NHS Health Check Programme:
Consultation on the methodology to estimate the total eligible population and to report activity after 2017-18
About Public Health England

Public Health England exists to protect and improve the nation’s health and wellbeing, and reduce health inequalities. We do this through world-leading science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health, and are a distinct delivery organisation with operational autonomy to advise and support government, local authorities and the NHS in a professionally independent manner.
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Summary

In April 2013, the NHS Health Check became a statutory public health service in England. Local authorities (LAs) are required to offer a NHS Health Check to 100% of their eligible population over a 5 year period and to achieve continuous improvement in uptake. To measure their progress against these requirements it is essential for LAs to know the size of their total eligible population (TEP). As there is no available patient-level data source for England, a majority of LAs rely on PHE to provide estimates.

The methodology currently used by PHE to produce these TEP estimates has been subject to the following criticism:

- there is a lack of consistency across LAs in how the eligible population is calculated. Some areas use estimates of resident population others use the GP registered population

As a result, PHE is now launching a consultation and is seeking stakeholder views on the following recommendations:

- the TEP estimate should be based on the GP - registered population rather than the resident population
- the frequency at which PHE supply TEP estimate to LAs should be yearly
- LAs should be invited to make revisions to their TEP on the condition that the GP - registered population is used as the data source

Additionally, the current reporting of NHS Health Check data is for the 5 year period from 2013 to 2018. How activity is reported after this period is yet to be defined. Therefore, PHE is also inviting stakeholder views on the following recommendation:

- from 2018/19, 5 years activity should be described using a 5 year rolling indicator ie 2014/19, 2015/20 etc

**PHE would welcome your views on these recommendations.** To take part in this consultation please email your views by 24 January 2018 to:

nhshealthchecks.mailbox@phe.gov.uk
Current methodology

Total eligible population

The eligibility criteria for a NHS Health Check are set out in the Regulations\(^1\). Each eligible person aged 40-74 should be offered a NHS Health Check once in every 5 years and each person should be recalled every 5 years if they remain eligible. In addition, people diagnosed with a set of pre-existing clinical conditions are not eligible for a NHS Health Check.

Whilst the above personal criteria are clearly defined in the Regulations, the criteria defining the population to which a local authority should offer the programme – defined in the Regulations as “a person in the local authority’s area” has led to different interpretations as it could potentially refer to the local resident population, the population registered with a local GP, a visitor to the area or someone working in the area.

Currently, PHE estimate the total eligible population (TEP) based on resident population. The process is described below:

- at the end of each financial year, PHE calculate the number of people aged 40-74 using the latest available Office of National Statistics mid-year population estimates for each area
- the number of people on existing disease registers and therefore not eligible for a NHS Health Check is estimated by applying the NHS Health Check Ready Reckoner\(^2\) tool age and sex specific weightings
- the total eligible population is equal to the number of people aged 40-74 (i) minus the estimated number of people on disease register (ii)
- PHE shares the TEP figure with Directors of Public Health from each local authority and invites them to either agree to use the PHE calculated figure or to submit a revised figure if they can provide a more accurate assessment of their total eligible population. A sub-group of the Data Intelligence and Information Governance group (DIIG) reviews the submission against a set of criteria including timeliness, coverage and eligibility criteria. Approved revised figures are used instead of the PHE figures. A summary of revisions made to local TEPs over the last 4 years is presented in Appendix A. The TEP figure constitutes the denominator against which the NHS Health Check programme activity is calculated in the following year

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**Issue:** this process leads to a lack of consistency as some local TEPs are based on GP-registered populations whilst others are based on resident population.

**Activity indicators**

The NHS Health Check programme operates on a rolling 5 year cycle. As the steward of the programme, Public Health England facilitates the return of data from all LAs in England. Quarterly, LAs report to Public Health England (PHE) the number of NHS Health Check offered and completed in their area. PHE publish these activity figures as Official Statistics including 3 key indicators, which are calculated and published in the Public Health Outcome Framework (PHOF):

- 2.22iii - Cumulative % of the eligible population aged 40-74 offered an NHS Health Check in the 5 year period 2013/14 – 2017/18
- 2.22iv - Cumulative % of the eligible population aged 40-74 offered an NHS Health Check who received an NHS Health Check in the 5 year period 2013/14 - 2017/18
- 2.22v - Cumulative % of the eligible population aged 40-74 who received an NHS Health check in the 5 year period 2013/14 - 2017/18

**Issue:** the current and first NHS Health Check cycle covers the period April 2013 to March 2018. A method to report 5 years activity after 2013/18 has yet to be defined.

**Out of scope**

This consultation is not concerned with the criteria used to determine whether an individual is eligible for an NHS Health Check; these criteria remain as set out in Regulations.

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3 PHOF: https://fingertips.phe.org.uk/profile/public-health-outcomes-framework
## Recommendations

To address the issues with the current methodology, the NHS Health Check Data Intelligence and Information Governance group (DIIG) has sought advice from the PHE Indicator Methodology Review Group (IMRG).

At a meeting held on 7 September 2017, PHE Indicator Methodology Review Group (IMRG) made 4 recommendations.

| Recommendation 1 | PHE to change the data source used to estimate the TEP from the resident population to the General Practice (GP) registered population for Practices located within the boundaries of the LA. To do this, PHE will use the published GP list\(^4\) sizes from NHS Digital.

PHE should apply national weightings (by age and sex) to the GP registered population in order to estimate the number of people not eligible for a NHS Health Check. The weightings should be sourced from the THIN GP research database\(^5\). |
|---|---|
| Rationale | The majority of LAs use general practice clinical systems to collect data on the number of people offered a check and the number of people having 1 each quarter. This means that many LAs are collecting data on the registered and not the resident population. This then leads to a mismatch in the data published on the Public Health Outcomes Framework (PHOF) as the TEP (the indicator denominator) is based on the resident population but the number of people offered or having a check (the indicator numerator) can be the registered population.

Additionally, among the LAs who revise their TEP a majority use data accessed from GP clinical systems (see Appendix B). This means that currently some local TEPs are already based on GP registered populations whilst others (default estimates) are based on resident population. Therefore, this change would ensure a consistency of approach across all LAs.

Implementing the recommended change will mean that the indicators used to report LA activity on PHOF will use data for the numerator |

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\(^4\) GP lists: [https://digital.nhs.uk/catalogue/PUB23139](https://digital.nhs.uk/catalogue/PUB23139)

and denominator which comes from same defined population – the GP registered population.

**Recommendation 2**
The frequency at which PHE will supply TEP data to LAs will be yearly.

**Rationale**
Practices will change on a yearly basis, so populations by local authority should be estimated on a yearly basis using up-to-date GP lists.

**Recommendation 3**
LAs should be invited to make revisions to their TEP on the condition that the GP-registered population is used as the data source.

**Rationale**
To ensure that numerator and denominator of the PHOF indicators come from the same population group.

**Recommendation 4**
After the first 5 years of data on the programme (April 2013 – March 2018) the PHOF indicator will transition to a rolling time frame i.e., April 2014 to March 2019, April 2015 to March 2020 etc.

This means that the indicator measuring the cumulative proportion of eligible people offered a check (2.22iii) will be calculated using: the number of eligible persons offered a NHS Health Check in the previous 5 years divided by the number of eligible persons on last year of the review period.

The indicator measuring the cumulative proportion of eligible people having a check (2.22iv) will become: the number of eligible persons who had a NHS Health Check in the previous 5 years divided by the number of eligible persons on last year of the review period.

**Rationale**
This methodology is in keeping with other population-based public health programmes. The numerator and denominator will both be calculated on rolling basis.

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6 See for example the breast screening programme coverage: https://fingertips.phe.org.uk/profile/cancerservices/data#page/4/gid/1938132830/pat/46/par/E39000030/ati/153/are/E38000037/iid/91339/age/265/sex/2
| Issues for consideration during consultation | Note that the indicators showing quarterly and yearly activity will still be available on the NHS Health Check profile.\(^7\) |

\(^7\) [https://fingertips.phe.org.uk/profile/nhs-health-check-detailed](https://fingertips.phe.org.uk/profile/nhs-health-check-detailed)
Consultation questions

PHE is now inviting stakeholders to share their view on the recommendations presented in this document:

1. Do you agree that the TEP should be based on the GP-registered population rather than the resident population?
2. Do you agree that the frequency at which PHE will supply TEP data to LAs should be yearly?
3. Do you agree that LAs should be invited to make revisions to their TEP on the condition that GP-registered population be used as their data source?
4. Do you agree that from 2018/19, 5 year activity will be described using 5 year rolling indicators?

Please take part in this consultation and email your views by 24 January 2018 to: nhshealthchecks.mailbox@phe.gov.uk
Appendix A: Revisions made to the total eligible population (TEP) in the last 4 years

Each year, around 28% of the 152 LAs took the opportunity to revise their eligible population.

<table>
<thead>
<tr>
<th>Financial Year</th>
<th>Local authorities using PHE default estimates (number, %)</th>
<th>Revised PHE estimates</th>
<th>Impact of the revised estimates on the TEP figure for England</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Local authorities revising PHE estimates (number, %)</td>
<td></td>
<td>Proportionate change from the England PHE generated TEP figure that results from including the locally generated TEP estimates.</td>
</tr>
<tr>
<td>2014-15</td>
<td>117 (77%)</td>
<td>35 (23%)</td>
<td><strong>-2.47%</strong></td>
</tr>
<tr>
<td>2015-16</td>
<td>108 (71%)</td>
<td>44 (29%)</td>
<td><strong>-2.65%</strong></td>
</tr>
<tr>
<td>2016-17</td>
<td>107 (70%)</td>
<td>45 (30%)</td>
<td><strong>-1.1%</strong></td>
</tr>
<tr>
<td>2017-18</td>
<td>109 (72%)</td>
<td>43 (28%)</td>
<td><strong>-1.0%</strong></td>
</tr>
</tbody>
</table>
Appendix B: Methodologies used by LAs to revise their 2017/18 TEP

- **Method 1**
  From GP data, obtain number of 40-74 who are eligible for a NHS Health Check = eligible population
  33 LAs used this method in 2017/18

- **Method 2**
  From ONS, obtain number of residents aged 40-74 (=N1)
  From GP data, measure proportion of 40-74 who are not eligible for a NHS Health Check (=Z%)
  Apply this % to the number of residents aged 40-74
  N1-(N1 x Z%) = eligible population
  6 LAs used this method in 2017/18

- **Method 3**
  From GP data, obtain number of registered patients aged 40-74 by sex/age band
  Apply NHS Health Check Ready Reckoner weightings by sex/age groups
  4 LAs used this method in 2017/18