



Department
of Health

Increasing Uptake of the NHS Health Check

Report of research with Medway Council to optimise the invitation letter

DH Behaviour Change Team, February 2014.

This paper expands on a two page summary report distributed at the NHS Health Checks national network event in February 2014.

Introduction

This research aimed to find out whether making small, simple changes to the invitation letter to attend a NHS Health Check in Medway would result in a change in uptake.

The NHS Health Check is offered to 40-74 year olds in England who don't have an excluding medical condition. These 15 million patients are invited over a rolling five-year period i.e. one fifth per year. The programme is a policy priority for DH, NHS England and Public Health England and local authorities in their efforts to tackle premature mortality and promote healthy lifestyles. However, uptake rates are significantly lower than desired, at around 50 per cent.

In 2013, 14,814 people were invited to attend an NHS Health Check in Medway. Only thirty-one per cent¹ attended. The NHS Health Checks manager in Medway, Kerri-Anne Collins, was keen to increase uptake. Kerri-Anne offered to collaborate with of the Department of Health Behaviour Change Team on this research trial.

Method

The trial took place at four GP practices in Medway, where the NHS Health Check is offered to all 40-74 years olds. Each year, those turning 41, 46, 51, 56, 61, 66 or 74 on their next birthday are invited for an NHS Health Check. Unusually, but not without precedent, all of the NHS Health Check invitation letters are sent out in one batch across the local authority at one time of year, in May and June.

Four GP practices in Medway were purposively selected for the study due to having large numbers of patients eligible for NHS Health Checks in 2013/2014 and suitable IT systems and personnel to minimise resources required to administer the research.

¹ 2013-14, NHS Health Check Data, http://www.healthcheck.nhs.uk/interactive_map/south_of_england/

A list of patients eligible for an NHS Health Check in 2013/14 was generated from patient records accessed by the Medway NHS Health Check manager. This resulted in a list of 3,511 patients from across the four GP practices. These were extracted into a database and ordered alphabetically.

The IT systems in place for sending the letters meant that it was impossible to truly randomly allocate the participants to the control or intervention letters (on which, see below). Instead, in order to minimise bias by allocating based on surname, those with surnames in the first half of the list received control letters at two surgeries and intervention letters at the other two surgeries; and vice versa.

In May 2013, the NHS Health Checks manager mail-merged and printed the letters. Both letters at all four practices were posted during the subsequent few weeks.

Letters tested

The trial compared attendance for an NHS Health Check when using the standard invitation letter – which acted as a control – to a new invitation letter based on insights from behavioural sciences. The standard invitation letter used in Medway is closely based on the DH-designed national template. The letter is the same across all practices apart from one paragraph which outlines the different arrangements for blood testing across Medway.

To create the intervention letter, the research team made a number of changes to the standard letter. These were informed by qualitative research² detailing patient's views on attending the NHS Health Check; and by evidence from behavioural sciences about the impact of messaging on people's behaviour³. There is little robust evidence on NHS Health Check uptake to draw on.

The changes were:

- We added a tear-off slip for patients to record the date and time of their NHS Health Check. The aim is to bridge the gap between intentions and actions. Past research has shown that prompting people to commit to where and when they will complete an intended behaviour increases engagement in activities ranging from voting to vaccinations.
- We changed the language so it was more direct and focused on the action the recipient needed to take; using "appointment is due" rather than "you are invited". This gives more salience to the appointment and infers the default is to attend.
- We shortened the text and used simpler language.

These interventions form part of a wider programme of research to test the application of behavioural insights to uptake of the NHS Health Check; there are large gaps in the current evidence.

² See for example http://www.onedeeptbreath.co.uk/gallery_greenwich.html

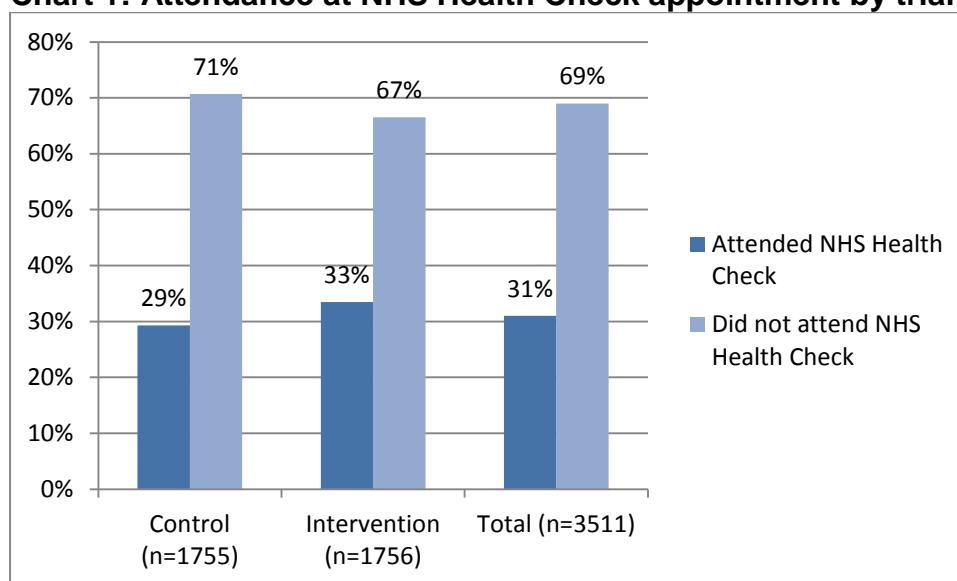
³ See for example Dolan, P., Hallsworth, M., Halpern, D., King, D. Metcalfe, R. & Vlaev, I. (2012) Influencing behaviour: The MINDSPACE way. *Journal of Economic Psychology*, 33, 264-277.

Results

The outcome measure for the trial was whether the participant attended their NHS Health Check or not.

Chart 1 shows that 29 per cent (95% CI: 27% to 31%) of patients who received the control letter and 33 per cent (95% CI: 31% to 36%) of those who received the intervention letters attended an NHS Health Check. This equates to a 13% increase in uptake between the two letters. This is statistically significant at the 5% level ($p=0.007$) which suggests evidence to show that the intervention letters perform better than the control letters, i.e. that more people attend an NHS Health Check.

Chart 1: Attendance at NHS Health Check appointment by trial arm



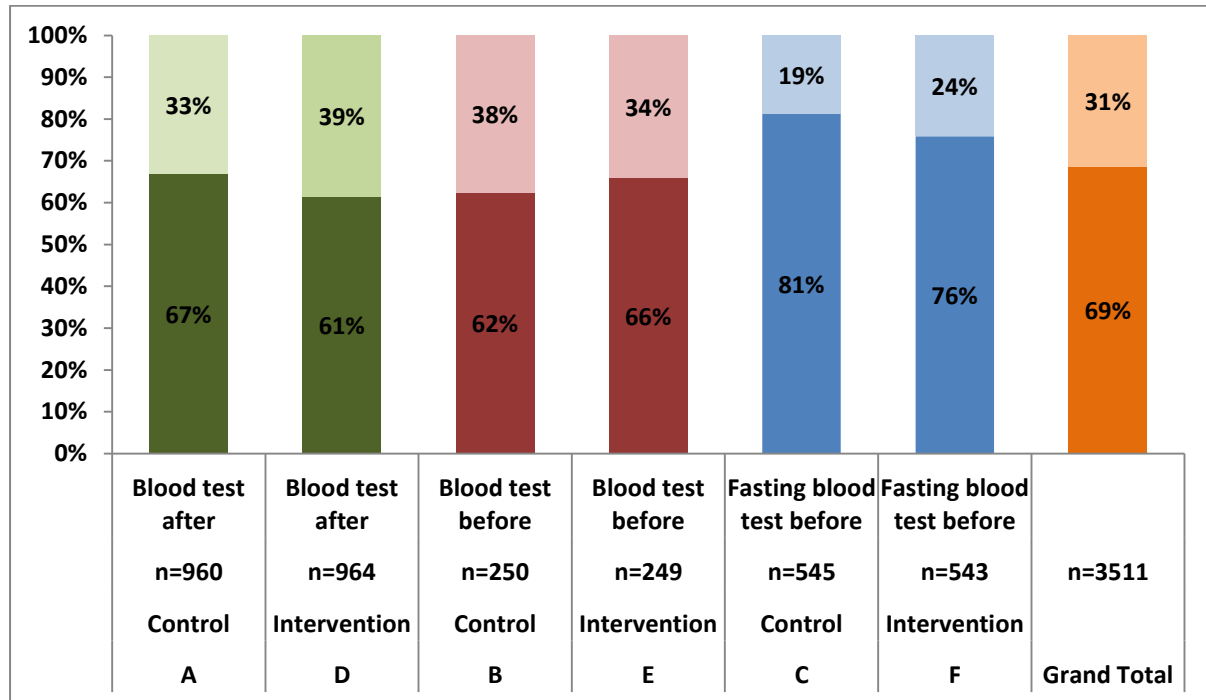
GP practices providing the NHS Health Check in Medway do not provide point of care blood testing. At each practice, the cholesterol blood test element of the NHS Health Check must take place at another time. But arrangements differed between the practices involved in the trial for when this took place and if the blood test required the patient to fast for the preceding 12 hours. This in turn impacts the imitation letter: both the control letter and the intervention letter.

The differences in the arrangements for blood tests between the four GP practices meant that three different letters had to be produced:

- Letters A (control) and D (intervention) invited people to attend a blood test *after* their appointment i.e. the letter made no reference to the blood test
- Letters B (control) and E (intervention) invited people to attend a blood test *before* their appointment
- Letters C (control) and F (intervention) invited people to attend a *fasting blood test before* their appointment

The only difference between the letters was the sentence about the blood test arrangements. As the other changes made to the letters were identical, we are able to compare outcomes across letters. Chart 2 shows how uptake differed by letter.

Chart 2: Attendance at NHS Health Check by different blood test letter



Letters B and D had the highest attendance rate (38% and 39% respectively) and letter C had the lowest attendance rate (19%). The proportion of patients attending significantly differs between the letter that they were sent ($p < 0.001$).

A regression model, modelling whether people attended an NHS Health Check, was conducted with the following variables included and all-two way interactions between them.

Variables were:

- Letter (Control, Intervention)
- Gender (Male, Female)
- Ethnicity (White, Other, Not stated)
- Practice (1, 2, 3, 4)
- Age (Continuous)

All of the major factors identified had a significant effect on whether people attended an NHS Health Check. When included in a single model with interactions, the main effects remained significant, although letter was the least significant of the factors. The four interactions that were statistically significant did not include the letter. This suggests that while the invitation letter does affect the likelihood of a person attending an NHS Health Check, other factors – such as being older – play a larger role in determining whether a person attends an NHS Health Check.

Conclusions

These findings imply that making small changes to the invitation letter can increase uptake of the NHS Health Check. Further research is needed to ensure this approach is replicable in other areas, and to work out which changes made to the letter have the best change of increasing uptake. To this end, the DH Behaviour Change Team is running similar trials in other local authorities. These will report in 2014:

- **Southwark**, which tests the impact of sending a text message a week before and after the invitation letter, as well as changes to the invitation letter including the use of a personalised commitment slip, social norms and testimonials, and action based language.
- **Northamptonshire**, which tests the impact of a 'myth-busting' Q&A and drawing people's attention to the cost associated with not attending.
- **Stoke**, a pilot project to find out whether pre-booking appointments changes uptake.

Further information, including results of these further trials as they conclude, is on the NHS Health Checks website.

The research team, the DH Behaviour Change Team, can be contacted at annabelle.bonus@dh.gsi.gov.uk or daniel.berry@dh.gsi.gov.uk.

Annex 1: Control letter (the national template letter)

Dear Xxxx

We are inviting you to attend your free NHS Health Check.

NHS Health Checks are being offered to people aged between 40 and 74 once every five years.

The check is to assess your risk of developing heart disease, stroke, kidney disease or diabetes. If there are any warning signs, then together we can do something about it.

By taking early action, you can improve your health and prevent the onset of these conditions. There is good evidence for this.

The check should take about 20–30 minutes and is based on straightforward questions and measurements such as age, sex, family history, height, weight and blood pressure. You will also need a simple blood test to measure your cholesterol level.

Following the check, you will receive free personalised advice about what you can do to stay healthy.

Take a look at the enclosed leaflet for more information about the NHS Health Check and how it could benefit you.

Please call the surgery to book your appointment on XXXXXXXX. Your appointment should be after you have had your blood test – see enclosed form about where to go for this.

Yours sincerely,

Dr XXXX

Annex 2: Intervention letter (informed by behavioural insights)

Dear Xxxx

You are due to attend your NHS Health Check.

Please call us on XXXXXX to book your appointment and record the date and time on the slip below. Your appointment date should be after you have had your blood test – see enclosed details about where to go for this.

Take a look at the enclosed information about the NHS Health Check and how it would benefit you.

Yours sincerely,

Dr XXXXXXXXXXXX

My blood test is at _____ on _____ at _____
location date time

My NHS Health Check is at _____ on _____ at _____
location date time

