

Evaluation of NHS Health Checks Outreach Programme in Medway

July 2011

By Kerri-anne Collins
Medway Health Check Project Manager

Free NHS Health Check

Helping you prevent heart disease, stroke,
diabetes and kidney disease.



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1.0 Introduction

The NHS Health Check programme offers a cardiovascular disease risk assessment and personalised advice to all individuals aged 40- 74, who do not have pre existing cardiovascular disease. It will be offered once every five years to all eligible individuals and aims to increase awareness of healthy living and reduce cardiovascular mortality rates.

2.0 Background

Vascular disease includes coronary heart disease, stroke, diabetes and kidney disease. It currently affects the lives of over 4 million people in England. It accounts for 36% of all deaths (170,000 a year in England) and is responsible for a fifth of all hospital admissions. It is the largest single cause of long-term ill health and disability, impairing the quality of life for many people (COI, 2008).

The NHS Health Check programme in Medway started in 2009 through GP practices, with 20% of the eligible cohort invited yearly. Data from this first year following the implementation of the programme showed that people living in the most deprived wards such as Chatham Central, Luton and Wayfield and Gillingham North were less likely (12.7%) to attend the NHS Health Check than those living in least deprived wards such as Hempstead and Wigmore. The ethnic group break down revealed that most groups were attending a Health Check but slightly lower attendance amongst the Black African group. People aged 40-55 years were less likely to attend compared to those aged 56-74 and in particular, younger men. In general, men were less likely to (7.4%) attend the NHS Health Check than women.

These statistics show that inequity does exist within the Medway Health Check programme. With deprived areas in Medway already experiencing significantly higher mortality rates from circulatory disease in those aged under 75 year (NHS Medway 2010), reducing health inequalities becomes a priority for NHS Medway.

In November 2010, NHS Medway was successful in bidding for extra funding from the Strategy Health Authority to address inequalities within the NHS Health Check programme. The service specification produced by the SHA was targeted at the unemployed and in particular people on job seekers allowance.

The total available fund from the SHA was £17,250, with £57 of the fund being paid for every job centre Health Check carried out, equating to a target of 302 checks. By the end of March 2011, there was no more demand for NHS Health Checks at the Job Centre. However with funds still available, it was agreed by the SHA that payment would continue until the end of quarter one, for health checks carried out in the Sikh community.

In total, 285 checks were delivered at the job centre and Sikh temples. This resulted in a final payment of £16,245 by the SHA. The actual cost to NHS Medway to deliver 285 checks was £3,563, resulting in a £12,682 saving. These savings are being reinvested into further outreach Health Checks to address other inequalities identified. This report highlights the results from all outreach checks conducted between January and July 2011.

3.0 Purpose of evaluation

Placing health services in deprived areas and within targeted communities appears to be the obvious solution to resolve low attendance rates and health inequalities. However, having a service in place does not guarantee positive patient experience or health outcomes. This evaluation plans to use both quantitative and qualitative data from this community outreach programme to assess the effectiveness of the programme, learn important lessons and gather evidence to support future commissioning intentions.

4.0 Aim

To evaluate the effectiveness of the outreach method of delivery, with a view to inform future planning and secure funding.

4.1 Objectives

- To determine the demographic profiles of those attending the outreach service and assess whether inequalities are being addressed
- To better understand different health needs within different communities in Medway.
- To analyse CVD Risk scores against health needs.
- To determine the number of referrals made to GPs and the improvement lifestyle team.
- To undertake patient experience survey to gain their perspective on the health check programme.
- To review and improve the current delivery method
- To make recommendations for future NHS Health Check outreach services.

5.0 Service delivery

5.1 Job centre NHS Health Checks

Job Centre Plus is situated in central Chatham, one of the most deprived areas in Medway. This is the only career resource centre for Medway residents. Low pay scale workers and those who are unemployed are more likely to live in the more deprived areas of Medway, where low health check attendance rates have been identified. This makes the Job Centre the most suitable community location, to place the NHS Health Check outreach service.

Planning

- Engagement with the management team at the Job centre plus was sought early in the planning stage of this project. The department of health policies and leaflets about the NHS Health Checks were used to inform management, of the components of the service.
- The Job centre frontline staff were informed of the project and the eligible criteria used (individuals 40-74years without existing cardiovascular disease) via face to face meetings, telephone calls and emails, to sign post interested individuals.
- Flexible appointments at the job centre were offered to those attending the NHS Health Check, to avoid delays between appointments.
- A member of the NHS Health Check team promoted the service to individuals attending appointments at the entrance to the job centre. Appointments were then given to coincide with their next job centre appointment and a health check leaflet with an appointment card was provided.
- A mobile telephone number was collected from the individual so that an NHS mail text message reminder could be sent the day before their appointment to improve attendance.

Delivery

- The NHS Health Check outreach service at the job centre was provided for 14 days between January and March 2011. Half the appointments available were booked in advance and the other half were provided as 'walk ins.'
- The checks were carried out by both a health care assistant (HCA) and a registered nurse on the medical single deck bus (SOS bus) which was manned and driven by volunteers. The bus is a recognised resource in Medway and is utilised by a range of services.
- The 30 minute split appointment included a non fasting point of care cholesterol test, blood pressure, pulse, height, weight, BMI and cardiovascular 10 year risk score measurement. This information along with questions on lifestyle (smoking, alcohol and exercise status) was used by the clinician to offer individually tailored advice on cardiovascular disease risk reduction.
- Job Centre employees were also encouraged by their managers to attend the NHS health check. This was anonymised to enable managers to plan and provide future health and wellbeing services and events.

5.2 Sikh community NHS Health Checks

A parade celebrating the opening of a new Sikh temple and Vaisakhi the Sikh New Year festival was due to take place over two weekends in April. With a large number of Sikh's and Hindu's in one place, this created an ideal opportunity to offer NHS Health Checks.

- Sites included a new Sikh temple at Rochester industrial estate and Franklin Road Sikh temple in Gillingham
- The delivery method was altered so that two patients could be seen at one time with the two nurses, to avoid having to split the appointment.
- Engagement with the communities was carried out prior to the events, to discuss the needs, barriers in the community and the logistics of providing the service. Posters and booking forms were also provided.

5.3 British Aerospace Systems (BAE)

The occupational nursing team at BAE was contacted, to initiate and promote partnership working. The nursing team was keen to promote and champion Health Checks on behalf of NHS Medway. Following discussions, it was decided to first target the shop floor departments where the majority of male routine and manual workers are based.

- The occupational team manager promoted the project through line managers and used posters designed by NHS Medway to encourage workers to book an appointment.
- The format for delivery was similar to the Sikh temple and included two nurses to deliver and the project manager to co-ordinate the service onboard the SOS bus.
- The occupational health team provided attendees with a consent form, so that data relating to the health check could also be used for their, 'get active' project.

5.4 Gillingham Business Park

The plans were already in place to increase awareness of health issues amongst staff for the workplace health coordinator to work alongside businesses within Medway. Including the outreach NHS Health Checks to the services available to Medway business, offered an excellent opportunity to engage and work in partnership with local businesses.

- An advertisement pack was produced by the coordinator and distributed to all business within the Gillingham business park to increase awareness of the scheme. This was followed up with a phone call and face to face visits to raise awareness and book individuals onto the Health Check programme.
- The Health Checks service was delivered on four different dates at different locations around Gillingham Business Park.
- Businesses employing routine and manual workers were targeted to ensure the service was available in areas with health inequalities.
- The format for delivery was similar to the Sikh temple and BAE. This included two nurses to deliver the health checks and the project manager to co-ordinate appointments and solve any concerns or problems.
- This was also used as an opportunity to run the mental health pilot which assessed individual's mental health risk and promote health and wellbeing.

6.0 Methodology

Quantitative data was collected from individuals attending the outreach NHS Health Check to determine the number of people attending and their demographic profiles, clinical information and lifestyle.

A structured questionnaire which included both open and close questions was used to collect qualitative data, on patient experience and outcomes. This questionnaire was sent to 50 randomly selected attendees and was used to structure a more in depth telephone interview with 10 attendees who were identified as being at high risk of cardiovascular disease following their health check.

A Depression Risk Filter was piloted in the outreach NHS Health Checks programme at BAE and Gillingham Business Park. The aim of the pilot was to identify people in the working age population, at risk of depression or already experiencing associated symptoms and who were not in contact with appropriate support systems or relevant health services. We know that the highest rate of suicide is found in men aged 40-49yrs. To identify individuals requiring intervention, a tool was designed to filter potential depression risk. This tool was adapted from the PHQ-9 screening for depression questions used in primary care. Actions arising from the responses to filter questions were then stratified into three possible outcomes;

- No Further action
- Provision of mental health promotion Information leaflet and Mental Health Matters telephone support service
- As above, in addition patient advised to see GP for full depression assessment

Each person attending an outreach Health Check was provided with their personalized CVD 10year QRISK2 score. This score was explained in a way to enable the attendee to understand, if they had been assessed to be at low, moderate or high risk. The healthcare professional then used this information, to motivate the individual into changing their lifestyle behaviour, seeking further medical assessment to reduce the risk or encouraging them to maintain present lifestyle behaviour.

The healthcare professional also communicates the QRISKAGE (heart age- the age a person would typically be with the same risk factors minus the age element) which is also calculated on the online QRISK2 calculator. On evaluation of the health checks, nurses found that although people understood the QRISK score, the QRISKAGE appeared to motivate individuals more into making lifestyle changes. The QRISKAGE has now been introduced, as a recorded parameter to the Gillingham Business Park and BAE groups for further analysis. It will not be reported as part of this evaluation as the data collected so far is inadequate to make the correct inference.

7.0 Results

7.1 Demographic profile

In total, 446 individuals attended the outreach NHS Health Check between January and July 2011. Of these 363 were Medway residence, 79 from neighboring counties and 4 were from towns such as Birmingham or Leicester (from the visiting communities at the Sikh parade).

Figure 1 shows the proportion of males and females who attended NHS Health Check from the five different groups. Overall, 65% males and 35% females attended the health checks.

Figure 1

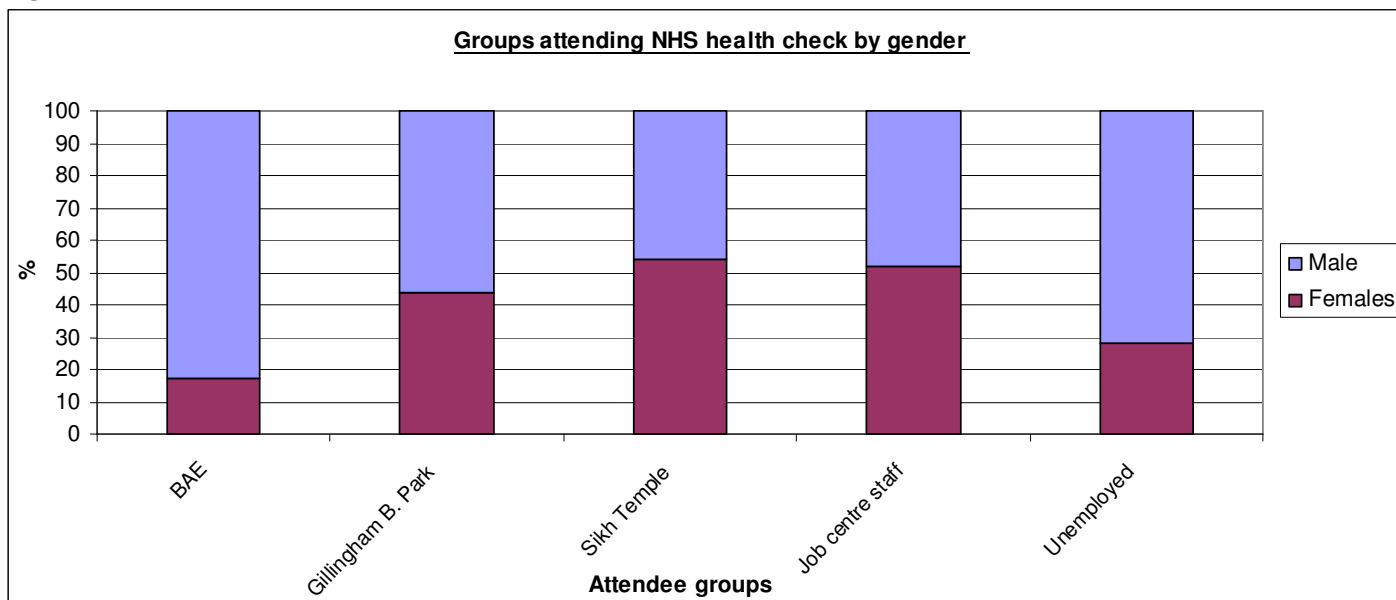


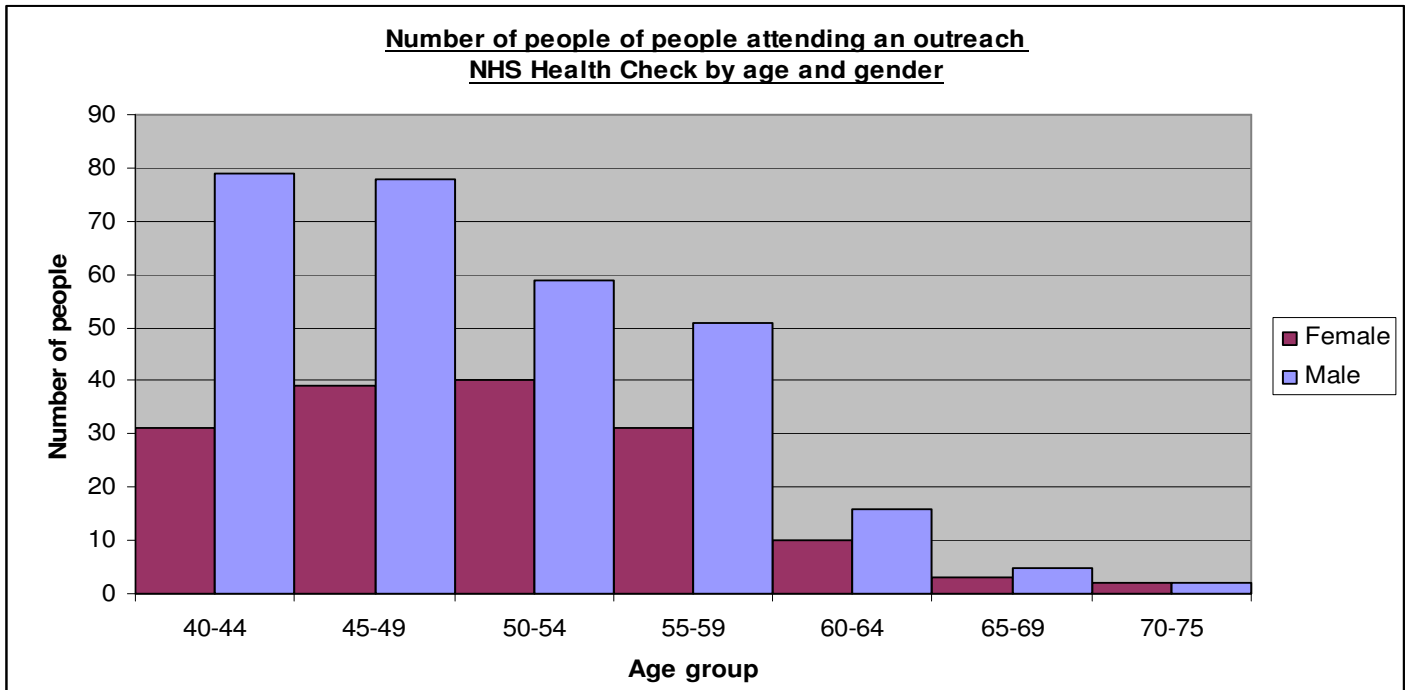
Table 1 shows the number of people who attended an outreach Health Check from each ethnic group. The profile reflects Medway's ethnic profile (Public Health 2008/2009). The highest attendance was amongst the white population. The outreach health inequalities programme targeted the Indian community and is reflected by the higher attendance rate amongst this community.

Table 1 A table to show the number of attenders within each ethnicity group

Ethnicity	Job centre unemployed	Job centre staff	Sikh temple	BAE	Gillingham Business Park	Total	% attended
African	3	0	0	0	0	3	0.7%
Any other Asian background	2	0	0	0	0	2	0.4%
Any other ethnic group	6	0	0	0	0	6	1.3%
Any other white background	2	0	0	1	0	3	0.7%
British	164	28	2	68	89	351	78.7%
Caribbean	1	0	0	0	0	1	0.2%
Indian	6	1	63	1	1	72	16.1%
Irish	4	0	0	0	1	5	1.1%
White and black African	1	0	0	0	0	1	0.2%
White and black Caribbean	2	0	0	0	0	2	0.4%
Grand Total attended	191	29	65	70	91	446	100%

The majority (75%) of attendees were aged between 40-55 years. Figure 2 shows attendance by age group and gender. The majority of attendees were males aged between 40-55 years.

Figure 2



Attendees living within the Medway area had a postcode recorded. LLSOA were used to convert these postcodes into wards and deprivation quintiles to highlight areas of attendance by deprivation. Figure 3 shows that attendance was higher amongst people living in the more deprived areas, such as Chatham central, Gillingham North, Gillingham South and Luton and Wayfield.

Figure 3

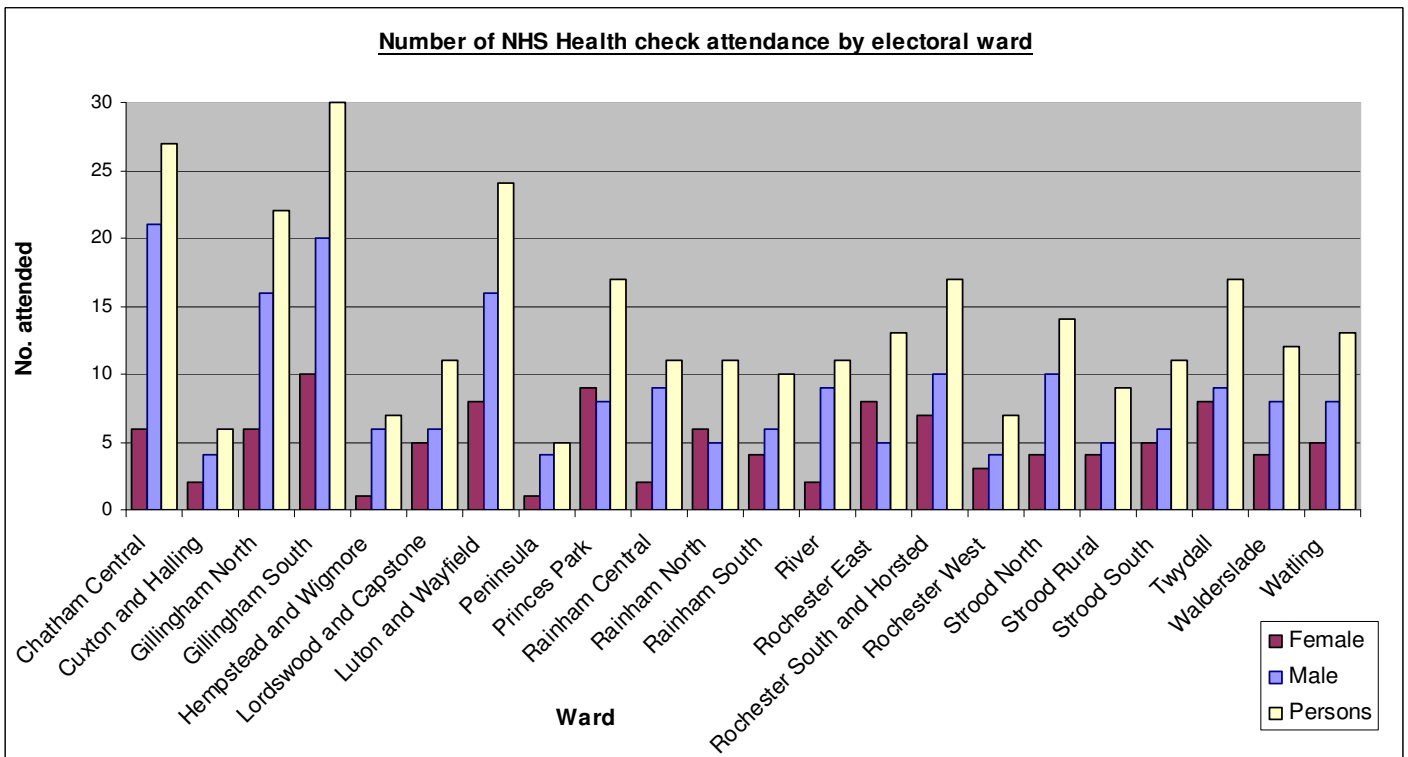
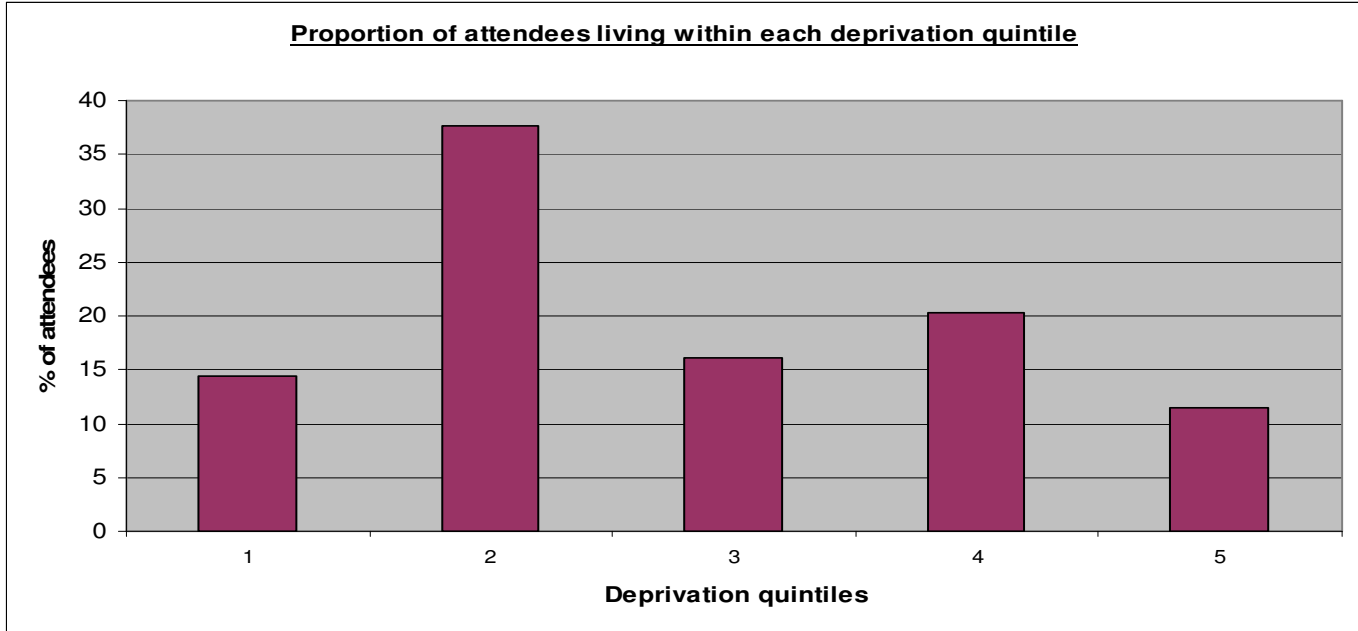


Figure 4 shows the proportion of attendance by deprivation quintile. The highest level of attendance was seen in quintile 2, implying that attendance for the outreach health check was highest in the more deprived areas.

Figure 4

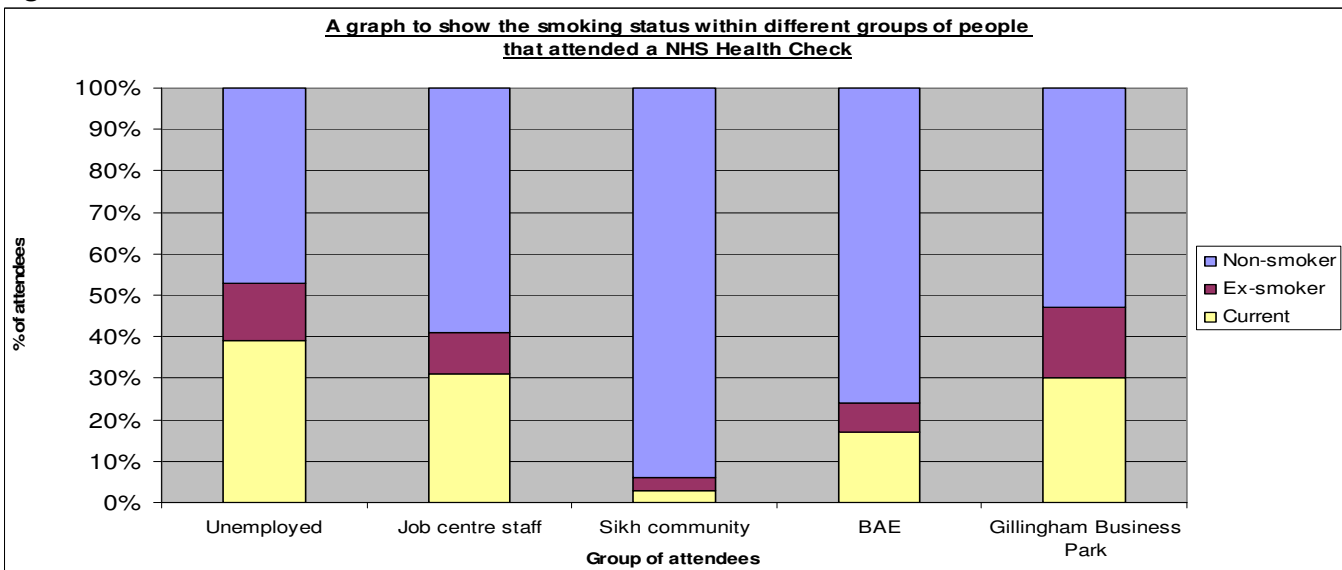


* Deprivation quintiles based on Lower layer Super Output Areas (LLSOA)

7.2 Health needs

The religious beliefs of the Sikh community do not encourage smoking hence only 3% identified as current smokers amongst this group (figure 5). The smoking levels varied between 17% and 39% in other groups, with the highest proportion of current smokers amongst the unemployed.

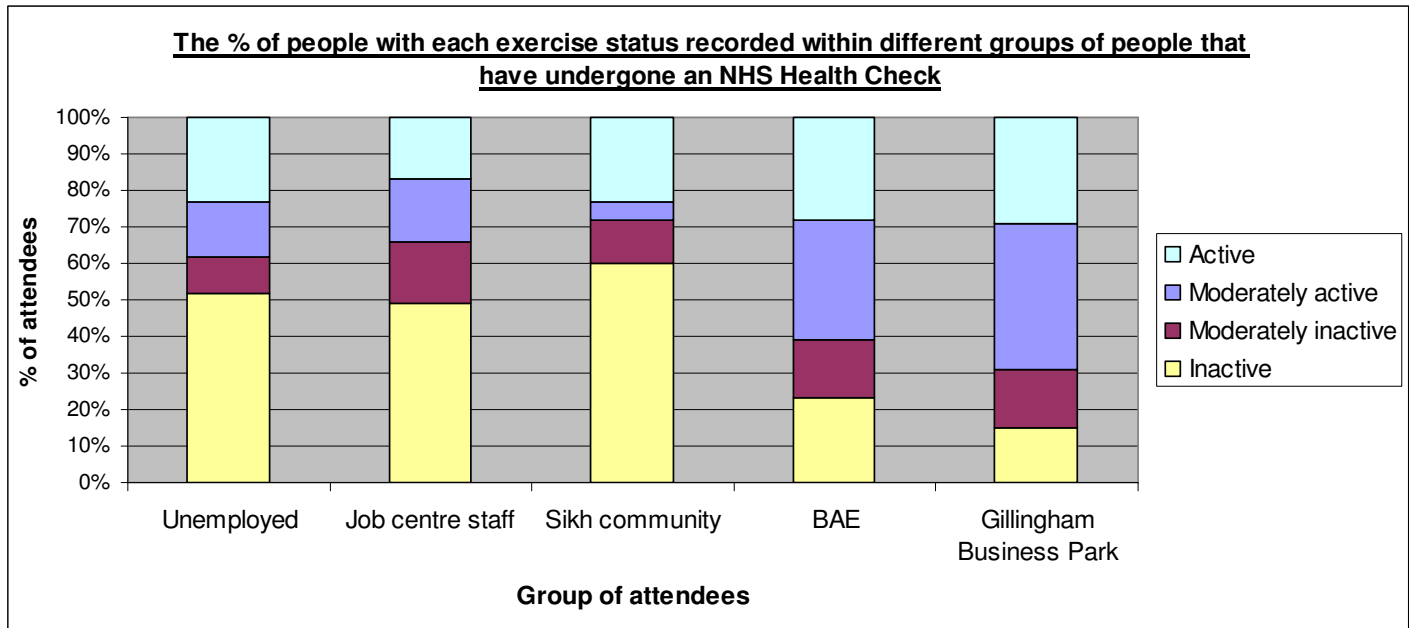
Figure 5



Exercise status

The outreach programme targeted routine and manual workers such as engineers, plumbers and carpenters within the BAE and Gillingham Business Park groups. Figure 7 shows that individuals within two of these groups were classified using the GPPAQ assessment, as the most active. The Sikh community, unemployed and job centre staff were classified as the least active.

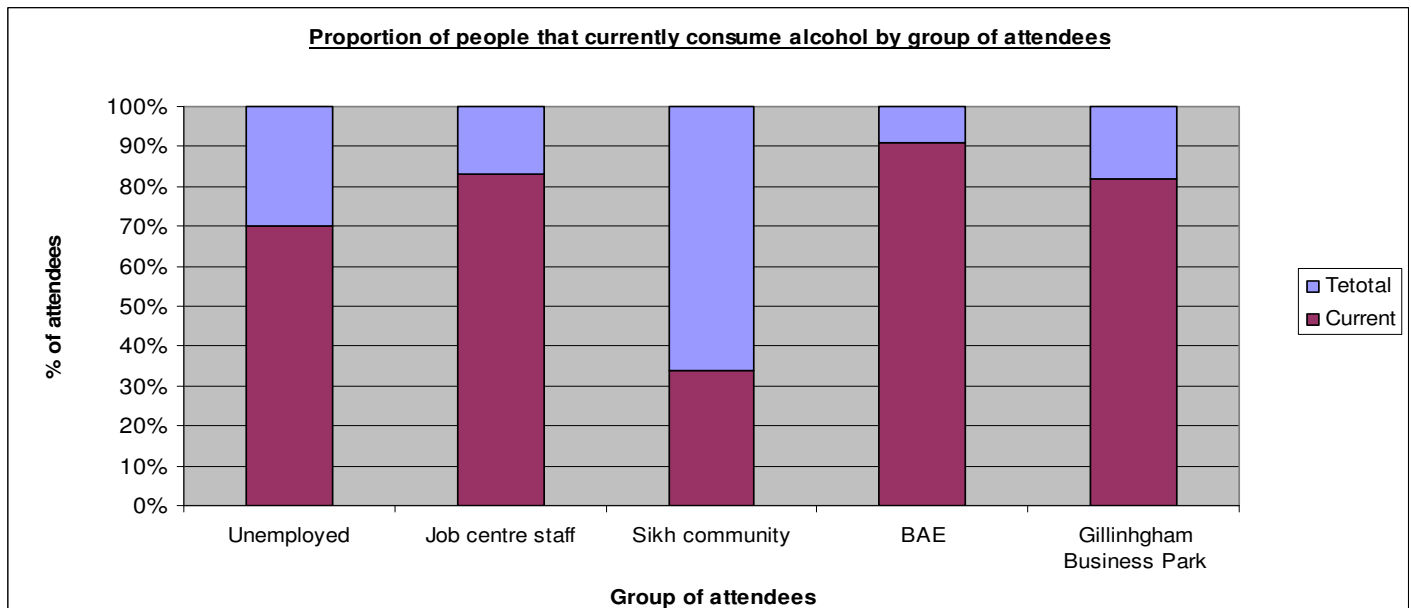
Figure 6



Alcohol status

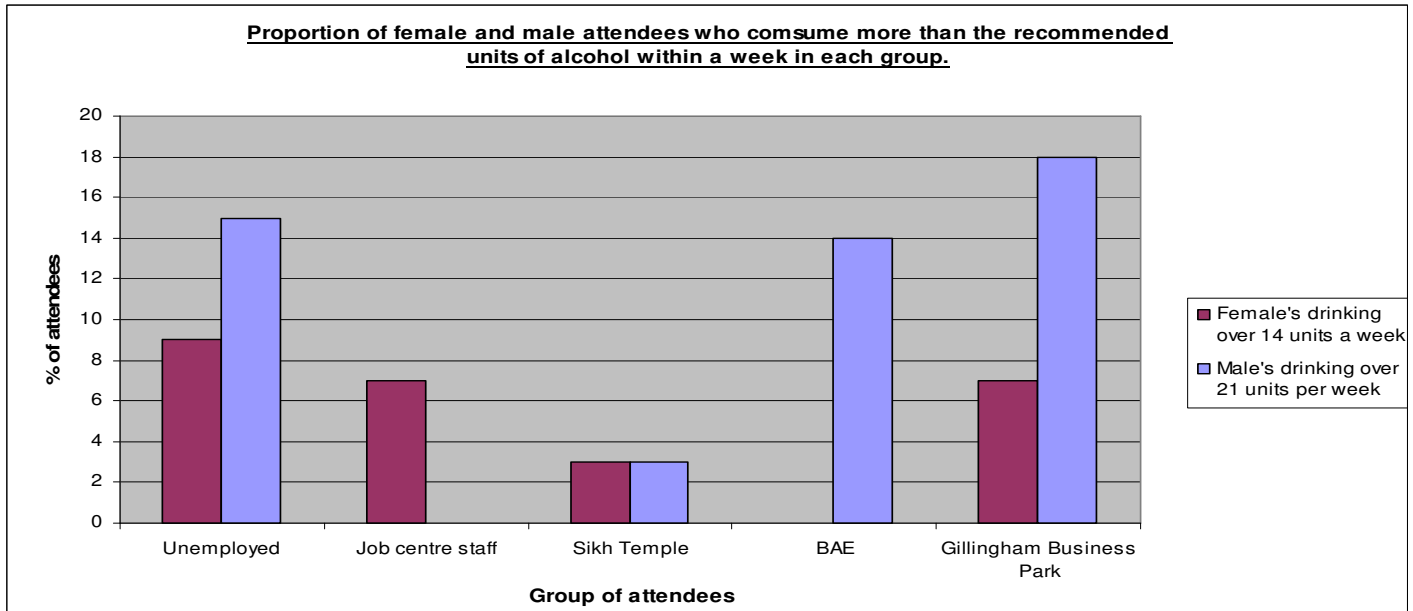
With the exception of the Sikh community (due to religious beliefs), the majority of people within the other groups have a high proportion of people who consume alcohol. Alcohol status or quantity of alcohol consumed does not affect the QRisk CVD risk score. However excessive alcohol consumption affects the blood pressure and is an indicator of Chronic Kidney Disease (COI, 2009), (figure 7).

Figure 7



Although, a large proportion of people in the different groups consume alcohol (figure 8) the unemployed, BAE and Gillingham Business Park groups were more likely to consume alcohol over the recommended units.

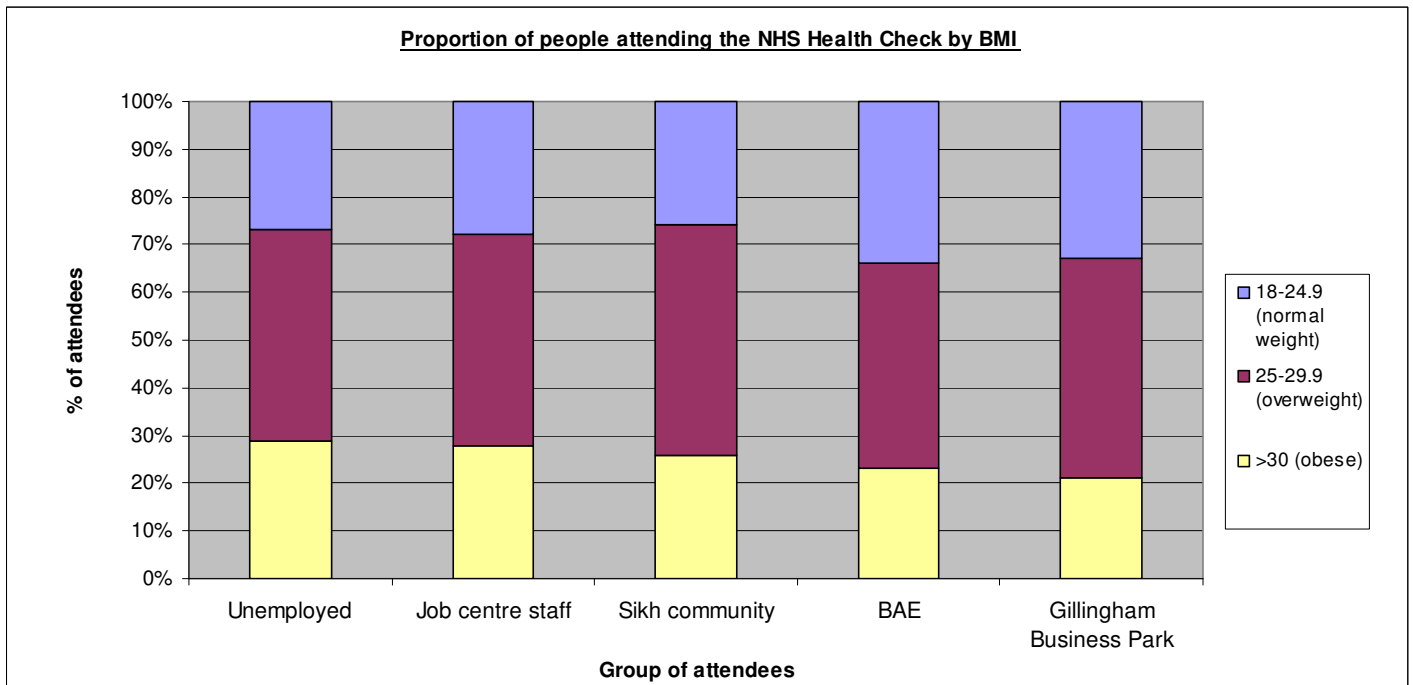
Figure 8



Body mass index

The results for body mass index (BMI) in figure 9 appear similar to the exercise status in figure 6. This shows that groups that are more active in their working lives, such as BAE and Gillingham Business Park have slightly better BMI readings compared to the unemployed, job centre staff and the Sikh community. The data shows that out of all the attendees 44% were overweight and 26% were obese.

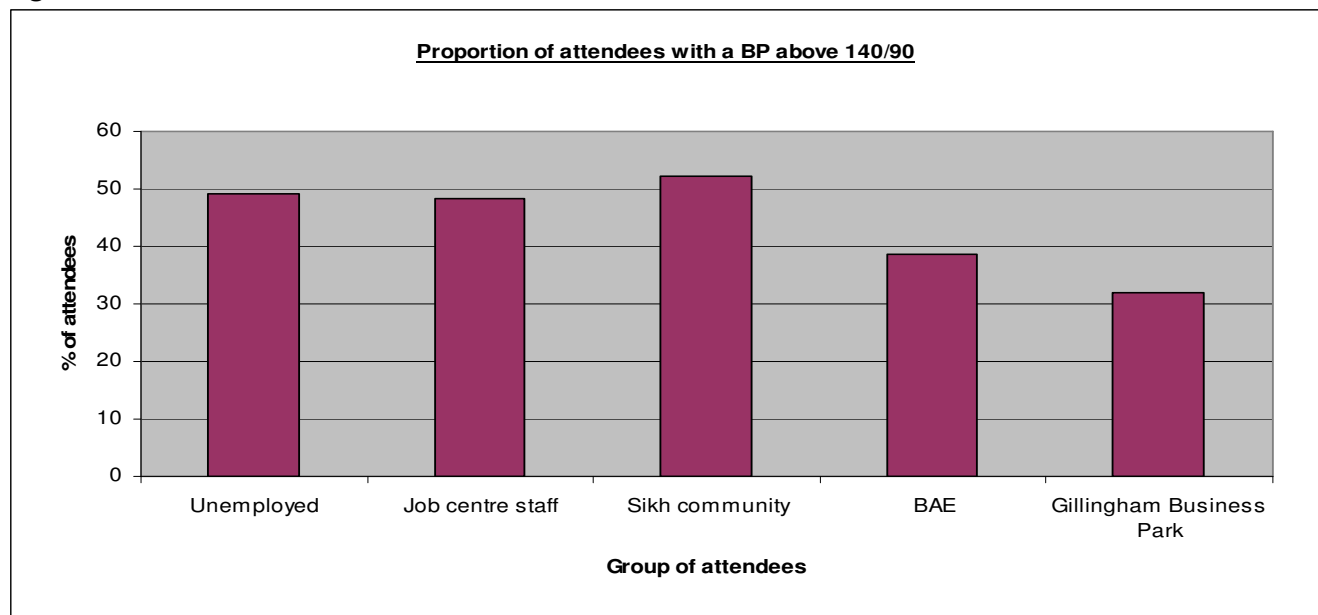
Figure 9



Blood pressure

Figure 10 shows the unemployed, job centre staff and Sikh community as the groups with the largest proportion of BP's above the recommended level (140/90 mmHg). The Indian community had 52% of attendees with a BP above 140/90. This is consistent with research findings that Asians are a high CVD risk group.

Figure 10



Cholesterol

NICE guidance (2006) recommends the management of lipids in individuals with a CVD risk score >20% or after considering all risk factors that may impact on the individual's life expectancy. For those patients whose cholesterol levels exceeded the maximum threshold as outlined in table 2, then results were sent to GP's with a recommendation for repeat fasting cholesterol test. This was to ensure that information was available to the GP when making decision about the lipid management of the individual.

Table 2 shows the proportion of attendees whose lipid profiles were above threshold levels with varying lipid profiles amongst the different groups. Overall a third (30%) of the attendees had a TC/HDL ratio >5, 55% had LDL (bad cholesterol) >2.6 and 53% had triglycerides levels >1.7.

Table 2 A table to show the cholesterol results within each attendee group.

Group name	% attendees with Trigs >1.7	% attendees with TC >5	% attendees with TC/HDL Ratio >5	% attendees with HDL <1.03	% attendees with LDL >2.6
BAE	64%	39%	39%	47%	61%
Gillingham Business Park	49%	41%	37%	41%	58%
Sikh Temple	62%	42%	28%	25%	45%
Job centre staff	48%	48%	24%	21%	41%
Unemployed	48%	53%	25%	23%	57%
Total	53%	46%	30%	64%	55%

Mental Health

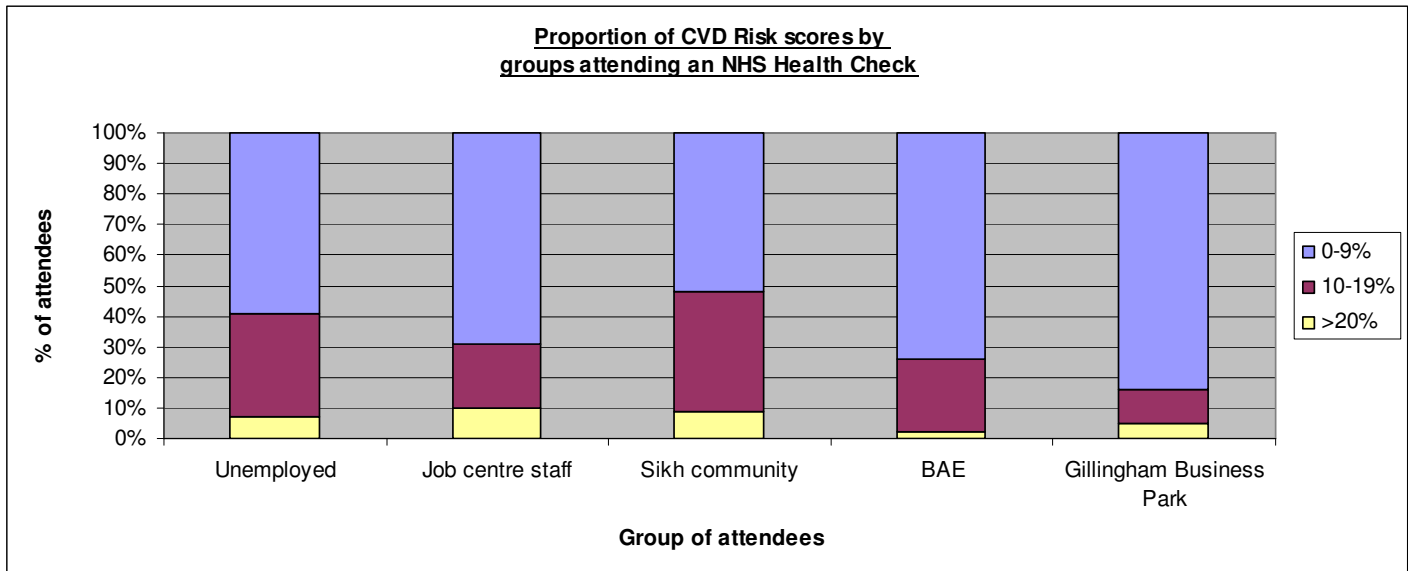
A total of 161 people participated in the mental health pilot during the health checks carried out at BAE and Gillingham Business Park. Out of the 161 people, 11 were identified as requiring some further intervention (6.8%). Of those there 11 people identified, 7 were advised to see their GP for full PHQ-9 depression screening due to the potential severity of their symptoms. The pilot enabled the identification of a number of participants at risk of depression and early intervention offered to those already experiencing symptoms.

7.3 CVD Risk scores

Figure 11 shows the proportion of attendees within each group by risk classification. The Sikh community, the unemployed and job centre staff had the higher risk scores.

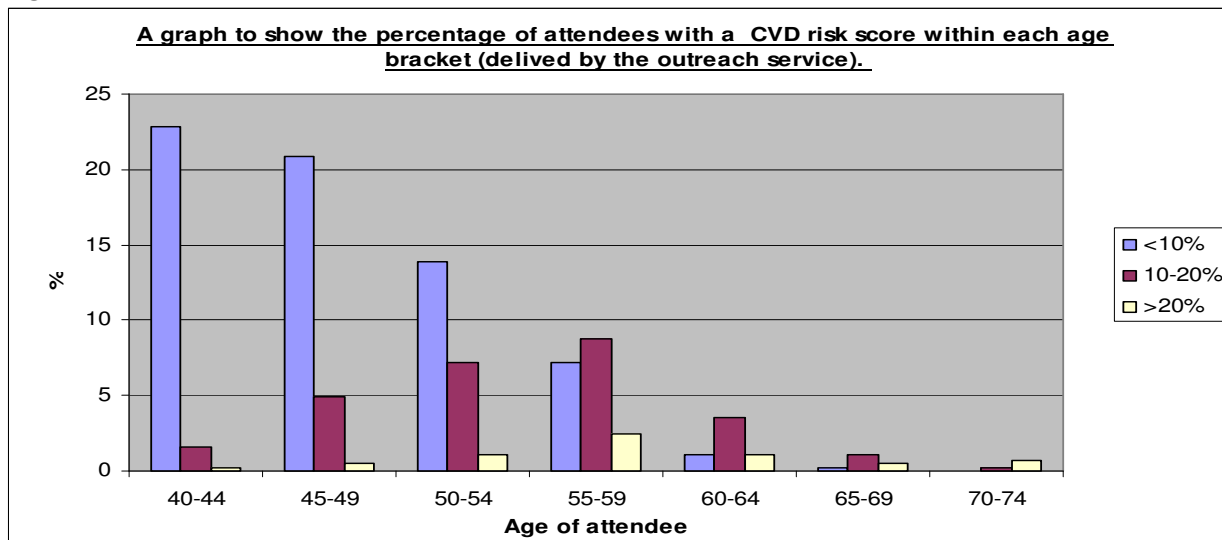
This evaluation has shown that QRISK2 is calculated using modifiable and non-modifiable risk factors. It has utilised quantitative data collected by the outreach programme in reviewing some of these modifiable risk factors within each group to identify possible health needs. What is evident throughout these findings is that although similarities in modifiable risk factors exist between the different groups, most communities have various health needs which may not show up in the CVD risk score.

Figure 11



The outreach NHS Health Check programme was mainly aimed at individuals aged between 40-55 years, as they were identified as poor attendees in the GP delivered health checks. This probably explains the higher proportion of people with a low or moderate CVD risk score (figure 12) in the other age groups.

Figure 12



Evidence suggests that groups targeted in the outreach service such as the unemployed are more likely to have poorer health than the general population (Marmot 2010). As this group of individuals fall within the younger age range, their CVD risk score will remain in the low category as age is a non modifiable risk factor.

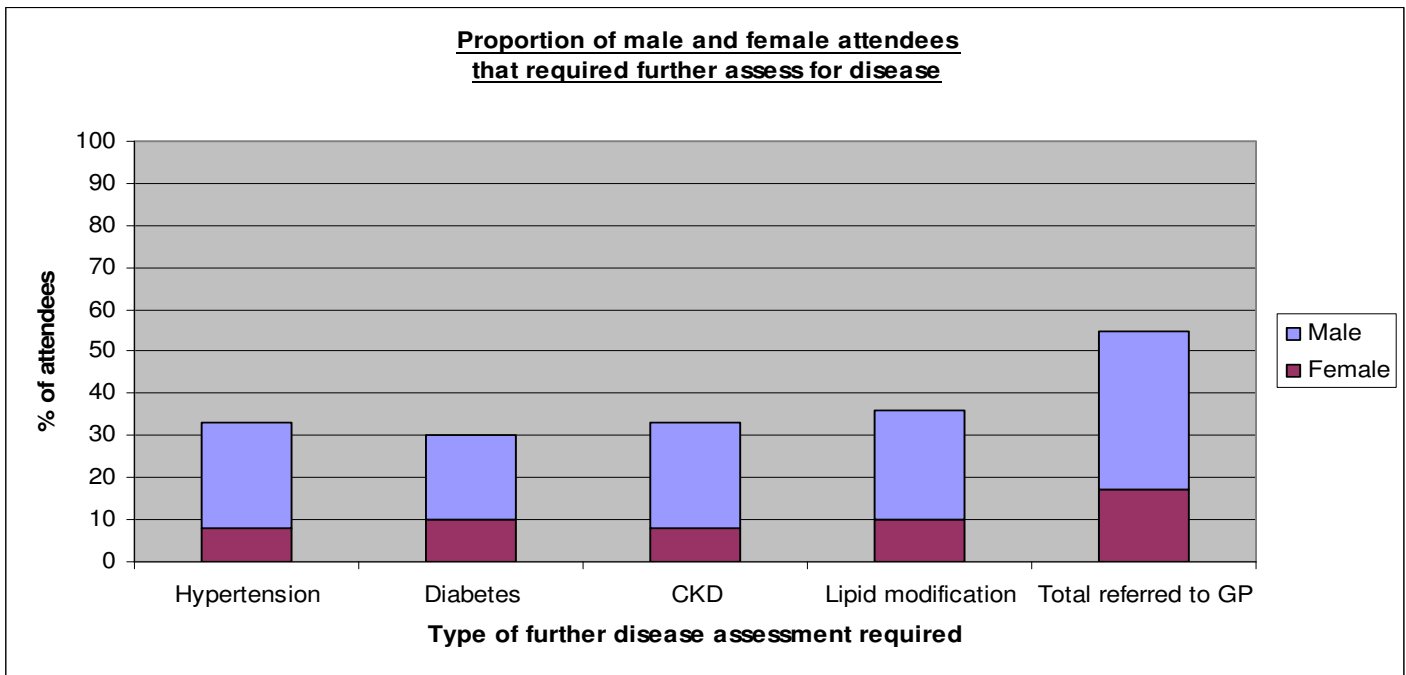
This has been taken into account by using the heart age measure which excludes age from the risk score. A recording of the heart age at BAE and Gillingham Business Park was commenced but was not presented in this report as the data was insufficient. However, this will be addressed in future evaluations.

7.4 Referrals to GP and lifestyle improvement services

Based on the recommendations made in the Best Practice Guidance document published by the Department of Health (2009), attendees were referred back to their GP's (within or outside Medway) if their modifiable risk factors were above the recommend levels. Figure 13 shows that out of the 446 people that attended an outreach NHS Health Check, 55% were referred back to their GP for assessment of Hypertension, Diabetes, Chronic Kidney Disease or high cholesterol level.

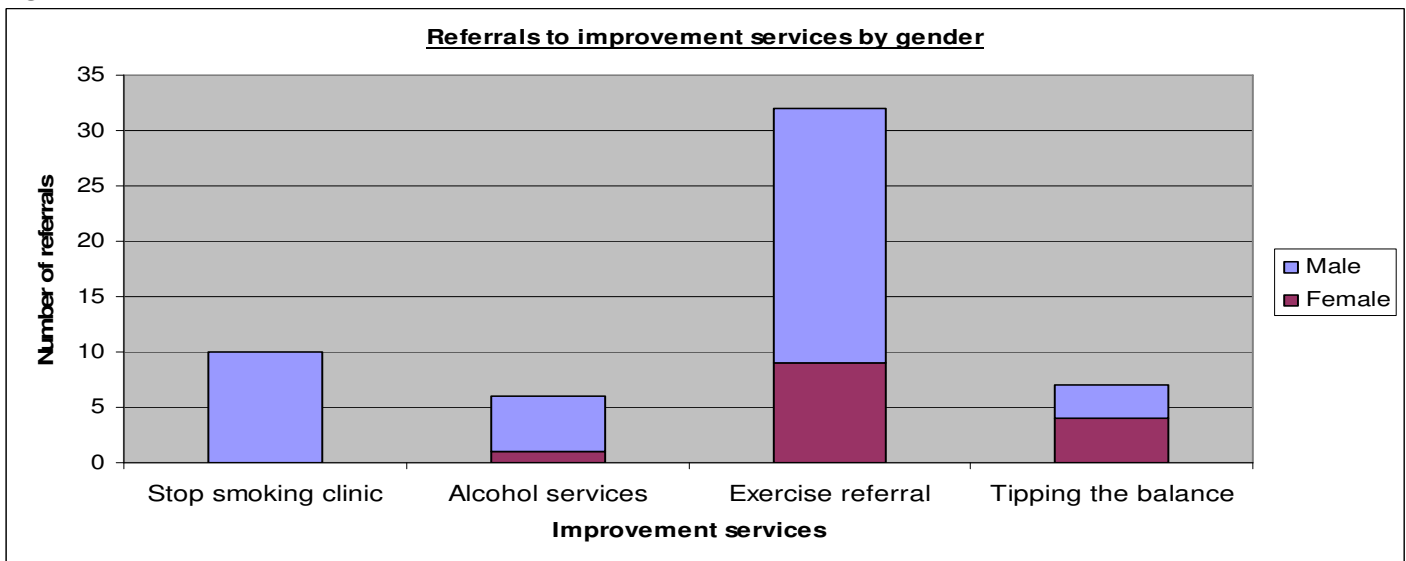
Figure 13 also shows that out of the 55% of attendees referred back to their GP, 30% were female and 70% were male. It is difficult to determine from this data whether the males were more likely to require further investigate compared to the females as two out of the five groups targeted for this service were aimed mainly at males.

Figure 13



All those who attended were provided with lifestyle advice based on their NHS Health Checks results. Small proportions (12%) of attendees were referred to a lifestyle intervention service (figure 14).

Figure 14



Anonymised health information was provided to the Public Health improvement team on each group attending the outreach service. This information was used by the workplace health coordinator to work with managers within the job centre, BAE and Gillingham Business Park in offering advice, support and signposting into lifestyle services where a need was identified. To illustrate this further, 65% of the job centre staff who were identified as inactive, were offered a half price gym membership. Sixteen members of staff opted to take this up.

7.5 Patient experience

Qualitative information was collected through a questionnaire which mainly consisted of open ended questions to evaluate patient experience and assess potential outcomes. Fifty questionnaires were posted to randomly selected attendees less than three months after their Health Check. Thirty four percent of people responded. The same questionnaire was also used to structure 10 telephone interviews with those who had a high risk score of >20%.

The results showed that patient liked the NHS outreach Health Check mainly because it was convenient, the test was simple, results were quick and because they wanted to find out about their health. 88% of people replying to the questionnaire said there was nothing they did not like about the check and 12% would have preferred having a glucose test included. When asked 'how they felt after having their check' 50% were worried/shocked about the results, 21% felt motivated to make lifestyle changes straight away and 29% were pleased with their results.

All the responders said they would attend a Health Check when invited in five years time. Popular venues for future checks included the high street, GP surgeries, community/ drop in centres and the SOS bus.

88% of responders felt they understood what their 10 year CVD risk score meant and how it was calculated. Chart 1 shows the response given when asked what they felt they had to do, to alter their risk. Chart 2 shows what they actually did to reduce their CVD risk.

Chart 1

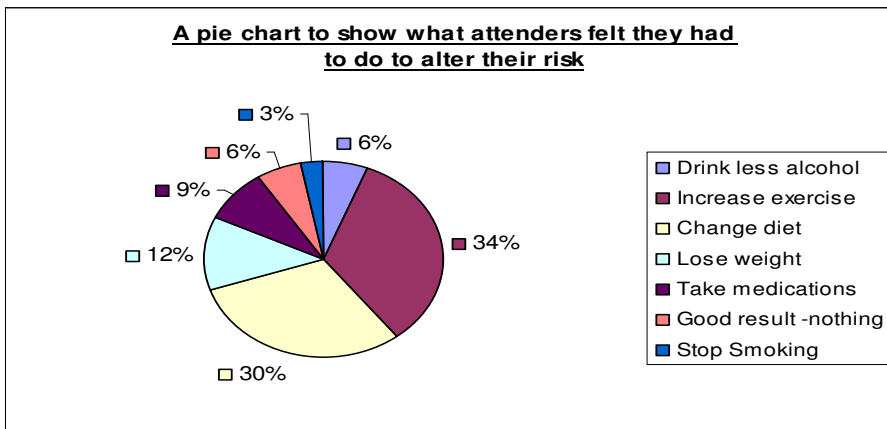
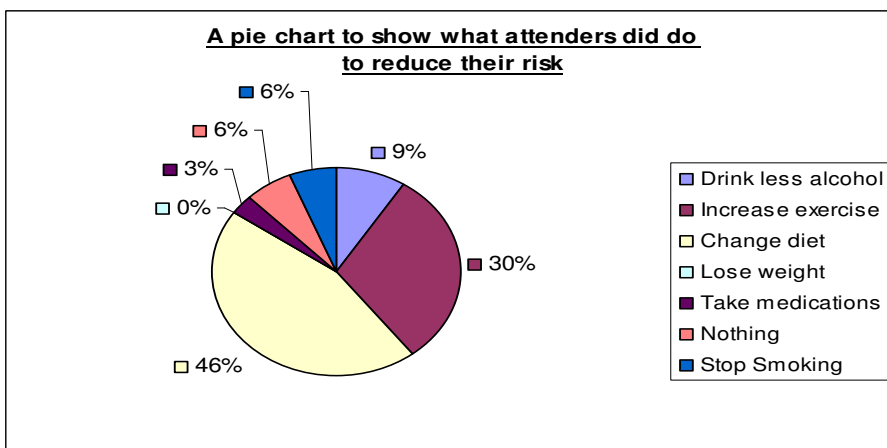


Chart 2



8.0 Key learning points

- Having two nurses and a coordinator to maximise the capacity of the service.
- Engaging with the community prior to delivering the service to understand cultural and organisational differences, limitations and expectations.
- Ensuring a key member of the community/ workforce is on board to champion the project.
- Using both the appointment and 'walk in' approach to maintain flexibility within the service.
- If appropriate using NHS.net free SMS to remind patients of their appointments the day before reduces non attendance.
- It is useful to utilise the outreach Health Check programme in piloting new data entry parameters, such as the mental health filter or pulse checks.

9.0 Discussion

The NHS Health Check outreach programme funded through the SHA which commenced in January 2011 and is currently ongoing. 446 NHS Health Checks were conducted within four separate locations targeting a range of individuals.

Two groups were targeted, male routine and manual workers aged between 40-55 years and the unemployed. This has resulted in larger proportion of males (65%) attending the health check programme compared to females (35%). 77% of attendees were aged between 40-55 years.

Of the 446 who attended 79% of people were British, 16% Indian and the remaining 5% was split amongst all other categories.

By targeting particular groups and areas around Medway, the outreach Health Check programme has ensured that attendance was highest in areas where low attendance was identified in the GP delivered checks. These areas include Gillingham South, Chatham Central, Luton and Wayfield and Gillingham North which are most deprived areas in Medway. 51% of attendees lived in quintile one and two areas.

Of those who attended the health checks, 28% are current smokers, 70% overweight or obese, 44% had high blood pressure, 54% were physically inactive and 37% presented with cholesterol levels above the recommended levels. Over half of the attendees had triglycerides levels above the recommended levels implying a high intake of fat and carbohydrate amongst these groups. It is worth noting that high total cholesterol in conjunction with high levels of LDL is directly associated with heart attacks and some strokes. This was observed in half of the attendees.

This level of information could be very useful in planning Public Health initiatives that address different health needs and challenges within the community. This data needs to be made available to GPs to increase this knowledge of community groups and inform other Public Health improvement services.

The approach to the delivery of the outreach service evolved with each event. The final method involved the use of two nurses to maximise capacity and a coordinator to ensure a seamless service and avoidance of any obstacles. Engaging and planning with the community prior to the event was crucial to its success. Identifying an individual to champion the service enhanced motivation, attendance and improved understanding of cultural differences and organisational challenges.

Patients were satisfied with the NHS outreach Health Check mainly because the convenient location, quick results and interest in finding out about their health. The outcomes such as worry, shock are the desired response to encourage individuals to make lifestyle changes. All patients questioned said that they would go for their Health Check when invited in five years time. Popular venues for future checks included the high street, GP surgeries, community/ drop in centre and the SOS bus.

Over half (55%) of attendees were referred back to their GP for further disease assessments, hypertension, diabetes, Chronic Kidney Disease and hypercholesterolemia. The data is not yet available to assess the outcomes of these referrals to GP's. A few (12%) of those who attended were referred to the health improvement services following their check. However further research is required to assess outcomes of these referrals.

Evidence suggests that there are many areas or communities that for various reasons are not accessing the GP delivered Health Checks (Collins 2011). The demographic profile of attendees within this report demonstrates that some areas of inequity identified in the 'Medway Health Check Health equity audit report' (2010) are being addressed through a community approach. However, further work is still required to ensure that other communities such as Black Africans and vulnerable individuals continue to have the same access to the service and health benefits. It is therefore essential that the NHS Health Check programme consists of both a population and targeted approach to ensure that Medway residence that are eligible have equal access to this service if we are to preventing future disease onset and reduce health inequalities.

10.0 Recommendations

- To continue using the mental health filter in all NHS Health Check outreach services and to consider incorporating this into the GP delivered Health Checks where possible
- To include QRISKAGE (heart age) as part of the outreach health check programme and request READCODES from connecting for health to record in the GP delivery for future assessment.
- To continue offering NHS Health Checks in an outreach setting, targeting hard to reach groups to address equity and health inequalities.
- To inform General Practitioners of the best practice guidance and ensure follow up assessment from the outreach program when required.

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