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Title page

The NHS Health Check programme in England: a qualitative study

Corresponding author

Dr Catherine Perry
Research Associate
Manchester Business School
University of Manchester
Oxford Road
Manchester
M15 6PB
UK

catherine.perry@mbs.ac.uk

0161 275 7251

Other authors

Professor Miranda Thurston
Professor of Public Health
Faculty of Public Health
University College Hedmark
Norway

Simon Alford
University of Chester
Parkgate Road
Chester
Cheshire
CH1 4BJ
UK

Jill Cushing
Public Health Research and Evaluation Officer
NHS Knowsley/Knowsley MBC
Knowsley
UK

Lee Panter
Knowsley at Heart Programme Manager,
NHS Knowsley/Knowsley MBC
Knowsley
UK

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The NHS Health Check programme in England: a qualitative study

Abstract

Despite an extensive evidence-base linking patterns of health with social determinants, recent public health policy has emphasised ‘lifestyle diseases’ and risk factor modification through behavioural and pharmacological intervention. In England, one manifestation of this has been the launch of the National Health Service Health Check programme. This paper reports findings from a small-scale qualitative study exploring experiences of engaging with a community-based health check in Knowsley, England, among 17 males and 19 females, with varying levels of risk for cardiovascular disease, who agreed to be contacted for the purpose of research at the time they underwent their check. Analysis revealed that the community-based nature of the checks provided opportunities for people to find out more about their health who might not otherwise have done so. Participants expressed a range of responses to the communication of the risk score, often revealing their confusion about its meaning. Changes in behaviour were identified, which participants connected with having had a check. This study raises questions about where, how, and by whom health checks are delivered. Emphasis on health checks reflects the dominant individualist ideology, but this study also suggests that the process provides opportunities to enable and empower individuals, albeit in small ways. However, they remain a ‘downstream’ approach to public health, emphasising medical and behavioural options for risk factor reduction rather than focussing on primary prevention through changes to the wider environment. Furthermore, although developed as a central feature of the UK’s strategy to reduce health inequalities, health checks may widen them.

Introduction

Despite an extensive evidence-base linking patterns of health with a number of social determinants, a particular feature of public health policy in a number of countries in recent years has been the emphasis on so-called 'lifestyle' diseases, such as cardiovascular disease (CVD), and risk factor modification (Vallgård, 2011). Hunter et al. (2010, p. 323) have coined the term "lifestyle drift" to describe the tendency they observed in English health policy "whereby government's start with a commitment to dealing with the wider determinants of health but end up with instigating narrow lifestyle interventions on individual behaviours, even where action at a governmental level may offer the greater chance of success". In England, lifestyle drift has manifested itself in the development and implementation of CVD health checks.

The National Health Service (NHS) Health Check programme was launched by the Department of Health in April 2009 as a central feature of the UK's strategy to reduce health inequalities: few countries have introduced such extensive population-based cardiovascular risk assessment programmes (Dalton et al., 2011). A free check is offered to all those aged 40-74 years to assess their risk of CVD, followed where necessary by appropriate intervention. The rationale for health checks is that they constitute a form of secondary prevention in which screening for CVD risk factors can identify those who are unaware of their risk profile but might benefit from some form of intervention, be that lifestyle advice, medical intervention, or both (Department of Health, 2008). This health check process is viewed as a form of brief intervention that itself has the potential to change behaviour. The uptake of preventive health approaches such as CVD health checks can be an important determinant of health and, given their current prominence in public health policy, warrant further attention.

This paper presents a preliminary exploration of these issues by drawing on the findings from a small-scale qualitative study that explored people's experiences of engaging with a community-based NHS Health Check programme in Knowsley, England. In particular, it explored how people engaged with the health check, how they made sense of the health check process, and how they responded to their encounter, including any health-related changes they or their wider network of family and friends made as a consequence of having a health check. Through exploring these issues the aim was to develop a better understanding of how people view health checks in relation to their own health concerns, and also how they responded to the health check process, including any steps they took as a consequence. The paper starts by critically reviewing the literature on the uptake and impact of health checks as a backdrop to the specific contribution of this paper, before moving on to describe the methodology and present and discuss the findings.

In terms of the uptake of health checks, it seems that it is those who are most at risk and potentially with most to benefit from early intervention who are least likely to engage (Addley et al., 2001; Horgan et al., 2010; Pill et al., 1988; Thorogood et al., 1993). This pattern of uptake is consistent with what is known more widely about how people use preventive services (Pill et al., 1988), and has often been seen as a problem of 'access', with some groups rarely attending their GP practice where health checks have traditionally been carried out (Richardson et al., 2008). To improve access, health checks have been targeted at specific groups, such as older men (Kirkcaldy et al., 2010), and areas of deprivation (Horgan et al., 2010), and have been delivered in a variety of non-NHS settings, including pharmacies, workplaces, shops, football stadia, churches, museums, public houses, and shopping centres (Gibson, 2007; Grayland and Wilson, 2009; Richardson et al., 2008; Thurston et al., 2010). These studies have shown that uptake of health checks can be increased if located in community-based venues.

The impact of health checks has been difficult to assess and it has been argued that there is little evidence of their clinical or cost effectiveness (McCartney, 2013). However, there is some evidence which suggests that workplace and primary care-based health checks can lead to both self-reported and more objectively measured improvements in CVD risk factors and subsequent health, at least in the short and medium term, among some groups of people (Addley et al., 2001; Gibson, 2007; Hanlon et al., 1998; Richardson et al., 2008). The quantitative nature of these studies has meant little insight has been gained into how the specific process of a CVD health check is experienced, including how it might influence health-related actions that might lead to tangible health benefits. Little qualitative work has been carried out with recipients of health checks to explore these issues, although a small-scale qualitative study of South Asian people receiving a CVD health check in religious and community settings revealed that all reported making lifestyle changes after the check, facilitated particularly by advice focussing on small changes easily incorporated into everyday life (Eastwood et al., 2013). This paper, therefore, focuses on issues of how the CVD health check is experienced and acted upon by those who chose to participate.

Method

The research setting was Knowsley, northwest England, which, at the time of the research (2010), was ranked as the 12th (out of 354) most deprived local authority in England in terms of overall deprivation (Department for Communities and Local Government, 2011). In Knowsley, CVD is a leading cause of premature mortality (Knowsley Public Health Intelligence Team, 2010). In order to address the high prevalence of CVD, a targeted programme, *Knowsley at Heart* was implemented. Community-based NHS health checks, introduced in October 2008, were an integral part of this programme. The target population for the checks was the estimated 61,300 Knowsley residents aged 40-74 years. A variety of community settings and venues were used (such as local supermarkets, shopping centres and the library); health checks were available on a drop-in basis and through health check staff

(non-NHS personnel) approaching members of the public and encouraging them to participate.

At the health check, each individual's height, weight, age, sex, ethnicity, blood pressure, medication and family history were recorded. A blood test for cholesterol level was also carried out (Department of Health, 2008). The Framingham Score was calculated, a 10-year (short term) risk level for the development of CVD, presented as a percentage and calculated on the basis of age, total cholesterol, HDL cholesterol, systolic blood pressure, treatment for hypertension, and cigarette smoking (Framingham Heart Study, 2010). In addition, the health check involved the provision of health information and lifestyle advice, tailored to the specific risk profile of each person. The aim of the whole health check process was to promote changes in behaviour towards a healthier lifestyle where appropriate.

In order to understand how those who had received a health check experience, understand and respond to their health check, this study used a qualitative approach, the purpose of which was to understand these experiences through the eyes of those being studied. This approach was used to generate detailed qualitative accounts, and held out the promise of developing insight into how the health check process might shape individuals' responses to the information they received and the advice they were given. This approach also made it possible to explore people's behaviours in relation to the wider social context of their everyday lives. Thus, it sought to study people not as isolated individuals but as living in dynamic networks of family and friends, of which their health and their health practices were a part.

Focus groups were the main data generation method. They provided a forum in which conversations were generated about the health checks that all the participants had recently experienced and which allowed lines of enquiry to be pursued through multiple perspectives. However, in order to try to maximise recruitment, particularly among those who received a

high risk score at their health check (of whom there were fewer and, it was anticipated, might be more reluctant to engage with the research) potential research participants were offered an alternative – a semi-structured interview – either face-to-face or telephone. Semi-structured interviews, like focus groups, offered flexibility in terms of questions asked and lines of enquiry to pursue, but also allowed the interviewee's own perspectives to be explored in a more private and confidential setting than was afforded by the focus groups. An interview and focus group schedule comprising a number of open-ended questions were used to guide, but not limit, data generation. Areas covered included the participants' experiences of the health check itself, motivation to change behaviour, behaviour changes, and referral pathways identified and accessed.

Purposive sampling was employed, utilising a list of 173 people who had undergone a health check in the previous 12 to 18 months and had given their consent to be contacted for research purposes. Of these, 38 (22%) were at high risk of CVD (had a risk score of >20%) and 135 (78%) were at low risk (between 4.9% and 20%). In the case of the 38 people in the high risk group, all were telephoned, or sent a letter, inviting them to take part in the research. From the 135 people in the low risk group, purposive sampling was used to select men and women of different ages and with different risk scores in order to develop a diverse sample; they were telephoned or sent an invitation letter. Those who subsequently expressed an interest were provided with a participant information sheet, and contacted seven days later to confirm or decline attendance at a focus group or interview.

Data collection was undertaken by two of the authors (SA and CP) between April and June 2010. Three focus groups were carried out: one with people who had received a high risk score (n=6, all male); and two with people who had received a low risk score (n=24, 17 females and 7 males). People with similar risk scores (high or low) were grouped together in this way in case the nature of the score generated different areas for exploration. In addition, six semi-structured interviews, were carried out with people with a high risk score (2 females

and 4 males). Thus, the final sample consisted of 36 individuals who had received a health check, 12 of whom had a high risk score and 24 with a low risk score.

With the consent of all participants, focus groups and interviews were audio-recorded and transcribed verbatim. Focus groups and interviews were analysed as one data set, once preliminary analysis had revealed that there were no systematic differences across the data on the basis of risk score. A qualitative thematic analysis was conducted using an analysis framework developed after completing the focus groups and interviews, in order to understand the phenomenon being studied from the perspective of the participants. While the aims of the research guided the data generation and analysis phases of the research, in keeping with a qualitative approach there was also a commitment to understanding the phenomenon using an inductive approach, developing analytic categories from the qualitative data that have been generated by the research process. Initial analysis was carried out by the researcher who conducted the majority of the data collection (SA), and discussion between SA and CP helped to clarify themes.

Findings

The findings are presented in relation to the three dimensions of the health check process that were the focus of the research: the way in which people engaged with the service; understandings of the risk score provided; and changes made as a consequence of the check. Quotations are used to illustrate the themes which emerged from the data. In order to add some context to the illustrative quotations, they are labelled (HR - high CVD risk score; LR - low CVD risk score; FG - focus group; INT – interview).

Engagement with a health check

Situating health checks in community settings such as shopping centres obviates the need to send out invitations and book appointments, enabling people to take up the opportunity to have a check by virtue of the fact that they are in a specific location for some other purpose.

In so doing it enables spontaneity such that people can ‘prioritise’ their health in a way that might not otherwise have happened. In order to develop understanding of how people accounted for having a community-based health check, three inter-related explanatory themes were identified: opportunism; the significance of underlying health problems; and, relationships with their GP.

Opportunism could be understood in a multifaceted way. People described how they had simply participated in a health check because they were approached and offered the opportunity to do so. It was commented that individuals would not, of their own volition, have sought out a health check. Another important aspect of being presented with an ‘opportunity’ was that of ‘convenience’ from *their* point of view, both in relation to location and timing. Furthermore, ‘being approached’ was perceived to be more effective than advertising the health checks. These different ways in which ‘opportunism’ could be understood are illustrated by this comment from a woman in one of the low risk focus groups:

‘I’m one who doesn’t do anything like that, and I got collared in ASDA and it suited me, but I wouldn’t have noticed any adverts or anything; they approached me, and I probably would never have got it done unless I was approached.’ (LR.FG1).

Whilst the opportunistic nature of the checks was generally viewed as a good thing, participants suggested that being able to book appointments through this initial face-to-face contact would make access easier for those with commitments, such as work, who might only be able to attend at specific times. This resonates with the idea of ‘convenience’ identified above and suggests that convenience and practicability from the perspective of the participants (rather than those organising health checks) is significant in explaining uptake. It also indicates that the community-based model of making contact with people might be a way of facilitating access to health checks for those who want an appointment at a later date.

Second, underlying health problems were also part of the explanation for having a health check. This suggests that it was not just the ‘worried well’ but also those who had an elevated risk of CVD who took up the opportunity. Participants who said they were aware of their health problems talked about wanting things checked as a way of being reassured that they were currently well. For example, one participant who had a high risk score said:

‘Well I’ve had a bit of a problem, you know with cholesterol and I thought “Oh I’ll get it checked just to see how it was”.’ (HR.INT2).

Alongside these views was a third theme that related to individuals’ relationships with their doctor and views about the general practitioner (GP) role. Participants saw the offer of a community health check as an opportunity to have a check without the need to engage with their own GP, which was preferable to some because of the nature of their relationship with their doctor. The following quotation illustrates this:

‘Well to tell you the truth, my doctor and me, haven’t got the best of relationships. So.... I didn’t feel that I wanted to go to him.’
(HR.INT3).

Views of the GP role tended to throw the advantages of the health check into sharp relief. Participants explained how, because they were busy, GPs did not have time to do health checks when they had ‘*another patient waiting outside*’ (HR.FG1). This view can explain, at least in part, why some said they were unlikely to contemplate going to their GP for a health check. Contextualising these views, it is significant that participants had already experienced the health check, which was, on average, of 45 minutes duration and included the feeding back of test results and associated advice within the period of the consultation. This experience was seen as contrasting quite sharply with the typical form and duration of a GP consultation. As one participant commented:

‘It was intimate, it was about you and you being valued, your health was valued, whereas you go somewhere else and it’s no disrespect to

any of the clinics or anything, but you're just literally in and out.'

(LR.FG2).

Participants valued the time that staff spent with them and the informality of the health checks in that, as well as feeling valued, they also experienced the health check as being *'friendly'* (LR.FG2), *'informative'* (LR.FG1) and health check staff *'explained everything that they were doing'* (HR.INT2). Participants appreciated the way in which staff communicated the results to them:

'She spoke plain and simple to you and you could understand her and you know, not like doctors, the way they go around, she was dead straight with me.' (LR.FG2).

Understanding of the risk score

The meaning participants attached to their CVD risk score was explored. In the use of health checks to effect behaviour changes there seem to be a number of implicit assumptions: that the identification of risk factors, the calculation of an individual risk estimate, the communication of this estimate to each individual alongside the delivery of tailored lifestyle advice within the context of a one-to-one encounter with a practitioner, are critical elements in the behaviour change process. This rational and perhaps linear way of understanding the process is somewhat at odds with participants' accounts, which revealed an interweaving of firstly an affective (emotional) dimension, as well as, secondly, a cognitive (understanding) dimension in their responses to the risk score. In addition, a third analytic idea was revealed about how people made sense of the risk score in relation to their past behaviour. These themes are likely to be important in understanding how the health check in general, and the relaying of the risk score in particular, might shape future actions in relation to cardiovascular risk.

Participants talked about how they felt in anticipation of receiving the score, and how they felt on receipt of the score, in terms of the emotions this engendered. Some participants indicated that they were *'nervous'* (HR.INT6), and that they also worried about the score after the event. This view was expressed by those with high and low risk scores, suggesting a general level of anxiety that might have clouded understanding of what the score actually meant. For example, one participant with a score on the lower end of the spectrum worried about the result:

'Mine was 10% but even that, I thought was a bit scary, a one in ten chance.' (LR.FG2).

Alongside this view was that of not worrying unduly about their risk score. Explaining why this might be the case seemed to relate, partly, to participants' limited understanding of what their score meant for their future CVD experience. In particular, they explained that presenting the score as a percentage was not easily understood. For example, one man commented:

'I didn't realise 'til she said "Oh, don't be alarmed by it because it is still quite low" and she explained it and I didn't have a clue.'
(LR.FG2).

In spite of this, participants' accounts revealed that they related their risk score to their own behaviours, such as a lack of exercise or smoking. Low scores were sometimes perceived as meaning that there was nothing to worry about. However, in general, participants articulated the view that their motivation to change was not necessarily related to their risk score, and that even a high risk score was not necessarily enough to motivate them to try and change. This was especially the case if other results (such as weight, blood pressure or cholesterol level) were seen as *'favourable'*. One participant commented:

'Sometimes you need a reason and I think it was like me, I needed a reason [to change] and isn't it sad that showing me the percentage wasn't reason enough for me to give up [smoking].' (HR.INT4).

Changing behaviour as a consequence of the health check

A primary purpose of the community-based health check programme was to promote changes in CVD risk behaviour. Study participants expressed views which indicated that they thought about and valued their health. They talked about undertaking a health check to find out about their health and to help motivate them towards making changes, which often, they said, they were contemplating, revealing degrees of awareness about the possible effect of their lifestyle on their health. However, there was also a shifting complexity in participants' views; participants revealed an awareness of the possible effects of aspects of their lifestyles, together with concerns that reflected the health check could provide both reassurance that things were okay as well as a reason for changing things. This complexity is reflected in the following quotation:

'That health check also grounds me and says right, you've got away with it for the last six months, you haven't put any weight on and you're okay. But you need now to start looking at your diet.' (LR.FG1).

For others, the health check had acted specifically as a *'wake-up call'* (HR.INT5). This related to the way in which awareness of health problems was made more real through the process of the health check and, in particular, having the results of the check communicated. For example, one participant said:

'I think what happens, it's like a reality check when, you know, two and half stone over weight, your cholesterol is high and you know your life expectancy, them three things, it's a bit of a shock even though you know....., when it actually gets written down and presented to you, it becomes reality.' (HR.INT5).

Participants' ways of explaining the impact of their health check suggested that it could act as a stimulus for action for both those with high and low risk scores. When participants were asked to identify anything they had changed following the check a number of practices were identified: changes to diet, cutting down on smoking, decreasing alcohol intake, and increasing physical activity. It was evident that whilst not all participants had made as many or as far reaching changes as they had been advised or would have liked, all identified some change that they had achieved, and which they attributed to the health check. One man explained:

'Having the results of the check, I've actually started to go to [swimming baths] a couple of times, so I've made some progress.... and I've actually felt better in meself.' (HR.INT5).

For some, these changes had been sustained. Another man, who had a health check sometime between January and December 2009, said he had maintained changes he made for between four and 15 months:

'I would like sweet things me, you know chocolates and cakes.... I haven't touched one since.' (HR.FG).

However, the perception was that changing lifestyle behaviours and sustaining these changes was hard. Given this, participants were asked how they had managed to achieve change, and factors concerning the nature of the changes suggested and the importance of their wider family emerged as important.

In terms of the nature of the changes, dietary changes were the most often reported.

Participants' responses indicated that this was because they saw the changes suggested as realistic, achievable, and sustainable in the longer term. They compared making changes to their diet with participating in physical activity. Although health check staff recommended

gentle exercise, activities such as going to the gym or jogging were perceived as strenuous by participants and were considered difficult to incorporate into their everyday lives. By contrast, the dietary changes suggested were considered relatively easy to incorporate into everyday meal patterns. Another aspect of the nature of the changes suggested that was important to participants was the idea of making small incremental changes rather than one big change – cutting down rather than giving things up. For example, one participant described reducing the amount s/he smoked from 20 cigarettes a day to eight, whilst others spoke of both reducing their smoking and introducing dietary changes. In general, participants considered the lifestyle advice given as *'simple common sense'* (HR.INT3). This appeared to encourage them to change lifestyle behaviour and reflects a level of awareness about healthy lifestyles among participants, although this awareness had not necessarily influenced their past practices and reflects how health practices develop over time. One participant said:

'We should have been like that in the first place, the way I look at it, eating healthy and doing exercise, so it was quite easy, I knocked three or four pints a week off.' (LR.FG2).

Participants also spoke about the importance of family and friends in supporting the changes they made. The significance of family networks, particularly immediate family relatives, reveals that social ties are an aspect of people's everyday lives that could enable or constrain desired changes in behaviour. Some participants indicated that attempting to influence family members was not always successful, although this did not appear to deter participants from attempting to make changes. One man said:

'My wife laughs at me 'cos I try and have me five a day, but I try and have more than me five a day, but she just thinks I'm silly because she just eats like what she wants, which I think is all the wrong things.'
(HR.FG).

In addition, participants described how they had used the information sheets provided, coupled with the advice to change their own lifestyle, to encourage other family members to do likewise. One man commented:

'I'm trying to encourage me daughter to stop drinking the red wine, which you know she says it's good for her but I said it's not in that quantity.' (HR.INT5).

Having identified factors that had helped to enable them to make changes, participants were asked about barriers to change: personal situation, mental and physical health were all mentioned in this respect. In terms of personal situation, unemployment, for example, was seen as being a barrier to making lifestyle changes recommended within the community health check. One unemployed man stated that the time he spent applying for jobs or going on courses left him less time to make changes to his lifestyle. He also perceived that things were *'going against him'* and this affected his motivation and willingness to undertake physical activity, as the following comment illustrates:

'Well I'm not working at the moment, I've got a lot of free time on me hands and believe it or not when I was working I always wished I had this extra time on me hands and now I'm not working I don't seem to be utilising it.' (HR.INT5).

The impact of, in this case unemployment, on how people felt in themselves was talked about by others; many considered that one of the main difficulties to making lifestyle changes were *'mental barriers'* (HR.INT2). Participants suggested that the health check provided all of the necessary advice and support that they needed to make the recommended changes, but that they then just had to do it. One participant commented:

'Well they [individual goals] were actually fair and they were in my scope but it's whether you follow-up isn't it? It's like the information is good if you act on it.' (HR.INT5).

Finally participants also spoke of underlying medical conditions (chronic obstructive airways disease, back complaints and arthritis) as the reason why they were unable to make changes, especially those relating to physical activity. However, these individuals remained keen to make changes wherever they could, especially in relation to their diet and to being more physically active by walking more.

Discussion

These findings illustrate how participants experienced a health check and what sense they made of the process, as well as the actions they identified as being a consequence of the check. The findings also give some insight into how a community-based delivery model facilitates access to health checks. Service-level factors, such as appointment systems, limited time for the consultation, as well as the kind of relationship patients had with their doctors, limit the likelihood of patients going for a health check at their surgery. Locating health checks in community venues, actively approaching people, and inviting them to participate without an appointment, were features of community-based health checks that suited the people in this study. It enabled them to act on their interest in their health; presenting them with this opportunity enabled them, albeit in a small way, to take some responsibility for finding out more about their health and how they might improve it. Dalton et al. (2011) have argued that the success of the NHS Health Check programme will be influenced by its success in areas of deprivation, such as Knowsley. A community-based model such as that researched in this study, may well increase uptake in a way which might contribute to its success.

How health checks were experienced is important if a better understanding of the processes through which they might bring about changes is to be developed. The individual CVD risk score had an ambiguous position in the process, tending to generate confusion; it was interpreted differently and, overall, seemed to have little meaning or significance for people in terms of how to use it to think about their health and future actions. This calls into question

the underpinning assumption that people will respond rationally when presented with factual 'hard' data, such as the CVD risk score, understanding and using it as the basis from which to make any changes. This way of thinking foregrounds information and knowledge and marginalises emotions in the process of change, as well as giving little acknowledgement to the social and economic circumstances within which lifestyles are developed and maintained. In this respect health checks illustrate what has been called a 'rationalistic bias' (Dopson, 2005, p. 1126) in that information is seen as a sufficient basis for making changes. Although the limitations of such an approach are well documented in the health promotion literature (Mielewczyk & Willig, 2007; Prättälä & Puska, 2012) the findings from this study indicate its resilience. However, the findings from this study are a reminder of the limitations of theorising social action – in this case CVD-related behaviour change as a consequence of having a health check – as a rational phenomenon.

Other studies have found that patients do not always view their doctors as having the right communication skills (Kehler et al., 2008) or time and inclination (McKinlay et al., 2005) to conduct preventive health checks. However, this study also suggests that human factors relating to the qualitative dimensions of interactions were important to people during the health check process. The multifaceted character of the health check (several different tests), the face-to-face dynamic nature and duration of the encounter, the feeding back of individual results and discussion of specific advice, makes it difficult to dissect out the influence of any one component for any individual. Rather than any specific element of the health check acting as a critical factor in influencing these participants, it seems more likely - and as they articulated it - that a consequence of engaging in the overall process was that it raised their awareness of their health problems, either now or in the future, in a way that became real to them. Of significance was the fact that advice was communicated in a setting and atmosphere that was seen as friendly and informal, with sufficient duration for participants to feel valued. Health check staff described changes that were perceived to be credible, simple and sustainable, and that, moreover, would have a significant impact on CVD risk. This seemed to

open up to participants the opportunities for change, particularly in relation to diet. This combination of support, simplicity and significant impact on their own personal risk meant that small, incremental changes were seen as realistic. Dietary changes were more likely to have been tried than changes in physical activity levels, which were perceived as more difficult to make and maintain and therefore as requiring greater effort. Whilst giving dietary advice in a face-to-face encounter was described as helpful, participants also referred to information leaflets that they had received at their health check. This suggests that information can play a supplementary role in situations where it is perceived to be relevant and important.

The reporting of changes to diet and other aspects of people's lives following the health check suggests that participants did not have a fatalistic view of health and disease as others have suggested (Pill and Stott, 1982; Davison et al., 1992). 'Lay epidemiology' has been used to describe the process through which health risks are understood and interpreted by people (Davison et al., 1991; Allmark and Tod, 2006). The findings from this study suggest that central aspects of CVD disease causation identified through epidemiological findings have permeated lay understandings of heart disease. Thus, participants tended to believe that their health was affected by certain aspects of their lives – their diet and being sedentary, for example – and that moreover, they 'should' do something to change things; what was suggested to them was viewed as 'common sense'. This also reveals the permeation of ideas about individual responsibility for health – rather than fatalism.

Alongside these understandings was the discourse that patterns of behaviour develop over time and that, as a consequence, change is hard. There was also some articulation of the influence of wider social and economic circumstances in the web of disease causation. Having more time through unemployment to, for example, undertake physical activity but finding it hard to utilise it, illustrates the significance of the wider social determinants of health for understanding health behaviours.

The findings reported in this study are based on the accounts of a relatively small, self-selected group of participants. At the time of undergoing their health check, all agreed to be contacted for research purposes and when approached by the researchers were willing to participate in a focus group or interview. Although clearly keen to discuss their health check, there was nothing to suggest that our research participants were unusual in any way. However, it is difficult to know if they fully reflect the range of views and experiences of all those who had had a health check in Knowsley. For example, nothing is known about individuals who declined to be contacted for research purposes when undergoing their check and it may be that those who agreed had a more positive experience. The sample did, however, include both males and females, of varying ages, and with different CVD risk scores. No differences were apparent in the responses of those with risk scores categorised as low or high, therefore it would seem reasonable to assume that the findings reflect participants' experience whatever their risk score, which may partly be a reflection of the confusion engendered by the scores. Finally, understanding why people did not engage in the health check process might have further enhanced understanding of why people *did* engage, and is a limitation of the study.

Nevertheless, the findings have revealed how community-based health checks might have some value for people as they offer a way of accessing preventive health care that better fits with the everyday reality of their lives. If health checks are to remain then this study raises questions not only about their location and who delivers them, but how they are delivered. The current emphasis on health checks reflects the dominant individualist ideology, but this study also suggests that the community-based health check process provides opportunities to enable and empower individuals, albeit in relatively small ways. Providing personally relevant information and advice in the context of an extended consultation created some space within which people could give consideration to actions they might take in the future. However, they remain a relatively 'downstream' approach to public health emphasising as they do medical and behavioural options for risk factor reduction rather than focussing on

primary prevention through changes to the wider social environment. Furthermore, although developed as a central feature of the UK's strategy to reduce health inequalities, health checks may well widen them (Capewell and Graham, 2010).

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