imply very poor care.

***Table 1: Definitions of very poor care for GPPS based indicators***

|  |  |  |  |
| --- | --- | --- | --- |
| *Indicator* | *Questions included in quantifying very poor care* | *Responses considered to indicate very poor care* | *Responses that indicate good care (current indicator)* |
| 4a.i | Overall, how would you describe your experience of your GP Surgery? | Very Poor | Very Good, Fairly Good |
| 4a.ii | Overall, how would you describe your experience of out-of-hours GP Services? | Very Poor | Very Good, Fairly Good |
| 4a.iii | Overall, how would you describe your experience of NHS Dental Services? | Very Poor | Very Good, Fairly Good |
| 4.4.i | Overall, how would you describe your experience of making an appointment? | Very Poor | Very Good, Fairly Good |
| 4.4.ii | Were you successful in getting an NHS dental appointment? | No | Yes (of those who tried in the last 2 years) |

**Primary care indicators:** Proportion of respondents reporting the “very poor” outcome, PCT level and England average. 2012

**Indicator 4b: Very poor experience scores, 2011, 2012, National level**

* 1. **Indicator based on the National VOICES survey:**

 *4.6* *Improving the experience of care for people at the end of their lives*

The measure for care of people at the end of their lives is based on one overarching question with responses ranging from “outstanding” to “poor”, including “don’t know”.

***Table 2: Definition of very poor care for indicator 4.6***

|  |  |  |  |
| --- | --- | --- | --- |
| *Indicator* | *Questions included in quantifying very poor care* | *Responses considered to indicate very poor care* | *Responses that indicate good care (current indicator)* |
| 4.6 | Overall, and taking all services into account, how would you rate his/her care in the last three months of life? | Poor | Outstanding, Excellent, Good |

1. **Composite indicators**

There are two considerations for measuring very poor care for the composite indicators: the choice of survey questions and how the questions are then combined to indicator level.

***Choice of relevant survey questions.*** Of all the questions used in the current constructs of the indicators, a subset have been chosen to represent “very poor” care based on the following rationale:

1. Very poor care is indicated by a question that relates to a ‘never event’. We define never events as those that we would not expect to occur in care and treatment characterised as good or very good.
2. Questions where the focus does not relate directly to experience but rather to a concept that is open to interpretation and without a frame of reference, are not included. Responses to these questions are not readily verifiable and may reflect expectations to a larger extent than the NHS is able to affect responses. To measure very poor care we only want to use questions where the patient responds with self-reference, as opposed to considering a process. The following question is an example of a question excluded on this basis: “From the time you arrived at the hospital, did you feel that you had to wait a long time to get a bed on a ward?” In this case, two respondents that both had to wait 30 minutes may give different responses depending on their interpretation of a “long time”. Questions that ask whether the respondent was “involved enough” fall into this category.

We have used judgement and intuition to determine which questions are appropriate indicators of very poor care given the criteria above. The aim of this selection process is to ensure that the indicators are targeted at the aspects of patient experience that are most problematic if experience is very poor. The proposed questions for each indicator were published in the NHSOF Technical Appendix 2013/14 and have been presented to OFTAG. The selected questions have not been challenged, nor alternatives proposed.

***Combining survey questions to indicator level.*** There are two possible formulations to construct an indicator level value by combining the survey questions:

1. A count of patients who give at least one response of very poor
2. **The total number of 'very poor' responses at question level for that indicator.**

***We propose using the second approach (ii)*** for two reasons. Firstly, a patient giving one response of very poor across a range of questions does not necessarily indicate the broad failure of care for that patient. Secondly, the data for the second approach is publicly available and so the approach is transparent since others can replicate our calculations from the raw datasets.

Following DH methodology for the overall patient experience indicators, we propose to calculate trust level indicator values as simple linear averages of the question level scores. (National scores are constructed as simple averages of individual trust scores.) For indicator 4b however, the approach may be more complex, as outlined below.

* 1. **Indicators based on the CQC inpatient survey:**

*4b Patient experiences of hospital care and 4.2* *Responsiveness to inpatients' personal needs*

**Indicator 4b** is the overall inpatient patient experience measure produced by DH. The 20 underlying survey questions in the current indicator are grouped into 5 domains with the domain score being the simple average of questions in the domain and the indicator value being the simple average of the domain scores. Based on our proposal to measure very poor care using a subset of the current questions, and given the current proposed subset of questions above, not all domains are represented equally so the simple averaging technique will implicitly weight some questions more than others. The options are either to ignore the domains and weight all questions equally or allow the domain classification to take precedence and weight the domains equally.

The five domains used to group the 20 questions were designed to cover aspects of service that are relevant and important to patients, based on a scientific and policy driven process. Maintaining the domain classification ensures that the measure of very poor care continues to reflect important service aspects. By using a simple average of the question scores only, the domains of Clean, friendly and comfortable place to be and Building closer relationships would each account for a third of the measure.

As the methodology for defining overall patient experience was based on first identifying the domains and then subjectively choosing questions to define the domains ***it seems appropriate to uphold the domain classification and weight the domains, rather than the questions, equally***. Using the current proposed subset of questions for indicator 4b, 6.2% of patients are thought to be experiencing very poor care when weighting equally across domains, whilst weighting equally across questions gives the lower percentage of 5.0% (calculation details in the attached). Note these values are based on counts of responses that have not been standardised by admission method as this weighting has not been applied to the publicly available question level data.

The standardisation that is applied for the current indicator should be upheld for the very poor care measure. See supporting document – “Technical details – patient survey information” (CQC) Section 4.1.

***Table 3 - Choice of relevant survey questions for 4b***

See also supporting document*: Indicator 4b Revised Method Sample Data*

|  |  |  |
| --- | --- | --- |
| *Domain* | *Questions proposed to be included to quantify* ***very poor care*** *and responses*  | *Questions currently included in quantifying* ***good care*** *and responses* |
| Access and Waiting domain | **Q6: How do you feel about the length of time you were on the waiting list before your admission to hospital?**I should have been admitted a lot sooner | **Q6: How do you feel about the length of time you were on the waiting list before your admission to hospital?** Scores: “I was admitted as soon as I thought was necessary” 100; “I should have been admitted a bit sooner” 50; “I should have been admitted a lot sooner” 0 |
| Access and Waiting domain | **Q7: Was your admission date changed by the hospital?** Yes, 2 or 3 timesYes, 4 times or more | **Q7: Was your admission date changed by the hospital?**Scores: “No” 100; “Yes, once” 67; “Yes, 2 or 3 times” 33; “Yes, 4 times or more” 0 |
| Access and Waiting domain |  | **Q9: From the time you arrived at the hospital, did you feel that you had to wait a long time to get to a bed on a ward?**Scores: “No” 100; “Yes, to some extent” 50; “Yes, definitely” 0 |
| Safe, high quality co-ordinated care domain |  | **Q31: Sometimes in a hospital, a member of staff will say one thing and another will say something quite different. Did this happen to you?** Scores: “No” 100; “Yes, sometimes” 50; “Yes, often” 0 |
| Safe, high quality co-ordinated care domain | **Q51: On the day you left hospital, was your discharge delayed for any reason?**Scores: “No” 100; “Yes 0”. Exception: Records are excluded where i) the answer to Q60 “What was the main reason for the delay?” is “Something else” and not “I had to wait for medicines”, “I had to wait to see the doctor” or “I had to wait for an ambulance” and ii) the answer to Q61 “How long was the delay” is not “longer than 4 hours”\*  | **Q51: On the day you left hospital, was your discharge delayed for any reason?**Scores: “No” 100; “Yes 0”. Exception: Records are excluded where the answer to Q60 “What was the main reason for the delay?” is “Something else” and not “I had to wait for medicines”, “I had to wait to see the doctor” or “I had to wait for an ambulance” |
| Safe, high quality co-ordinated care domain |  | **Q59: Did a member of staff tell you about any danger signals you should watch for after you went home?** Scores: “Yes, completely” 100; “Yes, to some extent” 50; “No” 0 |
| Better information, more choice domain | **Q32: Were you involved as much as you wanted to be in decisions about your care and treatment?**No | **Q32: Were you involved as much as you wanted to be in decisions about your care and treatment?** Scores: “Yes, definitely” 100; “Yes, to some extent” 50; “No” 0 |
| Better information, more choice domain |  | **Q55: Did a member of staff explain the purpose of the medicines you were to take at home in a way you could understand?** Scores: “Yes, completely” 100; “Yes, to some extent” 50; “No” 0; “I did not need an explanation” and “I had no medicines” are excluded |
| Better information, more choice domain |  | **Q56: Did a member of staff tell you about medication side effects to watch for when you went home?** Scores: “Yes, completely” 100; “Yes, to some extent” 50; “No” 0; “I did not need an explanation” are excluded |
| Building closer relationships domain | **Q24: When you had important questions to ask a doctor, did you get answers you could understand?**No | **Q24: When you had important questions to ask a doctor, did you get answers that you could understand?** Scores: “Yes, always” 100; “Yes, sometimes” 50; “No” 0; “I had no need to ask” are excluded |
| Building closer relationships domain | **Q26: Did doctors talk in front of you as if you weren’t there?**Yes, often | **Q26: Did doctors talk in front of you as if you weren’t there?** Scores: “No” 100; “Yes, sometimes” 50; “Yes, often” 0 |
| Building closer relationships domain | **Q27: When you had important questions to ask a nurse, did you get answers that you could understand?** Scores: “Yes, always” 100; “Yes, sometimes” 50; “No” 0; “I had no need to ask” are excluded | **Q27: When you had important questions to ask a nurse, did you get answers that you could understand?** Scores: “Yes, always” 100; “Yes, sometimes” 50; “No” 0; “I had no need to ask” are excluded |
| Building closer relationships domain | **Q29: Did nurses talk in front of you as if you weren’t there?**Yes, often | **Q29: Did nurses talk in front of you as if you weren’t there?** Scores: “No” 100; “Yes, sometimes” 50; “Yes, often” 0 |
| Clean, friendly, comfortable place to be domain |  | **Q15 & Q16: Mean average of “Were you ever bothered by noise at night from other patients?” and “Were you ever bothered by noise at night from hospital staff?”** Scores for both: “No” 100; “Yes” 0 |
|  | **Q17: In your opinion, how clean was the hospital room or ward that you were in?**Not very cleanNot at all clean | **Q17: In your opinion, how clean was the hospital room or ward that you were in?** Scores: “Very clean” 100; “Fairly clean” 67; “Not very clean” 33; “Not at all clean” 0 |
| Clean, friendly, comfortable place to be domain |  | **Q21: How would you rate the hospital food?** Scores: “Very good” 100; “Good” 67; “Fair” 33; “Poor” 0 |
| Clean, friendly, comfortable place to be domain | **Q37: Were you given enough privacy when being examined or treated?**No | **Q37: Were you given enough privacy when being examined or treated?** Scores: “Yes, always” 100; “Yes, sometimes” 50; “No” 0 |
| Clean, friendly, comfortable place to be domain |  | **Q39: Do you think the hospital staff did everything they could to help control your pain?** Scores: “Yes, definitely” 100; “Yes, to some extent” 50; “No” 0 |
| Clean, friendly, comfortable place to be domain | **Q67: Overall, did you feel you were treated with respect and dignity while you were in the hospital?**No | **Q67: Overall, did you feel you were treated with respect and dignity while you were in the hospital?** Scores: “Yes, always” 100; “Yes, sometimes” 50; “No” 0 |

\* As described, two filters are applied to this question. Excluding the reason for delay being “something else” is intended to exclude cases that are not attributable to the hospital. Including only cases where the delay is longer than 4 hours reflects the length of time that we consider to be a “never event” and is in line with the indicator used in the CQC Quality and Risk Profiles[[1]](#footnote-1).

***Table 4 - Choice of relevant survey questions for 4.2***

|  |  |  |
| --- | --- | --- |
| *Indicator* | *Questions proposed to be included to quantify* ***very poor care*** *and responses*  | *Questions currently included in quantifying* ***good care*** *and responses* |
| 4.2 | **Q32: Were you involved as much as you wanted to be in decisions about your care and treatment?**No | **Q32: Were you involved as much as you wanted to be in decisions about your care and treatment?** Scores: “Yes, definitely” 100; “Yes, to some extent” 50; “No” 0 |
| 4.2 | **Q34: Did you find someone on the hospital staff to talk to about your worries or fears?**No | **Q34: Did you find someone on the hospital staff to talk to about your worries and fears?** Scores: “Yes, definitely” 100; “Yes, to some extent” 50; “No” 0; “I had no worries or fears” are excluded |
| 4.2 | **Q36: Were you given enough privacy when discussing your condition and treatment?**No | **Q36: Were you given enough privacy when discussing your condition or treatment?** Scores: “Yes, definitely” 100; “Yes, to some extent” 50; “No” 0 |
| 4.2 |  | **Q56: Did a member of staff tell you about medication side effects to watch for when you went home?** Scores: “Yes, completely” 100; “Yes, to some extent” 50; “No” 0; “I did not need an explanation” are excluded |
| 4.2 | **Q62: Did hospital staff tell you who to contact if you were worried about your condition or treatment after you left hospital?**No | **Q62: Did hospital staff tell you who to contact if you were worried about your condition or treatment after you left hospital?** Scores: “Yes” 100; “No” 0; “Don’t know / Can’t remember” are excluded |

* 1. **Indicators based on other CQC surveys:**

*4.1 Patient experience of outpatient services, 4.3 Patient experience of A&E Services, 4.5 Women’s experience of maternity services & 4.7* Patient experience of community mental health services

***Table 5 - Choice of relevant survey questions for 4.1***

|  |  |  |
| --- | --- | --- |
| *Indicator* | *Questions proposed to be included to quantify* ***very poor care*** *and responses*  | *Questions currently included in quantifying* ***good care*** *and responses* |
| 4.1 | **Q7: Before your appointment, did you know what would happen during your appointment?**No | **Q7: Before your appointment, did you know what would happen to you during the appointment?** Scores: “Yes, definitely” 100; “Yes, to some extent” 50; “No” 0 |
| 4.1 | **Q32: Did doctors and/or other staff talk in front of you as if you weren’t there?**Yes, definitely | **Q32: Did doctors and/or other staff talk in front of you as if you weren’t there?** Scores: “Yes, definitely” 0; “Yes, to some extent” 50; “No” 100 |
| 4.1 | **Q35: Sometimes in a hospital or clinic, a member of staff will say one thing and another will say something quite different. Did this happen to you?**Yes, definitely | **Q35: Sometimes in a hospital or clinic, a member of staff will say one thing and another will say something quite different. Did this happen to you?** Scores: “Yes, definitely” 0; “Yes, to some extent” 50; “No” 100 |
| 4.1 | **Q36: Were you involved as much as you wanted to be in decisions about your care and treatment?**No | **Q36: Were you involved as much as you wanted to be in decisions about your care and treatment?** Scores: “Yes, definitely” 100; “Yes, to some extent” 50; “No” 0 |
| 4.1 |  | **Q48: Did hospital staff tell you who to contact if you were worried about your condition or treatment after you left hospital?** Scores: “Yes” 100; “No” 0; “Don’t know / Can’t remember” are excluded |

***Table 6 - Choice of relevant survey questions for 4.3***

|  |  |  |
| --- | --- | --- |
| *Indicator* | *Questions proposed to be included to quantify* ***very poor care*** *and responses*  | *Questions currently included in quantifying* ***good care*** *and responses* |
| 4.3 |  | **Q12: While you were in the Emergency department, did a doctor or nurse explain your treatment in a way you could understand?** Scores: “Yes, completely” 100; “Yes, to some extent” 50; “No” 0; “I did not need an explanation” are excluded |
| 4.3 |  | **Q15: Did you have confidence and trust in the doctors and nurses examining and treating you?** Scores: “Yes, definitely” 100; “Yes, to some extent” 50; “No” 0 |
| 4.3 | **Q22: Were you involved as much as you wanted to be in decisions about your care and treatment?**No | **Q22: Were you involved as much as you wanted to be in decisions about your care and treatment?** Scores: “Yes, definitely” 100; “Yes, to some extent” 50; “No” 0; “I was not well enough to be involved in decisions about my care” are excluded |
| 4.3 |  | **Q28: Do you think the hospital staff did everything they could to help control your pain?** Scores: “Yes, definitely” 100; “Yes, to some extent” 50; “No” 0; “Can’t say / Don’t know” are excluded |
| 4.3 | **Q42: Overall, did you feel you were treated with respect and dignity while you were in the A&E department?**No | **Q42: Overall, did you feel you were treated with respect and dignity while you were in the Emergency department?**Scores: “Yes, all of the time” 100; “Yes, some of the time” 50; “No” 0 |

***Table 7 - Choice of relevant survey questions for 4.5***

|  |  |  |
| --- | --- | --- |
| *Indicator* | *Questions proposed to be included to quantify* ***very poor care*** *and responses*  | *Questions currently included in quantifying* ***good care*** *and responses* |
| 4.5 | **B6: Did you get enough information from the midwife or doctor to help you decide where to have your baby?**No | **B6: Did you get enough information from a midwife or doctor to help you decide where to have your baby?** Scores: “Yes, definitely” 100; “Yes, to some extent” 50; “No” 0; “No, but I did not need this information”; “Don’t know / Can’t remember” |
| 4.5 |  | **B24: Thinking about your antenatal care, were you involved enough in decisions about your care?** Scores: “Yes, always” 100; “Yes, sometimes” 50; “No” 0; “I did not want / need to be involved”; “Don’t know / Can’t remember” |
| 4.5 |  | **C14: Were you (and/or your partner or a companion) left alone by midwives or doctors at a time when it worried you?** Scores: “Yes, during labour” 0; “Yes, shortly after the birth” 0; “Yes, during labour and shortly after the birth” 0; “No, not at all” 100 |
| 4.5 |  | **C16: Thinking about your care during labour and birth, were you involved enough in decisions about your care?** Scores: “Yes, always” 100; “Yes, sometimes” 50; “No” 0; “I did not want / need to be involved”; “Don’t know / Can’t remember” |
| 4.5 |  | **D4: Thinking about the care you received in hospital after the birth of your baby, were you treated with kindness and understanding?** Scores: “Yes, always” 100; “Yes, sometimes” 50; “No”0; “Don’t know / Can’t remember” |
| 4.5 |  | **E5: Did you feel that midwives and other carers gave you active support and encouragement?** Scores: “Yes, always” 100; “Yes, generally 50”; “No” 0; “Don’t know”; “I didn’t want or need this” |

***Table 8 - Choice of relevant survey questions for 4.7***

|  |  |  |
| --- | --- | --- |
| *Indicator* | *Questions proposed to be included to quantify* ***very poor care*** *and responses*  | *Questions currently included in quantifying* ***good care*** *and responses* |
| 4.7 |  | **Q4: [Thinking about the last time you saw this NHS health worker or social care worker for your mental health condition]****Did this person listen carefully to you?** Scores: “Yes, definitely” 100; “Yes, to some extent” 50; “No” 0 |
| 4.7 |  | **Q5: Did this person take your views into account?**Scores: “Yes, definitely” 100; “Yes, to some extent” 50; “No” 0 |
| 4.7 |  | **Q6: Did you have trust and confidence in this person?**Scores: “Yes, definitely” 100; “Yes, to some extent” 50; “No” 0 |
| 4.7 | **Q7: Did this person treat you with respect and dignity?** No | **Q7: Did this person treat you with respect and dignity?** Scores: “Yes, definitely” 100; “Yes, to some extent” 50; “No” 0 |

|  |  |
| --- | --- |
| **IAS Ref Code** |  |
| **Indicator Title** |  |
| **Indicator Set** |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Changed By | Summary of changes |
| v.01 | 25/02/15 | Chris Wilson | Document Updated following discussion at IGB Feb 2015 |
| v.02 | 13/09/2018 | Jonathan Trepczyk | Added extension form following IGB approval |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**Indicator Assurance Extension Cover Sheet**

|  |  |  |
| --- | --- | --- |
| **Lapsed Date** | **06/02/2018** | **Criteria Check List** |
| 1.
 | There is evidence that IGB assured the indicator to a period ending 1st January 2016 or after  | Yes  |
|  1.
 | Are there any outstanding caveats? List them here: | No  |
| 1.
 | Are there any changes to … 1. Policy
 | No  |
|  | 1. Data source
 | No  |
|  | 1. Sponsoring organisation
 | No  |
|  | 1. Methodology
 | No  |
| 1.
 | Are there any issues with data quality?  | No  |
| 1.
 | Has the indicator been superseded by another indicator? If yes, what is the new indicator’s reference number and title?  | No  |
| 1.
 | Has the indicator been withdrawn by the sponsoring organisation?   | No  |
| 1.
 | Are there any patient safety implications?  | No  |
| 1.
 | Have there been any reports of risk associated with this indicator?  | No  |
| 1.
 | Primary category  | Cancer  |
| 1.
 | Set  | CCGOIS  |
| 1.
 | Publication reference  |   |

**Recommendation**

Fit for extension. Wherever possible, try to review cancer indicators together.

**Prepared by**Jonathan Trepczyk

**IGB decision**Fit for use

**Accreditation period**Two Years

**IGB approval date**13/09/2018

**Review date**06/12/2020

**Assurance Summary**

|  |  |
| --- | --- |
| **IAS Ref Code** |  |
| **Indicator Title** |  |
| **Indicator Set** |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Assurance Stage |  | Date(s) | Comments |
| Application Received |[x]  10/09/13 |  |
| Initial Appraisal Completed |[x]  12/09/13 |  |
| Peer Review Appraisal |[x]  25/09/13 |  |
| Methodology Review Group Discussion |[x]  07/10/13 |  |
| Indicator Governance Board Discussion |[x]  22/07/14, 06/02/15 |  |
| Signed-off |[ ]   |  |

Peer Review

|  |  |
| --- | --- |
| Peer Reviewer(s) / Organisations : | The indicator was sent for peer review in a pack of five indicators. No comments were received for this indicator. |
| *Outcome of Peer Review consideration:* |  |
| *Outcome of MRG consideration:* | **No significant issues on basis of completion of outstanding actions** |
| Indicator Governance Board (IGB) *Final Appraisal Status* | **Assured** |

**Peer Review** Summary

|  |  |
| --- | --- |
| **Indicator Title** |  |
| Indicator Set |  |
| IAS Ref Code: |  |
| Date of Peer Review | 25/09/13 |
| Peer Reviewer(s) / Organisations : | HSCIC |
| Peer Review Comments: | The indicator was sent for peer review in a pack of five indicators. No comments were received for this indicator. |
| *Outcome of MRG consideration:* |  |
| Link to Peer Review Appraisal |  |

Indicator Methodology for Consideration - **Methodology Review Group**

|  |  |
| --- | --- |
| **Initial Indicator Title** | **Lung cancer stage at diagnosis** |
| IAS Ref Code: |  |
| Date of Initial Discussion | 20/09/13 |
| Rationale / usefulness Evidence and action ability of indicator [take this directly from the application if possible] | Lung cancer has one of the lowest survival outcomes of any cancer because over two-thirds of patients are diagnosed at a late stage when curative treatment is not possible. Earlier diagnosis and referral to specialist teams would make a significant difference to survival rates.This indicator is based on the NICE Quality Standard 17: Lung cancer for adults, issued March 2012 http://guidance.nice.org.uk/QS17.This indicator aims to be consistent with the NICE Clinical Guideline 121: The diagnosis and treatment of lung cancer, issued April 2011 http://publications.nice.org.uk/lung-cancer-cg121. The following statements are taken from CG121: 1.3.2 Patients with known or suspected lung cancer should be offered a contrast-enhanced chest CT scan to further the diagnosis and stage the disease. The scan should also include the liver and adrenals.1.3.12 Choose investigations that give the most information about diagnosis and staging with least risk to the patient. Think carefully before performing a test that gives only diagnostic pathology when information on staging is also needed to guide treatment. |
| Data source | The National Lung Cancer Audit. It is expected that the HSCIC National Lung Cancer Audit team will supply the calculated indicator. |
| Construction | ***Summary description of the calculation:***The percentage of cases of lung cancer for which a valid stage field is recorded, given by Clinical Commissioning Group. |
| Construction | ***Calculation type:*** Percentage |
| Construction | ***Denominator:*** The number of patients first seen in the respective Lung Cancer Audit year.The following Audit fields are used to define the denominator:DATE FIRST SEEN (year)SITE CODE OF PLACE FIRST SEEN (in England)***Numerator:*** Of the denominator, the number of patient records where the stage field at the time of decision to treat is completed (according to staging rules).The following Audit fields are used to construct the numerator:Variables used to determine the lung cancer type (used to decide appropriate staging system i.e. TNM or Site-Specific Small Cell Lung Cancer stage):HISTOLOGY (SNOMED)HISTOLOGY (SNOMED) (POST)PRIMARY DIAGNOSIS (ICD)Variables used to define TNM stage:TNM CATEGORY (FINAL PRE-TREATMENT)TNM CATEGORY (PATHOLOGICAL)Variables used to define Site-Specific Small Cell Lung Cancer stage:POST TREATMENT SITE SPECIFIC CLASSIFICATIONSITE-SPECIFIC STAGING CLASSIFICATIONTUMOUR LATERALITY |
| Construction | ***Statistical Methods / Risk adjustment variables:***It is not proposed to standardise or risk adjust this indicator. Confidence intervals will be calculated using the Wilson Score method, as specified in ‘Commonly used public health statistics and their confidence intervals’ (APHO, March 2008).The formulae for the 100(1 – α)% confidence interval limits for the proportion *p* are:$$p\_{lower}=\frac{2O+z^{2}-z\sqrt{\left.z^{2}+4Oq\right.}}{2\left(n+ z^{2}\right)}$$$$p\_{upper}=\frac{2O+z^{2}+z\sqrt{\left.z^{2}+4Oq\right.}}{2\left(n+ z^{2}\right)}$$where:*O* is the observed number of individuals in the sample/population having the specified characteristic (i.e. the numerator);*n* is the total number of individuals in the sample/population (i.e. the denominator);*q* = (1 – *p*) is the proportion without the specified characteristic;*z* is the 100(1 – α/2)th percentile value from the Standard Normal distribution. For example, for a 95% confidence interval, α = 0.05, and *z* = 1.96 (i.e. the 97.5th percentilevalue from the Standard Normal distribution). |
| Construction | ***Other (Quality assurance/interpretation/known limitations):***A high percentage is desirable.The audit has collected data on 38,528 patients in Great Britain for the 2011 audit period, representing approximately 93 per cent of the expected number of new lung cancer cases. This is thought to represent almost all cases of lung cancer presenting to secondary care |
| Potential Issues | The NCLA team have advised us that the audit records stage at the time of decision to treat, rather than stage specifically at diagnosis. Given this information, it may be relevant to revise the indicator title to Lung Cancer: Stage at decision to treat. This information was received on the deadline for the MRG papers and so advice is being sought from the National Cancer Intelligence Network (NCIN). They will also be joining the MRG meeting by phone.  |
| Peer Review Comments | None received |
| Supporting DocumentsProvide links to any additional documentation used to support discussion at MRG | * National Lung Cancer Audit Report <http://www.hqip.org.uk/assets/NCAPOP-Library/NCAPOP-2012-13/Lung-Cancer-National-Audit-Report-pub-2012.pdf>
* National Lung Cancer Audit, HSCIC website <http://www.hscic.gov.uk/lung>
* NICE Quality Standard 17: Lung cancer for adults, issued March 2012 <http://guidance.nice.org.uk/QS17>.
* NICE Clinical Guideline 121: Lung cancer: The diagnosis and treatment of lung cancer <http://publications.nice.org.uk/lung-cancer-cg121>.
 |

Additional Information / Sample Data :

**ISB Compliance**

The National Lung Cancer Audit (the Lung Cancer Data project LUCADA) is approved by ISB ref ISB0064.

**Sample data**

This sample data is for the full-year 2011/12. 74% of CCGs are already achieving a stage completion rate of 85% or over.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CCG** | **Denominator** | **Numerator** | **%** | **CI*lower*** | **CI*upper*** |
| CCG1 | 74 | 29 | 39.2% | 28.9% | 50.6% |
| CCG2 | 118 | 50 | 42.4% | 33.8% | 51.4% |
| CCG3 | 132 | 57 | 43.2% | 35.0% | 51.7% |
| CCG4 | 213 | 120 | 56.3% | 49.6% | 62.8% |
| CCG5 | 145 | 88 | 60.7% | 52.6% | 68.3% |
| CCG6 | 107 | 65 | 60.7% | 51.3% | 69.5% |
| CCG7 | 112 | 69 | 61.6% | 52.4% | 70.1% |
| CCG8 | 104 | 66 | 63.5% | 53.9% | 72.1% |
| CCG9 | 264 | 168 | 63.6% | 57.7% | 69.2% |
| CCG10 | 122 | 81 | 66.4% | 57.6% | 74.2% |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| **CCG** | **Denominator** | **Numerator** | **%** | **CI*lower*** | **CI*upper*** |
| CCG202 | 140 | 139 | 99.3% | 96.1% | 99.9% |
| CCG203 | 161 | 160 | 99.4% | 96.6% | 99.9% |
| CCG204 | 230 | 229 | 99.6% | 97.6% | 99.9% |
| CCG205 | 234 | 233 | 99.6% | 97.6% | 99.9% |
| CCG206 | 76 | 76 | 100.0% | 95.2% | 100.0% |
| CCG207 | 84 | 84 | 100.0% | 95.6% | 100.0% |
| CCG208 | 97 | 97 | 100.0% | 96.2% | 100.0% |
| CCG209 | 119 | 119 | 100.0% | 96.9% | 100.0% |
| CCG210 | 252 | 252 | 100.0% | 98.5% | 100.0% |
| CCG211 | 276 | 276 | 100.0% | 98.6% | 100.0% |

MRG Recommendations, Comments & Updates:

|  |  |
| --- | --- |
| **Indicator Title** |  |
| Indicator Set |  |
| IAS Ref Code: |  |
| Summary of discussion | The applicant highlighted an issue with the current title, that the lung cancer stage is recorded at decision to treat rather than at diagnosis, therefore this will be updated.It was questioned as to why the NLCA was used as a data source for this indicator, when NCIN includes lung cancer. The applicant explained that this data was of a higher quality, and if data of this standard was available for all cancer types, it would be used as opposed to the NCIN. |

|  |  |
| --- | --- |
| Ref code**IAP00351-01**Made: 07/10/13 | Title to be changed to “at decision to treat” rather than “at diagnosis”. |
| Update: Made: xx/xx/xx |  |
| Further Rec: Made: xx/xx/xx |  |
| Update: Made: xx/xx/xx |  |
| Rec Status: |  |

Revisions:

To be completed where changes to the methodology are made by the applicant during the appraisal [i.e. subsequent to the initial application form]

A new section is to be added for each new set of revisions to go to MRG.

|  |  |
| --- | --- |
| Revision Date: |  |
| General Comments / Reasoning: |  |
| Revisions: |  |
| Indicator Title |  |
| Data source |  |
| Construction |  |
| Updated Potential Issues |  |

Record of Assurance provided by **Indicator Governance Board**

|  |  |
| --- | --- |
| **Indicator Title** |  |
| Indicator Set |  |
| Description | *The percentage of cases of lung cancer for which a valid stage field is recorded, given by Clinical Commissioning Group.* |
| **Strategic Considerations & Implications** |  |
| Applicant / Sponsor Organisation | NHS England |
| Assurance process funded? | Yes |
| Indicator rationale  | Lung cancer has one of the lowest survival outcomes of any cancer because over two-thirds of patients are diagnosed at a late stage when curative treatment is not possible. Earlier diagnosis and referral to specialist teams would make a significant difference to survival rates. |
| Basis for rationale [Details of quality statement, policy etc.] | This indicator is based on the NICE Quality Standard 17: Lung cancer for adults, issued March 2012 http://guidance.nice.org.uk/QS17.This indicator aims to be consistent with the NICE Clinical Guideline 121: The diagnosis and treatment of lung cancer, issued April 2011 http://publications.nice.org.uk/lung-cancer-cg121. The following statements are taken from CG121: 1.3.2 Patients with known or suspected lung cancer should be offered a contrast-enhanced chest CT scan to further the diagnosis and stage the disease. The scan should also include the liver and adrenals.1.3.12 Choose investigations that give the most information about diagnosis and staging with least risk to the patient. Think carefully before performing a test that gives only diagnostic pathology when information on staging is also needed to guide treatment |
| Calculation Summary | The percentage of cases of lung cancer for which a valid stage field is recorded, given by Clinical Commissioning Group.*Denominator:* The number of patients first seen in the respective Lung Cancer Audit year.*Numerator:* Of the denominator, the number of patient records where the stage field at the time of decision to treat is completed (according to staging rules). |
| Risks & assumptions | When testing the indicator for the NICE Advisory Committee in May 2013, the data had been mapped to CCG using the ‘latest’ GP Practice code registered for each patient. GP Practice code at ‘date first seen’ would be preferable as it is more reflective of the patient’s home location of secondary care. NHAIS (Exeter) have confirmed that they are able to trace GP Practice code at date first seen, however this will involve a cost. |
| IG Considerations [e.g. release of under-lying data, intermediaries’ access to data, data ownership impact on production] | *Data Source:* The National Lung Cancer Audit.The National Lung Cancer Audit Report is published at trust and network level on an annual basis. Use for CCG level indicators will be subject to a Data Sharing Agreement.The National Lung Cancer Audit (the Lung Cancer Data project LUCADA) is approved by ISB ref ISB0064. |
| Potential impacts on other business areas [inc outstanding generic issues] |  |
| Implementation Method[inc production funding] | NHS England has commissioned HSCIC to produce and disseminate the CCG OIS indicators; this is funded via the Grant In Aid funding to HSCIC.Collection of the data for the CCG OIS is via existing data collections, in this case the National Lung Cancer Audit. Testing and specification of this indicator is carried out by the Specification Development Service in conjunction with the National Lung Cancer Audit. The construction of the indicators will be carried out by Clinical Indicators via the CI Platform at HSCIC.Dissemination and presentation of the CCG OIS will be via a number of routes:• The indicators and their underlying data will be made publicly available via the HSCIC website and the Indicator Portal. • The indicators will also be provided to NHS England for use in their internal Intelligence Tool.Subject to confirmation by NHS England, the calculated indicator, numerator and denominator for CCGs will be supplied by messaging to the Calculating Quality Reporting Service (CQRS) for use by CCGs as part of their management information.The National Lung Cancer Audit is commissioned by the Healthcare Quality Improvement Partnership (HQIP) and currently funded to December 2013. It is expected to be granted an extension to December 2014; however, this is yet to be approved. |

|  |  |
| --- | --- |
|  | **Development Advice & Peer Review** |
| Range of input[Have relevant business areas contributed e.g. clinical assurance?]  |  |
| Peer Reviewers: |  |
| Peer Review summary: | The indicator was sent for peer review in a pack of five indicators. No comments were received for this indicator. |

|  |  |
| --- | --- |
| **Record of MRG Discussion** |  |
| Discussion dates | 07/10/13 |
| By | Heather Dawe (chair), HSCIC, Programme Manager, Clinical IndicatorsPaul Fryers, PHE, Deputy Director, East Midlands Knowledge and Intelligence TeamAlyson Whitmarsh, HSCIC, Programme Manager, Clinical AuditChris Dew, HSCIC, Section Head, Clinical IndicatorsAndy Sutherland, HSCIC, Statistics Head of ProfessionJulie Henderson, HSCIC, Programme Head, Clinical Analysis |
| Summary of MRG discussions:  | * The applicant highlighted an issue with the current title, that the lung cancer stage is recorded at decision to treat rather than at diagnosis, therefore this will be updated.
* It was questioned as to why the NLCA was used as a data source for this indicator, when NCIN includes lung cancer. The applicant explained that this data was of a higher quality, and if data of this standard was available for all cancer types, it would be used as opposed to the NCIN.
 |
| *Outcome of MRG consideration:* | **No significant issues on basis of completion of outstanding actions** |
| MRG statement of recommendation: | This indicator was recommended for discussion by IGB on the understanding that the title was updated to ‘Record of lung cancer stage at decision to treat’ for the purpose of clarity. In response to the query as to why the National Lung Cancer Audit was being used as the data source, as opposed to the National Cancer Intelligence Network (NCIN) which is used in applications IAP00347 Record of cancer stage at diagnosis, and IAP00350 Cancers detected at stage 1 or 2, MRG accepted the applicants rationale that this data is of a higher quality. However, MRG recommended that the indicator quality statement needs to highlight that different sources of data are used for the different cancer indicators and the rationale for their use and non-use.No further comments were raised by MRG regarding the Rationale, Construction, Interpretation, and Risks and Usefulness of the indicator.  |

|  |  |
| --- | --- |
| 22/07/14 | **Recommendations & Updates** |
| Comments & Recommendations[List additional comments and recommendations raised by IGB] | It was noted that this indicator is principally a measure of data quality and provides context to the indicator cancer detected at stage 1 and 2 as with earlier indicator, (alongside another indicator “Record of cancer stage at diagnosis”).It was concluded that in terms of methodology the indicator is fine, however concern was raised that differences in definitions and data sources between the three indicators may create a conflict (The Lung Cancer indicator uses the National Lung Cancer Audit as the data source, the other cancer staging indicators use National Cancer Intelligence Network (NCIN) data). It was further recommended that assurance of the indicator should be put on hold pending the outcome of discussion with the CCGOIS policy lead around the wider purpose of the CCGOIS and how indicators can be acted upon. |
| Action required: | **Further Update IGB** |
| Update:Made: 06/02/15 | A revised rationale / purpose for the indicator has been provided by Jeff Featherstone, Commissioning Outcomes and Incentives Lead, NHS England (see below) in response to the concerns raised and is put forward for consideration. In reference to the concern raised regarding the choice of the data source, the applicant has referred to the information provided to MRG that advice was taken (from Dr Mick Peake, National Clinical Lead for NHS Cancer Improvement and Clinical Lead for the NCIN) that the National Lung Cancer Audit was the more suitable data source for this indicator due to it providing better data quality than other sources.**Definition:** The percentage of cases of lung cancer for which a valid stage field is recorded, given by Clinical Commissioning Group.**Purpose':** Stage at decision to treat is an indicator of how early that the fact that a patient may have cancer was identified, a referral for diagnosis was made and the appropriate diagnostic tests were carried out. It is recognised that the earlier the stage at diagnosis, the greater the chance of successful treatment. The measure is therefore an indicator of:a) the extent to which patients are presenting themselves with possible lung cancer symptoms at an early point in their appearance (and so reflecting CCGs' responsibilities to improve the health of their local populations such as by promoting understanding of the type of symptoms that should lead a patient to discuss the matter with their GP) and:b) the extent to which GPs are appropriately identifying where symptoms are such that a patient should be referred for diagnostic tests for lung cancer (which links into CCG responsibilities for the quality of primary care) andc) The extent to which diagnostic tests are being carried out and their results assessed by an appropriate clinician (which links to CCG commissioning responsibilities for ensuring timely services of appropriate quality). |

|  |  |
| --- | --- |
| **Review** |  |
| Review Timescale | Other |
| Rationale  | [Issues to consider – Changes to process, policy data source, coding definitions HES definitions ]The indicator is recommended for review in 2 years alongside other CCGOIS indicator’s measuring cancer staging |

|  |  |
| --- | --- |
| **Indicator Assurance Process Output** |  |
| *Final Appraisal Status* | **Assured** |
| Basis of Sign-off[Detail caveats and limitations ] | **Following consideration of the amendments the IGB members accepted the definition and rationale put forward and this indicator was therefore approved for 2 years.** |
| Sign-off Date | 06/02/15 |

See our [accessibility statement](https://www.nice.org.uk/accessibility#what-to-do) if you’re having problems with this document.

1. “Quality and Risk Profiles are a tool used by providers, commissioners and [CQC] staff to monitor compliance with the essential standards of quality and safety.” http://www.cqc.org.uk/organisations-we-regulate/registered-services/quality-and-risk-profiles-qrps [↑](#footnote-ref-1)