What is the latest evidence on NHS Health Checks?
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Issue 5
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This briefing (issue 5) summarises the findings from research papers identified from the most recent Expert Scientific and Clinical Advisory Panel (ESCAP) literature search on NHS Health Checks (search dates: November 1st 2017 – March 15th 2018) (1). It is presented in a summary format, using the three key research priorities of the NHS Health Check programme – recruitment, delivery and impact.

Key messages

- Four relevant studies addressing at least one of the NHS Health Check research priorities were identified in the current ESCAP literature search
- Three particular groups of people who have not attended NHS Health Checks were identified - those unaware of the programme; those aware of the programme but who did not appreciate the preventive nature; and those who recognised the preventive nature but actively chose not to engage (2)
- Practical barriers to attendance included time constraints, difficulties making an appointment, wishing to avoid the GP, or concerns about the pharmacist’s role in conducting NHS Health Checks (2)
- Half of GPs viewed the NHS Health Check programme as important and beneficial to their patients, whereas those working in pharmacies were all positive about the programme (3)
- Challenges to delivery were IT difficulties, GP resistance, workload, training needs, and inadequate privacy in pharmacies/community settings (3)
- The cost-effectiveness ratio per QALY was £17 600 for the current NHS Health Check scenario, £13 000 for an increased rates of attendance scenario, and £3000 for a deprivation-targeted scenario (4)
- The current NHS Health Check programme is estimated to be preventing 300 premature deaths and an additional 1,000 people being free of cardiovascular diseases, dementia and lung cancer each year in England (5)
- Ensuring those who are eligible receive appropriate treatment, focusing on inviting previous non-attenders, and widening the eligibility criteria to include those with previously diagnosed hypertension, could also contribute to increasing the health benefits of the NHS Health Check programme (5)

Evidence briefings are a summary of the best available evidence that has been selected from research using a systematic and transparent method in order to answer a specific question.

What doesn’t this briefing do?
The findings from research papers summarised here have not been quality assessed or critically appraised.

Who is this briefing for?
It is designed for commissioners, providers and academics interested or involved in the NHS Health Check programme.

Information about this evidence briefing
The findings in this briefing come from the most recent quarterly NHS Health Check literature search which drew upon a literature search of the sources Medline, PubMed, Embase, Health Management Information Consortium (HMIC), Cumulative Index of Nursing and Allied Health Literature (CINAHL), Global Health, PsycInfo, the Cochrane Library, NICE Evidence Search, TRIP database, Google Scholar, Google, Clinical Trials.gov and the ISRCTN registry from Nov 1st 2017– March 15th 2018.

Four highly relevant citations were used to produce this Evidence Briefing

You may request any publications referred to in this briefing from libraries@phe.gov.uk

Disclaimer
The information in this report summarises evidence from a literature search - it may not be representative of the whole body of evidence available. Although every effort is made to ensure that the information presented is accurate, articles and internet resources may contain errors or out of date information. No critical appraisal or quality assessment of individual articles has been performed. No responsibility can be accepted for any action taken on the basis of this information.
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Background

In January 2017 ESCAP summarised the key findings of a rapid evidence synthesis conducted by RAND and the University of Cambridge (6, 7). The descriptive synthesis of quantitative data and thematic synthesis of qualitative data identified a total of 68 papers (from January 1996 to November 2016) that addressed at least one of six research questions posed by Public Health England (PHE).

ESCAP continues to identify evidence relevant to the NHS Health Check programme by producing a quarterly list of citations – the latest literature search is March 2018 (covering search dates November 1st 2017 – March 15th 2018) (1).

This briefing aims to translate the evidence from the NHS Health Checks section of the latest quarterly ESCAP literature search into a user-friendly summary format, in order to inform practice. The briefing is summarised under the three key elements of the NHS Health Check programme – recruitment, delivery and impact.

1. Recruitment

One systematic review addressed the question of who is having an NHS Health Check.

This thematic synthesis explored why people have not attended NHS Health Checks. It highlights three particular groups - those who were unaware of the NHS Health Checks programme; those who were aware of the programme but did not appreciate the preventive nature; and those who recognised the preventive nature but actively chose not to engage (2).

Practical barriers to attendance included time constraints or competing priorities among those with work and carer obligations, perceived or actual difficulties making an appointment, wishing to avoid the GP, or concerns about pharmacy and the pharmacist’s role in conducting NHS Health Checks.

The authors’ suggest three areas for action at a policy or practical level:

- a need clear, targeted communication about the NHS Health Check programme and its purpose. They state that “despite the programme having been in place for 8 years, some people remain unaware of it, and many of those who were aware had misunderstood the purpose or did not appreciate the potential benefits of prevention and early detection” pe34
- offering evening or early morning appointments in general practice settings and clarifying the distinction between appointments for NHS Health Checks and appointments for routine and urgent care may provide opportunities for more people to attend
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- delivering NHS Health Checks in pharmacy and community settings could be promoted and awareness raised among the general public of the suitability of pharmacies as sites for NHS Health Checks

2. Delivery

One study addresses the delivery of the NHS Health Check Programme.

A systematic review looking at the views of commissioners, managers and healthcare professionals towards the NHS Health Check programme, found that some staff could see the benefit of the NHS Health Check programme, but only half of GPs viewed the programme as important and beneficial to their patients (3).

Key findings were:

- A range of views was seen in the qualitative studies - some staff were enthusiastic, whereas others raised concerns around inequality of uptake, the evidence behind the programme and the cost-effectiveness
- Those working in pharmacies were all positive about the programme, citing opportunities for their business and staff
- Challenges to implementation included difficulties with IT and computer software, resistance to the programme from GPs, the impact on workload and staffing, funding and training needs, and inadequate privacy in pharmacies and community settings
- Some pharmacies experienced difficulty recruiting people for NHS Health Checks
- Poor access to some venues was reported in community settings.

3. Impact

Two papers addressed the impact of the NHS Health Check programme.

One study (previously reported as a conference abstract in September 2017) aimed to model the cost-effectiveness and impact of the NHS Health Check programme using real-world data from Liverpool (4). The study used 3 scenarios - current NHS Health Check (HC) implementation; HC with increased rates of attendances and lifestyle advice; and HC targeted to the most deprived. Findings were:

- Scenarios did not become cost effective until after 2030
- Cost-effectiveness ratio per QALY compared with no HC from 2011 to 2040 was about £17 600 for the current HC scenario, £13 000 for the increased rates scenario, and £3000 for the targeted scenario.
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The authors interpret their findings by stating that “the current implementation of the NHS Health Check programme in Liverpool will probably increase health inequalities whereas a targeted approach may be more cost-effective and reduce inequalities” p34.

**Compare:** Issue 2 of this NHS Health Check Evidence Briefing series outlined an economic evaluation that found NHS Health Check was highly cost-effective and associated with an incremental cost effectiveness ratio of £900/QALY.

Another microsimulation study aimed to estimate the health benefits and effects on inequalities of the current NHS Health Check programme and the impact of making feasible changes to its implementation (5). This study estimated that the current NHS Health Check programme is preventing around 300 premature deaths and resulting in an additional 1,000 people (at age 80 years) being free of cardiovascular diseases, dementia, and lung cancer each year in England.

The study showed that a strategy ensuring those who are assessed and eligible for treatments receive appropriate treatment, and focusing on inviting previous non-attenders and widening the eligibility criteria to include those with hypertension, could also make a valuable contribution to increasing the health benefits of the programme.
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### Summary table showing key information for the research studies included in this evidence briefing

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<thead>
<tr>
<th>Title</th>
<th>Aim</th>
<th>Design</th>
<th>Participants</th>
<th>Results</th>
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<td>Harte E et al. 2018. Reasons why people do not attend NHS Health Checks: a systematic review and qualitative synthesis.</td>
<td>To systematically review and synthesise the published qualitative literature exploring why people have not attended NHS Health Checks, in order to better understand these variations in uptake at an individual level</td>
<td>A systematic review and thematic synthesis of qualitative studies. An electronic literature search was carried out from 1st Jan 1996 to 9th Nov 2016, and reference lists of all included papers were also screened manually. Inclusion criteria were primary research studies that reported the views of people who were eligible for but had not attended an NHS Health Check.</td>
<td>-</td>
<td>From the initial 18 524 articles identified from the searches, 178 were reviewed at full-text level. Nine studies met the inclusion criteria. Reasons for not attending included lack of awareness or knowledge, misunderstanding the purpose of the NHS Health Check, aversion to preventive medicine, time constraints, difficulties with access to general practices, and doubts regarding pharmacies as appropriate settings.</td>
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<td>Mills K. et al. 2017. Views of commissioners, managers and healthcare professionals on the NHS Health Check programme: a systematic review.</td>
<td>To synthesise data concerning the views of commissioners, managers and healthcare professionals towards the NHS Health Check programme in general and the challenges faced when implementing it in practice</td>
<td>A systematic review of surveys and interview studies with a descriptive analysis of quantitative data and thematic synthesis of qualitative data. An electronic literature search from 1st January 1996 to 9 November 2016 with no language restriction and manual screening of reference lists of all included papers.</td>
<td>-</td>
<td>From the initial 18 524 articles identified from the searches, 178 were reviewed at full-text level. 15 studies met the inclusion criteria. There was evidence that some commissioners and healthcare professionals were enthusiastic about the programme, whereas others raised concerns around inequality of uptake, the evidence base and cost-effectiveness. In contrast, those working in pharmacies were all positive about programme benefits.</td>
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| Inclusion criteria: primary research reporting views of commissioners, managers or healthcare professionals on the NHS Health Check programme and its implementation in practice. | The main challenges to implementation were: difficulties with information technology and computer software, resistance to the programme from some GPs, the impact on workload and staffing, funding and training needs. |

| Collins B et al. 2017. Distributive equity in the real world: would targeting the National Health Service Health Check programme to deprived groups be more cost effective? | To model the cost-effectiveness and distributive equity impact of NHS Health Check programme using real-world data from Liverpool, a deprived city in the UK with high incidence of cardiovascular disease. |

| A dynamic, stochastic microsimulation model. Annualised costs and QALYs were derived from a range of sources on the basis of a pragmatic review of previous models. Three scenarios were compared against a no health checks baseline scenario: current NHS Health Check (HC) implementation; HC with increased rates of attendances, prescribing, and lifestyle advice; and HC targeted to the most deprived quintile of the population. | Each scenario modelled a population of 258,000 people aged 30–84 years. Scenarios did not become cost effective until after 2030. The overall cumulative incremental cost-effectiveness ratio per QALY compared with no Health Checks over the 30 years from 2011 to 2040 was about £17 600 for the current scenario, £13 000 for the increased scenario, and £3000 for the targeted scenario. Health inequalities would increase under the current scenario but would decrease under the targeted scenario. |
Mytton OT et al. 2018.  

The current and potential health benefits of the National Health Service Health Check cardiovascular disease prevention programme in England: A microsimulation study.

To estimate the health benefits and effects on inequalities of the current NHS Health Check programme and the impact of making feasible changes to its implementation.

A longitudinal microsimulation model to simulate the NHS Health Check programme and its impact on health, using epidemiological data for England and performance data for the programme.

It was estimated that the current NHS Health Check programme is preventing approximately 300 premature deaths (before 80 years) and resulting in an additional 1,000 people at age 80 years being free of cardiovascular diseases, dementia, and lung cancer each year in England.

The benefits were greatest for people living in more deprived areas - the programme as a whole is reducing health inequalities.

Making feasible changes to the delivery of the existing programme such as extending eligibility to those with pre-existing hypertension, extending the upper age of eligibility to 79 years, increasing uptake of health checks by 30%, and increasing treatment rates amongst eligible patients 2.5-fold, could result in at least a 3-fold increase in benefits compared to the current programme.
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References