



Using Heart Age to Boost NHS Health Check Uptake with the deprived and “hard to reach”

Public Health England Webinar
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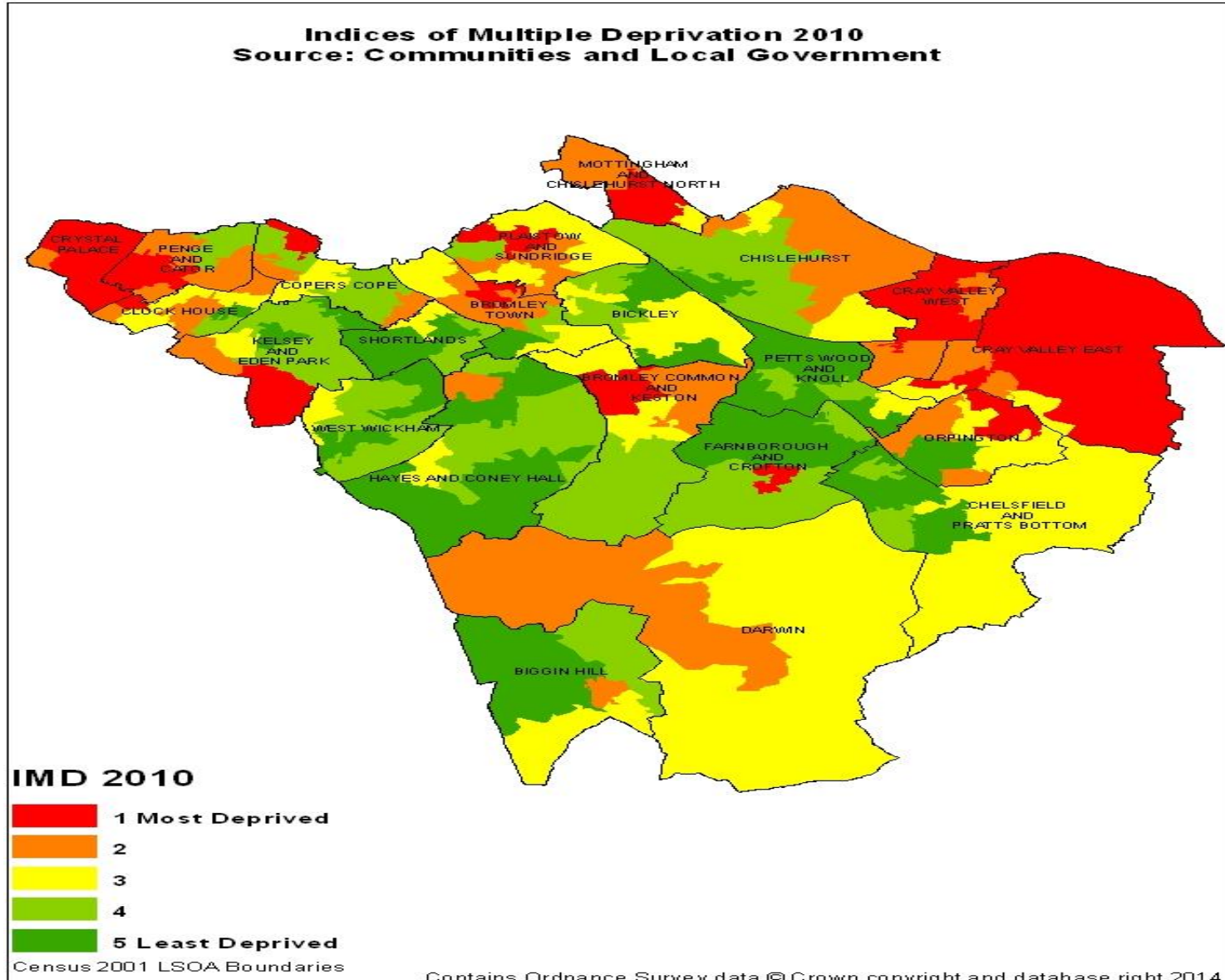
Gillian Fiumicelli, Community Vascular Coordinator, Bromley Public Health

Who are Habit Partners?

- We are a Community Interest Company, whose founders published Heart Age in 2008
- Our mission is to improve heart health and non communicable diseases through engaging people to improve their diet and lifestyle
- We have published extensively on the impact of Heart Age and developed versions for use in the public and private sector in multiple countries

more details at www.habitpartners.com

An Overview of Bromley Borough

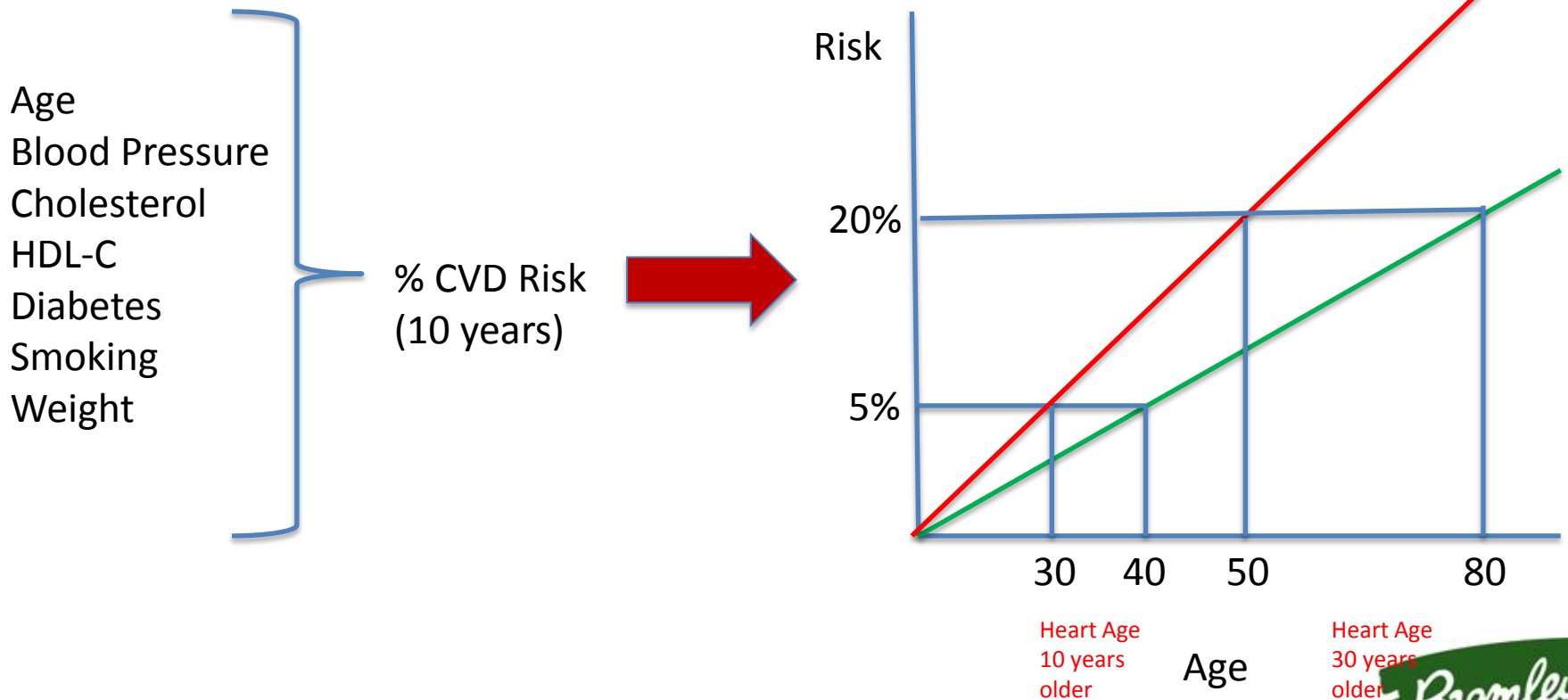


NHS Health Checks in Bromley

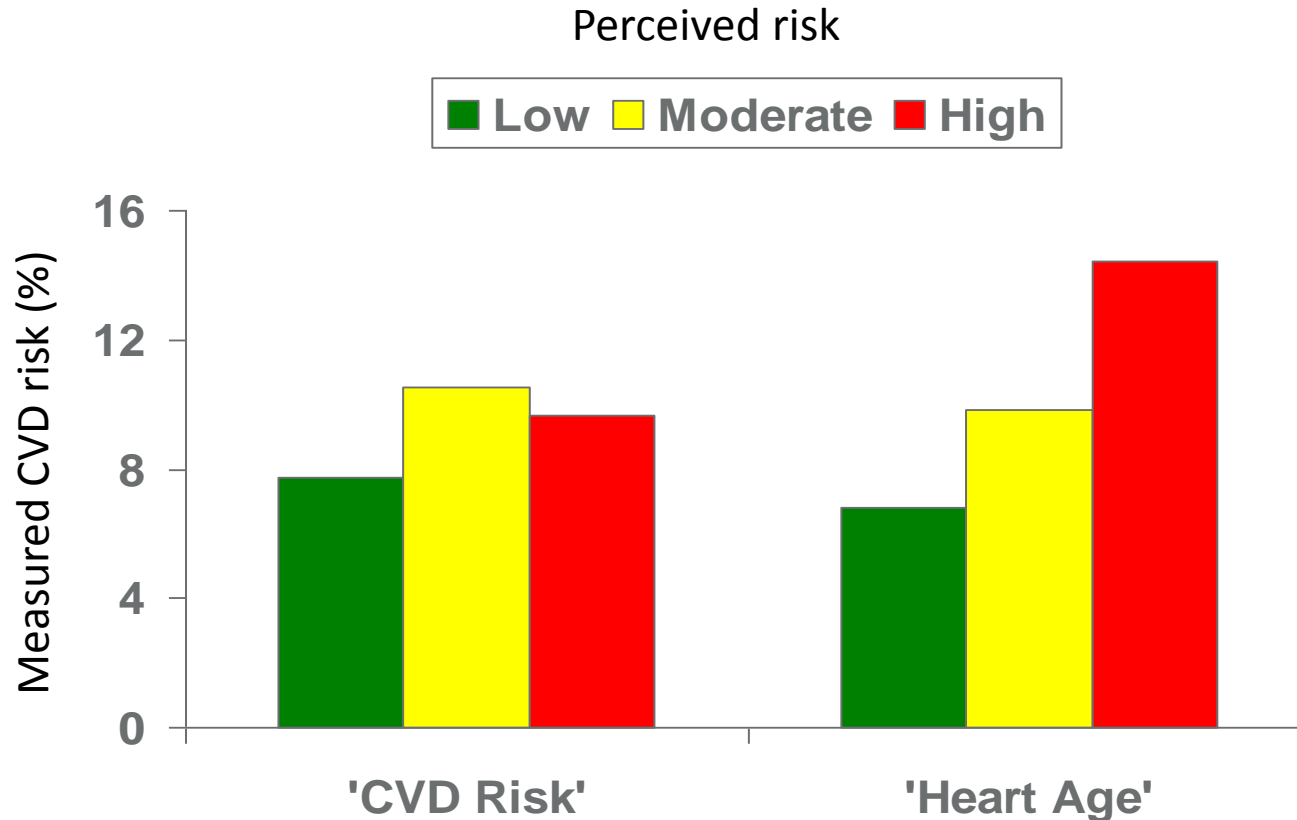
NHS Health Checks Performance April 2012 - March 2015					
	Number eligible	Number invited	% invited	Number received	% take up
2012-13	100,037	23,033	23%	8,958	38.9%
2013-14	93,215	23,267	25%	9,028	38.8%
2014-15 - Total	93,215	21,400	22.9%	8533	39.9%

What is Heart Age?

A concept and online tool, recently adopted by PHE and JBS3



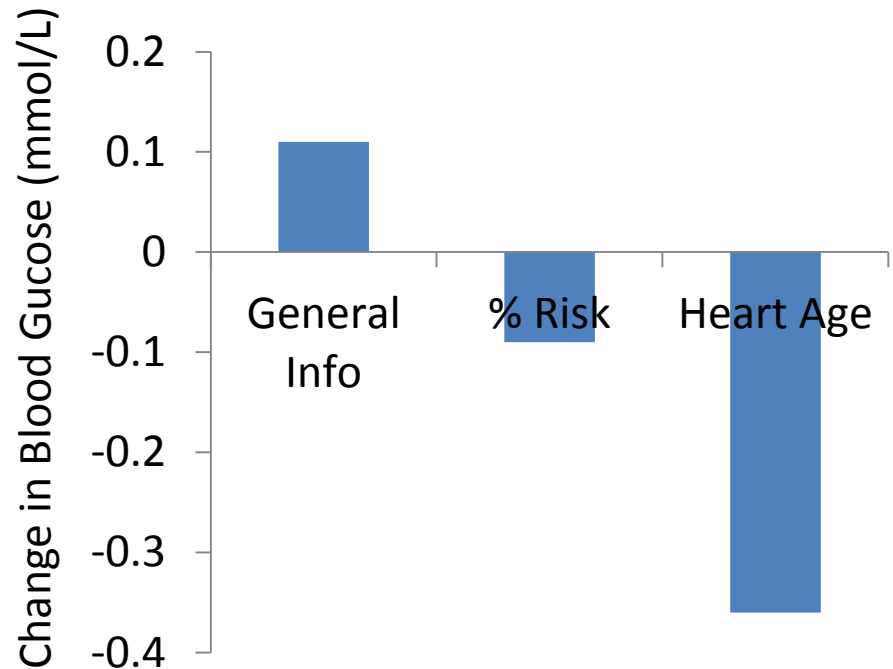
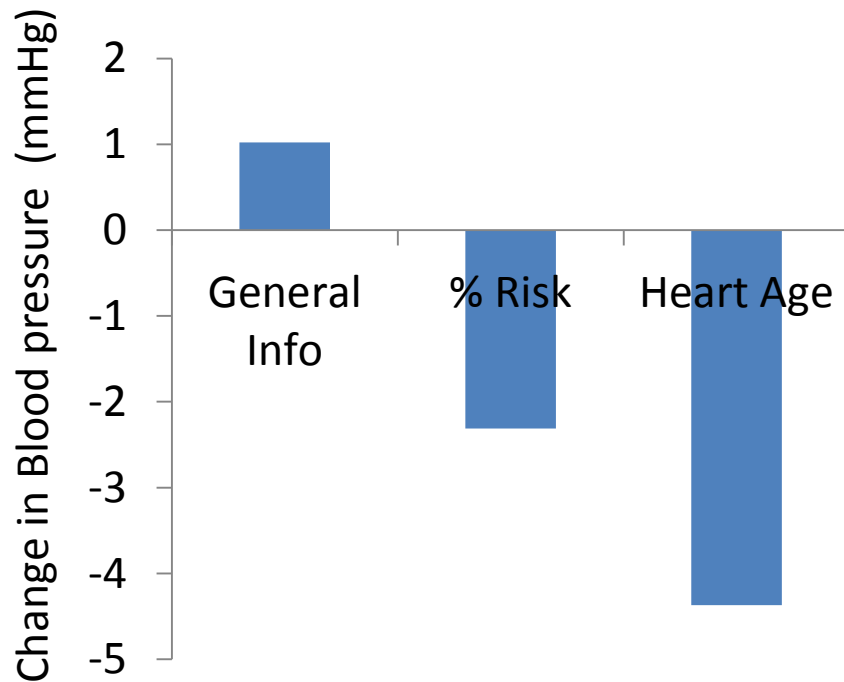
Heart Age helps people understand risk



N=450, BMI>30 or smoking

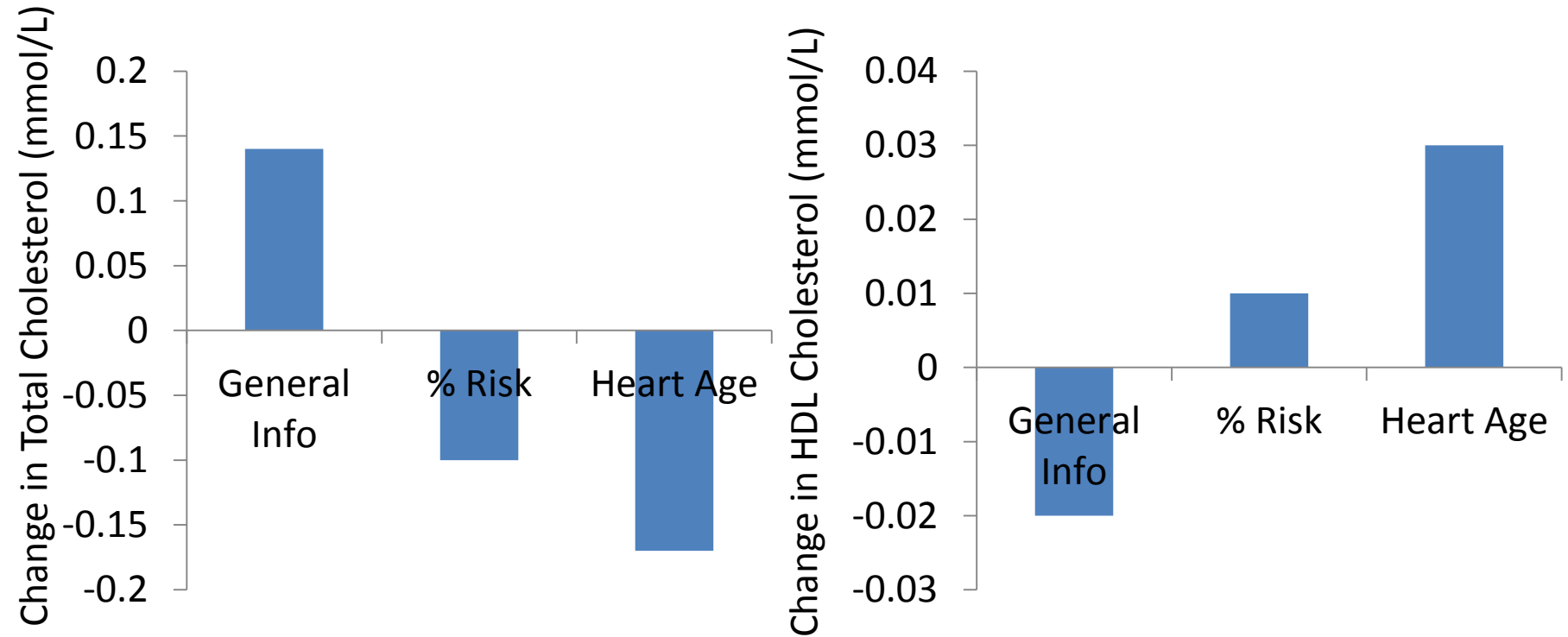
Type of risk score presented to user

Heart Age reduces risk factors after one year



AA Lopez-Gonzalez, A Aguilo, M Frontera, M Bennasar-Veny, I Campos, T Vicente-Herrero, M Tomas-Salva, J De Pedro-Gomez, P Tauler (2014), Eur J Prev Cardiol

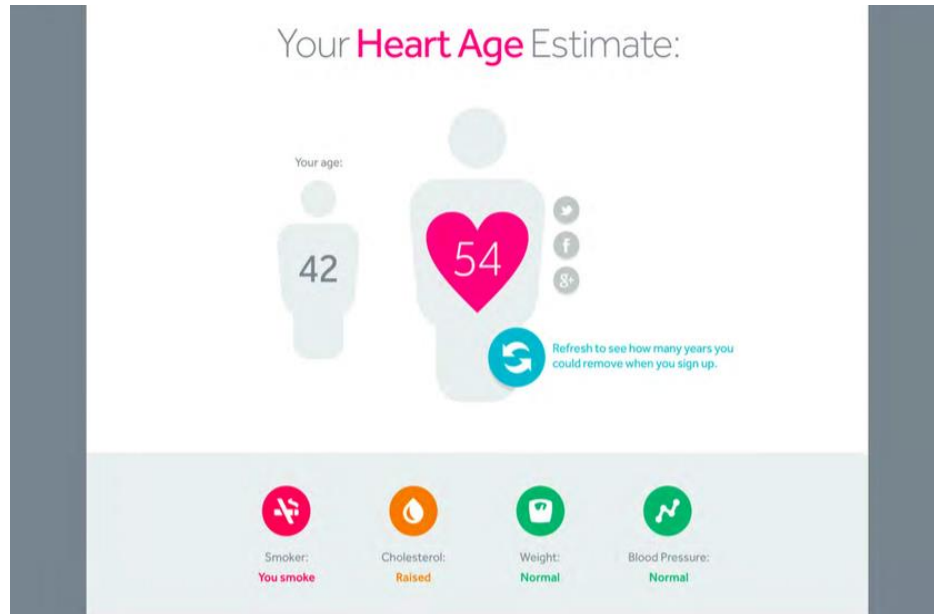
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How Heart Age is Presented

Research shows that a simple comparison of real and heart age is most effective



Research also shows that it is this 'emotional' response that is key

Simple Question

Could Heart Age work to Increase Attendance at the NHS Health Check?



Trial Design Within the Health Check Process

43 general practises in Bromley
60% of general practices expected to consent



39 practices consented



Simple randomisation, stratified by practice, performed quarterly



Trial arm A- Heart Age invitations (50%)

Trial arm B- Standard invitations (50%)



Invitation sent as per normal protocol for each practice



Reminder letter sent, as per normal protocol for each practice



Outcome evaluation, uptake of Health Checks
Reviewed by Vascular Team in Bromley

Heart Age 'Invite' plus Leaflet and Website

HEART AGE

ANDY'S STORY
ACTUAL AGE 51, HEART AGE 56

"I like to think I'm in pretty good shape for my age, I used to play a lot of sport and now have a very active job restoring old properties using traditional materials.

When I took the HeartAge test and found out that my Heart Age is 56 it was a shock. I look at my own father, who is training for a marathon in his late seventies, that's the kind of role model I want to be for my own kids. So I've started to make some changes to my diet and lifestyle – it's already making a difference."

Take the Test before your NHS Health Check www.HEARTAGE.me/bromley

WHY I THINK YOU SHOULD GO TO THE NHS HEALTH CHECK
"The NHS Health Check is great, it's quick, free and it gives you peace of mind. Everyone who's offered one should go, think of it like taking the car for an MOT."

Challenges of performing research in primary care

Implementation plan:

- Practice Visit by Public Health Vascular Nurse to introduce method and supervise first randomisation of invitation letters
- Invitations to be coded and additional text added if Heart Age
- Computer search designed to identify different types of invitation.
- Contact details left for any queries

Implementation issues:

- Variation in compliance with randomisation across and within Practices
- Variety of coding issues
- Confusing data entry in places

Trial Design

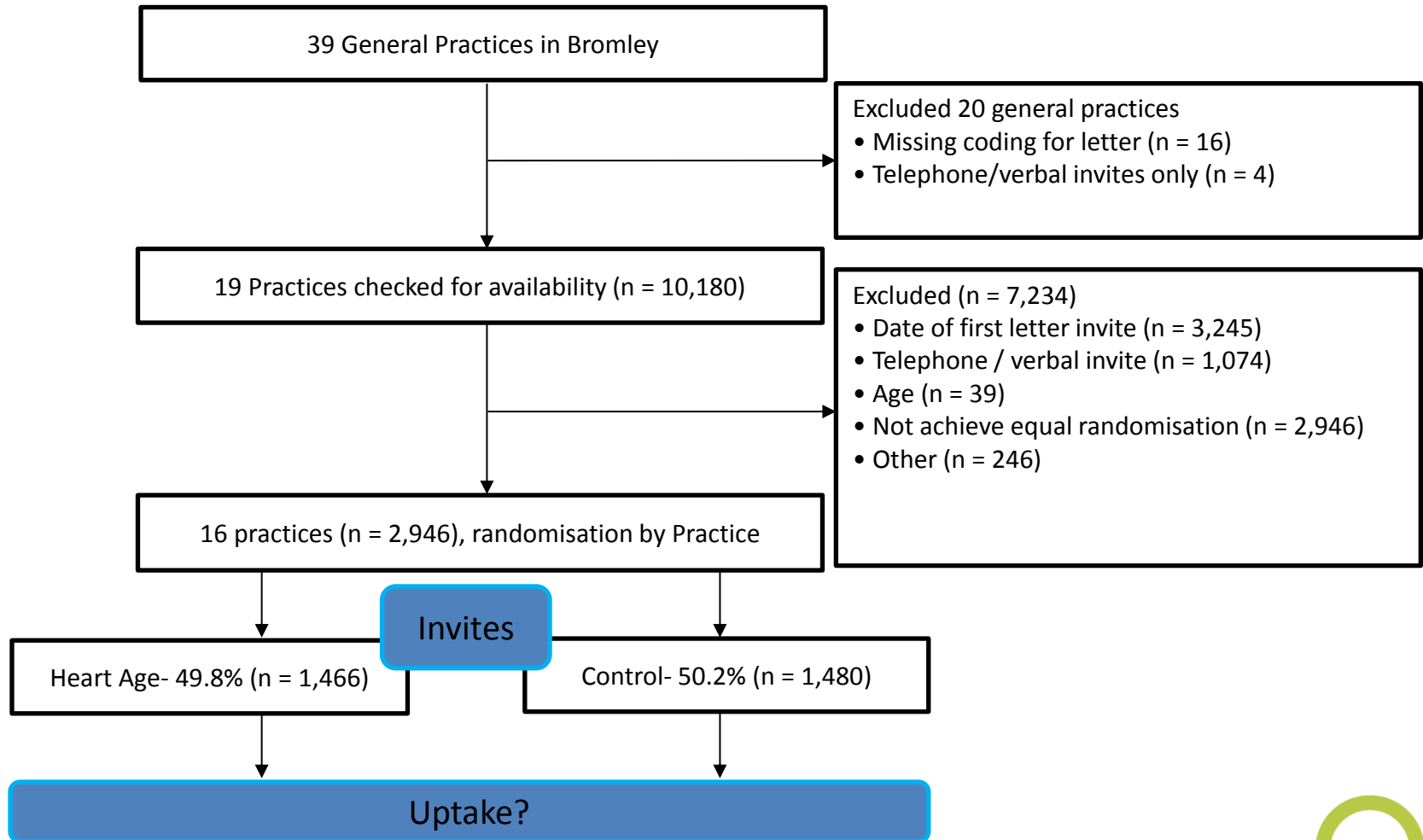


Figure 6- Trial flow diagram

Example of good data

Patient Details	Patient Details	Patient Details	Patient Details	Patient Details	First Letter	First Letter	First Letter
EMIS Number	Age	Gender	Lower Layer Area	Ethnic Origin	Code Term	Associated Text	Date
19039	61	Female	E01000694	Chinese - ethnic category 2001 census	NHS Health Check invitation first letter	Imported item.Coded	04-Sep-14
19356	64	Female	E01000649	British or mixed British - ethnic category 2001 census	NHS Health Check invitation first letter	Heart Age	04-Sep-14
19375	66	Female	E01000697	British or mixed British - ethnic category 2001 census	NHS Health Check invitation first letter	Imported item.Coded	29-Jul-14
19464	53	Male	E01000695	British or mixed British - ethnic category 2001 census	NHS Health Check invitation first letter	Heart Age	04-Sep-14

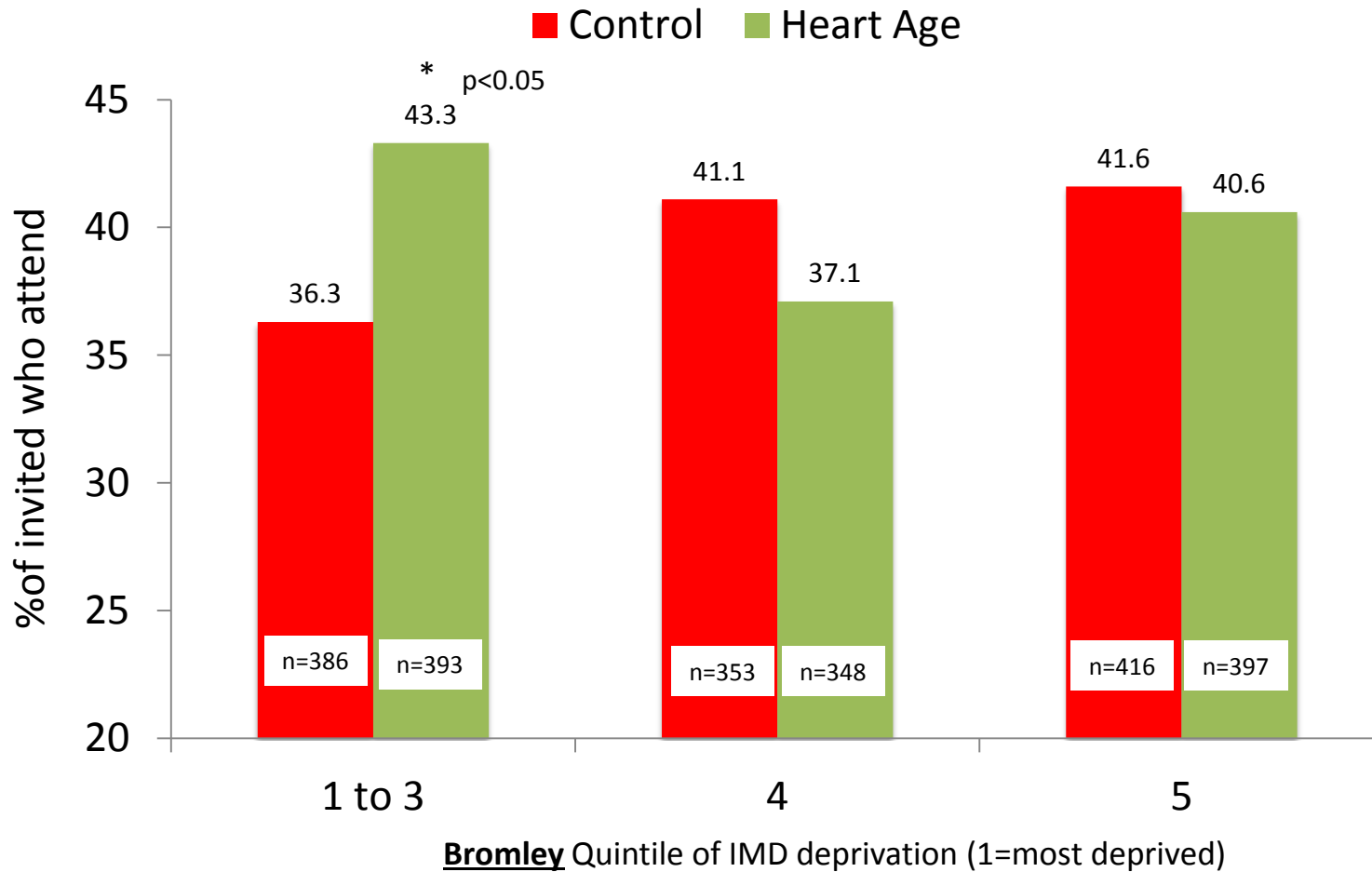
Statistical “Regression” Analyses Conducted

What factors predicted attendance at the Health Check?

- **‘Logistic Regression Model’ – which factors influenced attendance?**
 - Age ($p < .001$)
 - Gender ($p < .001$)
 - There was no effect of the intervention (invite group), ethnicity, practice size or deprivation level ($p > .05$)
- **However the effect of the intervention (invite group) ‘interacted’ with the deprivation level**
- Index of Multiple Deprivation* Invite Group ($p < .01$)

This means that the Heart Age intervention was not working equally in all people

Heart Age increased uptake in the most deprived groups



A simple, effective intervention

Increasing Health Check Uptake in the harder to reach groups

- Previous studies of NHS Health Check attendance have shown that those who attend after an invitation are older, female and less deprived
- Older and female patients were also more likely to attend their NHS Health Check in this pilot
- Deprivation levels were not however a predictor of attendance in this trial
- A simple adaptation of the invitation letter and access to a website containing the Heart Age tool increased uptake in the most deprived quintile by 7% in absolute terms and 16% in relative terms
- This form of Heart Age intervention did not seem to work for those who had lower levels of deprivation

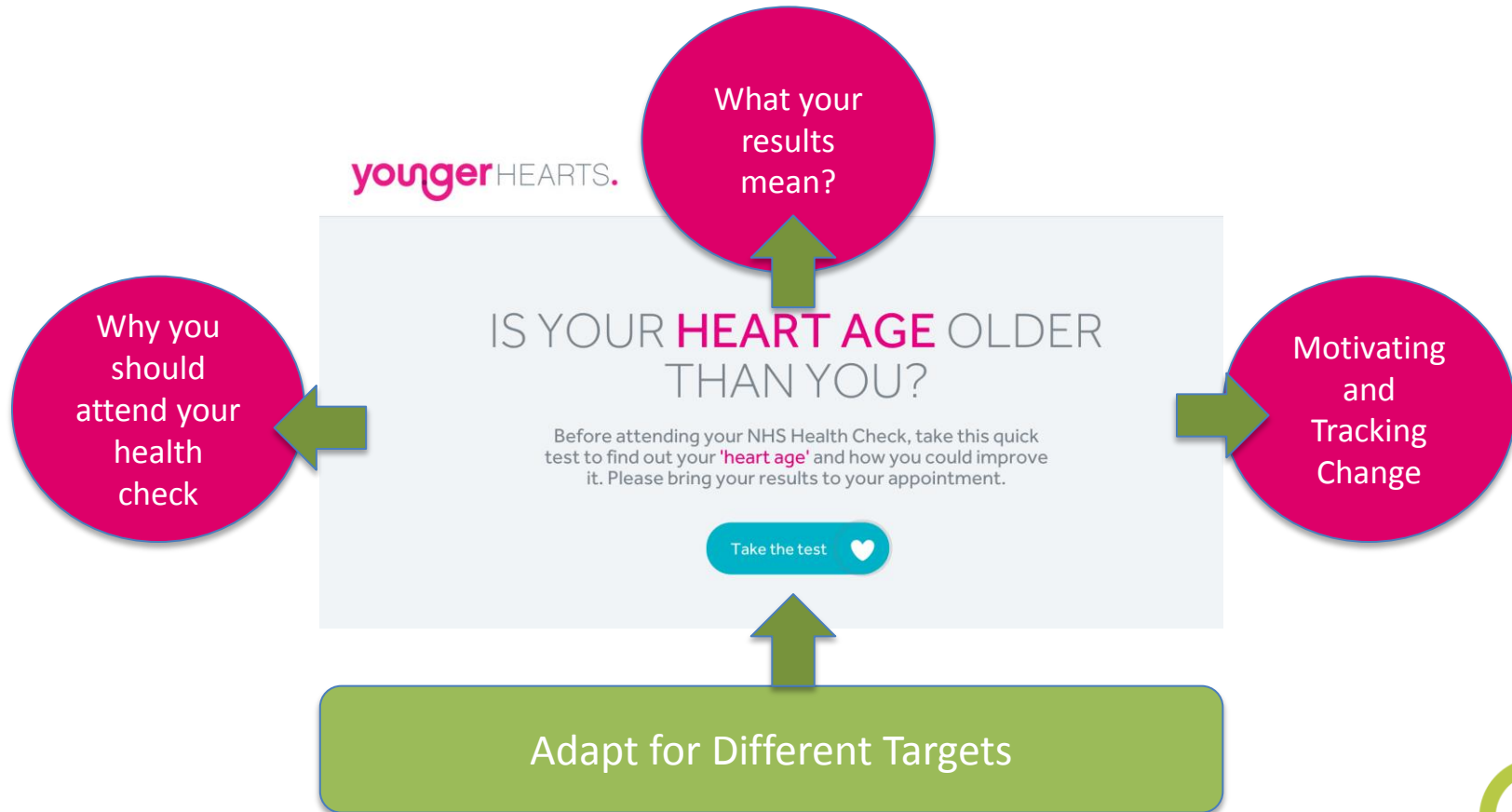
Limitations of the Research

Increasing Health Check Uptake in the harder to reach groups

- Quality of the data received back from participating practices led to many exclusions
- Issues of coding need to be better addressed across the Health Check program to evaluate outcomes
- Alternative intervention methods, beyond this form of invitation process may be required amongst those groups at lower levels of deprivation
- We did not test other invitation methods such as text, opportunistic invites etc
- Further work should use other types of communication style and formats for those individuals, and other channels such as social media

What implications does this have?

You must use Heart Age in Different Ways for Different People



How might this change what I do now?

Take advantage of these findings to drive uptake

- In those areas with high levels of deprivation, consider integrating Heart Age communication into the invitation process
- If using Heart Age in those areas with lower levels of deprivation, consider use of social media and test alternative messaging types
- Evidence exists to show Heart Age is valuable in communicating the output of a Health Check so consider integrating into materials for GP practices
- Review coding practices of health check providers before evaluating impact of different strategies
- We are happy to consult with any LA who wants to explore the use of Heart Age in the NHS Health Check process

Thank you for your time