Improving the uptake of NHS Health Checks in more deprived communities using ‘outreach’ telephone calls made by specialist health advocates from the same communities:

A quantitative service evaluation:

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Rationale for alternative method of engaging patients for an NHS Health Check

• Low uptake in areas with highest deprivation

• Patient population less likely to respond to a letter invite

• CVD related mortality and morbidity highest in these areas

• Method used to invite patients for an NHS Health Check has been shown to influence likelihood of attendance (Gidlow 2015)

• 2 models in Bristol developed to complement the existing General Practice model:
  - community outreach
  - telephone outreach

• Telephone outreach model: Piloted in one practice in Bristol – funded by Public Health Bristol and offered to all GP Practices in the lowest super output areas (LSOA) in Bristol.
How does the telephone outreach initiative work?

1. Community link workers trained to telephone eligible patient
2. Patient agrees to NHS Health Check
3. Selected aspects of NHS Health Check are completed over the phone
4. Appointment offered to patient to attend GP Practice for remaining aspects of NHS Health Check
Aim and Objectives

Aim
To determine the efficacy of a telephone outreach service for inviting patients for an NHS health Check, in GP practices from the LSOA in Bristol

Objectives
Primary outcome:
• Compare the rate of uptake of an NHS Health Check in the target population, in GP practices using the telephone outreach initiative, with the rate of uptake in comparison / control practices using traditional letter invite

Secondary outcomes:
• Investigate the relationship between attendance and patient demographics (age, gender, IMD and ethnicity) in both patients invited using:
  - telephone outreach initiative
  - traditional letter invite
Methods

• **Study design:** quasi-experimental approach

• **Target Population:** adults eligible for an NHS Health Check and registered at one of 17 GP practices in the lowest LSOA’s in the City of Bristol

• **Data:** Pseudoanonymised individual, patient level data from electronic medical records system, (EMIS)

• **Analysis:** data cleaned and analysed using STATA v13.1
  – Descriptive statistics to explore population demographics
  – Binary logistic regressions using a forced entry method, to look at associations and potential predictors for making an appointment and for attending for an NHS Health Check
Flow chart of invites - attendances

Calls made n=2399
- Contact n=1038 (43%)
  - No contact n=1361 (57%)
- No contact n=1361 (57%)

Health Check Completed n=587 (79%)
- No HC completed n=154 (21%)

Appointment made n=741 (71%)
- No appointment made n=213 (16%)

Letter Sent (?other methods of invite) n=3279
- Health Check Completed n=1117 (34%)
  - HC Not completed 2162 (66%)

% of completed Checks as a proportion of invites / calls

N=12 Intervention Practices (24%)
(57% from contact)

N=5 Control Practices (34%)

Centre for Academic Primary Care
Index of Multiple Deprivation (IMD)

**Invitations**
- Mean IMD score prior to intervention: 37.7
- Mean IMD score during intervention: 37.9
- Telephone outreach practices (N = 12)
- Control practices N=5

**Attendance**
- Mean IMD score prior to intervention: 34.3
- Mean IMD score during intervention: 36.6
- Telephone outreach practices (N = 12)
- Control practices N=5
Ethnicity

**Invitations**

- % ethnic minority patients invited prior to the intervention period: Telephone outreach Practices (n=12) - 21.8, Control Practices (n=5) - 13.6
- % ethnic minority patients invited during intervention period: Telephone outreach Practices (n=12) - 23.3, Control Practices (n=5) - 11.7

**Attendance**

- % ethnic minority patients who attended prior to the intervention period: Telephone outreach Practices (n=12) - 27.8, Control Practices (n=5) - 15.9
- % ethnic minority patients attended during intervention period: Telephone outreach Practices (n=12) - 25.6, Control Practices (n=5) - 7.2
Completion of an NHS Health Check
controlling for gender, age, IMD quintile, telephone contact made, (intervention practices only) letter sent (intervention only), start date of intervention (intervention practices only)

**Intervention**
- Men less likely to attend (OR 0.78) than women
- Decreasing likelihood of attendance with age
- Patients located in the 3rd national quintile for IMD most likely to attend (OR 1.08) *
- Letters sent within 2 weeks of phone call significantly reinforced the intervention (OR 3.26)
- Letters sent up to 9 months prior to phone call less likely to result in a completed NHS Health Check (OR 0.57)

* Only controlling for gender, age and IMD quintile

**Control**
- Men significantly less likely to attend than women (OR 0.82)
- Patients aged 70-74 more likely to attend than those aged 40-69 (OR 2.09) (increasing likelihood of attendance with age)
- Patients located in 1st national quintile for IMD most likely to attend
Summary

• Intervention practices more successful at attracting ethnic minority patients to complete their NHS Health Check (26%), compared to non-telephone outreach practices (7%).

• Statistical modelling showed that intervention practices were more likely to complete an NHS Health Check on more deprived patients compared to the control practices.

• All practices completed more NHS Health Checks on patients from IMD quartiles 3-4 compared to 1-2.

• Patients more likely to attend their GP practice to complete their NHS Health Check, following their phone call if they were female, over aged 70 and less deprived.
Acknowledgments

This Service Evaluation was funded by Public Health England and supported and advised by Public Health Bristol.

We would like to thank Public Health England, Public Health Bristol and the Commissioning Support Unit (Bristol) for all of their support and advice in conducting this service evaluation.

Additionally, we offer a huge thanks to the co-founders of the telephone outreach model; Vicki Morris, Vicki Staatz and Dr Trevor Dean, without whom, the opportunity to offer an NHS Health Check in an alternative format would not have been possible.

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