FACULTY OF MEDICINE, HEALTH AND LIFE SCIENCES

School of Nursing

Women on a low income, understanding inequalities and Coronary Heart Disease prevention: a lifestyle, practice and policy analysis

by

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ABSTRACT

FACULTY OF MEDICINE, HEALTH AND LIFE SCIENCES
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WOMEN ON A LOW INCOME, UNDERSTANDING INEQUALITIES AND CORONARY HEART DISEASE PREVENTION: A LIFESTYLE, PRACTICE AND POLICY ANALYSIS

by Ann Hemingway

Coronary Heart Disease (CHD) is the biggest killer of women worldwide (WHO MONICA Monograph 2003). Rates within the UK among women living on a low income are not falling in line with the rest of the population (British Heart Foundation 2003). This case study has considered the impact of the wider determinants of CHD health on health behaviour in women. It has also considered CHD prevention activities undertaken by local health care professionals, and any partnership working which may facilitate this. The sampling included women on a low income (below half of average income, Acheson 1998) with dependent children, and health care and local authority staff practising in the same electoral ward. A documentary analysis was also undertaken to consider the Community Plan, Health Improvement Plan, Primary Care Trust Business Plan and minutes from Health Improvement Group meetings. The case study was undertaken using elements of a grounded theory method.

The study found that the women were unaware of CHD as a potential risk to their health. The factors which emerged as limiting their attempts to change their lifestyle were high workload demands, low control and lack of social support. These factors when linked with perceived job characteristics have been shown (Karasek & Theorell 1990) to raise the incidence of CHD. The health care professionals had limited awareness of the wider determinants of health and no access to evidence relevant to developing their practice as they had no internet or library access, in addition they questionned their own effectiveness when undertaking primary preventition of CHD, and community development work. The analysis of partnership working showed no evidence of effective partnerships between the local authority the primary care trust and the local community to prevent CHD in the group under study.

Acheson D. (1998) Independent Inquiry into Inequalities in health report London: TSO

British Heart Foundation (2002) Take note of your heart a review of women and CHD in the UK BHF

Karasek R.A. & Theorell T. (1990) Healthy work New York Basic Books

World Health Organisation (2003) MONICA Monograph WHO

Contents

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Introduction

Coronary Heart Disease (CHD) is one of the leading causes of death in the UK, and UK heart disease rates are among the highest in Western Europe (British Heart Foundation, BHF 2003). CHD is the single biggest killer of women in the UK, and across the world. (World Health Organisation, WHO, 2003), one in six women die from the condition which is also an important cause of premature death, accounting for almost 6,000 deaths each year in women under 65 in the UK (National Heart Forum, NHF, 2001). Women in manual social classes have higher CHD rates than women in non-manual groups; indeed the gap is wider than among men and seems to be on the increase (Marmot & Brunner 1994, Office for National Statistics 1997, Davey Smith et. al, 2002, British Heart Foundation 2003).

However, CHD is still perceived as a male disease by health professionals and the public (Coronary Prevention Group 1994 p.10, Van Lennep et al., 2002, British Heart Foundation 2003) and this message is reiterated by health education, the media and medical and nursing press and still provides the focus for research activities (Lockyer 2002, Wenger 2002).

The lives of women living in poverty have been largely invisible, hidden within studies which have seen poverty in relation to the financial circumstances of families or households (Glendenning & Millar 1992). Broadly defined, poverty is a consequence of an inability to gain sufficient resources to meet needs, with low income being defined as below half of average income (Acheson 1998). For women the juxtaposition of their often low status and low income position within the labour market, coupled with their caring responsibilities, has had profound consequences in terms of their ability to provide for their dependents, their treatment within welfare systems, and their power and status within the family (Daykin & Doyal 1999).

The causes of poverty among women are a result of complex but mutually reinforcing factors, including gender divisions within the labour force, and as a result of the break down of relationships. However, this is not the only social division which structures their lives and directly affects their own and the life chances of their children. There are also

important divisions relating to income and class which may affect them. In order to investigate lifestyle change in the context of the wider determinants of health this study considered the lives and attempts at lifestyle change of women living on a low income within one electoral ward. This area has a rapid turnover of population (from 25%-40% per annum) (Planning Services, Local Authority 1998), and poor, ageing, inner urban housing stock which includes many houses of multiple occupation. The factors which affect the lives of these women will also inevitably affect the lives of their children; indeed research has shown that a mother's nutrition and smoking habits directly affect the health of her child later in life, with smallness or thinness at birth being associated with increased later risk of CHD (Barker & Osmond 1986). These characteristics are also associated with mothers surviving on a low income whose babies are more likely to exhibit them. Pre-menopausal women need to be a focus of both investigation and intervention to prevent this cycle of increased CHD risk among certain social groups from being perpetuated (Acheson 1998).

In order to examine this increase in risk and whether health care professionals are engaging in CHD prevention with this group, this study begins with a review of the policy background to current CHD prevention strategy in the UK. The literature relevant to CHD risk and the wider determinants of health and health behaviour in women is then reviewed. This section of the review focuses on the wider determinants of health relevant for CHD risk such as housing tenure, education and income (Acheson 1998). Behavioural risk factors for CHD such as smoking, lack of exercise and a high fat diet are also considered. The concept of social capital (Putnam 1993) is then examined in order to consider the evidence relating to its influence on health, and its relevance for this study. Finally to complete this review literature relevant for professional practice and partnership working related to the prevention of CHD for this group is considered.

The methods chapter will then examine the use of a case study research strategy to focus on the issues outlined within the study design. This chapter will also map the development of research skills by the researcher, and the emergence of theory through the use of elements of the grounded theory method.

The findings from the analysis of the data collected to illuminate the case study will then be considered within separate sections in the findings chapter. These include an overview of the geographical area within which the study is based, results from interviews and questionnaires with the sample of women and health care professionals, and an analysis of local partnership working. The planning of CHD prevention strategies in the area which may affect this group of women and health care professionals will also be considered in order to contextualise the findings from this case study.

The discussion section will then place the findings from the study in the context of existing knowledge on this area, (as considered within the literature review) and will discuss the overall implications of this study. The final section will consider the relevance of the results of the study in relation to the practical prevention of CHD for pre-menopausal women living on a low income. In addition recommendations for further research will be made and the limitations of this study will be considered.

Women on a low income and Coronary Heart Disease

Chapter One

Introduction

This literature review will include evidence relevant to the wider determinants of health, health behaviour and CHD. It will also examine preventive practice and policy relevant for women living on a low income. Through considering the policy background to this study and the lives of women living on a low income in relation to CHD risk, this review will show the origins of the research focus and design, and its potential relevance for practice and policy development in this area.

This chapter will begin with the national policy background pertinent to the area under study. It will then go on to examine evidence relevant to women living on a low income and CHD risk, and health beliefs. Chapter two of the review will focus on CHD prevention.

Literature searches

The main databases searched to inform this chapter were Medline, British Nursing Index, Cinahl, Cochrane Library, Psychinfo and Web of Science. The searches were undertaken over the last twenty year period, at commencement (1998), during data collection and analysis (1999 and 2000/1) and on completion (2002/3). Studies were considered which were undertaken prior to this period if they appeared to be currently relevant from references made to them within the literature retrieved from the searches. The search terms used within these searches were as follows:

- Women (used in combination, and without all other search terms)
- Coronary heart disease (used in combination with all other search terms, except health beliefs, general health, self esteem and self efficacy)
- Behaviour change
- Circumstances and behaviour
- Community Nursing/health promotion

- Employment/unemployment
- General health
- General Practitioners/health promotion
- Health beliefs
- Health Visiting/health promotion
- Low income/income inequalities
- Lifestyle
- Practice Nursing/health promotion
- Primary care/health promotion/primary prevention
- Partnership working
- Smoking/diet/exercise
- Self esteem
- Self efficacy + risk factors for CHD, smoking, diet and exercise
- Wider determinants of health, education, housing, mobility

Database searches were undertaken through electronic databases, and hand searches of relevant journals were undertaken when not available to the researcher through electronic databases on commencement of this study (1998). These journals included the Journal of Epidemiology and Community Health, the Health Education Journal, Health Education Research, Social Science and Medicine, Nursing Research, the Journal of Advanced Nursing and the British Medical Journal.

Inclusion and exclusion criteria for the literature review.

Literature was included within this review if it fulfilled the following criteria:

- The literature was relevant for the research aim, and objectives as shown here through the search terms and databases searched.
- The literature was available in English.
- The literature was published or made available within twenty years prior to the year in which the search was undertaken. Where literature is included prior to this date the research has been recognised as influential and relevant for this study through

the researcher reviewing literature from the previous twenty years and seeing this work referred to by other authors.

- Published research papers needed to be published in a peer reviewed or other professional journal and include an account of the research methods used.
- Published papers which provided a review of the literature on a specific area relevant to the study needed to include an account of the review methods used.
- Published systematic reviews of the literature as they became available had to include details of their inclusion and exclusion criteria. The systematic reviews considered included those which reviewed papers using randomised controlled trial research designs, population based epidemiological designs and those which included qualitative research designs.
- For the `grey` literature (unpublished papers, reports and conference papers) which reported on a research study an account of research methods was required.
- For the `grey` literature (unpublished papers, reports and conference papers) which reported on a review of the literature relevant to the study an account of the review methods used was required.
- For the `grey` literature (unpublished papers, reports and conference papers) author details and a source for the paper were needed.

The published literature was considered via abstracts for all search finds, and then considered in full text format for relevant papers.

Literature was not included within this review when:

- The literature did not prove relevant to the research aim and objectives as shown here through the search terms and databases searched.
- The literature was not available in English.
- The literature was published or made available more than twenty years prior to the year in which the search was undertaken or after submission of the thesis in May 2004.
- The paper failed to include an account of the research methods used.
- In the case of reviews, if the paper failed to include an account of the literature review methods used.

- For unpublished research papers, reports and conference papers no account of research methods were included.
- For unpublished review papers, reports and conference papers no account of literature review methods were included.
- For unpublished papers, reports and conference papers when author details and a source for the paper were not available.

This chapter will now begin with the national policy background pertinent to the area under study. It will then go on to examine evidence relevant to women living on a low income and CHD risk, and health beliefs. Chapter two of the review will focus on CHD prevention.

1.1 The policy background

Mortality rates from CHD in women in the United Kingdom are among the highest in the world (National Heart Forum 1998) and CHD is now recognised as the biggest killer of women across the world in both developed and developing countries (World Health Organisation 2003). In the UK the inverse social class gradient in CHD is not reducing for women (ONS 1997, Emslie et al 2001). As in men, mortality rates for CHD in women seem to be directly related to income inequality and social deprivation (ONS 1997). However, the association between income inequality and CHD mortality would appear to be stronger among women than among men (National Heart Forum, NHF 1998).

In the United Kingdom the main focus of CHD prevention has been to encourage individuals to change their lifestyle through health education, focusing on modifiable behavioural risk factors. These risk factors include smoking, lack of exercise, eating a high fat diet and being overweight (National Heart Forum 2001). This focus on modifiable risk factors and individual behaviour has come about through the influence of political interests which focus on the responsibility of the individual for maintaining and improving health, as seen within the previous government's Health of the Nation document (DOH 1992). However, this political focus on individual responsibility for health, and health behaviour change does not fundamentally concur with the World Health Organisation (WHO) Declaration of Alma Ata (1978 p.1), which stated that:

"Health, which is a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity, is a fundamental human right and that the attainment of the highest possible level of health is a most important world-wide social goal whose realisation requires the action of many social and economic sectors in addition to the health sector".

Indeed this Alma Ata declaration and subsequent global and European strategies which have led to the Health For All policy framework, Health 21 (WHO 1999) place responsibility on all governments, health and development workers and the world community to promote and protect the health of all the people of the world.

For many modern diseases such as cancer and CHD there is not a single predisposing cause as may be evident with infectious diseases (Stansfeld & Marmot 2002). For cancer and CHD there appears to be a hierarchy of associated factors, the basis of which may be seen as social and behavioural, though they may also be related to political and economic factors.

During the 1980s and 1990s deterioration in social and health indicators focused renewed attention on the issue of inequalities in health and led to a series of national initiatives. In 1980 the Black Report Committee made a distinction between fundamental and proximal causes of inequalities in health in a statement about smoking behaviour:

"Smoking behaviour cannot be taken as a fundamental cause of ill health; it is rather an epiphenomenon, a secondary symptom of deeper underlying features of economic society" (DHSS, Black Report 1980 p 101).

The report went on to discuss whether policy makers needed to ask about the social and economic factors which explain the prevalence of smoking, and whether these have to be given priority in prevention activity above individual education and counselling.

In 1995 a working group was set up by the Chief Medical Officer for England (CMO), to consider what the Department of Health and the National Health Service could do about variations in health (as they were then referred to, DOH 1995). This acknowledged that the national health strategy contained within the Health of the Nation document (DOH 1992) had not focused on social inequalities in health and that the targets which had been set within it may not be met unless a greater priority was given to this issue. The group

recommended that the Department of Health should work actively in alliance with other government departments and other bodies to encourage social policies which promote health. They also made specific recommendations regarding expanding research work within this area (DOH 1995). In addition to the activities of this working group during the 1990s, inquiries originating in the voluntary sector and with professional bodies were undertaken. Prominent among these were two inquiries from the Joseph Rowntree Foundation, one on British Housing (1991) and another on Income and Wealth (1995) and the Kings Fund initiative to draw up a policy agenda for action to tackle inequalities in health (1995). It had become apparent that within the shifting political backdrop to that decade the challenge was not to engage just health professionals but also those policy makers and practitioners in government as fresh approaches were needed to tackle, not only behavioural factors but also the wider determinants of health relating to social inequalities inherent in income, education, welfare and work. In July 1997 the government announced a new national inquiry into inequalities in health with the aim of identifying priority areas for future policy development (Acheson 1998); the recommendations of this report have been used to inform this study. The report recommended that:

"a high priority is given to policies aiming at improving health and reducing health inequalities in women of childbearing age, expectant mothers and young children" (Acheson 1998).

In addition this report recognises that the health of women of child bearing age has a great influence on the health of future generations. This shift towards a more `holistic` approach to health promotion may be seen as a response to two contrasting influences. One is the knowledge/attitude/behaviour model with its focus on the field of health related behaviour change (Aveyard et al 1999, Brunner 1997). The other influence comes from epidemiology or population based health research, which places the causes of disease into a social, psychological and biological context. An indication of this shift in policy thinking internationally emerged from the World Health Organisations European Centre for Urban Health which emphasises structural and social, rather than behavioural factors as important determinants of public health.

Within the current UK governments `Our Healthier Nation` document (DOH 1998, Chapter 3) a `Contract for Health` is laid down which states that local agencies, both

statutory and voluntary, and local communities can provide leadership and work in partnership to improve the health of local people and tackle the root causes of ill health, thereby indicating the government's apparent commitment to partnership working to improve the public's health. With the responsibilities that Local Authorities and Primary Care Trusts (Health Act 1999, NHS Plan 2000b) now have to improve the health of the populations they serve, it is vitally important to be aware of what affects health and health behaviour and how people are working, and can work together to tackle the root causes of CHD.

It has been highlighted within the Chief Medical Officer's (CMO) Project to Strengthen the Public Health Function (2001) that because of the breadth of factors impacting on health and wellbeing the public health function is a multi-disciplinary one. People from a range of disciplines and levels of seniority contribute in their daily work to improving the public's health, or have the potential to do so. The report of this project goes on to recommend that health care professionals and local government staff as well as those within the voluntary sector need to adopt a public health 'mindset' and gain a greater appreciation of how their work can make a difference to the health and wellbeing of local communities. However, without effective communication between groups this change in mindset is unlikely to be as effective.

Local partnerships as a framework for tackling poverty, promoting local regeneration and tackling inequalities in health, and access to health care services have acquired widespread validity in recent years (Geddes 1997, HDA 2000, CMO 2001). Local partnerships which involve members of the community, as well as the public, private and voluntary sectors are seen to be a way of ensuring that initiatives are well supported (HDA 2000).

Partnerships are being promoted through a number of policy initiatives such as Health Improvement Plans, Community Safety Plans, Action Zones in Employment, Education and Health and the NHS Plan (Secretary of State for Health 1997, Home Secretary 1997, Charter Programme 1998 and the DOH 1998, 2000 & 2001, and Arora et al 1999). All these are part of the new policy agenda to tackle regeneration, social inclusion and inequalities in health. They rely on partnership and public participation. In addition, both

UK government and European Union (EU) funding have increasingly needed a strong partnership framework as an essential element for gaining funding (Geddes 1997).

Potential methods of enhancing partnership working have been considered here through five literature reviews of recent or current partnership working activities, and their effectiveness (Geddes 1997, Pratt et al 1998, Gregory 1998, Jee et al 1999 and HDAb 2001). These reviews have been considered here as they may offer potential insights into effectively tackling local deprivation and ill health. Indeed, it is possible to see common themes within these reviews which may enable both effective partnership working and the reduction of inequalities in health.

They are:

- For all partners to see, and share the benefits of partnership working (Pratt et al 1998).

- Having shared aims and objectives, developed with all partners and gained through effective communication (Geddes 1997, Pratt et al 1998, HDAb 2001).

- Achieving sustainable changes in funding which makes the partnership working not dependent on injections of external resources (HDAb 2001).

- Allowing individuals to work in new ways, and valuing everyone's contribution (Geddes 1997).

- Actively involving local residents as partners in the planning and process of partnership working. Enabling residents who may not normally be the first to volunteer to be involved in community development activity (Gregory 1998).

The first three of these areas were also identified within the Audit Commission Document, A Fruitful Partnership (Effective Partnership Working, Management Paper 1998). Indeed one of the most common partnership working topics identified within this document was "improving public health" (Audit Commission 1998 p.17).

Including opportunities for local residents to take part in partnership working does not appear as an issue within the Audit Commission Management Paper, although "ensuring that service-users' views are brought into the partnership work" (Audit Commission 1998 p.20) is mentioned in the section focusing on choosing partners.

The evidence base relating to effective partnership working has developed considerably through evaluations of government initiatives such as Health Improvement Plans, Sure Start, Community Safety Plans, and Action Zones in Employment, Education and Health (Secretary of State for Health 1997, Home Secretary 1997, Charter Programme 1998 and the DOH 1998, 1999, 2000 & 2001b, and Arora et al 1999). The evaluation of the effectiveness of partnership working is complex, and recognising where cause and effect originate, while considering the process which enables this to happen requires the use of multiple research methods, including qualitative, quantitative and case study strategies (HDA 2001b).

The five themes which emerged through the reviews considered here (Geddes 1997, Pratt et al 1998, Gregory 1998, Jee et al 1999 and HDA 2001b) however, are relevant to the systematic consideration of partnership working within the locality under consideration in this case study.

The national tracker survey was a longitudinal survey of 72 of the 481 primary care groups established in England in 1999 (Wilkin et al 2001). These annual surveys aimed to evaluate their achievements and success in performing core functions, including health improvement. The first survey was completed in 1999 and the second in December 2000 (Wilkin et al 2001). The method used to collect data on how the primary care groups worked to improve health was through telephone interviews with chairs of primary care groups and executive committees of trusts and chief officers (138 in total). No mention is made in the published article of the methods used to analyse the data (Wilkin et al 2001). Questions relating to `addressing inequalities in health` within this survey focused on partnership working, and those interviewed stated that they were involved in `liaisons` with local authorities; it was acknowledged that these links were rudimentary and consisted of membership of multi-agency groups rather than action based sustained joint

working. The most commonly implemented health improvement initiatives within the trusts were smoking cessation programmes, although no information in the published survey was offered relating to cessation rates, or the type of activities undertaken (Wilkin et al 2001).

Within a study which focuses on the responses of single chairs and chief officers from disparate trusts it is unlikely that a realistic picture of professional practice relating to health improvement would be gained. This is a major criticism of this survey and its relevance for the study being undertaken here. However, this study will build on these findings as it will offer an opportunity to consider in detail the partnership activities undertaken by health care professionals in one area, alongside an analysis of the activities of the local health improvement group. This will give valuable insights into whether membership of multi-agency groups is being transferred into joint working to reduce inequalities in health in this area.

The National Service Framework (NSF) documents are an attempt by the government to standardise prevention and treatment remedies for a variety of different issues, ranging from disease based frameworks to those focused on children and older people. The first of these documents appeared in 1999 with the NSF for CHD (DOH 2000) appearing in March 2000. Chapter one of this document focuses on reducing heart disease within the population, and explicitly mentions in relation to inequalities and CHD

"the health of women of child bearing age as requiring special consideration in relation to reducing inequalities in CHD in current and future generations".

The NSF states that the influence that this group has over those they care for, and the levels of poverty experienced by women of child bearing age and their dependants, makes them worthy of special consideration within prevention strategies. In addition both of the inequality targets which have been set by the Department of Health (2001) are relevant to the health and wellbeing of the group under consideration here, as the first relates to infant mortality, and the second relates to overall life expectancy.

1. "Starting with children under one year, by 2010 to reduce by at least 10 per cent the gap in mortality between manual groups and the population as a whole" (DOH 2001);

2. "By 2010 to reduce by at least 10% the gap between the quintile of areas with the lowest life expectancy at birth and the population as a whole" (DOH 2001).

In addition other targets have been set with an inequalities focus in the areas of smoking and teenage pregnancy. When setting these targets the government discussed the routes via which these reductions may be achieved, particularly mentioning pockets of deprivation within areas of affluence (DOH 2002), as is the case in the area under consideration within this study. The vehicles for change in localities are seen as being the health improvement programmes, local strategic partnerships, the NHS Priorities and Planning Framework (PPF) and Public Service Agreement (PSA) for local government (Department of Health 2003).

This section of the literature review has provided a policy background to the study and to the following sections of the review.

1.2 Wider determinants of health

The structure for this section of the literature review, which focuses on the links between the wider determinants of health and CHD risk, emerged from the Independent Inquiry into Inequalities in Health Report (Acheson 1998). This report considered the following areas, all of which are relevant to a review of the literature relating to CHD risk; income inequalities, education, employment, housing, and mobility. This section of the review will consider the evidence relevant to these areas, and how they may influence CHD risk and health behaviour for the group under study (pre-menopausal women living on a low income with dependent children). In addition the issue of lay health beliefs regarding CHD will be considered.

1.2.1 The influence of income inequalities

"Income is an important determinant of the health status of individuals and populations" (Wilkinson 1997)

It would seem that it may not be a person's level of income which is relevant but their income in relation to others across the society in which they live. Countries which have experienced a reduction in income differences over time also experience a faster rate of decline in CHD mortality in both men and women (Wilkinson 1997). During the 1980s and early 1990s the scale of income inequality in the UK widened more rapidly than in any other developed market economy (Hills 1995), and the relative position of the U.K. in the international league table for life expectancy slipped, despite national and local health promotion activity (Acheson 1998).

The evidence base relating to income and social status and CHD in the U.K. has been led by epidemiological cohort studies such as the Whitehall II study of British civil servants, both men and women, which was set up with the explicit aim of determining the role of social gradients in physical and mental health (Marmot et al 1991, Stansfeld et al 2002). The study showed that while low status civil servants within the Whitehall study were found to have higher levels of fibrinogen which increases the risk of CHD, and may well be raised by chronic stress (Brunner 1997) even minor differences in occupational grade

and income seem to affect CHD risk adversely, with the lower grades more likely to suffer with CHD and more likely to be regular smokers, and less likely to eat healthily and exercise (Marmot et al 1991, Hemingway et al 2000). This would therefore suggest that not only CHD risk may be adversely affected by one's job status and income, but that health behaviour may also be negatively affected.

In a survey of over 20,000 men and women aged thirty five and over in Somerset and Avon, histories of angina and myocardial infarction were both more common among individuals living in deprived areas compared with those in affluent areas (Eachus et al 1996). In a Finnish study low income and manual occupation were both related to a higher severity and greater four year progression of atherosclerosis (Lynch et al 1995, Lynch et al 1997). Until recently the debate regarding inequalities in health and health behaviour focused on the association of illness with socioeconomic circumstances in adulthood (Frankel et al 1999). However, the Department of Health report `Variations in Health` (1995) recognised the importance of a life course approach to inequalities in health. It concluded that,

"it is likely that accumulative differential lifetime exposure to health-damaging or health promoting physical and social environments is the main explanation for variations in health and life expectancy".

Indeed, CHD may be seen as the paradigmatic health problem (Davey Smith et al in Stansfeld and Marmot 2002) illustrating the effects of a life course perspective on causation, risk and prevention. Intrauterine environment (Barker 1998), growth, nutrition, health and social circumstances in childhood (Gunnell et al 1998) and a variety of behavioural and socioeconomic factors in adulthood may all contribute to the development of CHD (Stansfeld & Marmot 2002). Conventional risk factors, blood pressure, obesity and blood cholesterol measured in adolescence seem to predict CHD decades later (Davey Smith et al 2001). This would indicate that approaches which focus on middle aged adults and CHD prevention run the risk of missing important early preventive opportunities. In addition it would seem essential to further study the health and wellbeing of the mothers of future generations in relation to preventing the ongoing cycle of inequalities in CHD health (Acheson 1998, Wamala et al 2001).

The research referred to within this section on income and health has considered epidemiological and psycho-biological population based studies which have helped to demonstrate inequalities in health within the U.K. and Northern European populations.

1.2.2 Education and CHD risk

Low socio-economic status and poor educational attainment seem to be associated with biological and behavioural risk factors for CHD in both women and men, as has been shown through epidemiological and large cohort studies (Jacobsen & Thelle 1988, Kaplan & Keil 1993, Woodward et al 1992, Wamala et al 2001).

Educational attainment has an important role to play in influencing social and economic position which in turn influences income, housing status, and overall material resources in addition to affecting status within the society in which an individual lives. This mixture of influence over income and status may directly affect the risk of both women and men suffering with CHD (Davey Smith et al 2001).

In a study undertaken during the 1980s which considered cardiovascular disease risk it was found that the independent effect of education on risk was as strong as the effect of smoking, blood pressure, weight and cholesterol combined (Mulcahy et al 1984). Obviously one's educational attainment can directly affect employment prospects. Therefore the findings of the Whitehall study which concluded that a subject's grade of employment is a stronger predictor of the risk of subsequent CHD than any of the major risk factors (Marmot et al 1978) is also relevant to any discussion regarding educational attainment and CHD risk.

Almost one third (2.7 million) of children in the UK live with lone parents (90% mothers) and 60% of these live on a low income (Child Poverty Action Group 1998, HDA 2002). As a lone parent the potential for both employment and educational attainment are markedly reduced due to the lack of reasonably priced child care provision. Overall women are more likely than men to take on caring responsibilities; indeed forty per cent of women spend more than fifty hours a week caring for someone living with them (Corti & Dex

1995, Baker & Taylor 1997). Unemployment, or low pay and low status employment is therefore the likely result, with the ensuing possible dependency on the benefit system and concomitant increase in CHD risk (ONS 1997).

That lower educational attainment increases CHD risk has been established through epidemiological studies considering education within populations in adulthood. However the reasons for it are less well understood. It may be what higher educational attainment leads to throughout the course of an individual's life, such as a larger income, higher social status or increased control in your work (Marmot & Stansfeld 2002); or it may be that higher educational attainment affects an individual's health behaviour, or both. Indeed in relation to this study there is an added dimension in that the education of women may affect the health of their family through the increased wealth they can bring into the home but also in relation to their knowledge and valuing of the influence of health behaviour on their families' health (Harker and Hemingway 2001). Further research is needed both in terms of attempting to understand this link between educational attainment and CHD risk within populations but also in understanding the link within the context of the family, and a life course approach to CHD prevention which may require the use of different research paradigms in order to look deeply into, and interpret, behaviour within specific social settings.

This study will consider the educational achievements and aspirations of the women interviewed, both in terms of their relevance as an alternative descriptor of social status (ONS 1997), but also in order to give insights into whether the women are able to pursue their aspirations in this area.

1.2.3 Employment and CHD risk

The psychosocial work environment seems to be associated with an increased risk of CHD, but which factors are important in causing this? Three factors which seem to affect this, from consideration of the evidence, are control over work, the demands placed on one at work and social support (Karasak et al 1990, Marmot et al 1991). Indeed the worst combination seems to be lack of social support, combined with a low level of control and

high demand, a combination known as `iso-strain`; however studies considering this area have been carried out mainly on men, in large cohort randomised studies (Johnson et al 1989, Siegrist et al 1990, Green and Johnson 1990 & Theorell 1998) so their relevance for women at work, either out of or in the home, is less well explored. In the Swedish Five County Study the excess risk associated with working in hectic and monotonous occupations was stronger for women than for men (Theorell and Karasek 1996). Therefore, despite the lower incidence of CHD amongst pre-menopausal women these findings would indicate that `iso-strain` or job strain may be associated with risks for women as strong as those for men.

The Framingham study, a longitudinal cohort study of men and women in Massachusetts, indicated that female clerical workers with at least three children have a markedly elevated risk of developing CHD (Haynes et al 1980). These results may therefore indicate that the double role of worker and mother may contribute to CHD, at least when the mother is in a low status occupation. In a fifteen year follow up of the original Framingham cohort, the model of high demand, low control and low support at work was tested out for women and men. The results confirmed the model as indicating a higher risk of CHD for women, whose jobs fell into this category. They were however less convincing for men (Stanton and Gallant 1996).

Unemployment has also been shown to increase the risk of an individual suffering with CHD for both women and men independently (ONS 1997) and for the spouses of unemployed men. Unemployment for both sexes is largely concentrated within the less skilled groups. However for the benefit of this study we must remember that Social Class V consisting of unskilled manual occupations (Registrar General's Classifications ONS 1997) contains only approximately 6 per cent of all men, the rest of Social Class V being made up of women.

Within the 1997 Health Inequalities Report from the Office for National Statistics it was stated that employed women had lower than average mortality even if their husbands were unemployed while unemployed women had higher mortality even if their husbands were in work. This suggests then that the economic activity of a woman herself may have the

strongest influence on her mortality; however, unemployed women with unemployed husbands had a 35% mortality excess against standardised mortality ratios. This illuminates the inherent inaccuracies of the registrar general's classification system of assigning women to the social class of their partner in terms of measuring health and variations in health. Alternative social classifications such as housing tenure and car access have been shown to have more relevance to studies which consider both women and the elderly, who are not considered formally within the registrar general's classifications (ONS 1997). Car access and housing tenure represent the circumstances of all members in a household rather than one individual and they apply regardless of economic activity, status or age.

Once again the studies considered within this section thus far have been epidemiological or large cohort studies, using quantitative research methods to highlight inequalities in health related to employment or unemployment. However these studies offer limited insights into why these inequalities exist, as they focus on the fact that inequalities occur and not why they occur. The inability of this type of research to answer these `why` questions has resulted in a lack of evidence relating to what works to reduce these inequalities as investigators lack the signposts to lead them to which interventions to test and how (Kelly 2002).

1.2.4 Work within the home

There are however important studies relating to the work of women within the home which have used multiple research methods, such as Oakley's seminal study on the work of British housewives and mothers (Oakley 1976), and Graham's (1987) study considering women on a low income and smoking habits (which will be considered here in more detail in the section on women and smoking in this review). These studies have attempted to look at the many dimensions of the lives and work of women both inside and outside the home, to explore the meaning of this work for the women involved and to assess the implications this may have for their health. This approach to the exploration of the lives of women has also helped understand their use and abuse of hazardous substances such as alcohol and cigarettes (Doyal 1995).

Oakley's (1976) work involved taped interviews with forty housewives from a variety of social groups, focusing on their attitudes and routines within the home. This work raised the issue of the sexual division of caring which often gives women responsibility for looking after others but rarely gives them adequate social support in doing so. This can result therefore in women suffering from feelings of isolation and frustration through their responsibilities for caring for others without adequate support. This study will enable insights into whether lack of social support was an issue for the women involved, and whether they and the health care professionals saw this as impacting on their health behaviour.

Graham's (1993a) work focusing on low income mothers, caring responsibilities and health behaviour, through combining analysis of official statistics and the personal accounts of women (Taking Liberties Collective 1989, Grewal et. al, 1988, Morris 1991) offered insights into the complex ways in which poverty impacts upon health and health behaviour, such as smoking. In this work Graham recognises that smoking and socio economic pathways tend to be associated in women, and that strategies to enable smoking prevention in this group need to consider the complex issues related to how disadvantage affects the likelihood of smoking cessation occurring. This work also offers a relevant critique of how large scale lifestyle surveys may mask inequalities through attempting to fit women into rigid categories where social divisions like class are represented as personal characteristics (things people have) rather than social relations (the way people live, Graham 1993b). This labelling of `personal characteristics` may mean that negative health behaviours are viewed as due to the weakness of an individual alone, rather than recognising the potential influence of the wider determinants of health. Indeed the issue of lack of support outlined within Oakley's work (1976) may also enhance our understanding of how disadvantage may influence health behaviour. This influence needs further exploration and is a major focus within this study.

1.2.5 Housing and CHD

Housing may not be immediately considered as relevant to one's risk of suffering with CHD. However analysis of housing tenure and CHD mortality shows that if an individual owns their home then they are less likely to suffer from CHD than someone who rents their home (NHF 1998). Little research appears to have been carried out to investigate why these inequalities arise. However the Acheson Report into Inequalities in Health (1998) states,

"as a result of housing policy in the 1980s and 1990s social rented housing, housing authority and housing association homes have become a housing sector for low income groups. People moving into social housing have tended to be families with children on the lowest incomes, while those moving out have been older, with higher incomes and fewer children. The result is an over concentration and separation of households with high levels of need in areas with poor amenities".

Therefore the widening over time in CHD mortality differences between owner occupiers and those renting may be symptomatic of social and economic influences such as a general trend towards greater income inequality with the attendant effect on CHD risk.

Hunt (et. al 1988), through survey work based on the comparison of a gradient of physical ill health with men and women living in poor housing, discovered that the self reported health of a woman may be more influenced by housing tenure than that of a man, as they spend longer in their home, and are at greater risk from their home's health-threatening features such as damp, noise and lack of somewhere for children to play. These results may, however, have been influenced by gender differences in self reporting of health problems (Men's Health Forum 2003). The area under study here has poor quality housing stock, and many houses of multiple occupation. This study will therefore offer further insights into the potential links between poor housing and poor health, and health behaviour.

Karasek, having conducted several large cohort randomised studies considering stress at work, argues that chronic stress and lack of control over one's environment may play a part in increasing one's risk of suffering from CHD (Karasek et al 1981, Karasek 1985 & Karasek 1990). Arguably women who are at home with small children or at home due to illness or unemployment or as carers are exposed to the inadequacies of their home environment on an almost continuous basis.

Overall the effects of one's housing may influence health, and potentially health behaviour. This area will be explored within this study through the interviews with the sample of women and the health care professionals to gain further insights into the quality of housing locally and how it may affect behaviour and health.

1.2.6 Mobility and CHD risk

Lack of access to transport is experienced disproportionately by women, children, disabled people and people with low social and economic status (Acheson 1998). In the 1991 census those living in rented accommodation were nearly four times as likely to have no access to a car as those living in owner occupied accommodation. Women are also less likely to have a driving licence, and if the family have a car then they are less likely to have access to it (Graham 1993, Graham 1998).

In urban areas or on busy roads, high traffic volume results in feelings of lack of security, especially among families with small children (Roberts 1997) and is associated with low levels of walking. The cost of rail and bus fares has risen by one third in real terms since 1980 while for those attempting to travel on public transport with small children the lack of easy access transport and high costs have combined to reduce usage (Dept of Transport 1995, Health Education Authority HEA 1999a). These factors may result in limited training and work opportunities and lack of social support for individuals living in these areas, thereby potentially impacting on CHD risk, although this area would appear to be under researched.

Approximately a third of all households have no access to a car, and they tend to be those on a low income (ONS 1997 p.168, HEA 1999a), while vehicle produced air pollution is more common in areas differentiated by other indicators of disadvantage. Therefore increased walking may be of benefit in relation to CHD risk but put an individual at more risk of health problems from air pollution (Acheson 1998). More research is needed both into the positive and negative physiological effects of not having access to a car, but also into the social status associated with car use and ownership. These studies would require

the use of both quantitative and qualitative methods in order to consider both physiological and social factors which may affect future planning and policy decisions.

1.2.7 Social capital and health

Before moving on to behavioural risk factors for CHD it is useful to consider another emerging concept which prior to embarking on this study had been considered theoretically relevant to overall health and wellbeing. Putnam (1993, 1995) defines social capital as, "people's sense of belonging to their community, cooperation, reciprocity, trust and positive attitudes to community institutions that include engagement or participation" (Putnam 1993).

Putnam's (1995) study of governance and wealth production in Italy found an association between life expectancy, infant mortality and social capital, although within the literature review covering the previous twenty years undertaken by the Health Education Authority (HEA 1999), material living conditions and socio-economic position remained stronger predictors of poor health than social capital in the UK. This review considered published studies which focused on socio-economic position and health behaviour and social capital and health behaviour over the previous twenty years. The conclusions suggested that the links between health behaviour and social capital were weaker than the influence of socio-economic factors. The review did indicate, however, that there is evidence to suggest that individuals living in deprived areas are more likely to live in communities low in social capital. The review also found that women's chances of smoking consistently increase as neighbourhood social capital decreases, although there was no significant variation in smoking behaviour discovered for men in similar circumstances (HEA 1999 p.146). A secondary analysis of British Data (Health Education Authority 1999b), including the HEA health and lifestyles survey (1996) and the Health Survey for England (1993/4) showed that both social support and social capital are independently associated with health behaviour. However, less of the variation in both diet and smoking was accounted for by social capital than was associated with social class and material deprivation. Both this literature review and secondary analysis, therefore, would suggest that in Britain social

class and material deprivation may have more effect on health behaviour than social capital.

An analysis of data from the year two thousand General Household Survey (Ginn & Arber 2004) which focused on gender, social capital and health would indicate that self-assessed social capital has less explanatory power than socio-economic circumstances in relation to inequalities in health for men and women. A focus on gender within previous work on social capital has been lacking (Burt 1998). Interestingly this study found that the health of women was more closely linked than men's to social relationships with friends and neighbours in their local area, and that gender therefore should be considered within analysis of social capital within communities. Overall however, this analysis found considerable overlap between social capital and material advantage which confirms Gillies et al (1996) thesis that material disadvantage may erode both health and social capital within communities across both genders.

Social capital within the reviews considered here has been defined as "features of social organisation such as networks, norms and social trust that facilitate coordination and cooperation for mutual benefit" (Putnam 1995, p 67, Kennedy et al 1996). However other writers have defined social capital in relation to networks of contacts, and a resource of social relations between families and communities (Colman 1998). There is, therefore, some lack of clarity regarding the definition of social capital in the literature. In addition where social capital resides remains unclear; does it lie with the persons or groups linked by networks, by the networks themselves, or in the communities in which these networks exist? Baum (1997) suggests that an unsophisticated understanding of social capital may mask that more social capital is not necessarily an unmitigated good. For instance a tightly knit net of injecting drug users may provide elements of social capital for an individual; however, other unwanted outcomes of this dependence may outweigh the benefits. There is therefore, a growing recognition of the contextual dependency of social relations and their meaning for health (O'Brien et al 1993, Due et al 1999), a link which will be explored further through this study which will allow for the exploration of context as an element of its findings.

A model has been suggested which attempts to capture the acknowledged dynamic properties of the concept of social capital (Hean et al 2003, Cowley et al 1999a, Hean et al 2004). This model has been proposed as a potential method for transforming the concept of social capital from a somewhat disparate list of social descriptors to a concept which offers explanatory factors to describe and improve socially acquired outcomes (Hean et al 2003). Considering these factors in relation to social outcomes may make the concept of social capital more relevant to this study, therefore the paper describing this model will be considered here (Hean et al 2003).

The model is predicated on the understanding that much of the lack of clarity surrounding the concept of social capital emerges from a lack of understanding of the term `capital` in this context. The authors of this model suggest that the `capital` element makes the term unique in social theory (Hean et al 2003), and that to further our understanding of this term we need to examine Marx`s theoretical construction of capital (Marx 1867). For Marx `capital` was seen as economic relationships defined by the power or authority to control the means by which wealth is generated (Hean et al 2003, Marx 1867). Marx also used a formula to describe a dynamic process of `capital` generation, whereby money (M) is converted into a commodity (C) that may be reconverted into money (M). Within the proposed model however, money is viewed more appropriately as resources which is a strong theme within the social capital literature (Coleman 1988, Bourdieu 1997, Cowley et al 1999b), with resources in relation to this debate being seen in relation to social capital as social support or a social network.

The authors of the model suggest that viewing social capital in relation to this M-C-M` model allows for the meaningful placement of social capital within its social context (Hean et al 2003). The model is suggested as a preliminary or tentative step toward enabling the evaluation of social capital, both in terms of process and outcomes in the future, although no attempt was made to apply this model in practical terms within this paper. The application of this model within this exploratory study would, however, be outside its remit, although an interesting and relevant area of further study may be to explore the links between social capital and health behaviour, as work to date appears to have focused on establishing a link between social capital and poor health.

The definition of social capital used within the reviews considered here, "features of social organisation such as networks, norms and social trust that facilitate coordination and cooperation for mutual benefit" (Putnam 1995, p 67) provides a view of social capital which is too broad to fall within the remit of this study apart from potentially social trust or support. However the theory of social capital may prove important in relation to future health improvement planning for communities, and as such has been included within the 2000/2001 General Household Survey as a new module (HDA 2001c, Morgan & Swann 2004).

1.2.8 Women and smoking

Overall cigarette smoking has declined among adults in the UK. However the rate of decline is less for women than men and the gap between their rates of smoking has disappeared (HDA 2002a). Cigarette smoking is increasingly being associated with deprivation in both sexes (Mermelstein & Borrelli in Stanton and Gallant, 1998 p.309), as shown in epidemiological studies, and overall rates of decline are dependent on the cessation and uptake rate, with women being less likely to stop smoking and more likely to begin (HDA 2002b).

In the late 1960s forty percent of women smoked, and this was spread across all income groups. By the 1990s however a strong inverse social class gradient had developed, whereby only thirteen percent of women in `professional` households smoked compared to thirty five percent of women in `unskilled manual` households (ONS 1997). This social class difference is reflected in both uptake and cessation rates and women from manual social classes are more likely to start smoking and less likely to stop (ONS 1997). Through analysing smoking trends from 1976-1990, it has been demonstrated that the prevalence of smoking is declining among both men and women aged sixteen to forty four in the highest income quarter and the second and third quarters. However in the lowest income quarter there has been no change in prevalence, with the proportion remaining at fifty percent throughout (HDA 2002a). The proportion of lone parents who smoked has remained at sixty percent over the same period. The main change is that in 1990 there were three times

as many lone parents as there were in 1976; there were also more poor couples with children (Marsh and McKay 1994). Smoking rates in the 1990s did not seem to differ substantially between men and women. However seventy three percent of adults in low income families are women (HAD 2002a).

Graham's (1987) qualitative research has helped to illuminate why women on a low income may be less likely to give up smoking than those in other groups. Through in-depth interviews with over one hundred women, Graham (1987) discussed their coping strategies for living on a low income with young children and showed how their smoking habits were inextricably linked with coping with their own and their children's daily routine; and were perceived as the only adult luxury available to them in a life filled with caring for others. Little further qualitative research has been done to build on this theme in the intervening years with the main focus being on showing inequalities in smoking habits overall (Graham 1998). This study will attempt to further explore this area through discussing health behaviour with the women in order to gain insights into whether coping behaviours related to the wider determinants of health (such as income and housing), as indicated within Graham's work, could potentially also relate to diet and/or exercise. These areas will then be further explored with health care professionals in order to consider whether their practice recognises these possible influences on behaviour.

Factors which influence smoking uptake among girls and women can include community factors such as the price of cigarettes and tobacco advertising; the perceived benefits of smoking such as dealing with emotions and not gaining weight; whether their friends or family members smoke and personal factors such as lack of coping strategies and low self esteem (Conrad and Flay 1992). Factors which may influence smoking cessation among girls and women can include overall personal health concerns, social influences, pregnancy, financial worries and living with small children (Amos 1993, Harker & Hemingway 2001). Paradoxically, however, some of these factors may also influence the decision to start and maintain smoking as a coping strategy. It would appear that, in a life of poverty, buying cigarettes may often be the only money women spend on themselves (Graham 1993b).

Young smokers, both male and female, in the lowest income groups have a much lower rate of giving up smoking, especially if they subsequently have the experience of claiming income support (Marsh and McKay 1994). This suggests that there is some factor which makes people stick to smoking and to resist the trend to giving up in their 20`s which has been detected across other income groups, although further research is needed in order to give insights into why this occurs. Poverty itself may be the key. Research on smoking cessation shows that success is associated with optimism; the lack of control over circumstances, the resulting feelings of inequality and failure and the lack of opportunity do not breed optimism and therefore do not enable success (Marsh 1998, Graham 1998).

It would seem that the majority of women wish to give up smoking (OPCS 1994). However, this is unlikely to be achieved until their positive beliefs about the benefits of giving up smoking outweigh the perceived negative consequences, such as weight gain and lack of coping strategies and unless the women live in an environment which supports them giving up. A survey of subjects participating in the Royal College of General Practitioners Longitudinal Oral Contraception Study (Owen-Smith & Hannaford 1999) showed that stopping smoking may lead to weight gain, and that overall women who have stopped smoking may gain the most weight when compared with others of similar age.

It would appear then that many factors influence smoking uptake and cessation, and that any intervention to help women to cease smoking needs to take into consideration these factors within both its design and outcome measures. This study will explore the factors that affect women's smoking habits and examine the knowledge the women have of the potentially harmful effects of smoking on their health. In addition local health care professionals' practice relating to smoking cessation will be examined, in order to gain insights into whether what is needed to support the women is provided, or can be provided by local health care professionals in order to inform local smoking cessation strategies.

1.2.9 Women and exercise

Exercise is now recognised as a key element in a healthy life (WHO Federation of Sports Medicine 1995) and it has been shown that regular physical activity or cardio respiratory fitness decreases CHD mortality in women (HDA 2000, Oguma et al 2002, Manson et al 2002). However in England, physical activity levels are low. Data from the 1998 Health Survey for England (Joint Surveys Unit 1999) showed that 25% of women met the current guidelines for activity (thirty minutes of activity per day for five days of the week) and that activity levels drop with age. Furthermore women in manual social groups who have the greatest risk of developing CHD are the least active (Joint Surveys Unit 1999).

Physical activity in women has been shown to enhance mood and feelings of wellbeing thereby offering potential for other `lifestyle` changes for individual women, as well as reducing the risk of osteoporosis (Raglin 1990). In a more recent study (Manson et al 1999) it was indicated that women who walk briskly or exercise vigorously for three hours a week or more can reduce their risk of heart disease by as much as thirty percent.

There are psychological and social barriers to women undertaking and enjoying exercise such as lack of knowledge about how to exercise and exercise skills and lack of opportunities and funds to support regular exercise for women on low incomes (King et al 1992). Women may also lack peer role models for appropriate physical activity. Lack of time has been reported by women to be a barrier to regular physical exercise and having children has been found to be the best negative predictor of vigorous exercise (Verhoef et al 1992, HEA 1997).

Access to exercise facilities has also emerged as a predictor of exercise in community populations (Sallis et al 1990). However women with dependants, either children or the elderly, are still less likely to use exercise facilities even though they may be physically close at hand (O`Leary 1992, HEA 1997). Women have equal access to footpaths, parks, streets, playgrounds and bicycle tracks with men; however these places may not be as safe for women as they are for men, or in some cases these `public areas` are considered too unsafe by the local community to be used at all. Another issue which may limit the willingness of women to participate in exercise is that of the anxiety which may occur when having to display their physique in a group or activity setting (O`Leary 1992).

Many of the potential barriers to women adopting a more active lifestyle seem to be under-researched and despite being highlighted in studies have been left without further investigation (Labarthe 1998). This study will examine women's exercise habits within the locality under study in order to gain insights into the factors which emerge as enabling or limiting the likelihood of exercise being undertaken, in order to inform local exercise promotion activity.

1.2.10 Women and diet

Excess weight gain is linked with raised blood pressure, raised serum cholesterol levels and diabetes, all of which are CHD risk factors, while obesity is an important determinant of CHD risk in women; even mild to moderately overweight women have a significantly increased risk (Manson et al 1990, Wilson et al 2002). Through the Framingham Longitudinal Heart Study which has considered adults aged 35-75 years over a 44 year period, it has been determined that being overweight (Body Mass Index, BMI, 25.0 - 29.0) or obese (BMI 30 plus) increases your risk of CHD or stroke for both women and men (Wilson et al, 2002). Indeed in the Framingham study the likelihood of developing hypertension due to being overweight or obese appeared to be greater for women than for men.

Obesity is now considered to be a global epidemic (WHO 1997), and there is considerable debate around the reasons for the increasing prevalence (NHS Centre York 2002). Possible explanations may be an increase in sedentary lifestyles and change in dietary patterns and eating habits (National Audit Office 2001). It would appear that the amount of energy expended by individuals through exercise has declined substantially as obesity rates have escalated, which suggests that sedentary lifestyles are an important factor (Prentice & Jebb 1995, NHS Centre York 1997, NHS Centre York 2002). It would appear therefore that current attempts to prevent the UK population from gaining weight are failing (Select Committee Enquiry 2002). This study will consider the issue of weight loss with the sample of women and health care professionals to consider whether the potential influences on the women's dietary behaviour are considered within their practice.

Women like men in the UK eat a high fat diet in comparison with other European countries such as Italy (Coronary Prevention Group, CPG, 1994), and the importance of dietary interventions to reduce the risk of CHD may have been underestimated. The fruit and vegetable consumption of women from manual social classes is currently low; women are making changes in terms of fruit consumption but their vegetable consumption (and therefore Vit E intake) is still very low (less than three portions per day, CPG 1994, NHF 1997). The problem is how to enable women to change their diet; most of the health education thus far has focused on the diet of men, even though women are generally more likely to purchase and prepare food on a regular basis (CPG 1994, Emslie et al 2001).

There is substantial evidence that increased levels of antioxidants such as vitamins C and E, beta-carotene and the trace mineral selenium found primarily in fresh fruit and vegetables, protect against CHD (NHF 1997, Brehme 2002). These antioxidants are found in a wide range of foods of plant origin; good sources are citrus fruits, vegetables, whole grain cereals, nuts and some vegetable oils; other carotenoids such as lutein and lycopenes found in large amounts in tomatoes have also been implicated in lowering the risk of CHD (NHF 1997).

This study will gain insights into what may be influencing factors in relation to dietary habits for this group of women, and their experiences of changing their diets. In addition the findings will be considered in relation to the impact that the women may have over the diet of those they care for/cohabit with.

Over recent years many studies have shown the possible protective effects of moderate alcohol consumption on CHD risk, in both women and men (Stampfer et al 1988, Razay et al 1992, Gaziano et al 1993). Specific levels of consumption which may be protective differ across different studies; Stampfer (1988) found that risks of myocardial infarction were reduced in women consuming 0.1 to 1.5 alcohol measures daily, while in the Framingham heart disease study Gordon and Kannel (1983) found significant reductions in deaths from CHD in women who reported consuming between 0.7 and 4.3 alcohol measures daily. Other large cohort randomised studies indicate that moderate alcohol

consumption increases oestrogen levels in healthy postmenopausal women (Gavaler & Van Thiel 1992), suggesting a possible mechanism for the protective cardiovascular effects (BHF 2003).

This section within the literature review has attempted to review the literature relevant to the increase of CHD risk associated with the wider determinants of health, and specific areas of behaviour associated with increased CHD risk for the group under study here. The current evidence available has been reviewed and areas which need further investigation have been highlighted. It would appear that although the wider determinants of health influence an individual's risk of suffering from CHD, the mechanisms through which this influence is exerted and how these determinants impact on health behaviour are less well studied. This study will attempt to examine this mechanism of influence on health behaviour, through considering the context of the lives of women, and through doing so to offer insights into how the wider determinants of health may indirectly influence CHD risk.

1.2.11 Health beliefs and CHD

While there is a growing literature focusing on lay beliefs regarding health and illness (Mullen 1992, Pill & Stott 1986 and 1987, Lupton 1994, Blaxter 1997) few studies have considered beliefs about CHD. In a recent qualitative study (Ruston & Clayton 2002) in-depth interviews were carried out with women, the majority of whom had been admitted to hospital with CHD (n=50). Even within this sample, who were interviewed within two months of being diagnosed with CHD, the women did not see themselves as suffering with heart disease. They tended to rationalise their own risk through considering heart problems as a male illness, linked to one's social position (associated with high status). The researchers summed up the beliefs of the women as being that

"women are only at high risk of developing CHD if they adopt a man's way of life (for instance drinking and eating to excess and having a stressful job)" (Ruston & Clayton 2002).

An in-depth ethnographic study considering the popular culture of prophylactic behaviour carried out in Wales in the late 1980s (Davison et al 1992) offers not only qualitative insights into lay beliefs regarding CHD but also a relevant critique of health promotion theory. The focus of the study was the understanding and explanation of the cause and distribution of illness and death from heart ailments, held by members of the public. This study found that taking an `individual lifestyle` approach to health promotion may ignore cultural belief which leads the individual to consider that,

"health was largely determined by forces outside the control of the individual" (Davison et al 1992).

Indeed the paper discussing the results of the study goes further in its conclusions to suggest that,

"popular belief and knowledge concerning the relationship of health to heredity, social conditions and the environment may be more in step with scientific epidemiology than the lifestyle focused orientation of the health promotion world" (Davison et al 1992).

Within this study Davison and colleagues largely ignored the issue of gender. However in 2001 (Emslie et al) another qualitative study was published which considered gender to be a key element of coronary candidacy. This study sampled both men and women aged in their 40s. These individuals were spread across manual and non-manual occupations (Registrar General Classifications for Social Class ONS 1997) and evenly between those who had family members suffering with CHD and those who did not. In-depth semi-structured interviews were undertaken. The study found that CHD was viewed as a male disease, and that women who died from CHD were viewed as dying from `old age`. Once again these findings do tend to fit with the epidemiological evidence regarding CHD occurrence; it tends to affect women more as they grow older, and sudden deaths from CHD earlier in life do tend to affect men more commonly (Emslie et al 2001). However those interviewed did not mention the reduction in quality of life which may occur for women as a result of CHD as they grow older. The study recommended that health education policies which focus on CHD as mainly a male disease need to be challenged. Interestingly the study included no discussion regarding the inherent difficulties in categorising women using the Registrar General Classifications for Social Class (ONS 1997) which focuses on the partner's occupation in order to categorise women's social

class. This issue will be further discussed in relation to this study within the method chapter of this thesis.

The majority of the studies and research on preventing CHD focus on theorizing about what people feel, while analysing behaviour only. However it is essential whilst considering lay health beliefs that one considers the social processes within which attitudes are shaped. As several studies within the late seventies and early eighties showed (Blaxter and Paterson 1982 & Pill and Stott 1982) notions of fatalism are strongly tied to realism in the lives of women living in poor material circumstances. That is, the researchers found that fatalistic attitudes could be argued to be realistic assessments of the opportunities for control in people's lives. Indeed these views were echoed within the two more recent studies mentioned here which have focused specifically on lay health beliefs regarding CHD (Davison et al 1992, Emslie et al 2001). The only way to examine this area in context is to investigate the lives and circumstances of women in relation to reducing CHD risk, therefore potentially making the link between their `fatalism` and the reality of their lives, which is the aim of this study. This study will enable this area to be considered in context and offer insights into whether the women's view of their ability to change lifestyle is a realistic one, and whether it is shared by local health care professionals.

1.2.12 Health behaviour

The level of knowledge which a person has regarding their risk of developing CHD, along with their attitudes and skills, must be weighed against the extent to which individual or socioeconomic and environmental disincentives (such as poverty) are associated with continuing the health behaviour and justifying the risk (Whitehead 2001).

In 1995 (Pill et al), a study considered what effect the wider determinants of health may have on health behaviour. The method consisted of a secondary analysis of health lifestyle survey data from the 1980s. Although this data is somewhat dated the lack of studies focusing specifically on this area means it may still has relevance for this study. The sample used consisted of one thousand six hundred and seventy one women and one thousand and twenty six men between twenty and forty five with at least one child living at

home under seventeen years of age. The first aim of the study was to test whether the positive relationship between the wider determinants of health and illness had a parallel in the relationship between these wider determinants and preventive health behaviour. An association between higher status occupation and lower rates of risk taking behaviour was demonstrated most convincingly for women while the picture was less clear for men. The study went on to explore which socioeconomic factor best `explained` the observed relationship between circumstances and behaviour. It found that having more than a minimal level of education, recognising the link between a healthy lifestyle and one's future health, not living in rented accommodation or in cramped conditions were all associated with performing fewer risky health behaviours for both women and men. The study did not however attempt to consider which of these factors has the dominant effect. The data used for the study was from 1984/5 and therefore somewhat dated in relation to the current policy context in particular. However, the findings of this previous study in relation to health behaviour are very relevant for the group being considered here.

Blaxter (1990), when considering evidence from lifestyle surveys from the 1980s relating to an individual's circumstances, behaviour and health, concluded that the scope for personal changes in behaviour depend on the availability of resources for change (Blaxter & Paterson 1982, Blaxter 1983, Blaxter 1985 & Blaxter 1987). The ability to change may be restricted by living and working conditions, as it may be restricted by an individual's beliefs. In Blaxter`s view,

"health change policies which focus entirely on the individual may be ineffective because exposure to health risks is largely involuntary" (Blaxter (1990).

This may indicate that partnership working as discussed earlier in this chapter, which enables health care professionals, residents and professionals from other agencies to share their experiences of how the wider determinants of health affect health and health behaviour, may be essential in reducing inequalities in health in the future. This study will consider whether this `sharing` and partnership working occurs in order to gain insights into whether this potentially important mechanism is being exploited within the locality in which this study is based.

1.2.13 Conclusion

This section of the literature review has examined the wider determinants of health and behavioural risk factors and considered their influence on CHD risk for the group under study here. The insights gained would seem to indicate that inequalities in CHD health for the group under study have been highlighted from research to date which has focused on the wider determinants of health considered here (income inequalities, education, employment, housing and mobility). However, the reasons for these inequalities are less well studied, and the impact of an individual's wider circumstances on their health behaviour has only been explored in a limited way as studies have tended to be undertaken using quantitative methods which may not further enhance our insights into the causes of inequalities in health and health behaviour. This study will further explore these areas with women living in one locality in order to offer further insights into the links between the wider determinants of their health and their behaviour relevant to practical prevention of CHD. The insights gained through this review so far will inform the next chapter which considers interventions to prevent CHD, and current practice in this area.

2.1 The prevention of CHD

As discussed within chapter one of this review the wider determinants of health can influence an individual's health, and health behaviour. However, is this influence recognised within CHD prevention? In order to further examine the evidence relevant to this case study based review of lifestyle, practice and policy, this chapter of the review will consider research into CHD prevention, both on an individual and community wide basis. It will then go on to examine research relevant to professional practice and CHD prevention.

2.1.1 Primary prevention of CHD

One-to-one interventions to prevent CHD traditionally focus on behavioural risk factors, particularly smoking, diet and physical activity, which have been shown to increase CHD risk (DOH 2000a, Stansfeld & Marmot 2002, BHF 2003); this review will consider the evidence relating to whether these interventions when based in primary care have been shown to be effective.

Early in 1994 two research studies were published which made recommendations about the future direction of CHD prevention within primary care (Wood et al 1994, Muir et al 1994). Both were randomised controlled trials aiming to investigate the effectiveness of advice and information about lifestyle change given by general practice nurses following screening to measure risk factors. The British family heart study group (FHS, Wood et al 1994) concentrated on cholesterol measurement, blood pressure, body mass index and smoking in a random sample of seven thousand four hundred and sixty men aged forty to fifty nine and their partners, five thousand and twelve women over one year. Their sample was from twenty six practices in thirteen towns in one county. The Oxcheck group (Muir et al 1994) reported the first year's findings from a three year study; their sample included two thousand one hundred and thirty six people aged thirty five to sixty four registered at

five different practices in one county. The variables under consideration were similar. The practice nurses involved received training and offered individually tailored advice and information, and measurements were taken before and after the intervention. When the results were compared with the control group who had not received the intervention the impact was shown to be small. This provoked surprise and led to considerable discussion relating to the efficacy of the studies and their relevance to CHD prevention (Calnan 1995, Cowley 1995, Mackereth 1995).

Both these studies were undertaken in the context of the new health promotion programmes for primary care through which practices could be banded in relation to what type of prevention work they were undertaking and what funding they would receive. For both the studies large samples were selected according to age and gender. The Oxcheck study recorded the spread of social class in its results. However no attempt was made to explore the impact of this within either study; in addition variables such as income, caring responsibilities and social support were ignored. The inclusion of both partners within the FHS study is a positive feature and the longer timescale of three years in the Oxcheck study may have given clearer insights into behaviour change over time. However, neither study published how long dietary or smoking cessation changes had been sustained. It seems that the recognised complexities of achieving changes in lifestyle were not considered (Mackereth 1995).

Overall the studies were designed to consider the impact of a government initiative which prescribed the nature and form of the intervention, in the Health of the Nation strategy (DOH 1992) which has in itself been criticized for not recognising the wider determinants of health within its planned strategies (Acheson 1998). The resulting interventions, therefore did not embrace these areas within their design or their evaluation which limited the relevance of these two studies within the current policy climate which has a greater focus on the wider determinants of health (DOH 2001b). Although it is not clear whether the impact of this change in national policy has impacted on the practice of health professionals or local policy, this study will further examine these areas to provide insights into whether there is a recognition of this wider policy change within individual practice and beliefs regarding health improvement.

In 1999 a Cochrane review was undertaken focusing on multiple risk factor interventions for primary prevention of CHD (Ebrahim & Davey Smith 1999). This review focused on whether counselling or educational interventions reduced risk factors and deaths from coronary artery disease and eighteen randomised controlled trials were included from 1966 to 1995. The review concluded that in people with no existing CHD, multiple risk factor interventions show modest reductions in blood pressure, blood cholesterol and smoking prevalence, but no reductions in deaths from CHD. Unfortunately, no cost effectiveness analysis or socioeconomic analysis was done within this review, which leaves questions unanswered in relation to the extent and cost of counselling and education needed to produce these results, and whether therefore without a reduction in mortality the possible positive changes in quality of life for individuals may make these interventions efficient or effective across different groups within the population. In addition the focus on randomised controlled trials alone in this review means that the complex issues surrounding the influence of the wider determinants of health on behaviour were not addressed in detail within the papers reviewed as they do not lend themselves to this type of investigation. The review would have benefited from a section including studies which may have enabled insights into people's experience of behaviour change, and groups who may need different types or levels of support to achieve behaviour change.

In the year 2000 a review of twenty systematic reviews from the Cochrane database was undertaken; these reviews focused on whether advice from doctors, counselling by nurses, behavioural interventions, nicotine replacement therapy and several pharmacological treatments increased smoking cessation rates (Lancaster et. al, 2000 p.355). This review included only Cochrane systematic reviews. These reviews follow a standard protocol, focusing on quantitative studies and include a thorough search of published and unpublished research. These reviews concluded that advice from doctors, counselling by nurses, behavioural interventions (including individual counselling or group therapy) and nicotine replacement therapy increase smoking cessation rates, when compared with no intervention cessation rates.

A systematic review by the US Dept of Health and Human Services of 180 clinical trials published between 1975 and 1999 also concluded that effective smoking interventions undertaken by health care professionals exist which can produce long term or permanent abstinence across different social groups (Fiore et. al, 2000). It would seem therefore that every patient who smokes should be offered support to give up smoking. However, it would appear that health care providers can often fail to assess or treat tobacco use consistently and effectively either through not offering support, or not tailoring interventions to their patients' needs (Jaen et. al 1997). The second standard for the prevention of CHD within the NSF (DOH 2000) focuses on reducing smoking prevalence and it would appear that effective cessation interventions should be given a high priority. This area will be explored through this study in interviews with health care professionals as it is relevant to the focus currently given to Smokestop campaigns and targets within all Primary Care Trusts.

It would appear therefore that from the evidence considered here one to one approaches to CHD prevention can be effective, although further study is required to consider effectiveness and efficiency in relation to these interventions. In addition the issue of the impact of the wider determinants of health on health and health behaviour has not been addressed in these studies. This needs to be undertaken in future studies in order to develop and test interventions to tackle inequalities in CHD. This study will examine lifestyle change with the women interviewed and support offered by health care professionals, and offer insights into what may influence this area of practice in this locality.

In contrast to the previous examples here in which interventions were focused on the individual, other multifactor intervention studies have been designed to modify knowledge, attitudes and behaviour linked to CHD risk through community wide action which may also offer individual support. Among the earliest of these was the North Karelia Project which was undertaken from 1972 over a twenty year period because of the high mortality from CHD in Finland (Vartiainen 1994). One intervention area was compared with one reference area, and multiple education based programmes were implemented in the intervention area with the aim of reducing blood pressure, blood cholesterol and smoking

rates. Risk factors were assessed initially using cross-sectional surveys in random samples including men and women aged 30-59. The surveys were repeated every five years from 1972-1992. Apart from in the first five years of the study the reductions in mortality were not significantly different in the two groups studied, and it has been difficult to ascertain what the exact cause of reductions in mortality have been due to for the rest of the study's duration (Labarthe 1998 p.473).

Several major U.S. community intervention trials have been undertaken over a similar period, beginning with the Stanford three city study (Farquar et al 1977). The strategy used was to implement community wide education projects with focused one to one counselling for high risk individuals in two areas with the third acting as control. The results after the first two years were promising in that they showed 23-28% reduction in risk scoring in the intervention areas. As a result further strategies were developed based on social learning theory, community organisation principles and social marketing methods (Farquar et. al, 1990 p.359). These strategies were used in a further two cities with two other cities acting as observed controls, and one more acting as an unobserved control where only event rates were recorded. Evaluation of risk factor change was undertaken in four of the five cities. In Framingham (one of the four cities where evaluation of risk factor change was undertaken) CHD risk factor evaluation after 12 years showed a 17% drop in risk across the population; the evaluators concluded that the results supported the effectiveness of this type of low cost program and that the study could serve as a model for risk factor intervention programs (Farquar et. al 1990). It would appear then that this type of model may have some effectiveness within the group under study here, as some positive change was seen in the results across population and income groups.

The European Collaborative Group Study was undertaken in 80 factories in Belgium, Italy, Poland and the U.K. since the early 1970s (WHO 1984). Unfortunately the samples were made up of men only so their relevance is reduced for this study. However, within each country factories or other large occupational settings were matched as pairs and randomly allocated to intervention or control. Interventions consisted of education undertaken at modest cost; all men aged 50-69 underwent risk factor screening; high risk men were given treatment or advice relating to lowering cholesterol, stopping smoking, physical exercise,

weight reduction and treatment for lowering blood pressure as needed. Less intensive education was provided to the remaining men. The results showed that intervention factories were found to be significantly associated with reduction in six year incidence of fatal CHD, total CHD and total mortality. However, pooled results for the whole trial were not significant by two-tailed statistical tests, an outcome attributed to limited risk factor control specifically in the U.K. factories (Labarthe 1998). The need for more sustained and integrated preventive efforts to achieve lasting results were emphasised in discussions on the results of these studies.

Overall these community based intervention programs have produced some reductions in mortality and morbidity, although these have been limited as discussed here. Their results have helped to plan the preventive aspects of the National Service Framework (NSF) strategies for reduction of CHD (DOH 2000) in both high risk groups and across populations. However they offer limited insights into how the wider determinants of health affect the success of these strategies and inequalities in CHD risk persist. The importance of a life course approach to prevention of CHD has been recognised within the NSF for CHD (2000) which explicitly mentions improving the health of the group under study here in relation to future prevention of CHD; a group which is under represented within the study samples used for the large scale intervention studies discussed here.

Within the published 'Guidance for implementing the preventive aspects of the National Service Framework for CHD' (HDA 2002b) the most effective interventions to prevent CHD were recognised as being those which took a comprehensive approach, combining community wide approaches with economic and regulatory measures. Community wide approaches typically involve a group of agencies as well as the local authority. Together they undertake a range of activities such as smoking cessation, helplines, training for staff, development of local policies, and work in schools. However, the impact of this type of approach is hard to measure given the potential for components to work together to produce combined effects, although studies which have attempted to measure these comprehensive effects have had positive results (Lantz et al 2000, Sowden & Arblaster 2000 and Wakefield & Chaloupka 2000). This would suggest that partnership working across agencies is an important factor within successful approaches. Within the intervention studies reviewed here so far no coherent evidence has emerged relating to

what works to reduce inequalities in CHD. The next section will focus on this area to better inform the design of this study.

2.1.2 Tackling inequalities in CHD

Through undertaking this literature review it has become apparent that there are inequalities in CHD occurrence, particularly relevant to the group under study here. It is necessary therefore, when focusing on the practice of health care professionals, to consider whether there are common characteristics for interventions that are successful in improving the health of the lowest socioeconomic groups. These areas will then be returned to in the discussion section of this thesis in order to consider whether health care professionals are using strategies in their practice which match with successful interventions in the literature. Two major reviews are considered here to try and answer this question, one commissioned in the UK and one in the Netherlands.

The UK review (Arblaster et al 1995) was commissioned by the Department of Health for its Variations in Health Sub-group of the Health of the Nation initiative. Its aim was to identify strategies which the NHS, either alone or in partnership with other agencies, could use to improve the health of people from lower socioeconomic groups or ethnic minorities. This review included only interventions with an experimental design (involving before and after studies with or without controls, randomised and non-randomised). The Dutch review formed part of a programme carried out by the Committee on Socioeconomic Health Inequalities in the Netherlands (Gepkens & Gunning-Shepers 1996). This programme was set up in 1990 to investigate socioeconomic health differences and identify effective interventions. The literature search included interventions in various countries in Europe reported in both the traditional literature and the grey literature, which includes unpublished papers, reports and summaries produced by both statutory and voluntary agencies.

In both reviews an intervention was considered successful if it had a positive effect on health, or a risk factor with results that were significant across social groups, or that the project had not widened the differences between different groups. The UK and Dutch

reviews identified between 90 and 100 interventions each, 26 of which were considered in both. Many of the interventions identified in the Dutch review did not meet the criteria of the UK review, and many of the interventions included in the UK review were from the United States and as such not included in the Dutch review.

The most commonly used intervention methods reported involved health education programmes, improving existing medical services and making structural interventions (interventions which addressed factors beyond individual lifestyle such as access to facilities or policy change). Few of the interventions identifed in the reviews addressed the wider determinants of health as discussed within this literature review directly. The majority focused on lifestyle factors or the use of medical services such as screening, although this may be because the search was undertaken within the medical and health literature; few of the projects aimed particularly to reduce health inequalities. Both reviews recommended that in future funding bodies should stipulate that outcome measures/analysis be reported not only by gender but also by socioeconomic status.

The most successful interventions were;

- health education interventions that provided a combination of information and personal support,
- those that involved structural measures, and
- interventions that provided a combination of health education and structural measures.

Projects which were linked with work already underway in communities were shown to be most likely to reach low income groups, and the personal approach was shown to be more effective than providing written information. A general offer of information without social support tended to lead to a greater uptake by higher socioeconomic groups. Local initiatives were often driven by one/or a group of very committed individuals who move away once funding comes to an end. If a project was to have a lasting effect it needed to be `institutionalised` and incorporated within an existing structure.

These reviews showed that there is a paucity of intervention studies in this area with well designed evaluation which consider inequalities in health within their design or outcomes.

The reviews indicate that to enable the uptake of health promotion measures by all socioeconomic groups it may be necessary to allocate resources unequally targeting those most in need, and to consider structural issues alongside traditional interventions. Among lower socioeconomic groups the personal approach seemed much more effective than simply providing written information, meaning that reaching `hard to reach` groups require considerable investment in terms of both time and money.

A Health Development Agency review (2004) focusing on how to tackle health inequalities, and turn policy into practice has been published since the completion of this study. It also comments on the paucity of evidence and gives suggestions for future research, and has been included in this thesis within the discussion section.

This research study considers professional practice relating to the prevention of CHD in the group under study. Current knowledge gained from these reviews relating to appropriate approaches for individual practitioners and partnership working, has been used to consider whether local practitioners are using strategies to tackle inequalities in health, in addition to considering whether they are responding to, or aware of the needs of the group under study here.

In summary, from the evidence focusing on CHD prevention it is clear that both individual and community wide initiatives offering information and support can be effective in reducing CHD although levels of success have varied within studies and the overall efficiency and effectiveness for the group under study here is not clear from the evidence base. However, the reviews considered here which have focused on improving the health of low income groups show that the most successful interventions include support and structural measures. This study will consider whether health professionals are involved in preventive work which includes the characteristics of what may work with low income groups as they all practice within an area of deprivation.

2.1.3 CHD prevention in primary care

This section will consider research which has focused on health promoting activity within primary care in order to review current knowledge into what prevention activities are undertaken, who undertakes them, what their focus is and whether the impact of an individual's circumstances on their health behaviour is considered. This will provide a basis for the consideration in this study of health care professional`s practice, and practice development relevant to the prevention of CHD.

In 1990 a study was undertaken which focused on nurses and health promoting practice and sought to explore the attitudes and beliefs of various groups of practitioners in relation to this area (Gott & O`Brien 1990a). Semi-structured interviews were undertaken with sixty five nurses including health visitors, district nurses, practice nurses, occupational health nurses, staff nurses and school nurses and their practice was observed. The research concluded that the nurses saw health promotion as lifestyle counselling alone, and that overall the nurses did not attempt to tailor their interventions to the individual and their circumstances in any way. The practitioners observed did not address these wider issues and did not explore issues raised by their clients within their preventive practice. Indeed they seemed to believe that individuals would change their lifestyles because a nurse had told them to, and that no individual tailoring of interventions was needed. From the three published articles covering this study (Gott & O`Brien Sept 1990, Gott & O`Brien Oct 1990, and Gott & O`Brien Oct 1990) it is not clear exactly how the nurses were sampled and approached or under what circumstances practice was observed, which can be seen as a criticism of the published version of this work. However, it is relevant for the study being undertaken here as it highlights the lack of recognition of individual clients' circumstances within the nurse`s preventive practice, and that this lack of recognition spanned many different groups of practitioners at that time. It will be useful to gain further insights into this area in this study while focusing specifically on CHD prevention activity.

Two studies carried out between 1990 and 1992 exlored the level of health promotion activity in general practice (Calnan & Williams 1992, Calnan & Williams 1993). The first of these two studies focused on general practitioners and the second linked study focused

on nurses. Data collection was undertaken using a postal questionnaire and the researchers identified five factors which were significant in determining the level and quality of health promotion in general practice. These included training, motivation and commitment, capacity, involvement in evaluation and the level of support from health authorities and primary care facilitators. Over sixty percent of the nurses reported that they had difficulty accessing training due to the unwillingness of general practitioners to approve time and funding for training.

A major criticism of this study is that over one thousand general practitioners responded to the postal questionnaire, with only twenty-seven nurses being involved, which makes percentage based findings of less value for this group. In addition further qualitative data collection was undertaken with general practitioners to further explore their perspectives on preventive work, with no such exploration being reported in the study write up in relation to nurses. Within this qualitative exploration general practitioners indicated that they felt health promotion was boring, there was little evidence to support doing it and that it may represent a moral intrusion and inflate patient anxiety levels. The study did not undertake any exploration of the wider determinants of health and their impact on health and health behaviour. This study will further explore these areas with local health care professionals, building on these findings particularly in relation to CHD prevention training needs, current levels and types of activity undertaken and the practitioners' beliefs regarding preventive work with the group under study.

In 1992 a study was undertaken to examine the role and perceptions of practice nurses in north-east England (Mackereth 1995). The survey showed that the majority of the practice nurses involved undertook a combination of practical skills and lifestyle counselling, and saw themselves as the most appropriate source of advice on lifestyle issues. From the information gained in the survey it was not possible to gain insights into what goes on during health promotion activity, and the terms health education and health promotion were used interchangeably within the study write up, further reducing the insights gained from the results. Four of the practice nurses made reference to social factors; none mentioned wider issues such as housing or poverty. This could have been due to the

questionnaire design or could be because working within surgeries the nurses are not aware of these factors in relation to their patients and their practice.

Interestingly a study published in 1994 (Wiles & Robison 1994) considered teamworking in primary care via the use of interviews and a semi-structured questionnaire with primary care practitioners from 20 randomly selected practices. In relation to the practice nurse it was concluded that, although their role had been strengthened through an extension of responsibilities (particularly relating to health promotion) in recent years, they were, within their teams a long way from being viewed as independent practitioners and very much under the control of the general practitioners who employ them. Indeed research has indicated that general practitioners may be anxious to retain this control (General Practitioner 1993, Robinson et al 1993), which may limit the potential for professional development for some nurses in this group, as indicated in a previous study considered here (Calnan & Williams 1993).

In 1993 a study was undertaken which focused on seeking to identify a range of factors which influence patients' compliance with lifestyles advice in relation to the primary prevention of CHD (Wiles 1994). The primary aim was to identify factors which influence compliance, while a secondary aim was to explore whether these factors could be used to identify ways in which health care professionals might encourage compliance with advice. Health professionals in primary care have been encouraged to focus on advising patients on healthy lifestyles particularly in relation to the incidence of CHD since the introduction of the 1990 General Practitioner contract. This study was undertaken during the first twelve months of the introduction of a new system of health promotion in primary care (General Medical Services Committee 1993) linked with the objectives of the earlier Health of the Nation (DOH 1992) white paper. This system outlined three bands of incrementally increasing health promotion activity in which general practice could participate. The results identified six issues which acted as constraints against following advice stress, family responsibilities and lack of support, employment, recreation facilities and physical difficulties.

The nurses sampled to inform this study did not perceive a difference in their work following the introduction of the new health promotion programmes in 1993 which require band three practices (all those included in the study were in band three of the programme, the highest level of activity of the three bands) to collect data on lifestyle but importantly also, "to reach out to people in priority groups including those who do not present at the surgery and offer programmes of intervention which focus on lifestyle alteration" (NHS Management Executive 1993 FHSL (93)3 par.8). The advice the nurses gave focused on diet, with small amounts of time spent on smoking and alcohol, and only to individuals who were keen, as giving advice on these areas was seen as ineffective. Only patients at high risk of CHD were followed up after advice was given. The study also highlighted that practice nurses needed further training in giving effective lifestyle advice. This finding when considered in relation to the findings from previous studies presented here relating to practice nurses ability to undertake further training raises a relevant area which will be explored with the practice nurses included within this study in order to explore whether some years on it is still the case that these nurses need further development, but are unable to undertake it.

No attempt was made within the study to gain insights into the socio-economic circumstances of the individuals interviewed or to sample with this focus in mind. The results from this study are, however, particularly relevant to the study being undertaken here as they provide insights into the areas to be explored, particularly the focus on factors which inhibit lifestyle change. It will be interesting to note whether similar factors such as stress, family responsibilities and lack of support emerge from the women interviewed to inform this study, and whether the practice nurses report similar experiences, and lack of training relating to the primary prevention of CHD. The intention within this study, however, is to further explore the area of inhibiting factors with a gendered group living on a low income and then to consider whether the areas which emerge influence the practice of health care professionals practising in that area. This will offer further detailed insights into whether the impact of an individual's circumstances on health behaviour change is recognised within professional practice.

An exploratory study carried out during 1993 and 1994 examined the attitudes of primary care professionals towards poverty and their strategies for responding to issues of poverty and deprivation (Daykin & Naidoo 1997). Semi-structured interviews were undertaken with fifty three health care professionals across three localities. The information given to interviewees did not include any specific reference to poverty issues, and the interviewer did not raise this issue. Just over two-thirds of the sample identified poverty as a barrier to health promotion, and the ability of individuals to achieve lifestyle change; linked to this was a concern regarding the impact of deprivation on practice time and resources. Higher levels of illness were seen as needing to be a priority above health promotion. This study sample was a self selected group of health professionals, who may have had an interest in health promotion (this limitation was pointed out by the researcher in the published article) practicing in urban areas only, and as such had limitations. However, the issues raised are relevant to this study, focusing as they do on the level of priority given to primary prevention within primary care, and the perceptions of the impact of deprivation on health promotion. This study will explore the issue of deprivation and whether the health professionals plan and undertake their preventive work using evidence of what works with this group, or whether indeed they also perceive (as did the health care professionals in this 1994 study) that illness is their primary focus.

In 1996 a study was carried out after the new general practitioner contract had been implemented. This contract was an attempt to encourage the involvement of general practice in health improvement by providing payment for this service. This study (Le Touze and Calnan 1996) focused on the views of staff in general practice regarding health promotion. As reported the study used questionnaires to attempt to assess whether the scheme had led to a more positive attitude towards health promotion, while also considering what new activity was generated by it. Overall practice nurses appeared to have a more positive attitude towards health promotion with four fifths of those who responded disagreeing with the statement that they were less qualified than general practitioners to be involved in health promotion. Both groups felt that the scheme had greatly increased the amount of record keeping required. This study in the published article (Le Touze S. & Calnan M. 1996) gave very little methodological information and reported few findings, other than the increased demands for record keeping placed on

practices. If a qualitative approach had been taken to this investigation it may have afforded more useful and detailed insights into this important change in health promotion provision.

This section of the literature has focused on current knowledge of primary care health professionals practice relevant to CHD prevention. Studies have focused on who undertakes this work, what the focus is, how policy impacts on this area of practice, and primary health care professional's attitudes and beliefs relating to poverty. The majority of studies reviewed here were undertaken around the time of the introduction of General Practitioner contracts (1990) and the introduction of Health Promotion Planning (1993). Through undertaking this review when embarking on this study it became clear that published studies have not yet explored whether primary health care practitioners are developing their practice in relation to the evidence base on what works to reduce inequalities in health (as discussed in section 2.1.3 of this review). This will be a major focus within the interviews undertaken with health professionals in this study in order to consider this important area and the types of intervention which may work with individuals living on a low income will be used in order to interpret the findings from this study.

The use of multiple research methods (both quantitative and qualitative) has enabled the exploration of beliefs and attitudes in addition to describing the types of activity undertaken and the impact of the changes in policy supporting this work in primary care. What has emerged from the evidence reviewed here is that the majority of preventive practice undertaken focuses on the giving of information; few studies relating to this area have focused on inequalities in health and preventive practice, enabling no clear conclusions to be made from this limited evidence base. In addition the majority of studies are now somewhat dated in light of the changes in national policy which are encouraging a greater focus on tackling inequalities in health, and a focus on the wider determinants of health (DOH 1998a, 2001b). It would seem therefore that it is timely to return to this area to consider whether health professional's preventive practice relates to the (albeit limited) evidence base on what works to reduce inequalities in health and whether the issues identified by the sample of women as negatively impacting on their health behaviour

influence practice in the area under study. Whether practitioners are developing their practice will also be explored, along with any potential limitations which are placed on their development and their beliefs regarding their appropriateness to undertake this work.

2.1.4 Practice development

In 1998 a literature review was undertaken by the Health Education Authority (Rivers et al 1998) focusing on education, training and development in health promotion among health professionals. Over 70 studies, published and unpublished, on training in health promotion were identified and analysed. They were drawn from within the health sector and other fields such as education. The review concluded that studies of effectiveness relating to professional development in this area are few, and that much of the literature arises from debate and discussion of current practice not systematic evaluation which is needed both in relation to initial and continuing education and training. However, the reviewers concluded that the following key points emerged from studies up to that date:

- there is inadequate provision for training,
- teachers feel unprepared for their role relating to health promotion,
- health promotion has low status, and there may be a lack of desire to undertake educational opportunities,
- existing courses are focused on illness not health and individuals rather than communities, and
- NVQ or similar competence based qualifications may be useful in developing basic skills.

Within the CMO`s report, and prior to this within the Saving Lives: Our Healthier Nation (1998a) White Paper, the need to develop the public health capacity and capability of the workforce was identified particularly in relation to health visitors and school nurses.

In 2000 a descriptive study was published (Plews et al) which examined the understanding and practice of public health nursing in one English NHS Region. The study used open questionnaires and focus groups, and the published paper focused on the views of the lead nurses in the Trusts and Health Authoritites regarding public health and nursing. The

study found that there was confusion regarding the meaning of public health and public health nursing, and confusion over the nature of the role, particularly within acute trusts. Within primary care, which was seen as the key, setting the impact of GP fundholding and the power of GPs to define the agenda in primary care was the central issue. The importance given to public health practice within primary care was seen as very variable and unsupported. Education and development was seen as crucial but hard to reach for practitioners in primary care, particularly in relation to research and evaluation, health needs assessment and community development. This study offered further more up to date insights into public health within primary care for some health professionals in relation to other studies considered here, and particularly useful insights into development opportunities at that time.

In 2002 a report was commissioned by the HDA focusing on the Public Health Capacity of the Nursing Workforce (Latter et al 2002). This report outlined that greater attention needs to be paid to workforce planning for the nursing contribution to public health, and that public health skills deficits in qualified nurses have been identified through regional and local skills audits and training needs analyses. Simultaneously this need to develop the workforce has resulted in the development of public health competencies and standards for specialists (Healthworks 2001, and Skills for Health 2003) and the HDA (2001a) public health skills audit tool as a diagnostic and practice development instrument which can be used as developmental tools for the public health workforce.

A general skills deficit has been identified in the reports and studies mentioned here, and there are emerging suggestions on how to develop practice. The Health Visitor and School Nurse practice development toolkit (DOH 2002) has been developed through one of the Department of Health pilot projects to develop the role of Health Visitors and School Nurses. The tool outlines an audit process which can be used by practitioners and managers. It does not however, address the best methods to use in facilitating this shift in practice focus, although the tool does encourage practitioners to work with the health needs of their local populations so could enable practitioners to tackle inequalities in health. Previous insights into the knowledge base of practitioners in relation to assessing the health needs of their local populations has shown some deficits (Plews et al 2000).

The CHD National Workforce Competence Framework Guide (Skills for Health 2003) offers an emerging framework for skills development. Many of the one hundred and eighteen units of learning within the framework offer skills development relevant to the primary prevention of CHD. However, the status of the competence framework is such that the units are not mandatory for any professional groups and there is no requirement for practitioners to be assessed against them. One wonders therefore, whether their usefulness in relation to the development of skills in the vital area of primary prevention will be left unaddressed due to the limitations placed on the development of the primary care workforce outlined in this literature review.

This study will offer insights into the practitioner's views of their own activity, capability and appropriateness in relation to CHD prevention, and in addition their ability or intention to undertake further skills development. The study may, therefore, give some indication of whether health professionals working in primary care are likely to be willing or able to engage with skills development relating to the primary prevention of CHD within the deprived population they serve.

2.1.5 Conclusion

It would seem from this review that promoting the health and wellbeing of women of child bearing age needs to be a crucial element in strategies used to reduce inequalities in CHD in the future. This area has been studied in relation to the existence of inequalities in CHD rates in women, and the impact of the wider determinants of health on these inequalities. However, how the wider determinants of health impact on health behaviour for this group and whether they impact on health promoting practice has not been well studied, neither in terms of the number of studies which have focused on this area as indicated by the searches undertaken to inform this review, nor in relation to the choice of research methods used, as discussed here.

What influences the women`s ability to change their lifestyle, and what the evidence shows us works in relation to CHD prevention for individuals living on a low income will be

considered in order to guide this investigation into what health care professionals are doing both in terms of preventive practice and partnership working. Opportunities for public health practice development, which through this review have been identified as limited, will be explored with health professionals. Local policy in the area under study will also be investigated in order to consider whether it supports the health professionals to focus on primary prevention and working in partnership. Therefore, the evidence relating to the three strands of this study, lifestyle, practice and policy have been considered, firstly in the literature review and then through the data collection, analysis and discussion in order to ensure that the study emerges from the current evidence and policy base.

In order to inform the planning of local services and interventions appropriately for women living on a low income this research study will, therefore, examine the following areas.

- Women`s health behaviour, and attempts at behaviour change relevant to CHD in the context of their own circumstances and the area in which they live.
- Whether the factors which the women identified as influencing their attempts at lifestyle change influenced local CHD prevention involving health professionals, and
- whether local partnership working and strategic planning addressed these influences on lifestyle change relevant to CHD prevention in local women.

In order to contextualise the responses of both the women and the health care professionals a research strategy will be required which allows for the exploration of local circumstances.

All of the areas considered within this literature review have informed the study design, either through influencing biographical data collected from interviewees (such as educational achievement, car access, employment and housing tenure), or through influencing the objectives, or overall design which is discussed within the next chapter of this thesis.

In conclusion, this literature review has highlighted that the majority of evidence indicates that inequalities in CHD health exist. However, the mechanisms which cause this inequality remain unclear. The research which has been undertaken thus far consists

predominantly of epidemiological studies, or large cohort longitudinal randomised studies. Whilst this quantitative research has proved effective at highlighting inequalities, it does not add readily to our knowledge of the processes which cause these inequalities, or the strategies that are needed to tackle them. Qualitative research studies may help to further illuminate this process, through focusing on the reality of people`s lives, and their experience of life style change, but of course these are not easy research tasks. Tact, sensitivity and flexibility are needed to develop new methods of investigation, and to promote the funding of this type of investigation. However it would seem necessary for these studies to be undertaken if we are to advance beyond our superficial understanding of the impact of the wider determinants of health on the health and health behaviour of an individual (Daykin & Doyal 1999). It would appear that in order to reduce inequalities in CHD we need to understand not only the influence of the wider determinants of health on health, but also their influence on health behaviour. Otherwise, health professionals are unable to offer preventive strategies which are sensitive to the needs of local communities, or undertake partnership working which may influence the wider determinants of health and health behaviour for local communities.

This study will place the women's health behaviour within their current circumstances in a particular locality, in order to further contextualise their responses. Insights will also be gained into the main focus of intervention and partnership work undertaken by health practitioners and the local policy underpinning this, thereby placing the women and their health behaviour, including enabling and inhibiting factors, within their local health care, practice and policy context.

Chapter 3

Research design

Aim and objectives of the study

3.1

The literature review has indicated that the health and well being of women of child bearing age should be focused on in order to prevent the continuation of inequalities in CHD in the UK (National Heart Forum 2001, Acheson 1998 p.9, NSF for CHD 2000 p.8). Through this consideration of the relevant literature and the emergence of the need to further examine the effect of the wider determinants of health on an individual`s health behaviour the following aim and objectives for this study were developed. The lifestyles of local women, the preventive practice of local health care professionals and local CHD prevention policy will be considered within this study in order to provide insights into whether the practice of local health professionals is responsive to the needs of women living on a low income in the community they serve.

Aim of the study

To undertake a lifestyle, practice and policy analysis which will inform the primary prevention of CHD for pre-menopausal women living on a low income.

Objectives of the study: Specifically the study will examine:

- Women`s health behaviour, and attempts at behaviour change relevant to CHD in the context of their own circumstances and the area in which they live.
- Whether the factors which the women identified as influencing their attempts at lifestyle change influenced local CHD prevention involving health professionals, and
- whether local partnership working and strategic planning addressed these influences on lifestyle change relevant to CHD prevention for local women and enabled partnership working including primary care health professionals.

3.2 Research paradigm

Paradigms relate to epistemology, ontology and the nature of science. As such they are important theoretical constructs used to illuminate assumptions about the nature of reality. It is important therefore, to offer insights into the assumptions of the researcher about reality in order to further contextualise this case study. The purpose of this case study is not to represent `the world` or all other exactly similar cases as the researcher realises that no two cases are exactly similar. The purpose of this case study is to represent this case. The usefulness of case study research to practitioners and policy makers is in its extension of experience, particularly relating to the circumstances of an individual (Stake 1994 p.244).

A `realist`, or post positivist (Campbell & Russo 1999) perspective acknowledges that completely value free enquiry is impossible, and tries to make biases explicit. It recognises that proving causality with certainty in explaining social phenomena is problematic and that all methods may be imperfect. Common sense realism (Mark et al 2000) gives standing to everyday experiences, and places a priority on practice, and the lessons drawn from practice. A realist will see no meaningful epistemological difference between qualitative and quantitative methods; instead both are seen as sense making techniques that have specific benefits and limitations (Mark et al 2000); and that although there is a world to be made sense of, the specific constructions that individuals make of their own world are critical and need to be considered.

An orientation to research paradigms which was led by the need to understand rather than personal doctrine would place one within a realist or pragmatic framework. Being pragmatic enables the researcher to eschew methodological orthodoxy in favour of methodological appropriateness as the criteria for judging quality while recognising that different strategies are appropriate for different situations.

Case studies can be based on any mix of qualitative or quantitative evidence; in addition case studies need not always include direct, detailed observation as a source of evidence (Yin 1994). They may be progressively focused (i.e., the organising concepts may change

somewhat as the study moves along in response to the data analysis). They are undertaken to make the case understandable, and to describe the case we present a substantial body of systematic, logical description. Ultimately the conclusions drawn offer analytic generalisation and will not provide results which are statistically generalisable across populations (Yin 1994).

A case study is not the name of a research method; many methods are possible within a case study which may be termed an overall research strategy (Stake 1994). Within a case study there needs to be a sense of perplexity, of problems to be addressed and a sense of the researcher's interest in these problems. Case study is appropriate "where it is not yet clear what are the right questions to ask" (Golby 1994 p11). Often case studies are taken to be synonymous with qualitative research methods; in fact it is an open question what methods are to be used in any particular study (Stake 1995). Methods should be dictated by the need to understand, not selected on grounds of personal doctrine; a study should be judged by its intended purposes, available resources, procedures followed and results obtained all within a specific stated context (Quinn Patton 2002).

It would appear then that a case study strategy may provide a framework for undertaking research within a particular context or place. However, it is also important to consider the underlying paradigm or interpretive framework guiding the researcher within a case study. Lincoln and Guba (1985) when considering the range of characteristics of case study strategies felt that qualitative research methods rather than quantitative tend to be used (although not exclusively) because of their sensitivity, flexibility and adaptability. Indeed they were strongly in favour of the use of a case study strategy and reporting methods when undertaking naturalistic inquiry. Lincoln and Guba (1985) felt that using a case study strategy was appropriate because naturalistic inquiry shared characteristics with case study such as, undertaking research within the natural setting or context of the issue studied, using sampling methods which were adaptable as the study progressed and `grounding` theory generated within the data collected. However on considering case study strategies and naturalistic inquiry further it is important to discuss the issue of `degrees` of naturalistic inquiry (Robson 1993, Quinn Patton 2002). Guba (1978) sees naturalistic inquiry as a process through which the investigator moves from a `discovery mode` to a

'verification mode' in attempting to understand the real world. When field work begins the researcher is open to what emerges from the data, a discovery or inductive based approach. Then as the inquiry reveals patterns and dimensions of interest the researcher will begin to focus on verification and elucidation of what appears to be emerging, a more deductive approach to data collection and analysis. Discovery and verification requires movement between induction and deduction and therefore between greater and lesser degrees of naturalistic inquiry (Quinn Patton 2002).

This case study begins with in depth interviews with women living on a low income in one geographical area. These interviews were inductive as they were used to discover what factors may affect the health behaviour of the women. The study then went on to interview health care professionals practising in the area, and to consider local policy documentation relevant to CHD prevention. This part of the study then enabled the researcher to further explore the theory generated through the interviews with the women and to verify whether what the women said about their experiences of living in the area was supported by the experiences of the health care professionals and the local policy documents. Therefore it is reasonable to consider that this case study began using a greater degree of naturalistic inquiry or a more inductive approach, which then became increasingly focused on verification and elucidation as the study progressed.

In summary a case study strategy therefore provides a framework for undertaking research within a particular context. Case studies can utilise naturalistic and other more positivistic research approaches (Quinn Patton 2002) depending on the nature of the research question. For this case study the researcher has used research methods which sit within a naturalistic inquiry paradigm and use the shared characteristics of case study and naturalistic inquiry (Robson 1993). This has enabled the researcher to undertake the research within the natural setting or context of the issue studied and to use sampling methods which are adaptable as the study progresses. In addition theory generated is 'grounded' within the data collected. The literature review undertaken to inform this study has shown that the impact of circumstances on health behaviour for women is not a well studied area. A research strategy which enables the use of an inductive approach to explore this area and guide the inquiry was the most suitable strategy to use in this study.

3.3 Research design

Obviously the social world is a mixture of complex behaviours, and the case under study here is defined for the purpose of this study (Holliday 2002). Any social setting chosen as a case study may not have a reality other than that created by the researcher; it must however be definable, and contain a recognisable research oriented grouping, and contain elements of a 'small culture' (Holliday 1999 p.237). This small culture should not be seen as a 'cause of behaviour' but a structure within which people's experiences and behaviour may be understood. Culture needs to be seen by the researcher as a context, something within which experiences can be intelligibly described, not something to which processes can be causally attributed (Holliday 2002).

The case under study here consists of the lifestyles of women living in a discrete geographical area on a low income. The context of these women's lives and their lifestyles will be explored, in addition to the practice of health professionals in this area. These two groups will provide the 'recognisable research grouping' (Holliday 1999 p.237) and the data collected from them will be complemented by an exploration of local partnership working to support CHD prevention for this group. The opportunity offered by this case study lies in its ability to investigate practical problems, thereby allowing us to reconceptualise the problem, understand more fully its wider significance and act more intelligently in resolving it. Considered in this way case study takes on an additional relevance for practitioners in a variety of disciplines.

3.4 Grounded theory

Grounded theory is a research approach which can be used on any data or combination of data, and was developed initially using quantitative and qualitative data (Glaser 2000). It is an approach which is intended to build theory rather than test theory, and which emphasises being systematic and creative simultaneously (Quinn Patton 2002). It is however vital to maintain a balance between objectivity and sensitivity when undertaking analysis, as sensitivity enables creativity and the emergence of theory from data (Strauss &

Corbin 1998). As mentioned here already Lincoln and Guba (1985) considered that naturalistic inquiry shared characteristics with case study one of which was `grounding` theory generated within the data collected. This is also a key characteristic of a grounded theory research approach.

The objective of grounded theory is to generate theory from the data collected. As well as generating theory existing theories can be modified or further developed (Charmaz 1990). There is some confusion, however, over what makes up a theory in grounded theory (Wiener 1990) as the literature refers to specific theories as conceptual models, conceptual frameworks and theories (Catanzaro 1988, Meleis 1997). A conceptual model is general and abstract and provides a broad perspective on an issue whereas theories are more concrete, specific and limited in range (Fawcett 1995). Two types of theories can be developed using grounded theory, formal or substantive. Formal theories are broader and more general than substantive theories and deal with a conceptual area of enquiry such as professionalism and power relations in clinical practice (McCann & Clark 2003a). Substantive theories focus on social processes and are developed for narrower areas of study such as specific elements of caring for the dying, the development of interpersonal relationships with clients or as with this study the potential influences on specific types of health behaviour (Heidt 1990, McCann and Baker 2001).

Researchers and those who write about research theory have diversified the use of grounded theory methodology. This diversification should not be interpreted as one approach being superior to the other but rather as an indication that grounded theory is maturing and branching out (Annells 1997). Both branches have evolved from the original work outlined by Glaser & Strauss (1967) and both have a distinct epistemology and other properties.

Glaser now conceptualises grounded theory as falling within a post positivistic paradigm, where the role of the researcher is independent, the emphasis is on theory generation and the main literature review is undertaken to support the emerging theory (McCann & Clark 2003b). In addition Glaser believes that the research problem emerges through the study,

and that the data collection and analysis should be guided by the participants and their socially constructed reality rather than by rules and procedures (Glaser 1992).

Strauss and Corbin (1990) conceptualise grounded theory as falling within a social constructivist and poststructuralist paradigm, a somewhat less positivistic epistemology than that expressed by Glaser (1992). As such they see the role of the researcher as dialectic and active in grounded theory with the emphasis on inter actional influences on the participants. In relation to the literature review Strauss and Corbin (1990) would espouse a preliminary review to enhance theoretical sensitivity with the main review undertaken to support emerging theory. They would see the research problem as emerging from personal experience, suggestions by others, or through the literature.

This research study was undertaken in order to focus on a particular issue which had arisen from consideration of the literature on women, deprivation, and CHD risk. The insight the researcher gained on consideration of the literature on this area was an apparent lack of studies focusing on the impact of circumstances on health behaviour for this group and this therefore dictated the choice of research focus. Strauss & Corbin (1990) articulate that a research problem may emerge from the literature, whereas Glaser (1992) sees the research problem as emerging from the study. Therefore in relation to the origin of the research problem guiding this study it would appear that it lies within the Strauss and Corbin (1990) approach to grounded theory.

On consideration of these two diverging approaches within grounded theory it became apparent that it was appropriate for this study to use elements of a grounded theory method which appear to sit mainly within the epistemological and methodological approaches espoused by Strauss and Corbin (1990). The elements which fit within this approach to grounded theory are, seeing the researcher role as active (see discussion on researcher role later in this chapter), an emphasis on the emergence and verification of theory and a focus on the socially constructed world of participants in the geographical context in which they live. Using this approach would enable this study to explore the lives of the women and the practice of health care professionals within their local context.

Other key characteristics of grounded theory utilised within both of the divergent approaches discussed here, and within this research study are induction and deduction. Induction requires the researcher to enter the research field with no hypothesis developed from the literature or elsewhere, and to be open to theory emerging from the data (Charmaz 1990, Strauss & Corbin 1990). The researcher may, however, have developed `theoretical sensitivity` through a familiarity with the literature on a specific area and through their own experience prior to entering the research field (Strauss & Corbin 1990). After initial data collection and analysis provisional ideas on emerging theory can be formed which are then tested out through further data collection as the study progresses through the use of constant comparative analysis (Charmaz 1990, Strauss & Corbin 1990). This approach is aided by the use of sampling based on concepts that have proven relevance to the area under study (May 2002, as discussed within the sampling section of this chapter).

In summary, the researcher entered the field to undertake this study open to theory emerging from the data through constant comparative analysis which was then further tested through data collection and analysis as the study progressed. As mentioned earlier in this chapter the process of induction and progressive deduction used within this study and put into practice by the researcher through the use of grounded theory fits within a case study framework and a naturalistic inquiry research paradigm. The decision to use these elements of a grounded theory research strategy in this case study was therefore supported by current debate regarding the use of research strategies located within similar paradigms and sharing underpinning theoretical characteristics (Quinn Patton 2002, May 2002).

3.5 Types of case study

The three types of case studies used are: explanatory, descriptive or exploratory (Yin 1994). This case study is primarily an exploration of knowledge of CHD risk, ability to change lifestyle and professional practice to support this change. The case will be used therefore to gain the descriptions, interpretations and experiences of others to illuminate decision making and the practical application of that decision making (Stake 1995). The case is something that we do not sufficiently understand and want to - therefore we do a

case study which helps to explain the causal links in real life (Yin 1994). It is necessary to organise the case study around a problem or issue within a specific situation and context, the causes of which are poorly understood.

3.6 The researcher role

The case study researcher role presents several questions which need to be addressed when embarking on the study, and articulated within the write up of the study (Stake 1994):

- How much to participate personally in the activity of the case?

At the time of commencing the study and the interviews with the sample of women, the researcher was known to be involved in organising a local exercise class at the Community Arts Centre. This was the researcher`s sole activity within the local community and not all the women sampled attended the exercise class. The researcher, as a registered nurse working within a university setting, needs to maintain credibility and expertise in practice (GNC 2003). This was achieved through involvement in health promotion practice at this time for one day a week. All the women interviewed knew what the researcher`s professional role is (a nurse), and that the study was being undertaken towards an award with the University of Southampton. As stated here the women interviewed knew that the researcher was a registered nurse. However they were also aware that the researcher was a student. The interview style was relaxed and the researcher did not impose a structure on it. At all times the researcher attempted to respond as `another woman` to the women interviewed rather than a health care expert. Holloway and Wheeler (1996 p.5) wrote how `nurses who research are already part of the setting and know it intimately, this might mean however that they are over familiar and could miss important issues or considerations`. The researcher on embarking on the study had some knowledge of the area and statutory and voluntary agency activity/provision within it. However the women interviewed were viewed at all times by the researcher as the `experts` regarding living in the area, and attempting lifestyle change in the area. It is relevant to mention that the professional nursing background of the researcher was based predominantly within acute care settings prior to embarking on this study, apart from activity relating to cardiac rehabilitation (following acute cardiac events) and management of heart failure in the

community. This meant that the awareness of primary care structure, role organisation, and CHD primary prevention activity which the researcher had, specifically relating to primary care and public health was limited, both in relation to this locality and nationally when commencing this study. "Making the familiar strange" (Holliday 2002, p.27) was therefore easier, thus enabling the researcher not to `take this world`, for granted and reducing the potential for pre-existing assumptions to influence the research process, or outcome. Indeed within the write up of this study the researcher has made a decision not to use I, within the text but to refer to herself in the third person as researcher. This seemed most appropriate as the researcher had tried to see fieldwork and data as fresh phenomenon and "to approach her own actions as a stranger, holding up everything for scrutiny, accounting for every action" (Holliday 2002 p.22). These did not seem to be natural actions; they were developed through undertaking the study, and seemed to need identification as the actions of the researcher. The presence and behaviour of the researcher as interviewer for instance will have affected the outcome of the interviews; however they were conducted with professionalism and focus, and the researcher was aware of the emerging theories and these led the interviews not the researcher`s own views. After the data collection and analysis process was completed the researcher became more involved in various activities across the locality including being involved in bidding for a healthy living centre, and setting up community lunches at the homeless families' drop in.

- How much to try to serve the needs of anticipated readers?

The writing up of the study needs to fall within an academic format to meet the criteria of the award for which the researcher is studying. However, the study will also inform the policy decisions of the local Primary Care Trust, and the Local Strategic Partnership. It has seemed most appropriate to provide a separate document for the two bodies outlined here in order to make the findings of the study readily accessible.

- How much insight to gain into existing literature on the area prior to commencing data collection?

The existing literature relating to CHD prevention was considered prior to commencing data collection, in order to improve the researcher's background knowledge of this area and in order to enhance theoretical sensitivity to emerging concepts. An awareness of

current knowledge in this area was also vital in planning how to structure the interview guide initially and in developing it further through the constant comparative analysis. Indeed, arguably, in having focused this study on a particular health risk in a particular group, one has shown some knowledge of existing literature on CHD prevention, and its links with deprivation. Therefore the researcher also needed to be aware that this knowledge may influence any process of theory generation as the analysis of the interviews with the women progressed.

3.7 Ensuring rigour

There are several ways in which the case study design can move towards objectivity. However it is relevant to mention that a pitfall in this area is to use criteria for objectivity which can only be met by experimental science. What is needed are reasonable procedures which reduce the influence of observer bias, rare and unusual events being taken as typical and false inferences and shaky generalisations being generated (May 2002).

The researcher while undertaking this study has used a variety of strategies to assure appropriate, systematic, logical investigation and representation of results.

- The use of multiple sources of evidence including in-depth interviews with both the women and the health care professionals and documentary analysis to try and give a true picture of the `case` under study. This may be viewed as a form of triangulation, if one considers triangulation to mean "the capturing and respecting of multiple perspectives" (Quinn Patton 2002 p.544). This means that when interpreting the findings the reader can gain multiple insights into the same phenomenon which add to the potential for study findings to be realistic, meaningful and relevant (Quinn Patton 2002).

- Using a logical clear sampling process for the interviews with the sample of women, across the `pre-menopausal` age range, and for health care professionals (see sampling table in this section of the thesis).

- "Showing the workings" (Holliday 2002 p.47). This means to reveal how the researcher has managed the process of undertaking qualitative research. This has been attempted through clear articulation of the emergence of themes from the data, the sharing of details regarding the researchers professional and ethical position regarding the research process and through the provision of detail regarding the development of the interview guides, which link emerging themes and current relevant theory.

- Interview transcripts were checked back with interviewees where possible, to consider accuracy and the emergence of themes from the analysis for relevance and appropriateness.

- The use of local statutory and voluntary sector documentary information to inform the researcher`s initial awareness of, and description of `the case` under study.

- The use of academic supervisors to consider interview data at relevant stages of the study (early within the interviews and analytic process with the women and the health care professionals) to ensure an appropriate interview style, content and procedure.

- The use of academic supervisors to consider the results, and processes of the data analysis in order to ensure a logical and systematic approach and relevant thematic development and progression.

The role of qualitative researcher, by its very nature, is integral to the process and outcomes of this study. Indeed in order to access the sample of women for this study the researcher needed to share details of her personal identity and, in the opinion of the researcher, adopt a non-judgemental and enabling style (see ethical issues relevant for this study, further on in this section). Therefore one could argue that the likelihood of reproducing these results again may be reduced by the unique role which the researcher plays (May 2002). However, if one considers the case study as a search for particularity then one should treat a case study as peculiar to itself; like other entities of a similar kind but never entirely identical with them. These entities are linked by universal qualities present in different proportion and arrangements (Stake 1995). Therefore women living in a similar area, in similar circumstances may share the experiences of this group of women

and health care professionals, or elements of the same experiences, making the learning from this case limited but potentially relevant to the future development of practice and policy.

3.8 Women, income and social class

Before considering current knowledge in relation to the area under study here it is necessary to discuss the classification of social class and women. Much of the evidence relating to CHD risk and low income is organised using data which classifies men and women through the use of the registrar general's classification of occupations. It is necessary therefore to discuss this classification, and the inherent problems within the classification which are particularly relevant for women.

The registrar general's classification of occupations (ONS 1997) is based on a six fold typology with three non-manual groups (social class I, II, III Non-Manual) and three manual groups (social class III Manual, IV and V). This division between non-manual and manual occupations marks the dividing line between middle class and working class occupations. The classification system as a whole reflects the hierarchies in male populations, where having a non-manual job generally means more money and more status than having a manual job.

However many female occupations including clerical, nursing and shop work are non-manual yet still poorly paid; is this indeed because they are mainly female occupations? Furthermore this scale is not sensitive to these gradations in female occupations or income, and women tend to cluster in a small number of social classes (III Non-Manual in particular) rather than be spread evenly across the scale. A central tenet of the registrar general`s classification is that women have a different relationship to the social class structure than men. Men earn their class position through their occupation or lack of it, whereas the position of a woman is mediated through her relationship with men.

Married and cohabiting women are given the same class as their partner; only women living outside such relationships with men are allocated a class position on the basis of

their own occupation. This therefore offers an inherent problem to the researcher who wishes to examine a group of women who are shown to be at high risk of heart disease through their social class (ONS 1997) and income; whilst not wishing to position the women using possibly discriminatory or oppressive classifications.

For the purposes of this study therefore the women were only included in the sample if they were found to be `living on a low income` i.e, in a household surviving on less than half of average income (Acheson 1998). All of the women at the time of interview were in receipt of benefits whether working or not, and none of the women worked full-time. Information was collected regarding their employment status, educational attainment, housing tenure and car access as these factors can offer additional information regarding levels of deprivation (Brunner 1997, ONS 1997).

3.9 Research methods

The research methods used to illuminate this case have attempted to elicit the experiences of living and practising in this area, in order to enable the `sharing of experiences` to influence local practice and policy. It is vital to match up research design with research proposition or purpose, particularly when using multiple data sources (Campbell & Russo 1999), as within this case study. Table one matches proposition or purpose with method.

Table.1 Research Purpose

The research purpose
• Women`s health behaviour, and attempts at behaviour change relevant to CHD in the context of their own circumstances and the area in which they live.
• Whether the factors which the women identified as influencing their attempts at lifestyle change influenced local CHD prevention involving health professionals, and
• whether local partnership working and strategic planning addressed these influences on lifestyle change relevant to CHD prevention for local women and enabled partnership working including primary care health professionals.
Linking the research data to the research process
The interviews with the women provided insights into the women`s lives and the influences on their health behaviour. Interviews with local health professionals provided insights into their practice, and

knowledge regarding CHD prevention, and any partnership working they may be involved in with other agencies. Consideration of the documents provides further insights into local policy underpinning the health professionals' practice, and structures which are intended to enable partnership working locally.
The criteria for interpreting the findings
Analysis of the interview data from the women will examine the data for emerging themes which can then be explored within the interviews with the health professionals, complemented by the literature reviewed to inform the study, and will provide the basis for the analysis of partnership working locally.

The following research methods have been used:

- In-depth semi-structured interviewing in order to share the experience of the women and health care professionals living and working in this area. With the sample of women the interviews were on average one hour in length; with the health care professionals they were on average thirty minutes in length.
- Documentary analysis. The researcher considered documents laying out local plans to improve health and respond to the National Service Framework (NSF) for CHD. These documents consisted of The local Health Improvement Plan (HImP), The Community Plan (The Partnership Plan), and the local Primary Care Trust Business Plan. The researcher also attended three meetings of the local Health Improvement Group, and received minutes for these, which are considered and complemented by the researcher's field notes within the documentary analysis. The analysis of these documents focuses on CHD prevention related activity relevant to this study, and its relevance to the guidance offered by the NSF for CHD.

3.10 Interview style

The interviews undertaken were lightly structured and the interviewer style was largely receptive, using the minimum of prompts as the researcher's experience and analytic skills developed. The interviews required the exploration of both knowledge and experience. Therefore their style, although mainly narrative, did include some more focused questions at appropriate times. Mainly these focused questions were asked at points in the narrative regarding their current lifestyle or past experience of lifestyle change which related directly to a relevant aspect of CHD risk, for instance diet or smoking. Then the

interviewer would for instance take the opportunity to ask the individual to further expand on their experience of changing their diet by asking them to reflect on what they saw to be a healthy diet in relation to their heart, and the components of that diet.

These interviews were intended to elicit narratives (Wengraf 2001) which focused on the areas outlined within the interview guide. This type of narrative interview design requires the researcher to offer a focus for the individual interviewee's narrative, and may require the interviewer to prompt narrative change or re-focusing during the interview. As shown here in the researcher's reflections on the development of their interviewing skills this prompting or narrative change was both a skill developed within the process of this study and a requirement in order for the researcher to follow themes emerging through constant comparative analysis. The components of a narrative include, "a description of background in order to orient the listener to the narrative events being described" (Labov & Waletsky 1967 p.30) in order to inform the case study. This encouragement and enabling of interviewees to include contextual information would seem an essential element to inform the interviewer of the background to the responses of the individual interviewee.

3.11 Documentary analysis

The documents analysed to further illuminate the CHD prevention work undertaken in this area were considered in order to inform and enrich this case study, and were seen as forming part of the repertoire of field work undertaken to inform the study (Denzin & Lincoln 2000). These documents are considered within the analysis section with the field notes which the researcher made following Health Improvement Group meetings (n=3) which she attended. These field notes focused on the attempts to operationalise partnership working to improve health, and paid particular attention to strategies relevant to the prevention of CHD. The documents which were considered, namely the Community Plan, the Health Improvement Plan and the PCT Business Plan, are within the public domain and as such have been quoted from within the results section. However the minutes of the Health Improvement Group were not at the time of undertaking this study, and therefore have not been quoted from directly.

Learning to study and understand documents is part of the repertoire of skills needed for qualitative inquiry (Quinn Patton 2002). However the approaches taken to structure this understanding may vary. Within their discussion regarding approaches to documentary analysis Manning & Cullum-Swan (1994) recognise different qualitative models which may be used to guide analysis; these are semiotics, structuralism and post structuralism.

Semiotics is seen as the science of signs which provides a set of assumptions and concepts that permit systematic analysis of symbolic systems, such as different languages used within different settings. It is clear however from their discussion that disagreement remains about the use of semiotics and its relevance to contemporary documentary analysis (Noth 1990).

Structuralism is both a theoretical perspective and a methodological approach used in contemporary social sciences; it sees social reality as constructed largely by language, and language form as the material from which social research is fashioned. It is however perceived as dehumanizing as a research process; individuals are seen as the creations of structures, such as kinship or law or education, and their behaviour or communication is perceived as manifestations of rules created by these structures (Manning & Cullum-Swan 1994).

Post structuralism contains modifications of structuralist themes; it however recognises the uncertainty that arises from changes in context. Inherent within this approach is the assumption that one must not read direct intentions from texts, and assume final answers through their analysis, as those writing them are inevitably influenced by their own setting and the message they are intending to convey (Hodder 2000). Documents are therefore seen as being influenced by their context. It would seem then that this is a relevant approach to take within this case study as it allows the researcher to integrate the field work notes within the overall analysis in order to contextualise the production of the Health Improvement Plan.

It is important to also acknowledge through the analysis that the documents considered represent local `macro` policy development for the agencies involved, while the field notes

and interviews with practitioners offer the opportunity to examine `micro` policy and practice development within the context of this case study. It is also relevant to consider the limitations of each type of data collection; interview data limitations include distorted responses due to personal bias, anger, anxiety, politics or simply lack of awareness. Documents and records also have limitations, as they may be incomplete or inaccurate, which is why it is important if possible within a study to consider more than one source of documentary data, as undertaken with this study, and overall more than one source of information in relation to the case. This approach enables the documents to `make sense` in relation to the interviews and field notes (Quinn Patton 2002 p 307). These diverse sources of information gave the researcher a more complete picture of local policy and practice development.

Allowing for the consideration of the context of documents also enables the documents to be considered along with the other units of analysis, namely the description of the case under study, as this also forms part of the context within which the documents have been produced.

3.12 Ethics

Ethical approval was gained for the study through the local research ethics committee, which took four months. However completing the process did enable the researcher to finalise ideas regarding information sheets and accessing women and health care professionals to interview. All interviewees were given or sent a copy of the information sheet and the interview guide prior to the interview (see appendix 1, 2 and 3), and all interview data was numbered to ensure anonymity (in the case of the health care professionals it was also identified by professional role) when analysed using NUDIST (software for qualitative data analysis) to aid the process. All interviewees were shown identification prior to interview and all interview tapes were kept in a locked desk in the researcher`s office at work and will be stored securely for five years following the study and then destroyed.

Within any situation of trust however there is potential for exploitation. As a post-graduate student the researcher carefully considered whether to reveal that she was a registered nurse, who had children and was a working mother; wishing initially to attempt the textbook `unbiased` style of interviewing (May 2002 p.225). However it became apparent while preparing interview sheets, and working in the local community that although one`s identity as a woman and a nurse provided the entry to the interview situation, as the researcher, one had to be prepared to expose oneself to being `placed` socially as a woman/mother and to establish that one is willing to be treated accordingly (Denzin & Lincoln 1994 p.85). This process seemed to enable the women to trust enough to agree to an interview, while the giving of information sheets and additional assurances regarding the study and the interview tapes appeared to be scarcely necessary.

However with trust being relatively easy to establish as a woman there is real potential for exploitation, in two main areas:

- One may not be a bonafide researcher and may gain very private information on false pretences. All the women the researcher interviewed were given an information sheet regarding the study at the point of being asked for an interview. However not once was the researcher asked for any identification to formally link her with the information sheet. This identification material was however always shown to the interviewee prior to the interview.

- In relation to collective concerns, information may be gathered from a sample of women but then be used against the collective interests of the women or misrepresented for instance in relation to their lifestyles and income, thus affecting `opinions` of the women negatively or even affecting policy decisions that relate to their lives (Fonow & Cook 1991 p.11).

Sharing trust with those one researches can be seen throughout different types of research undertaken on `human` samples, although it is an element which is rarely formally addressed (Denzin & Lincoln 1994). However within this study trust was needed to achieve the interviews, along with the researcher allowing her own identity to be present

within the process at all times. It is therefore important that the researcher states the underlying principles which governed her behaviour within the study. All those interviewed were seen and treated at all times as equals by the researcher. Within this study this was done through a respectful sensitive approach to gaining the trust of the women and throughout the interview process (May 2002). If the researcher perceived within the interview that the interviewee wanted to share personal details of her life then the researcher adopted a patient and pragmatic interview style which allowed for this without inappropriate early re-focusing of the interview occurring. Indeed as the researcher's interview skills developed it became apparent that very little of what the women offered was not relevant to the study. This was particularly so in relation to their experiences of lifestyle change, and all that they offered was relevant for them and therefore for the researcher at the time of interview.

The health care professional interviews were carried out in their place of work, generally within a working `session`. The researcher was aware however that she was taking up interview slots which would have been taken by patients, and was reminded of this by several (n=4) of the interviewees, although in a light hearted manner. The researcher was unclear within this set of interviews whether her professional status affected them, in relation to gaining access or information. Shared insights into professional practice may mean that the interviewee is more likely to feel that the researcher will not misconstrue or misunderstand responses. These shared insights however may make the researcher more able or likely to criticise practice. The researcher within this study was unable to make a clear decision as to whether her professional status affected the outcome of the interviews.

3.13 Personal safety

The personal safety of the researcher was maintained when undertaking the study through the following strategies;

- Always informing a work colleague when undertaking an interview, where it was occurring, and at what time the interview would be completed.
- Always telephoning the colleague to advise them that the interview had been completed.

- Always carrying a rape alarm in an accessible pocket.
- Always carrying a charged mobile phone, and ensuring that the work colleague who knew the researcher's whereabouts also knew the phone number.
- Never disclosing personal details relating to home address or telephone number.

3.14 Sampling

A single case study can represent a critical case, a revelatory case (as when a phenomenon has not previously been available for scientific analysis) or a typical case, and can be used to formulate theory. Such a study can be used to focus further study. A vulnerability of the single case study is that the analysis and description to the reader may not be systematic and logical and therefore misrepresent the case in question. The single case used within this study is seen within the local region as a critical case needing exploration and innovation in order to challenge current levels of ill health, smoking, obesity and deprivation (Public Health Improvement Plan 2001-2004, Health Authority).

A vital part of case study research is the selection of a case to study. The detailed description of the case under study here is included within the findings chapter in order to offer a detailed background to the findings. However, it is relevant here to discuss what influenced the researcher`s choice. On consideration of the literature it became clear that the lives of women on a low income in relation to CHD risk were not well studied; in addition it became clear that the practice of health care professionals relevant to prevention for this group was also not well studied. The case studied here offered the opportunity to examine these areas within an area of deprivation, which had high rates of smoking, obesity and referral to cardiac services at the local general hospital (Public Health Report 1998). This offered an opportunity to consider whether preventive practice undertaken within the locality engaged with the needs of the women living in that area. In addition the researcher had an opportunity at that time to engage in community based work and therefore gain knowledge of the area and the potential to engage with local women, practitioners and the local Health Improvement Group.

Through purposeful sampling (Wengraf 2001) an even spread through the following factors was achieved. This sampling method was chosen in order to select `information rich` interview opportunities with women from a range of age-groups and circumstances. This consideration of sub-groups within purposeful sampling has been defined as stratified purposeful sampling (Patton 1990), which may be undertaken in order to illustrate the characteristics of particular groups of interest within the overall sample, which was the intention within this study. Stratified purposeful sampling may also be undertaken to facilitate comparison; there was no intention to compare groups within this sample, due to the size of sample and research method used.

The following factors were considered initially within each of the following age groups, 18-27, 28-37 and 38-47.

- Smokers and non-smokers,
- those in work and those on benefits, or both.

These factors are relevant in relation to increased CHD risk and may be influential with regard to lifestyle.

- Housing tenure,
- car access.

These two areas are considered as potential `alternative social classifications` (ONS 1997, 2002) and as such are predictors of increased risk of early mortality and morbidity.

- Educational attainment.

Poor educational attainment is linked with a higher risk of CHD, independent of lifestyle factors (Jacobson & Thelle 1988),

Through the process of constant comparative analysis undertaken by the researcher within the first four interviews, further areas became relevant and influenced the sampling process as the interviews progressed.

- internet and computer access
- telephone access
- those with a partner at the time of the interview and those without
- those with a job (or more than one) at the time of interview.

The overall sampling was also guided as the interviews with the women progressed by the themes emerging from the constant comparative data analysis (see interview guides at the end of this chapter).

Table 2. Women interviewed with sampling factors (as previously discussed)

Age	18-27	28-37	38-47
Women's age	4	7	6
Women with children	4	7	6
Employed part time	2	1	2
Employed in 2 or more jobs	1	-	2
Women on benefits/income support	4	7	6
Smokers at time of interview	3	5	2
Non-smokers at time of interview	1	2	4
Women with a current partner	1	4	2
Women without a current partner	3	3	4
Women with more than three GCSE`s	2	2	5
Women with 1-3 GCSE`s	1	2	-
Women with no GCSE qualifications	-	3	2
Renting home	3	6	6
Owning home	-	1	1
Computer/WP only no internet access	-	-	2
Internet access	-	-	-
Car access	1	1	2
Car owners	-	-	-
Telephone access mobile or landline	4	7	6

The women were accessed through the growing links of the researcher with the community, both residents and health care professionals, local authority and community development staff from various agencies. These contacts were initiated through the researcher's work with a local exercise group. However the women were approached and interviews requested through several different statutory and voluntary groups.

The formal groups through which the interviewer was able to gain the trust of women and request an interview were:

- Bums & Tums (the exercise class with creche facility at the local Community Arts Centre funded by the local PCT and University, which the researcher had helped to set up).

- Link (a support group run by the Church of England for young mums aged 16-24).

- Family Drop In (a free daytime facility funded by a local charity for families on a low income mainly living in houses of multiple occupation (HMO), which provides cooking facilities, laundry facilities, a safe play area for the children and advice on benefits and legal issues)

Within the area under study services for drug and alcohol rehabilitation are offered and drug and alcohol abuse are a problem within the area (Planning Services Local Authority 1998). Therefore within the sample of women interviewed three women had been through the rehabilitation process for drug and alcohol related problems. All these women were more than one year from the completion of the rehabilitation programme at the time of interview. In addition all of the women interviewed had been resident in the area for more than one year prior to the interview taking place.

3.14.1 Sampling health professionals

Within the geographical area used for the study there are four GP practices: all were used by the women interviewed, and all relevant health care professionals were therefore asked for an interview (see table 3).

Table 3. Sampling of Health Professionals

Role	Number interviewed	Interview requested from	Refused interview	No response	Sickness or maternity leave prevented interview	Numbers of each group practising in the area
Health Visitors	3	4	-	-	1	4
Practice Nurses	3	4	-	-	1	4
General Practitioner	2	7	2	2	1	10

Community Midwives	1	1	0		0	1
Community dieticians	1	1	0	0	0	1
Health promotion officer	1	1	0	0	0	1

The group least likely to agree to be interviewed was therefore the General Practitioners. Unfortunately this meant that the most numerous group of health care professionals within the practices may be seen as under represented within the sample. However the researcher undertook to write to the individual GPs sampled on two occasions to request an interview. Telephone follow up to the letters was also undertaken on two occasions. Two of those approached actively refused to be interviewed, with another one being on sick leave at the time of sampling.

One local authority employee was also interviewed, the Environmental Health Officer (EHO), as that individual was engaged in partnership working with one of the local health visitors.

Once again the interviews with the professionals were lightly structured (Wengraf 2001), with the researcher using the minimum of prompts, in order to gain information on the areas outlined within the interview guide (as shown later in this chapter). The researcher as a health care professional herself was aware of how it may feel to be interviewed regarding one`s practice, and behaved sensitively throughout the interviews in order to prevent interviewees from feeling potentially undermined or threatened.

3.15 Access

The women were initially approached and asked for interview through the researcher`s involvement in setting up an exercise class at the local Centre for Community Arts. A young mums group met up at the centre and women were approached through this group in the first instance and then through the family drop in. As already mentioned, completing interviews with women on several (n=4) occasions provided opportunities to interview

other women who either lived in the same building or attended the same group. The researcher found that it was essential to build rapport and trust with the woman that one wanted to ask for an interview, otherwise the likelihood of agreement was very limited. In completing the interviews the researcher experienced as many women who either did not turn up to agreed places, or were not at home at agreed times for interview (n=17). However as the women were aware that the researcher was a registered nurse this may have made them feel that the researcher had an ulterior motive in relation to making judgements on their own or the behaviour of their children as the researcher perceived it. It may also however, have increased the likelihood of the researcher being trusted in relation to the women allowing someone into their home.

The awareness of the researcher regarding her position within the interview process with the women was illuminated through experience and through reading the literature relating to this topic. It has been stated that women interviewing women in an informal way gives the research `special character` (Finch 1994 p.73) as it is possible to avoid a hierarchical relationship between interviewer and interviewee. It is felt that women are more enthusiastic about talking to a female researcher, and that shared experiences such as childbirth, relationships with men and how women are perceived in our society offers increased opportunities for reflecting on their own lives (Mitchell & Oakley 1976 p.379). Indeed Finch (in Bell 1994 p.76) goes further in saying that the added `special` dimension which is present when women interview women is that both parties share a subordinate structural position because of their gender.

It became evident to the researcher early in the study, however, that many of the women felt very uncomfortable about the prospect of reflecting on their lives, in this context, with four out of the seventeen women who were approached but not interviewed expressing anxieties that through the study ex-partners would be able to find out their whereabouts, with possibly negative consequences for themselves and their children. All women when asked for an interview were given an information sheet (see Appendix 1) which guaranteed anonymity. However this alone appeared to be insufficient to make some of the women approached feel comfortable with the process.

The researcher in the process of approaching women to be interviewed became acutely aware that sometimes the women felt uneasy with the prospect of the researcher seeing where they lived. Comments which were made included;

> *"oh no, its so awful, can we go to the coffee place in the precinct", or "you can come but you must see its only for a while you know until me and the kids get sorted out".*

In one case before an interview the interviewee informed the researcher that this flat was not her own, as hers was `horrible, depressing` and that she had asked a friend if she could be interviewed in her flat. Through experiencing the apparent discomfort of the women the researcher learnt to always offer to see a potential interviewee wherever they felt would be easiest for them to do the interview. In addition a working `policy` was developed whereby if women did not turn up for arranged interviews, or were not at home as arranged, then the researcher would chat generally to the woman next time she saw her but would not mention rearranging the interview unless the subject was broached by the potential interviewee herself.

After three of the interviews the researcher was repeatedly told by the interviewees on seeing them in the locality that the process of participating in the research had been very positive, as it had shown the women how much they had achieved. One of these women had successfully completed rehabilitation for drugs and alcohol and had both her children living with her once again, while another had successfully left a violent relationship and had made a home for herself and her children in the locality. Finch (1994) had also discovered similar issues in interviewing a sample of women for a study looking at play groups, "that they (often unexpectedly) had found this kind of interview a welcome experience in contrast with the lack of opportunities to talk about themselves in this way in other circumstances". Finch found that women made comments like "I have really enjoyed having someone to talk to". This was also the experience of the researcher within this study who found that the women during the interview would share many very private elements of their lives, in relation to their own childhood, or their relationships with their partner or the details of important issues for them at that time. Many of the women interviewed for the study seemed to lack opportunities to be with other women in a supportive environment, especially if they were on their own with young children. They

therefore found the interview was an occasion on which they could try to make sense of some of the elements of their lives with an impartial, sympathetic listener. This sharing of key elements within the lives of the women showed considerable trust between the researcher and those being researched. It seemed to indicate that they expected the researcher to understand what they meant simply because she was another woman. Indeed the ease with which the women spoke in this situation seemed to depend not so much on the interviewing skills of the researcher but more on her identity as a woman.

3.16 The research process

This study was undertaken between September 1998 and July 2002. The data collection began with the description of the case under study, then interviews with the women in the area, then the interviews with the health care professionals, while the consideration of relevant local strategic partnership working occurred simultaneously (see table 4).

Table 4. The Research Process

Date	Research activity
Sept 1998 - July 1999	Study design developed, initial review of relevant literature undertaken, application for ethical approval for interviews with sample of women submitted.
Sept 1999 - July 2000	Proposal amended, and ethical approval gained, interviews with women and constant comparative analysis undertaken
Sept 2000 - July 2001	Study thus far written up for transfer examination from MPhil to PhD, ethics application made for interviews with local health care professionals, and documentary analysis, approval gained. Researcher attended health improvement group.
Sept 2001 - July 2002	Data collection with health care professionals and constant comparative analysis undertaken. Researcher attended health improvement group x 3, final write up of thesis commenced.
Sept 2002 - to 2004 submission May 2004	Final write up of thesis completed.

3.17 Analysis

In order to ensure the developmental process for the researcher is documented fully the first four interviews completed with the women have been considered together in order to enable examination of the following areas.

1. The practicalities of interviewing women in their own homes, and
2. the development of access and interviewing skills by the researcher.

3.18 Practicalities of interviewing

- Taped interviews in the homes of the women can be achieved using the technical equipment chosen by the researcher

All of the first four tapes were easily transcribed due to the quality of the recording; a DAT (digitally assisted taping) recorder was used with a free standing microphone. This meant however that the transcription could not be completed using traditional equipment (audio-typing using dictaphone tapes) and the DAT tape player had to be used. This meant that the tape had to be manually stopped and started by the researcher during transcription. The quality of the recording however more than made up for this inconvenience. Two of the women interviewed had children present during the interview, below school age. They were of course fascinated by the taping equipment! The interviewer learnt very quickly that being able to provide distractions effectively was vital and that objects produced from her bag were much more appealing than their own toys. Therefore a small stock of empty battery boxes (brightly colored) and empty tape boxes (robust) were stored therein for these occasions.

- The distraction of the tape recorder

It became apparent within the first interview that the interactions that occurred while the tape recorder was turned off, both before and after the interview, were relevant to the study, such as remarks made while walking out of the woman`s home after the interview. In order for these comments not to be lost detailed field notes have been kept, (Wengraf

2001) to add as notes to the transcribed interviews (the NUDIST computer software analysis organisation program allows for this). The tape recorder does inevitably cause a distraction within the interview overall, with some women seeming to be more aware of it than others. However as the interviews progressed the women interviewed seemed less aware of the tape recorder and by the nature of the private and personal information offered they felt safe to confide in the researcher and therefore the tape recorder.

- The presence of children during interviews

In reality if children are present during the interview this can prove a great distraction, as they are invariably of pre-school age and as such demand considerable attention. However within this study any approach which attempted to ensure the women are interviewed without their children may preclude gaining access to these women to interview. The researcher had no access to child care provision to offer the women, and indeed with small babies or fretful toddlers the women may not have wished to place their children elsewhere. Indeed as the researcher is a mother of small children herself and is used to undertaking tasks with them present, the provision of appropriate distractions and helping to create a relaxed unpressurised atmosphere during the interview, was not an issue.

- Frequent interruptions

Brief note taking was required during the interview in order to ensure directions/ opportunities were not missed. It was essential that this note taking was explained to the woman prior to the start of the interview in order to ensure they are prepared for it and to ensure that, of itself it does not become an interruption.

- The presence of pets

Dogs, cats, parrots, fish, and rats were all variously present (as pets) in the homes of the first four women interviewed. In one`s dress and the equipment one brings it is essential to be prepared.

- The status of the interviewer and the point of the research

These issues needed to be clarified prior to the interview at the appointment making stage, and then returned to on the day of the interview itself. Providing a written sheet for this alone without discussion was not adequate to enable the women, and in some instances their partners, to feel relaxed about the process. This was evident during the first interview when the discussion with the woman was interrupted on several occasions by a partner who wanted to clarify the purpose of the research, although he had read a copy of the information sheet. The researcher should avoid making assumptions about either the reading ability or the capacity to retain information of the women interviewed or their partners/children.

3.18.1 Developing further research skills

The women interviewed within the study all lived in one geographical area; however for many of them this would prove to be their only link with each other. Inevitably within any area individuals will mix, via work, or voluntary, or leisure activities with one or more `groups`. The links within these groups may be well developed as established friendship or collegiate relationships, or they may be tenuous links based on children attending the same school, shopping in the same places or living in the same road or building. Or indeed if these two points are viewed as a continuum the `relationships` that individuals have with each other may fall, and have fluidity between the two.

The researcher had, for a year prior to the commencement of the interviews, been working with colleagues from both the local university and the local Primary Care Group (as it was then) to set up exercise facilities with a free creche facility for women in this area. Links with women living locally who were attending the exercise class, or involved with the community creche provision, or who attended the Community Centre for other activities such as the Community Arts Fair, or the Link (a group for young mums aged 16-24) had developed. The first four women interviewed consisted of two women who currently attended Bums & Tums (the exercise class). One of these attended regularly, the other had attended twice prior to the interview, one woman was involved in the Community Arts Fair

and another had come into the Community Centre one rainy day solely to use the toilet and had struck up a conversation with the researcher.

Within the methodology section there is a discussion on the approach taken to sampling. However it is worthwhile mentioning here that the intention to approach women who lived locally through diverse mechanisms was robustly maintained from the outset of the study. So, despite the fact that the researcher had developed relationships with women who attended Bums & Tums, women from across different groups within the area who fell within the targeted group were accessed for the study from the outset using a variety of avenues as discussed.

The researcher learnt early in the study that no opportunity for an appropriate interview should be missed. There is a fine line, however between following up opportunities and feeling that one could be pressurising women to be interviewed. Within both the written information sheet given and all verbal interaction it was impressed on women that they could refuse, or opt out at any stage. As an individual who had been working locally to set up the exercise class the researcher was aware that others may view hers as a powerful position, with influence potentially over access to the class and creche places. Therefore it was vital that a relaxed and informal approach was taken while at all times attempting to ensure that the women were aware of the identity of the researcher and the intentions of the study. As mentioned already within the ethics of interviewing section, clarification of identity and intentions is essential throughout the process of accessing and interviewing the women.

Once the introductory information was given to these first four women they appeared to be enthusiastic about contributing to the study, and all of the first four interviews took place within their own homes. All the women wanted to show me their homes and explained different aspects of the furniture and living arrangements such as newly decorated areas, or areas that needed repair. Three of the four women rented their homes and all lived in flats and had some problems with the state of repair of the buildings, relating to damp walls and ill fitting windows in particular. One of the women kept the curtains drawn and electric lights on throughout our interview despite the fact that it was 12.00 midday. It did not feel

appropriate to ask her what the reason was for this (the windows looked out over the back garden of the property) as that would have felt intrusive and not summarily relevant to the interview process and the study itself. The researcher must admit to some persistent curiosity on this matter however.

Through conducting these initial interviews it became apparent that the researcher, although having only headings on the initial interview guide, was adhering too closely to the areas to be explored and possibly therefore missing out on other relevant avenues which the responses of the women opened up. It may be that coming from a professional area which is informed and controlled traditionally via positivist research methods that the researcher was `resisting` the method because of being locked into `realist` modes of questioning (Norton 1999). Through reflection on the first two interview transcripts it became apparent that a more reflexive approach which accepted that the social realities studied were inseparable from the researcher was needed. This approach would then accept that using an inductive methodology the `knower` is inseparable from whatever can be known within the overall construction of a particular reality (Annells 1996). What the interviewee offers in response to a question is therefore what is important and valuable at that time, and as the study progresses the researcher may pursue areas while being informed by the interviewees, constant comparative analysis and increasing theoretical sensitivity.

It is interesting that within research as well as other areas of professional practice it would appear that for the researcher a `theory, practice` gap can exist; assumptions can be made that one has internalised theory, and planned a study appropriately. However through the reality of performing the data collection one`s value systems, experiences and knowledge may be challenged if they are grounded within a system which values the positivist paradigm above all else (Blaxter 1995). On reflection the initial less responsive approach was dictated by the `world view or outlook` which the researcher had taken into these interviews (Creswell 1994) based upon previous socialisation into a professional role as a nurse. As a developing profession nursing has within its research based `body of professional knowledge` used and expanded qualitative research methods (Cormack 1991). Arguably however the health service as an institution has historically actively rewarded,

recognised, encouraged and utilised quantitative research methods to the exclusion of all others (Bell 1994).

A clear example of the researcher learning through `research practice` and reflection on this practice relates to the use of questionnaires within this study with the sample of women. When embarking on this study the researcher felt that gaining quantitative results would add to the value of the research findings from this case study. Therefore the researcher reviewed the evidence relating to three different previously designed and tested questionnaires (see Appendix 5 and 6). These tools considered three different areas which appeared to be relevant to this case study relating as they do to general well being, health behaviour change and self esteem. The three tools considered related to general health (Goldberg & Williams 1991), self efficacy (Jerusalem & Schwarzer 1986) and self esteem (Rosenberg 1965).

However as the researcher developed further research skills through undertaking the study it became clear that the appropriateness of such tools were questionable for the following reasons. The use of a quantitative research tool designed for use with a large group or population on a small sample will not produce results which help to gain valid insights into the objectives for this study. Internal validity would not be offered by the results as a causal inference could not be attributed to the results due to sample size and scope limitations. In addition external validity would not be offered by the results as generalisability across the group under study could not be attributed to the results due to sample size and scope limitations. In addition the results from such a small sample would not be reliable when considered in comparison to previous findings using these tools which have attempted to provide a `normal` range of scores. The obtained scores would not accurately represent the magnitude, intensity or quality of the attribute or phenomenon being measured (Tashakkori & Teddlie). These tools are not therefore an appropriate method to use in order to gain insights into the well being of the sample of women.

It is important that overall the exploration of the use of these tools should be seen in the context of the researcher's continuing skill development and growing knowledge of and respect for the benefits of using and valuing qualitative research methods. It became clear

to the researcher as the study progressed that qualitative research methods were most appropriate for this exploratory case study. It is also appropriate that the insights gained from the questionnaires are not included in the `findings` section of this thesis, although they may be found within Appendix 6.

3.18.2 Constant comparative analysis

Constant comparative analysis is a key element of a grounded theory research approach and was used throughout this case study. Each interview undertaken within the study was transcribed and analysed prior to undertaking the next interview. The data was analysed for themes emerging, and compared with the previous data to consider whether these themes may have appeared earlier in the data collection. Reviewing and merging of existing themes was a continuous process while the interviews took place (Strauss & Corbin 1990).

As the interviews and the analysis progressed, development of theoretical links occurred through constant comparative analysis and concurrent consideration of current theory only after it had emerged from the analysis of the interview data (Strauss & Corbin 1990). NUDIST qualitative analysis software was used and proved invaluable in managing and storing the data once the formatting restrictions of the programme were fully understood. The researcher suffered initially from what has been described as a thematic fetish` (Wood & Roberts 2000) when undertaking initial analysis, in as much as many themes were developed early on which is easy to do with the almost unlimited storage and indexing capacity of NUDIST. As themes were merged and developed through further analysis, however, the flexibility of this software proved invaluable.

The development of the interview guides shows the gradual emergence of key themes from the constant comparative analysis. This resulted in three versions of the interview guide being used as these themes emerged and the study progressed. The first version of the interview guide was used with the first seven women interviewed. The second version was used with the next five women and the third version was used with the final five women interviewed.

3.18.2.1 - Interview guide for the women (used with the first seven women interviewed March 2000 see appendix 2):

- Knowledge of common causes of ill health in women
- Knowledge of factors affecting heart health
- Their lifestyle
- Factors affecting their lifestyle decisions
- How and where to get information on health
- Biographical details included:

  Age
  Educational attainment
  Income
  Employment
  Housing tenure
  Car Access

Themes emerging from interview data using this interview guide:

- The women seem to be unaware of CHD as a potential health problem for women.
- The women appear to have neither income nor support for lifestyle changes which they have attempted before.
- Negative feelings were expressed about their weight and appearance which seemed to relate at least initially to pregnancy and childbirth.
- The demands of caring on a low income in poor housing are great.
- The women see `stress` as a major cause of ill health for them; this stress is seen as relating to money, relationships and the demands placed on them.
- General assumptions regarding a healthy lifestyle are correct.
- The women take pride in achieving any aspects of what they view as a healthy lifestyle.
- Work benefit trap, frustrated ambitions for work/study, no child care that is affordable within the area.
- Exercise, if done, creates a positive sense of well being.
- If working, tend to do more than one job, and have downsized ambitions to allow for caring demands placed on them.
- No access to internet/computers in their homes.

Pursued further in the literature while analysing these first interviews:

- Frustration, stress and CHD

- Work benefit trap, lone parents, smoking, lifestyle, down sizing ambitions

3.18.2.2 - Interview guide for the women: (used with the next five women interviewed April to May 2000 see appendix 2)

- Most common illnesses that women suffer with
- What factors affect heart health
- Lifestyle
- What affects lifestyle decisions
- How to get information on health
- Definition of health (the women were asked to describe someone who was `healthy` as defining health proved problematic for the women to conceptualise)
- Stress, what causes it, what its effects are
- Ambitions/plans
- Biographical details extended to include computer/internet and phone access

Themes emerging from interview data using this interview guide:

- The knowledge of factors affecting heart health lacks specific detail of current advice, i.e, portions of fruit and vegetables, units of alcohol.
- Health knowledge blended with weight loss knowledge, some weight loss knowledge appeared out of date and ill advised.
- Spending on food not relevant per se, limits set by income and family members on choice more relevant.
- Women feel stress causes illness due to demands on them, very consistent responses relating to stress causing illness in women reflecting on their own and friends/families experiences.
- Seem to have little perceived control, or experience of control over changing their lifestyles, this is expressed in the interviews, but is not clearly apparent from self-efficacy questionnaire.
- Further stress is caused when the women cannot achieve their goals in relation to lifestyle change, most common goal is weight loss and smoking cessation.
- Not aware of CHD as a health problem that women suffer with.

- Women tend to have little contact with family members, estrangement may be part of reason for living in this area, a marked lack of support for those with young (under ten years of age) children.
- Consider local leisure facilities too expensive and lacking in child care facilities.

Pursued further in literature during analysis of this set of interviews:

- Demands on lone parents, rates of smoking, poverty, support
- Stress and CHD
- Work and unpaid work
- Perceived control and lifestyle change

(Demand, control, support model, Karasek & Theorell 1990)

3.18.2.3 - Interview guide for the women: (used with the final five women interviewed, May and June 2000 see appendix 2):

- Common illnesses women suffer with throughout their lives
- What affects heart health, details of current advice
- What you see as healthy
- Factors affecting decisions
- Demands/control/support
- Health information access
- Leisure facilities
- Development plans
- Biographical details

Merged themes emerging from interview data using final interview guide with the sample of women:

- Lack of support, from partners if the women have them; reflections on partners' dietary preference show marked preference for high fat meals with little desire to eat salads or vegetables.
- Demands on them are considerable, expressing frustration regarding work and education plans consistently.

- Intentions to down size work ambitions expressed.
- Little success in changing lifestyle, smoking and weight loss still main factors attempted.
- Lack of contact/poor relationship with family.
- Not aware of CHD as possible risk to their health.
- Lifestyle dictated by practical issues not knowledge, although the women possess some knowledge (not of specifics of diet or alcohol advice).
- Feelings of lack of control over attempts at weight loss and smoking cessation

Pursued further in literature while analysing this set of interviews:

- Demand, control, support, relating to lifestyle change and as causative factors in CHD
- Smoking cessation
- Weight loss

3.18.3 Analysis of interviews with health professionals

Analysis of the health professional interview data was structured using headings from the interview guide used. The areas covered within the interview guide emerged from the findings in the first phase, and the need to provide an overview of professionally led CHD prevention activity. These areas were developed as the interviews progressed in order to enable further exploration of emerging themes. To investigate whether the health care professionals were tackling any of the areas outlined, within the analysis of the interviews with the sample of women, it was necessary to consider differing aspects of their work and their opinions on what they and the women could achieve in reality.

These areas were also explored with the EHO with less focus on CHD prevention and more on healthy lifestyles and partnership working.

A constant comparative method of data analysis was used, with each interview being transcribed and analysed prior to the next being undertaken. Retrospective analysis was undertaken as themes emerged or were further investigated through each interview. Themes which were of relevance to the study were further focused on in later interviews, as they emerged.

3.18.3.1 - Interview guide for health professionals (used with the first five health professionals interviewed, Oct to Dec 2001 see appendix 3)

- Types of CHD prevention they are involved in
- Does it focus on any groups
- Does it focus on particular risk factors
- How does it fit in an average day
- With pre-menopausal women what CHD prevention might be done
- Do they wish they could do more/different
- What methods do they feel work for this group
- Is there anything they feel limits their potential
- Demand, control and support
- Partnership working

Themes emerging from interview data using primary interview guide:

- The majority of the CHD prevention undertaken is with those with existing disease.
- Doubts expressed regarding the PCT staff's potential for prevention of CHD.
- All work focuses on physical or behavioural risk factors.
- Little knowledge of the wider determinants of CHD and inequalities in health.
- Primary preventive work with this group focuses on smoking cessation if the individual expresses any interest.
- Differences in opinion between differing groups of staff regarding the types of CHD prevention they feel work, and what they feel they should be involved in. Health visitors feel they should be involved in community development work, GP's feel they should be involved in brief one to one interventions.
- They feel that in their experience the abilities of the women to change their lifestyle are restricted by the economic and social demands placed on them.
- Limitations on CHD prevention may be due to rigid job structures and lack of control over funding, or lack of belief in potential efficacy.

Pursued further in literature during analysis of these interviews:

- PCT staff and their potential for primary preventive work

- Smoking cessation, what works
- Demand, control and support model, relating to the women living in the locality and these health care professionals potentially.

3.18.3.2 - Interview guide for health professionals, (used with the next seven health professionals interviewed Dec 2001 to March 2002 see appendix 3)

- Types of CHD prevention they are involved in
- Does it focus on particular groups
- Does it focus on particular risk factors
- Partnership working that they are involved in to prevent CHD
- How it fits in an average day at work
- With pre-menopausal women what might be undertaken
- Do they wish they could do more/different
- What they feel works best for this group
- What do they think affects the health behaviour of these women
- Is there anything that they feel limits/enhances their potential for CHD prevention
- NSF for CHD and local response to it
- Demands, control and support, relating to CHD prevention

Themes emerging from interview data using this interview guide:

- Main CHD prevention activities undertaken with those with existing disease.
- These preventive activities focus on physical/behavioural risk factors.
- Little knowledge of the evidence base regarding the wider causes of CHD particular relating to inequalities in health.
- Very little involvement in partnership working to prevent CHD, one health visitor currently involved in working with the environmental health officer.
- They feel little perceived control over how their jobs are structured or the funding and focusing of preventive work.
- Generally they themselves do not experience all elements of the demand, control, support model, their main issues lay with lack of control and they perceive this as an issue for these women.

- The health care professionals state that `stress` inhibits the abilities of the women to change their lifestyle, and that it affects their health. This reflects what the women stated in their interviews.
- Only two interviewees directly involved with drafting the local response to the CHD NSF had any awareness of the CHD NSF or the local response to it; however four different staff members are undertaking training (Smokestop training) which related to the local response.

Pursued further in the literature during the analysis of these interviews:

- Partnership working for health improvement
- The preventive elements of the NSF for CHD and local/national responses to this
- The demand, control and support theory and potential responses to roles which lack control.

3.18.4 When to stop

To determine when it was time to stop collecting and analysing data the researcher used the four criteria proposed by Lincoln and Guba (1985):

- Exhaustion of sources,
- saturation of themes,
- emergence of regularities, and
- overextension.

The difficulties in accessing this sample of women have already been discussed within this section. When the researcher combined pragmatically the issue of access, with the rich quality of data obtained, the strong themes emerging and the marked regularities in responses it was clear by the seventeenth interview that what was emerging from the data was `confirmed and understood` (Rudestam & Newton 2001).

In relation to the interviews with the health professionals a limited sample was available within the staff of the four local surgeries, the majority of whom were approached for interview, with all those giving their permission being interviewed. However when

considering the issue of their current CHD prevention work an adequate number, including all the professional roles relevant, were included within the sample. In relation to further investigation of the themes arising from the interviews with the sample of women, marked emergence of regularities occurred which are considered in detail within the analysis of the health care professionals' interview data. The scope of interviewing undertaken with local authority staff and staff from other statutory and voluntary agencies was limited by the findings which showed only one incidence of partnership working occurring involving primary care staff.

In relation to stopping collecting and processing data, including documentary data to inform the whole case study when considering these four categories, overextension in relation to the research design and remit becomes the dominant deciding factor. As the study progressed the researcher became acutely aware of the limitations of what could be considered adequately within this thesis. The multi-faceted nature of CHD causation, combined with the case study strategy could cause the study to become unwieldy and its results irrelevant, without clear boundaries to the case, and limits to the data collection being set and adhered to from the outset.

Chapter 4

Findings from the study

Including:

- **4.1 The locality within which the case study is based**
- **4.2 The findings from the analysis of the interviews with the sample of women**
- **4.3 The findings from the analysis of the interviews with the sample of professionals**
- **4.4 The findings from the analysis of the Community Plan, Health Improvement Plan, Primary Care Trust Business Plan and the meeting minutes from the Health Improvement Group**

4.1 The locality

During the first half of the twentieth century the area on which this case study has focused was a popular seaside resort, and a middle class residential area with a separate identity to that of its immediate neighbours. However within the second half of the century, recession, economic reliance on tourism and changes in patterns of holidays have seen the area transformed. The area has many problems including

- inadequate privately rented accommodation,
- high levels of unemployment,
- social isolation/exclusion,
- high levels of crime,
- drug and alcohol misuse, and
- prostitution.

(Planning Services Borough Council 1998)

The area now also has a transient population from the north and major cities and a marked loss of appeal for tourists and local people.

The Jarman Index (deprivation scoring method) comprises eight factors available from census data (the UPA 8); this is calculated within each ward from a weighted average of the census variables (Jarman 1983). These factors include, children under five years as a % of household residents, number of people with a change of address in the year before the census as a percentage of total residents or for instance pensioners living alone as a % of all household residents in the area. High scores for a ward will mean extra deprivation payments for general practitioners working there in recognition of the greater health needs of the area.

Indices of deprivation/disadvantage such as the Jarman index have been criticized for a variety of reasons. In their construction no differentiation is made between the measurement of deprivation and the people experiencing it. Age, ethnicity and single parenthood are often used as indicators, yet they are not causes of deprivation in themselves, even though people in these groups may be at a greater risk of disadvantage.

Townsend (1987) stated that there are differences between social and material deprivation. Indeed he developed and defined thirteen types of deprivation using seventy-seven indicators which are divided into material and social deprivation. Material deprivation may include dietary, clothing, housing, home facilities, environment, location and work. Social deprivation includes rights to employment, family activities, integration into the community, participation in social institutions, recreation and education. In operation however this tool uses four census indicators to create an index of material deprivation, unemployment, overcrowding, not owning a car and not owning a home. These factors (other than overcrowding) have been considered with the women sampled in this study and are presented within the sampling table.

Any indicator used however is a surrogate or proxy for potentially unmeasurable phenomena and therefore has limitations, particularly when applied using census material. The measure may indeed be more relevant for one area than another. Interestingly, as it would therefore appear more appropriate for this study, the Jarman index has been criticised as being more relevant for overcrowded inner urban areas with Victorian or Edwardian housing stock. This description fits exactly the housing stock within the area under study here (Hawtin et al 1994). The Jarman index may therefore prove much less useful when used on a poor quality high rise development in an isolated area. The census results for households lacking exclusive use of a bath or WC are meant to represent poor housing, but this is not a relevant measure of poor quality housing, which may be damp, vermin ridden, difficult to access, or in an area with high crime levels, but have exclusive facilities.

In general when applying the Jarman index deprived areas have high positive scores while more affluent areas have higher negative scores. Within the local wards there is considerable variation with the highest score of deprivation in the area under study here being (+31.44), and the lowest (-6.82) (Haymer 1996). Indeed the score for the area under study here is the highest recorded within the county and was within the 100 most deprived wards in England at the time of measurement (Planning Services Borough Council 1998).

These social problems obviously have physical and environmental dimensions. Facilities for social provision such as open space, employment and training opportunities, and safe and appropriate housing require suitable buildings and sites. This area has distinctive Victorian architecture which contributes to the areas appearance and character, although inevitably without proper maintenance this contribution is markedly negative rather than enhancing. It is also an over crowded area thus offering little opportunity for further development, with capital being needed for improvements to existing buildings in order to provide further facilities.

The bus service for this ward is run through private companies, and as this is an urban area runs a regular service linking the area with the centre of town, and surrounding areas. The cheapest fare at the time of undertaking this study was eighty pence for a one mile trip, with children under five travelling free. None of the buses have conductors, or lift platforms which allow easy access for those with children in prams or buggies, or individuals in wheelchairs or with mobility problems.

Food supplies for residents in the area are provided by several local shops, there is a Sainsburys, Marks & Spencers (with food hall) and an Iceland. In addition two days a week there is an open air market which sells fruit and vegetables at below the prices in the shops named here. The approximate reduction in price for fruit and vegetables is twenty pence per kilo although this does vary on a weekly basis.

Currently there is no nursery or play school provision in the area under study, and within a one mile radius of it. The current charges for child minding services, for which there is a waiting list of 4-6 months is between £20 and £25 per day, or £80 to £100 per week.

In this area, there is a health and fitness centre, one of a national chain of centres. The fees charged for the period of the study are as follows. The fee for membership for one calendar year was £280. The fee for one exercise `session` was between £4 and £8 with creche provision costing an extra £6 per hour. A non-members charge is also made of £4 for each attendance.

Within a one and a half mile radius is the beach and promenade, although this can only be approached on foot via a very steep hill or cliff top to beach 'zig zag' paths. This does have implications for individuals with young children and/or children in pushchairs, as the trip home from the beach is up a very steep hill, alongside a busy road. Within a one and a half mile radius of the area are cliff top walks, providing a view of the sea and coastline; however, these areas are poorly lit so walking in the evening in winter time can be seen as hazardous.

In 1997 the views of residents in the area under study here were surveyed. Results were produced in the Community Needs Analysis (Borough Council 1997), the main issues of concern were:

- Litter, dirty streets
- Empty shops/businesses and their facilities leaving
- Many charity or second hand shops
- Too many bedsits/the poor state of buildings
- Road congestion
- Poor condition of roads and pavements
- Parking problems
- Deprived appearance
- Apparent lack of investment
- High rates of crime
- Lack of facilities

The area has been the subject of a successful bid to the Single Regeneration Budget challenge fund using the above areas as the bids structure. This money became available in the year 2000. However by early 2002 staff appointments were still being made to manage this regeneration process, with the steering group having organised sub-groups to consider taking the expressed areas of concern forward.

The area under study is currently the 125th most deprived ward out of the 8414 wards in England on the health domain, and over 60% of children are living in poverty in this area (Primary Care Trust Business Plan 2002/3). Many of these families live in overcrowded or

non self-contained accommodation. One of the surgeries within this ward has the highest rate of referrals to specialist cardiac services within the region (Primary Care Trust Business Plan 2002/3).

Overall the borough has an image of an affluent town whose population enjoys a good quality of life; however life expectancy is not as good as surrounding areas. The borough has the highest mortality rate in the South West region for people aged 15-64, a rate which is higher than the national average. This reflects the higher than average rates of CHD and suicide among people of working age. Further analysis is needed to explain these high rates but it is thought that the deprived areas, one of which is the area under study here, cause these high overall figures (Primary Care Trust Business Plan 2002/3).

The high number of houses of multiple occupation in the area under study, added to one of the highest unemployment rates in the locality has led to raised levels of people entering and leaving the area. This figure is between 25-40% per annum compared with the national average of 9% (Borough Council 1997). This issue along with increasing numbers of asylum seekers in this locality makes health improvement work problematic for local practitioners.

4.2 Findings from the analysis of the interviews with the sample of women

Seventeen women were interviewed over a nine month period for the first stage of the study (March - November 2000). All women were aged between 18 and 45, and had lived within the area for more than a year. All the women were living on a low income at the time of interview with dependent (children under sixteen years of age) living with them, all the women were in receipt of income support.

On the completion of each interview the women were asked whether they would like to have a copy of the transcribed interview, and to discuss with the researcher the themes emerging from the analysis. Eight of the seventeen women interviewed undertook to do this. However, following the interviews to undertake this, only six of the women could be successfully contacted by the researcher. The remaining women either expressed a general lack of interest in "their own ramblings" as one expressed it, or felt that it would include a great amount of reading which they did not enjoy. Those women who did become involved in this process however generally responded favourably to their reflections, and to the emerging themes. However one of the women did not read the transcript, and was honest enough to admit this! The emerging themes were seen as relevant, and indeed as "common sense" to one of the women. Two of the women, when met with one year after the interview had occurred, still carried with them the transcripts, and notes on the themes emerging which they had discussed with the researcher shortly after the interviews. They felt that the interviews showed how much they had achieved, and what their life experiences were. The women seemed to use them almost as you would a diary, to reflect on your life experiences, as the women felt they had little time or opportunity for this type of in-depth reflection on their lives.

The analysis of the interviews with the sample of women is presented here using the structure offered by the areas considered in the research interview guide (see Appendix 2).

4.2.1 Health problems women suffer with

The women all offered similar answers in relation to the types of health problems women may suffer with; all the women (n=17) focused on reproductive problems and cancer.

> *"They would be kind of women`s problems like cystitis and thrush and more serious ones like cancer and cysts and stuff, anything to do with having children and things like that" (mother of three with partner)*

This could be due to the ages of this sample of pre-menopausal women, as the symptoms of CHD are more common in women in later life (Coronary Prevention Group 1994). The cancer which the women focused on was breast cancer, and more than half of the women mentioned it (n=10).

> *"Well I think women have obviously the breast cancer don`t they that is probably one of the most (common) I would say for women really" (mother of one with partner)*

4.2.2 Heart health

The majority of women interviewed knew of the relevance of a diet which is low in fats to preventing CHD (n=16).

> *"I would say if people ..... didn`t have full fat milk and also didn`t have butter, I mean, umm I buy Flora, as far as heart disease is concerned all I know is a low fat diet is obviously good for everything .... as it doesn`t block your arteries" (lone mother of one)*

The women expressed no concerns regarding immediate risks to their health resulting from their behaviour, this seemed to affect their decisions regarding smoking (n=10).

"It has not at the moment (affected my health) I still go swimming each week and try to walk as much as I can but personally I find it has not affected my health". "Well I think of (CHD) as something that affects you like you know later on, maybe that's wrong, but..." (lone mother of one)

This would infer that these women may be aware of some aspects of what causes CHD but they are unaware or are unwilling to express any awareness of the effect of their current habits on their prospective risk of developing the disease. The women appeared to consider CHD to be something that an individual may suffer with late in life and therefore not an issue for them at all in relation to their behaviour at this stage; this is supported by previous studies undertaken to consider this area (CPG 1994).

Knowledge levels varied hugely between different women, when they were asked to consider the main risks to the health of their heart, with responses varying from,

"smoking, diet, cholesterol levels, stress, exercise, alcohol intake I would think say they are the main ones", (single mother of one) to, "well I know the overweight does do it but otherwise I can't answer" (mother of three with partner)

When asked where they gained information regarding their health in general the women stated magazines, their GP, practice nurse or health visitor, while the younger women (aged 18-27) mentioned that they remember information they had been given at school.

When asking the women to discuss what kind of food was helpful to the health of their hearts it became apparent that their knowledge related to fatty food and cholesterol (n=16).

"cholesterol is not helpful I think...dairy produce, cheese, full fat milk, yoghurt, eggs, fatty meat, I assume its all the things with high fat content that are the culprits" (lone mother of one)

Knowledge related to fruit and vegetable intake related to a generally healthy diet, and specific knowledge of portions recommended (Five a day strategy, NHF 1997) was lacking, one woman out of those interviewed was aware of this advice. This woman was in the age 18-27 group and had left school with `A` levels.

The researcher soon became aware that if she used the word diet in discussions with the women then misunderstanding would occur, the researcher would mean food intake, the women would mean trying to lose weight.

"Well I would say really you know diet makes you feel you can`t eat anything" (lone mother of two)

Indeed when the discussion was focused on eating healthily many of the women could only think of this in terms of being able to lose weight.

When asked to recall knowledge relating to healthy eating, advice on weight loss was mixed readily with healthy eating advice, and eating healthily related very strongly to losing weight
(n=12).

"Well what I would consider healthy for me is eating loads of salads and cutting out cheese and chips entirely, then in the evening ... like a small amount of fresh vegetables and meat." (Single mother of two)
"Eating healthily means to...look at the nutritional value on everything you buy...I mean the way I have been trained with the Rosemary

Connelly is anything that's under 4% fat you can have, but anything over is just too much." (lone mother of one).

Provided the food intake knowledge and behaviour is healthy then dividing down the knowledge into specific areas such as health and weight loss is inappropriate and unnecessary. However some of the comments from the women relating to dieting to lose weight showed inaccurate assumptions and a tendency to reduce their food intake inappropriately to loose weight (n=9).

*"**So how do you try and lose it then if you are going to**...well I try and cut out things like cheese and stuff, I try to eat less...you know very little I can go OK for a few days and then I end up sort of pigging out" (lone mother of two)*

with comments mentioning potentially inappropriate reductions in food intake.

"Yeah, grilled chicken and salads I guess.....the trouble is those things don`t fill you up though...you know I will walk around town with the kids for ages and then think well done and have a biscuit". "The other thing I have tried is like hardly eating anything and I lost weight then, but as soon as you start eating again it comes back doesn`t it" (lone mother of three)

The women were aware of what generally constituted a healthy diet, namely eating fruit and vegetables each day and having less fatty food as has been found in other studies (HEA 1989), although as the interviews and analysis progressed it became clear that the women were unaware of the details of healthy lifestyle advice, such as portions of fruit and vegetables recommended a day, or units of alcohol recommended per week.

From local investigations in the area (Lucket 2000) of dietary patterns of families and extended families on low income the following points emerged:

- Mothers are mainly concerned that their children eat what they are given, and less concerned that what they are given is a balanced diet.
- As the lifestyle of some families lead children to assert their independence earlier, they are given control over helping themselves to snacks and drinks throughout the day as and when they choose, without parental guidance.
- Where there was the traditional `generation gap` between parents and grandparents, and these grandparents took an active role in the extended family scenario, visiting grandchildren experienced more traditional balanced meal patterns.
- Grandparents appeared to have a greater appreciation of the valuable contribution fruit and vegetables make to children's diets.
- Some children said it was more common to eat fruit when visiting grandparents than at home.

As the majority of the women interviewed (n=12) had lost touch with their families or fallen out with them, these findings in terms of the benefits of this kind of social support, or lack of it in this population are relevant.

As already mentioned the women all seemed to be unaware of the specifics of current advice given, both in relation to portions of fruit and vegetables recommended per day or numbers of units of alcohol, which are beneficial or harmful (NHF 1997),

> *"its not something I paid attention to"*, (the number of units) *"I think its eleven"* (a week) *(lone mother of two)*

4.2.3 Exercise habits

All of the women`s responses indicated that their exercise habits were controlled by their circumstances, and how they felt about themselves.

"All the (local) classes are expensive though you know that puts me off really, and that everyone`s skinny you know, I would look silly I think...its the time and money to do it (mother of three with partner on benefits)". "I would love to go swimming but I just can`t, I would need someone to watch the kids you know. I don`t like going where you need to dress up you know not somewhere full of posers, because then I feel awful about being too fat and stuff" (lone mother of two)

The social aspects of exercising were commented on (n=7).

"The attitude of the place you go to, I have been to various different exercise classes where a lot of people seem to be more interested in what type of trainers their wearing" (mother of one with partner on benefits)

Some of the women felt that they needed company to encourage them to exercise (n=8),

"I think classes or groups are good because you have got more encouragement on my own I don`t do it at all", (lone mother of two) "I like to do exercise with friends you know, I wouldn`t do it on my own" (lone mother of one)

In addition the cost of exercise was commented on extensively (n=13).

"Cost, like the swimming I would like to be able to walk to a local pool and afford to get in, I take them (the children) out on their bikes I have not been able to afford a bike myself yet....it`s not enough but....I would be happy to have a bike so I can go cycling so I can pick them up from school on it."(mother of four with partner on benefits and caring for elderly father)

The women did mention walking locally within their responses regarding exercise, however this was viewed as more of a necessity than a benefit as so few of them had access to cars (n=4).

For those women who did do some exercise regularly they were enthusiastic about the benefits of it, (n=4).

> *"I think you know if you feel a bit good about yourself and your clothes fit properly then you feel better about yourself" (single mother of one)*

> *"I know when I'm feeling down I know that getting back into my exercise routine of going three times a week, it lifted me you know" (single mother of two)*

> *"I do like doing it I find it enjoyable and I feel so good the next day, afterwards and the next day I just feel better" (mother of one with partner on benefits)*

> *"it created a sense of well being in me I feel like, yeah, I mean like I said weight is a big thing in my life so I suppose at the back of my mind I am always thinking yes I am burning of the calories...I know that when Lucy is sort of running around I will not be all out of breath trying to catch her up...I can sort of run with the best of them it makes me feel better" (single mother of one)*

All but two of the women walked for more than thirty minutes per day, every day usually in relation to activities with their children.

Half of the women interviewed were aware of regular exercise as important to maintaining the health of your heart (n=9),

"I think if you did not exercise (that would affect the health of your heart) because you need to accelerate your heart rate" (lone mother of three)

"not enough exercise" (mother of four with partner on benefits and caring for elderly father)

Most women felt that some exercise everyday was needed (n=12),

"Well I think a little and often is best, not like two hours in an afternoon and then nothing for the rest of the week sort of thing" (lone mother of two)

"like fifteen minutes of brisk walking up to the school and back" (lone mother of one)

One of the women interviewed however had a different understanding

"is it three times a week, twenty minutes sort of heavy breathing exercise" (lone mother of one)

Health education which has attempted to give specific advice seems not to have been retained well by the group of women interviewed. Awareness of specific amounts and types of exercise recommended for a healthy heart was lacking as was specific awareness of amounts and types of alcohol, and fruit and vegetables recommended.

4.2.4 Eating habits

When discussing a typical day's food intake for the women many of them stated that they tended to miss out breakfast, even though they knew that this may not be a healthy option for them. Their reasons for this mainly related to the demands of

preparing their children for the day ahead. Most women reported an average of 2-3 portions of fruit and vegetables per day.

Most of the women reported that they felt they ate late in the evening (n=12), and may `pick` at different foods during the day, whilst showing awareness that this may not be the best time to eat in terms of their health.

> *"umm, and a really huge meal late at night, which does not help, I have my tea either with the kids or really late at night you know with my husband, after these three have gone to bed" (mother of three with partner on benefits)*

The reasons given for this related to needing to eat after the children had gone to bed, to `get some peace`, partners' preferences, tiredness and boredom.

Both children (all the women interviewed had children under 16 living at home) and partners' preferences (7 of the women were living with a partner at the time of interview) affected the dietary choices and habits of the women, as one might expect, as indeed did not having a partner.

> *"I think its boredom as well a lot of the time (related to snacking) you know once the kids are in bed, watching TV instead of getting on with the things I should be doing like sorting out the bills, its like your so tired (lone mother of two)".*

The comments the women made on their partner`s dietary preference showed a marked tendency towards fatty foods and away from fruit and vegetables (n=6),

> *"he is very much into big fatty dinners...I mean I keep saying to him eat three meals a with fruit between and that would help a lot..." (mother of one with partner on benefits)*

"You know bacon, eggs, chips, sausages, he does not like salad I eat more at the weekends you know when I`m off (work), he likes bacon and eggs and chops and chips you know things I may not eat without him, because I am doing it for him I do it for myself" (mother of two with husband on benefits)

These comments would indicate that a partner`s likes and dislikes influenced choice in a direct manner. Indeed this effect may be exacerbated by a lack of material resources for the women,

"going out to buy something for me all the time, and like there was always salad going bad in the fridge, it was wasting money" (mother of two with partner on benefits)

"I can`t make something different for me and S and the kids, its too much.....(he likes you know bacon, egg, chips, sausages, he doesn`t like salad really" (mother of three with partner on benefits)

Women would state that they ate what the kids would like, and what they would eat (n=14),

"well McDonalds she loves it so its like every time we go past...its like a million calories your stuffing into you" (lone mother of two)

*"**What kind of things do they (the children) like**, well chips you know and fresh meat....they will eat pizza. They don`t get to choose on Sundays you know otherwise they do you know. I try to keep everyone happy you know in the house" (lone mother of three with partner on benefits on anti-depressants)*

*"**What do you think affects your decisions about what you eat, yourself,** well the kids you know I let them decide about what they will have for tea and then they will eat it" (lone mother of two)*

The eating habits of the women would also be affected,

"yeah something I can do quick normally, something and chips. I am awful because I pick at the kids food as well and because I am not eating proper solid meals its like what can I pick at and eat it quickly before the kids see it and they want some as well" (lone mother of three)

A vision of what is `childy` food is of course perpetuated by current food marketing and supply, both through restaurants and take-aways with their stereotypical children`s menus where every meal is served with chips; and through supermarkets who sell and advertise food for children as `copy-cats` of what is available through fast food chains. Television food marketing during television programs designed for children is very much focused on ready made `fast food`, some of which of course is not unhealthy in itself but when it makes up the bulk of the diet of a child may become so. In addition when one is alone dealing with the demands of feeding young children in what may be less than ideal physical surroundings the appeal of food which is quick to prepare and easy to clear away afterwards is considerable.

"Because of the way this flat is, the kitchen is away from the lounge, its not like I can even watch her in the lounge from the kitchen...she sometimes will sort of sit and help... I guess I would have room for improvement (in relation to her own and her children`s diet) if the circumstances were different" (lone mother of two).

Graham`s work (1987 p.43, 1993b) indicates that even though women may be aware of the harmful effects of cigarette smoking, when they are looking after children on a low income they may see smoking as their only luxury, and the only thing they do for

themselves. However the women interviewed in this study saw their dietary choices in a similar light (n=12).

"I think I can eat on my feelings you know comfort eat....yeah its kind of my only vice or the only one I have left. I don't drink so...its kind of the only thing" (lone mother of two)

"I have been this long (not smoking) I am not going to start again now, so umm I do drink (sweet) tea a lot and I think that is sort of a substitute really you know...." (lone parent of one)

"during the day I just snack really and I eat more sweet stuff...I got a sweet tooth when I gave up the smoking and that has sort of stayed with me I can't get rid of it" (mother of three with partner on benefits)

Economic influences on food choices were also apparent (n=10),

"well for the last week we have had chips, I got a load cheap you know, and I try to do vegetables, you know fresh we do not have a freezer, so you know I go and get them" (single mother of three)

*"**So if you were to describe an average day's food for you...** that would depend on what sort of day it was, how much money we had, where we had been during the day (lone mother living in bedsit with daughter)".*

The practical problems relating to preparing food while caring for young children, in potentially unsafe surroundings were apparent. The majority of the women interviewed lived in private rented accommodation in an inner urban area and expressed concerns over the standard of cooking equipment and food storage available. The women stated that often grills/cookers did not work or were not present

thereby preventing or limiting food preparation capacity. Indeed the women stated that in some local accommodation only a micro wave was present with no sink or food storage facility at all; fridges and freezers may be faulty or absent and their contents may be vulnerable to theft,

> *"When I was living in a B & B (we were homeless) and I had to give my children take-away. The guilt and worry to me because I was not feeding them properly was awful, I had nowhere to do anything" (lone mother of two).*

while if all food had to be stored prepared and consumed in the same room then worries over accidents during preparation and disposal of waste were concerns. As already mentioned circumstances within a family may lead to children snacking inappropriately. The comments and observed behaviour within this study showed that food may be used in difficult circumstances as a distraction or a pacifier, or indeed a reward. If one is caring for children on a low income the only achievable treats may be in terms of snacks and drinks, as trips out, toys, games or clothes may be well beyond the family budget, thus increasing the risk of childhood obesity, and lack of exercise.

4.2.5 Smoking habits

The majority of the women interviewed were lone parents of between one and four children (n=10), and the majority of the women both with and without partners at the time of interview were smokers (n=10). Only one of these stated that she had not thought about giving up.

The women were aware that smoking at that time had a detrimental affect on their health, mentioning coughs, colds, flu and yellow teeth. When asked overall what kind of health problems related to smoking the women still came up with the areas

outlined above. None of the women mentioned cancer in relation to smoking, one woman mentioned circulatory problems.

> *"**What kind of health problems do you relate to smoking**, breathing problems, general problems about being fit and not being fit" (mother of one with partner on benefits*

However the majority of comments focused on breathing problems (n=14),

> *"there was a time when I could not breath I was so wheezy. I had a cold last week and it was straight onto my chest" (lone mother of four).*

These comments however also linked other aspects of their circumstances to these health problems (n=5).

> *"I always have a cough, well the house is a bit damp anyway but you know in the winter I always have a cough until the weather's better that is the smoking, I started when I was fourteen you know and I had lots of energy then...." (mother of three with partner on benefits)*

The reasons given for smoking were similar among all the women who smoked and related to previous research on this area (Graham 1993a),

> *"if its stressful, you know I pick up a cigarette and its OK, its a de-stressing thing. I don`t drink and I don`t go out because of the kids, so its my luxury" (lone mother of three).*

Graham's (1987) work on deprivation and smoking stated that often women feel that smoking is their way of dealing with the stress of their lives, and their only luxury. The analysis of the interview transcripts within this study would support this view.

"Stress for me, leads onto the smoking you know and that leads onto other problems doesn't it" (lone mother of two)

As already stated here the women considered smoking as their only luxury in a life otherwise quite often devoid of activities which were for them alone. Smoking punctuated the day and it was an `adult` activity, in a life often filled with children and having very little contact with other adults. From their responses to questions focused on how smoking may affect health they are either unaware or choose to disregard the health warnings on cigarette packets, for instance. Often the women smoked during the interviews and even when asked these questions would not consult the cigarette packets which may be in front of them. Their responses to questions about smoking and their own health focused very much on their current or recent symptoms related to smoking.

4.2.6 Post natal depression

Five of the women interviewed felt that they had been depressed following the birth of one or more of their children, with several (n=3) reflecting on their changed circumstances and the treatment they had received.

"It was very hard and the room was not as big as this, I could not get away from her crying all the time... but then I was not very happy I suppose and they know that" (living in B & B with a new baby, her flat having been repossessed after splitting up with partner)

The process of being diagnosed with post-natal depression was reflected upon by two women,

"I kept going to the doctors for little things, I was so scared that he was going to say well you're not coping if you're that depressed then we are going to take her off you, so I never really went (for that) I was hoping that he would kind of notice" (lone mother of one).

This process seemed to take a considerable time, and required in some cases repeated visits to the doctor's.

"It took three years before (I was diagnosed) and I just went in there for something, then he realised, he just kept apologising ... he put me on that one that everyone takes (Prozac) to be quite honest I did not like it at all but he kept monitoring me every month or so and I did start to feel happier and it wasn't the fact that...I did not take them for very long, he does not know that because I did not want to take anything really. But to know that he knew how I felt and to know that he was listening and talking to me and that my flat was much nicer (getting a housing association flat) I think that is what really did it" (lone mother of one).

The circumstances changing are what counted for this woman in relation to relieving her post natal depression,

"Well after I had him I had some post natal depression...and also difficulties in my relationship that get me down, there have been so many changes since we have had him we have struggled to keep the relationship going and that really gets me down. I have suffered a lot of depression I had a short course of anti-depressants... and I was advised to (take them) but I didn't because I was worried you know about taking them" (mother of two with partner on benefits)

One of the women interviewed had experienced two births followed by depression before she was diagnosed,

"I didn't get it until I had F, then when I had N four years later I was bad again and they said that it was post natal depression, you know that had not been sorted out. I am on a repeat prescription with that now

though (after the birth of a third child) so it's all right. If I don't take them you know for a couple of days I'm back down again so I keep it up. You know happy pills. I feel better you know if I get out and about you know when its cold with the baby though its hard" (mother of three with partner).

The women would often experience changes in their relationships or economic situation which occurred at the same time, or due to the birth of a child (n=5).

"I mean I don't know, going straight from a full time job to then looking after two children (on her own after the departure of her partner) is a bit of a shocker, a shock to the system and then I have had a series of things happening you know...I had post natal depression." (lone mother of two).

The women within these interviews were keen to reflect on the changes involved in becoming a mother, both economic and in relation to their mood (n=10),

"I also find I love being a mum, but if I am just a mum I can get quite depressed, if I am not doing anything else as well and I was (before the birth of her baby) ....and that was really great I felt like I had a life outside" (mother of one with partner on benefits)

Post natal depression is not confined to families on a low income but if not recognised and treated can greatly affect the health of both mother and children (Doyal 1995). As reported here five of the women interviewed stated they had been depressed following the birth of one or more of their children, and three of those women experienced difficulties, or delays with diagnosis and support. In considering these reflections on this area however it is relevant to note that the circumstances the women found themselves in, appeared for them, to precipitate or aggravate their problems. The responses of the women provide a reminder of the importance of early

recognition, and partnership working with other agencies to improve the circumstances of women thereby helping to maintain the health and quality of life for the woman and her child/children who find themselves in this situation.

4.2.7 What influenced health behaviour?

Occupational psychosocial factors which have been shown to affect CHD risk adversely (Karasek and Theorell 1990) have been identified within the demand-control-support model. This work has shown that the less control and support one perceives one has at work and the greater the perceived continuous demand the higher is one`s risk of suffering with CHD. These three factors all emerged clearly as perceived elements of the lives of these women, although the concept of work needs to be seen as all work paid or unpaid for these women including the caring duties they undertake. The majority of the studies considering this model were undertaken using a sample of men; however a study done in Stockholm puts the risk of having a first heart attack as higher in women than men in gender specific samples, and other work suggests that if these three factors are combined with shift work then the percentage of risk related to these factors increases again (Marmot and Stansfeld 2002). These three elements demand, control and support emerged as relevant for all the women interviewed; however, these three factors were particularly apparent within the lives of single parents (the majority of the women interviewed n=10).

In a large study carried out in Sweden on men, (Karasek 1990) the combination that carried the highest risk was: a hectic work schedule, lack of influence over working hours and lack of influence over planning. These three are the major factors which emerged from discussions of the lives of these women particularly in relation to their health and lifestyles. A quarter of the women interviewed were in paid work; however none of the women were earning enough to escape benefits. Therefore the emergence of the three areas outlined here for the women interviewed related to their lives both inside and outside the home.

In some European studies undertaken there appears to be a striking association between measures of poor psychosocial work environment where these three factors have been identified by employees as accurate descriptors of their jobs, and risk of CHD (Theorell and Karasek 1996). In addition the Whitehall study showed that those who described low decision latitude had a greater relative risk of developing CHD and the relationship was significant after adjustment for negative affectivity, social class and biomedical risk factors (Bosma et al 1997). Of the many studies which have examined this association, the majority have shown a positive link. Indeed "when an evaluation of psychosocial working conditions is used poor working conditions may increase the relative risk of CHD by between 20% and 100%" (Theorell 1998).

The three areas which emerged from the interview data as negatively influencing health behaviour will be considered here individually, beginning with high workload demands.

4.2.7.1 High workload demands

The burden of caring for a child or children on a low income (n=17) will expose an individual to high or continuous work demands, often, for the women interviewed in difficult circumstances.

> *"Yeah, she needs watching all the time... its not as easy as if someone else was here and I could just get on with it... I could improve (our diet) if the circumstances were different" (lone mother of one)*

This woman was living in a bedsit, with her ten month old daughter; the shared kitchen had no door and outside there were open stairs. The demands recounted by the women are seen as relentless and all consuming,

> *"yes I can (make changes) but its all... I mean my whole way of life centres around her really" (lone mother of one)*

It is relevant that within previous studies smokers who are experiencing high psychological demands find it more difficult to give up smoking and are less likely to quit (Green and Johnson 1990 & Karasek 1990). Indeed this view may be enhanced by complementing it with the view of Kaplan et al. (1982) which has been applied to the occupational demand, control, support model. He asserted that in many occupations the smoke break was one of the few legitimate reasons for a worker to take any rest break on the job. Indeed tense employees may not stop smoking even if they know it is dangerous to their health. Smoking was also seen as a response to the stresses and strains of every day life for these women. Several of the woman recounted stressful periods in their lives which had re-started them smoking or had stopped them or their partner from quitting (n=7).

> *"I did stop though for two and a half years and then (brother in law) committed suicide and it started me off again" (mother of three with partner on benefits)*

The women interviewed felt that it was `stress` that made them ill (n=17). When asked what caused them stress they reported that the demands made upon them were unmanageable at times.

> *"Worry you know any kind of worry and stress really (makes me ill)" (mother of three, also caring for disabled husband at home).*

The demands and frustrations experienced from managing on a low income were apparent in many aspects of their lives.

> *"Stress often, makes women ill, I just think they take on too much and they feel responsible for everything...well like running a home, working out the bills it's all too much and we can't cope" (single mother of two).*

Traditionally the organisation of work within the home has been theorised in contradictory ways; some have emphasised the worker`s autonomy in this setting with others emphasising how the work is constrained and controlled (Cowan 1983). These contradictory analyses are led by the vision of work as designated by a traditional `paid work` model with individuals seen as either employee or employer. In fact house work tasks may not be clearly defined in this way; many are invisible, based on a tacit understanding of what is needed and not clearly acknowledged even by those who do them (DeVault 1991). Rewards for housework may be very uncertain and are driven by others, who may or may not recognise the work done, as well as those who do them. Individual women grow up in unique households and very few have a real window into other households. Therefore routines of work are learned mainly through childhood experience and `working` experience, thus part of the work is to judge how much to do and what needs doing. Therefore those who work in the home are neither `boss` nor `worker`, but individuals organising their endeavours in line with the needs of others, and guided by their preferences and demands and by their own concept of `family life` and the limits of their material circumstances.

All of the women interviewed stated that they suffered from feeling stressed at times. Stress was seen by them as the pressures of dealing with the demands of everyday life and relationships, and was seen as relating directly to mental and physical health.

> *"Stress can lead to...mental (health) problems you know, definitely heart problems as you get older, I know it can lead to smoking..." (lone mother of two)*

Several (n=7) of the women had experienced periods where they stated they could not cope with the pressures of their lives,

> *"about two months ago I was very tired and finding it hard to cope, normally I am easy going and on top of things I was just knackered" (lone mother of two).*

Stress in relation to CHD has been defined as including a range of psychosocial factors that influence health and disease, either indirectly, by influencing risk behaviour, or directly, by affecting neuroendocrine or immune functioning (Stansfeld & Marmot 2002). Therefore, the coping mechanisms these women described for the demands and stresses of their lives such as smoking (Graham 1988), or drinking, or over eating and weight problems may be influenced by stress and may affect their future health and health behaviour.

When asked what made women ill the responses of the women focused on unmanageable demands, causing stress and mental health problems, and they showed a holistic view of themselves and their health.

> *"Stress any type of stress then it can lead onto other health problems.....that is the root cause of everything" (lone mother of one)*

The women, when reflecting on how stress affected them, offered considered insights.

> *"**How do you think stress affects you?** not sleeping well, a bad diet and feeling bad about myself in general.....getting lots of illness" (lone mother of two).*

When asked what caused stress for them the women reflected on elements of their overall circumstances.

> *"Money and family problems, work or lack of it", "I think money .... really I think that affects your health because if you haven't got enough I mean to pay the bills or you see other people have got nice clothes....and you have not then that can make you very run down and*

very miserable and then that affects your health because depression is all to do with your health isn't it" (mother of two with partner on benefits)

Their responses all corresponded regarding these causes .

***"are there any particular causes of stress**, children or your marriage or money, normal things really, the demands of family life and lack of money, that is the big issue" (mother of one with partner on benefits)*

The women articulated repeatedly and consistently the causes of their stress, and saw this very much in relation to their own responsibilities, and the demands placed on them, both in looking after themselves, their partners if they had them and as mothers.

"Stress and tiredness I suppose....I think it sort of starts from how you look after yourself...you get tired and rundown and you get prone to illness" (single mother of one)

"If you are tired and run down which mothers usually are anyway then umm its very difficult not to pick up things" (lone mother of two).

Indeed all the women viewed their lives in the context of others' lives, their family, partner, children and friends and expressed views on their role and the demands made upon them within this context.

"You can wear yourself out...women sort of keep going during the day, especially when you have children you have to keep going until everybody else has gone to bed and then you're still going so I think you have to have more stamina if you are a woman. So I think women can get over tired and not realise it" (mother of two with partner on benefits).

An issue for the women which emerged consistently in relation to their circumstances was the lack of affordable local child care (n=15).

> *"For me child care (is one of the main things that cause stress) one of the banes of my life which can bring on things like stress and worry...like having places where you can actually like hand him over for an hour it really helps" (lone mother of one).*

The demands of living alone with children were again apparent.

> *"I think just day to day living and not having anytime for yourself that can (affect your health) I mean when you have got a child or whatever you do not really have anytime for yourself, I mean you cannot just go as you please" (lone mother of two)*

4.2.7.2 Taking control

Receiving benefits or working at a low pay, low status job may expose one to a low level of decision latitude or sense of control (Blackburn 1991). This is the second area emerging from the interviews with the women, and outlined within the demand, control, support theory (Karasek & Theorell 1990). If one has no influence over when or how one receives one`s benefits for instance, or is unable to influence how, when or where one works makes one becomes lacking in control. The women interviewed appeared to have little control over where their `work` either paid or unpaid took place, they took accommodation because they could afford it and work because it was flexible to fit in with the caring demands placed upon them.

When asked to consider their dietary intake the decisions the women made were clearly controlled by their children and those they lived with. The majority of the women interviewed considered themselves to be overweight at the time of interview, and all these women had tried different methods to control their weight, many of

which had incurred a cost and had proven to be ineffective. The most common change in health behaviour attempted by the women interviewed was undertaken in order to lose weight or quit smoking. Ten of the women interviewed had attempted to take control of their weight; this was attempted most commonly by altering diet.

The women expressed feeling out of control in relation to eating (n=9),

> *"it's like a roller coaster once you start putting on the weight....I am back up to that stone (previously lost) and more now". "Made myself miserable about it....being paranoid about oh maybe I should not eat...I ended up getting over stressed about it....I was calorie counting I had just got completely paranoid" (mother of three with partner on benefits)*

Most commonly the women would experience problems with their weight in relation to having children and then find the weight very difficult to control once the baby had arrived. They reported feeling unsupported in their attempts to lose weight (n=8).

> *"When I first had a baby and put on loads of weight I didn't really know how to lose it properly I know a lot of women in the same position as me and they were getting depressed...they couldn't get no help with it...I went to weight watchers in the end but a lot of women can't afford to and I think they get in this cycle of being depressed" (mother of three with partner on benefits)*

The women who felt overweight linked both the eating and feeling overweight with their mood (n=8),

> *"weight is a very big thing in my life...I was very depressed I went to the doctor's and they sent me to the hospital...I gave way with that really...I used to exercise quite a bit before I had L" (lone mother of one).*

The women linked their emotional state with eating (n=7),

> *"I was at it (weighing myself) every week and I was getting in such a state I was coming out of the shop crying". "If I don't see it going down then...I get upset" (mother of three with partner caring for disabled husband at home)*

In addition they saw their mood being affected by how they perceived their weight, and whether they could control it (n=5).

> *"I can go OK for a few days and then I end up sort of pigging out and sometimes I think I can eat on my feelings you know comfort eat" (lone mother of two)*

> *"I shouldn't eat like umm fried foods or umm cheeses...and then I start like eating it feeling depressed and I know I have put on loads of pounds and then you know feeling more depressed with a cycle like....its hard to break I think" (lone mother of two)*

Of all the women interviewed ten smoked at the time of interview and nine of those women had attempted unsuccessfully to control their smoking habits and quit. These results reflect recent studies which have shown that smoking is becoming concentrated among the poorest in our society, particularly those with children (HDA 2002). In addition the three-fold increase in lone parenthood during the last twenty-five years has increased the scale of poverty. Smoking rates now differ very little between men and women. However 73% of adults in low income families are women. High rates of smoking in this group are not however associated with excessive alcohol intake (Marsh and McKay 1994). The women in this sample group averaged between one and two units of alcohol per week. Indeed within the group of women

interviewed the financial constraints were expressed as a reason for controlling ones drinking (n=6).

> *"**What is your tipple when you go out**, umm cider or bacardi and coke depending on how much money I have got, the poor man's one is cider and the other one is when I am feeling flush or when someone has bought it for me" (lone mother of two)*

In addition to the constraints of caring for young children (n=4).

> *"I mean I will go out but I won't be loaded so that I can't deal with my children when I come back you know I will have had quite a few but I am merry I am not drunk or anything" (lone mother of two)*

> *"Yeah you can't just come back out of your tree" (lone mother of three)*

All of the women had developmental plans either study and/or work related and expressed the desire to take control of this area of their lives, or reflected on having tried to do so unsuccessfully. Their attempts were most commonly inhibited by caring responsibilities and financial constraints, with no realistically priced and reliable child care being the main factor. Glendenning and Millar (1992) discussed how women are defined and confined traditionally as secondary workers for two reasons; firstly their economic working lives must come second to their caring role, and secondly as they form a majority of those whose work is characterised by its part-time, casual, short-term low skilled nature. It is unlikely that an individual whose study/development plans are blocked will be able to move from this type of employment. In addition this type of work will not provide statutory maternity benefits, thus the contingency that affects many women and no men, pregnancy, is inadequately supported within this employment picture.

As in the U.K. the educational attainment and social status of an individual appears to affect their risk of developing CHD; this frustration and blocking of ambition may be relevant in the long term, but also causes frustration and reduced perceptions of control within the short term. Karasek & Theorell (1990 p.32) discuss `feeling like your feet are stuck to the floor` in high demand, low control situations and how this can cause psychological strain which may result in physical illness. In addition the educational attainment of parents and their interest in and whether they value education will affect the achievement of their children. European research (Hupkens et al. 2000) indicated a direct relationship between the educational achievement of mothers and the degree of family health consideration given to food. Mothers with higher educational attainment considered health more frequently than cost. They applied more food restrictions and were generally less permissive (with indulging the preferences of children), than mothers with low educational attainment. Diet in infancy was shown to be mainly influenced by the culture, employment and coping skills of mothers which influenced choice of breast or bottle feeding and the too early introduction of solids. Within this study the educational attainment of the women ranged across the spectrum of no qualifications to `A` levels and in one case a university Diploma. However one aspect of educational development which the women did share was frustration in relation to their plans in this area, due to their perceived lack of control over factors which blocked their development. In considering their responses the main block to their educational development appeared to be the lack of reasonably priced reliable child care, and lack of other sources of child care and support.

Some women had down sized their work ambitions if they were alone caring for children, even though they had educational qualifications which would allow access to a variety of occupations. The reasons stated for this related to the need to have little or no responsibility at work, so if there were problems with illness or childcare they were not `letting anyone down`. Taking on casual work seemed to be one way for the women to attempt to control their circumstances and seemed to be appealing as one

could leave or not attend if one`s caring responsibilities needed to take precedence (n=13).

> *"Something where I can just clock in and clock out I don`t really care how mundane. If the children are sick I can phone up and say they are and I am not letting anyone down" (lone mother of two and trained operating department assistant).*

Interestingly Karasek and Theorell (1990) have stated that low pay low status jobs are often demanding and lacking in real or perceived control and decision latitude. Most notable is the large number of these occupations populated primarily by women. The women in the study who worked primarily undertook jobs such as waitressing, sewing, child care or shop work. Multiple casual jobs took preference with as the women saw it `low levels of responsibility`, and which would fit in with their caring responsibilities. Karasek and Theorell (1990) consider that it is not the demands of work itself that increase CHD risk within the demand-control-support model but the organisational structure of work that plays the most consistent role. They theorise that jobs with low control, high demand and low support waste the individual`s potential. This was a potential outcome for these women, both inside and outside the `home` environment, of which the researcher was made acutely aware during the data collection and analysis process.

None of the women interviewed had internet access in their own home for themselves or their children and they were unable to control or influence this situation, as in rented accommodation the likelihood of having an extra phone point, as well as the expense of purchasing a computer was considered by the women to be an unattainable goal. In the U.S.A this issue has been termed the `digital divide` (Harker & Hemingway 2003) as it has been recognised that educationally, children may be disadvantaged by having no internet access throughout their education. In addition individuals in this position have a greatly reduced potential to practice and develop their general I.T. skills.

In relation to exercise the women stated that their control over whether they exercised or not was severely limited by finance, mobility, safety of local areas to exercise in, especially in the winter months, and child care responsibilities. If the women had to pay for child care as well as having to pay to attend a class with the additional cost of travel in order to attend a class in this locality, then any regular commitment was outside their budget. Once again these factors include the high level of demand caring for children placed on the women, as well as in some cases caring for sick partners (n=1) or ageing relatives (n=1). Their low budget and lack of car access (in most cases) inhibited their control over whether they attend exercise groups or classes, while if they have no social support to enable them to relinquish caring responsibilities, then again their decisions and choices were inhibited. In relation to their children and exercise many of the women expressed anxieties over the level of traffic and the resulting dangers inherent in allowing their children out to play in the local area. In addition anxieties were expressed over the safety of the limited play areas provided locally, as they had found syringes and needles both in the gardens of their own homes (normally houses of multiple occupation) and the council play areas. Anxieties were also expressed regarding paedophiles who may put their children at risk while playing, and in some cases the women felt that ex-partners may put their children at risk, either due to the risk of violence or abduction. Thus the children were kept in to play at home, often in a home which in itself contained dangers such as un-screened fires and unsafe cooking facilities and stairs. These caring strategies are pragmatic within the realities of the families' circumstances; however the end result may be more sedentary children and adults and an increased risk of accidents in the home.

In discussing increases in CHD related to income and educational attainment it has been theorised that they are almost certainly proxies for something else (Syme 1989, Patrick and Wickizer 1995) and that control over one's personal and professional life, or social cohesion and sense of community could be the real determinants of the increase in risk normally associated with income and education.

4.2.7.3 Social support

The women interviewed gained little social support (the third area arising from the interview data analysis and outlined within the demand, control support model) (Karasek & Theorell 1990) as few of the women originated from the area. The majority of the housing stock consists of houses of multiple occupation and the annual turn over of population is high, more than 25% (Housing Report, Borough Council 1997) annually, although all of the women interviewed for this study had lived in the area for more than one year. If the woman did originate locally then they had often lost contact with family members as already mentioned. The majority of support the women received was from other women in the area in similar circumstances to themselves while the local health professionals and church groups were seen as supportive in times of crisis. A lack of social support for the women and her children may be an issue if changes in accommodation and/or employment take place on the birth of a child or further children. Changes which occurred to the women in the study and their children commonly on the breakdown of a relationship, which often results in a reduction in income and a change in accommodation (Child Poverty Action Group 1998).

When the women had been successful in losing weight they reported needing support from family, friends, co-workers or practical support to achieve it (n=5).

> *"Because I done it when I worked at..... with other women and you had to pay a pound a week and you pay an extra one if you put weight on, whoever lost most first would be the winner of the money...we all supported each other and it worked really really well" (lone mother of two)*

> *"Little things that like get in the way like I was going to slimming world I was doing really well but the girl who was babysitting stopped*

coming or couldn`t come and then I didn`t find someone else you know" (lone mother of two)

*"**What do you think would help you**, I think the biggest thing would be somebody maybe monitoring what I am doing and helping me every step of the way....that's the only way really, I guess I would have to pay" (lone mother of three)*

"I think classes or groups are good because you have got more encouragement, you know on my own I don`t do it at all" (lone mother of two)

All the women had tried to change their diet at some stage in their lives. However when asked if their partners had joined them in this change the answers tended to the negative, and the issue of men being overweight was perceived differently.

*"**Did your partner try (the healthier diet) with you?** "No well he`s like a rake and really picky about what he eats, so umm, he wouldn`t eat a salad it wouldn`t fill him up, oh no" (mother of one with partner on benefits)*

"he has put on weight himself but it doesn`t seem to matter so much for them does it you know" (mother of one with partner on benefits)

Three of the women interviewed referred to having suffered with eating disorders in the past; no women were interviewed who stated they currently suffered with an eating disorder.

Smoking cessation was another change of health behaviour which most (n=9) of the women who were smokers at the time of interview had attempted. Those who had

been successful reported having either the support of their partner or friends/work colleagues to achieve this.

> *"I gave up smoking, me and my husband had a pact I would give up smoking and he would give up drinking and driving" (mother of two with partner on benefits)*

Others who lacked support, particularly from their partners, reported that this hugely affected their ability to quit (n=4),

> ***"will your partner give up do you think (to support the women giving up smoking),*** *he says everyday oh I won't buy any tobacco I am giving up tomorrow but then I just laugh at him...(he never does it) no" (mother of one with partner on benefits)*

> *"I do know how it affects my health, breathing as I am actually asthmatic and umm, its sheer stupidity sometimes, but then if I have a bad asthma attack I do not smoke for a couple of weeks anyway. But then with my partner smoking it's very difficult to give up. If both of us were to give up at the same time...." (mother of one with partner on benefits)*

Again the women referred to support being needed to give up smoking, both in terms of their partners and their friends (n=5).

> *"I think having friends around to support you...I don't have any friends who are not smokers they are all smokers everyone I know is a smoker" (lone mother of two).*

These comments also applied to women who had successfully given up (n=1),

"I gave up smoking, umm me and my husband we had a pact when we first met" (mother of one with a partner on benefits)

Four of the women who smoked at the time of interview had given up smoking while pregnant, but had then returned to the habit after that time,

"umm no I was not smoking when I had R but that was only for eight months and then I started smoking again and I bottle fed with R as well so I sort of justified it" (lone mother of one)

*"I used to smoke quite heavily actually I used to smoke a pack a day and then umm up until I got pregnant with her I was smoking three or four a day, but if I had one now I would start again". "**Did you stop smoking because you were pregnant**, oh yes yes and I did when I first got pregnant I did still have the occasional one because to cut cold turkey.....but then umm one day I felt her move and I felt I could not do it just the thought of doing that while she was moving was....I just stopped" (lone mother of two)*

The women seemed to find it easier to stop when pregnant (n=4).

"I stopped when I was pregnant with both my children which was surprisingly quite easy to do but I just did not fancy it anymore, but as for trying (now) no.....". "Yeah I kind of kept giving up while I was pregnant I did smoke some of the time while I was pregnant but then I kept giving up and starting again then when I went into hospital I managed to sort of pack it in all the way through for like ten weeks, but I have got to try to pack it in again now" (lone mother of two).

4.2.8
Conclusion

The results from the analysis of these interviews, particularly in relation to their attempts at lifestyle change and the demand, control support model, and the women`s lack of knowledge of particular lifestyle advice have helped structure the interviews with the health care professionals, and the documentary analysis. This will help to further illuminate whether local practice and policy is influenced by the themes which have emerged here.

4.3 Findings from the analysis of the interviews with the health care professionals

These findings are from interviews undertaken with health care professionals practising locally within one Primary Care Trust within the first twelve months of its formation (they had all previously practiced within one Primary Care Trust); and with one Environmental Health Officer who was involved in partnership working with one of the health visitors in the locality. The findings are structured using the interview guide (see appendix 3).

4.3.1 CHD prevention currently undertaken

The majority of the CHD prevention work which the health care professionals undertook was with those with existing disease.

> *"Well mainly secondary (prevention) you know apart from the stopping smoking stuff...yeah stopping smoking, or a well woman check but only as a new patient really" (practice nurse).*

The provision of well women checks was flexible and provided by all four surgeries. Having set times for well women clinics had been attempted within the locality but had been abandoned due to poor take up. Therefore checks were offered whenever new patients started; as the turn over of population is in excess of 25% per annum this was a frequent occurrence. If on registration an individual was found to have physical risk factors present for CHD, i.e., raised blood pressure, raised serum cholesterol, raised Body Mass Index, diabetes or a relevant family history, then regular checks would be undertaken by the practice nurses. If an individual attended with a health problem or with their children and they had not had a `health check` then this would be offered at the time or an appointment would be made for an appointment at another time.

Individuals were offered support to stop smoking if they asked for it (n=10),

"we will offer smoking cessation support now to those who request it...we will not routinely offer it to all who smoke.....the implications are too great" (general practitioner)

The smoking cessation support was routinely undertaken by practice nurses, all of whom had or were intending to attend Smokestop training locally. On assessment of the individual by the nurse, a decision would be made as to whether the support should be provided within a group or on an individual basis; however the resourcing of individual support was limited (n=8).

"This person will go to one of the groups or this person may need personal counselling...but we have not got much resource for one to one so we are arguing for an increased resource...currently we are pinching from something else so we have put in a bid to the PCT for more money to fulfill the recommendations of the National Service Framework for CHD" (general practitioner)

Therefore one to one help is offered to those considered to be at high risk of developing health problems from their smoking using the physical risk of CHD factors, for instance obese or/and asthmatic individuals.

The practice nurses (n=3) said they felt uncomfortable about tackling the issue of individuals being overweight unless that person brought it up, they felt they were labelling the individual and felt that they did not have the skills to bring it up effectively.

"well you know I don`t want to make them feel bad so.....I wait for them to bring it up I don`t know what to say really it needs to come from them" (practice nurse).

The health visitors and local community midwife saw themselves as having a clear focus on primary prevention, had regular contact with the group of women focused on in this study, and clearly saw CHD prevention as falling within their remit. This primary

prevention activity focused on behavioural risk factors, smoking cessation, eating a healthy diet and taking exercise.

One health visitor out of all the health care professionals interviewed is undertaking work locally focusing on behavioural risk factors. The activities are designed to reduce inequalities in health, specifically the health visitor has chosen to try to make healthy choices easy choices.

> *"Well the exercise group which is providing a local exercise facility which is cheap (£1.50 per session) and provides free child care, they're also encouraged to become more interested in their health, perhaps ask questions" (health visitor)*

Mainly women attended this exercise group although men are able to attend if they wish to.

> *"The lunch club is probably more attractive to families....what we are trying to do is give families the opportunity to learn how to cook...give some skills around basic preparation and food hygiene in an atmosphere where they can ask questions about nutrition and discuss some of the difficulties they have in accessing healthy food...cost, storage or preparation." (health visitor)*

The health visitor also saw these activities as providing other opportunities to those involved, beyond the traditional behavioural risk factor focus for CHD prevention.

> *"We are trying to share some of the joys of eating together and making eating a sociable enjoyable occasion...fresh foods, new flavours and combinations, so its very much sort of providing the right environment for learning about healthy eating rather than jus providing healthy food. These people are making change..change is a gradual thing and its got to be enjoyable for them and the children" (health visitor)*

Other opportunities provided through this project work are focused on personal development and learning for residents,

> *"its a springboard for other opportunities...some of the residents have got their food hygiene certificate...we worked with the environmental health officer to do this..all of the exercise groups are run by residents who have trained as the instructors....they were thrilled, builds their confidence...goes on their CV" (health visitor)*

Several of the residents have gone onto further educational opportunities after taking up opportunities provided by this project work i.e, Diploma in Welfare Studies, Computers for Beginners, Circuit Training Instructor, Basic Accounting. This health visitor is paid to undertake this work by the local university, she works as a lecturer practitioner. The PCT were going to fund the work but this has not happened. This was she felt as a result of resistance from the PCT board,

> *"yeah they feel it should not be funded by them, but by the local authority for instance...they won`t even part fund it currently...there is a huge overspend on the prescribing budget..which may be due to prescribing in line with the NSF`s, everything else has been put on hold or cancelled "(health visitor)*

This health visitor has since resigned from the PCT after funding was refused to carry on this work.

4.3.2 What limits CHD prevention?

The efficacy of Primary Care Trust staff undertaking primary prevention was questioned within the interviews (n=8),

> *"very interestingly a leader last week in the BMJ doubts its worth, they felt that the opportunity costs of us doing this work...the things we have to stop*

doing in order to accommodate this primary prevention may be more important than the primary prevention" (general practitioner)

Indeed throughout the interviews there were threads of disillusionment with primary preventative work

"I wish we were not one of the main tools of government policy I certainly think it's our responsibility to treat those with an identified cardiac condition that is strongly our responsibility... Its no use asking health to solve all the things that are social in origin" (general practitioners)

There were doubts expressed regarding whether health based prevention as opposed to national policy changes were more effective (n=6),

"I am not sure we have a vast public health role...I really think its dodging the issue, the main issues are stopping advertising and all that (practice nurse in relation to smoking cessation)

The surgeries were seen as for the treatment of those already sick, and not necessarily seen as being appropriate for the main thrust of prevention (n=9),

"it (primary prevention) takes us of our main....well if someone has had a heart attack their risks are 4 times higher each year of having another one....we cannot say with much conviction that stopping smoking as a young woman does much" (general practitioner)

Few alternative strategies for supporting or enabling smoking cessation were offered however.

"B worked here for ten years as a practice nurse and she said she only had two or three stop (smoking) in that time and she worked hard at it...if we want effective interventions I am not sure it sits in a GP surgery the main thrust

ought to be elsewhere...I am not sure where, its a bit depressing really" (practice nurse)

One of the health visitors took the issue of factors which affect the ability of the women to change their lifestyle one step further, and considered what affects the ability of the PCT staff in undertaking preventive work in this area.

"Quite honestly its because the staff feel disempowered, they do not feel able to deal with some of these issues, unless you can get some better supportive services into a family what can a person do going in.... and saying stop smoking you know, feed your child better then you know that they cannot take those messages on because they are grappling with....a whole host of problems and they cannot even begin to stop smoking. So they are not happy...disengage from that one to one work umm it does sometimes feel like what is the point of doing one to one work when ultimately what they need is for me to have this child for the afternoon so that the mum can go and do something for herself. That is what they need and primary care staff cannot actually do that" (health visitor)

These sentiments echo somewhat those expressed earlier regarding the potential for success for primary care staff undertaking primary prevention work, however it also offers an insight into the realities of practice in deprived areas. Very clearly however, both the staff and the women are aware of the limitations imposed by their circumstances on the likelihood of behaviour change.

Worries were expressed regarding the cost of primary prevention (n=3);

"its all a very costly business the prevention parts of the NSF (for CHD) and it makes you wonder if all that money is going to produce an actual gain in the health of the population, it might be better spent somewhere else" (general practitioner)

If the staff involved in carrying forward the PCT's agenda of health improvement for their local population do not believe they can make a difference then this may affect their practice, and their planning and support for other's practice in relation to primary prevention. However there is some support for the view expressed by these health care professionals within the wider health care community (Gillam et al 2001).

In order to undertake evidence based practice in relation to increased CHD risk, however, one must be aware of the evidence. None of the health care professionals interviewed referred to any increase in CHD risk relating to factors other than physical risk factors, or behavioural risk factors when asked specifically about CHD risk such as low birth weight and increase in CHD risk in later life (Barker 1986), lack of educational attainment and increase in CHD risk in later life (Davey Smith et al 2001). Deprivation and increased CHD risk (Stansfeld & Marmot 2002) was touched upon by one interviewee however who talked about increasing prosperity and the definition of CHD risk.

> *"If you define it (CHD risk) as modifiable risk factors its very different to saying that it is all about increasing economic prosperity. So you know the way in which primary care defines CHD (risk) can limit the scope of practice around it...the other thing that limits it is the understanding of primary care staff about the evidence base for CHD and also the wider public health agenda. The majority of primary health care professionals would say that it is somebody else's business" (health visitor on PCT board).*

Mention was made of poor housing and food preparation and storage problems however, by the majority of interviewees (n=9). These factors were mentioned in relation to influencing the lifestyles of the women. They were seen as potentially negative influences over the habits of individuals, and that these influences along with lack of knowledge were what they saw in their practice.

> *"There are lots of girls (pregnant girls) living in bedsits, or overcrowded flats you know they have got a microwave and that is it and have to share*

facilities...and being <u>able</u> (interviewee emphasis) to cook as well, you know talking to you I realise how bad it is actually and how many I see that live like that" (community midwife)

The housing stock in this area is of poor quality, and what is available for rent is mainly available within HMO`s. A lot of the properties are damp, crowded and poorly heated. All the professionals who routinely visited their patients outside of the surgery were clearly aware of these problems (health visitors, community midwife and general practitioners) as were those whose role was based within the surgery (practice nurse and community dietician). The professionals offered their own insights into the potential effect of this type of housing.

"You know in one room quite damp....it was really awful she had had child protection issues before and had the children taken away and this time you know it could have worked with support. But you know its a bad start in one room, its damp the babies got a chest infection you know extra pressure, you have got no chance really have you" (community midwife)

The health care professionals were clearly aware of the limitations of houses of multiple occupation for women living in this area (n=10).

"well you know (in a confined space) cooking is a problem for them you know quite often I say get a slow cooker or something like that as at most they have a microwave so that is a big problem for them" (practice nurse)

It is common for the health care professionals to act as advocates for local residents in poor housing in the area. (n=7),

"There are some appalling housing conditions around here, people get fed up with their housing and come here to get movement in the Borough Council housing, they have to have a doctor's note saying.....we must get two or three a month or more, I am happy to do it" (general practitioner)

although the advocacy is not always as effective as they would wish, as indicated here by this comment from the community midwife.

> *"right in the top floor room, she is heavily pregnant and (there is) very narrow stairs you know I got her moved down, in a couple of months she is gone and another girl who has just had her baby..and they put her back in there. They just don't think you know just had a baby and having to carry it up those dark narrow stairs...it could be really dangerous and of course if they are still there when the baby starts to move around..." (community midwife)*

The housing problems however are not limited to the physical limitations of the buildings themselves.

> *"umm a lot of people talk about their housing...you know stuff getting stolen all the time and how even food gets stolen it sounds awful. And umm its damp you know so we do do letters and stuff regarding the housing if its not safe with the children or its damp you know" (practice nurse)*

Over crowded housing has been linked with a greater risk of suffering from myocardial infarction in women (Burridge & Ormandy 1993) and it has been positively linked with psychological distress among women (Gabe & Williams 1993). Therefore although the health care professionals made no link regarding the evidence of poor housing being linked with CHD their observations on the housing stock in this area are of relevance for this study. This link when viewed pragmatically is relevant both in terms of the overall long term risk of suffering with CHD for this group and in terms of the likelihood of behaviour change in relation to diet or smoking taking place. The stress caused by one's home circumstances and the lack of facilities available in one's home may indeed inhibit this potential change occurring. Currently the health care professionals' efforts are focused on providing information relating to behaviour change. However for the individual resident, the poor housing could be viewed as a potential inhibiting factor in this change process.

This information on poor housing and health is not shared with the local authority in any way apart from through letters at the request of residents when they are ill, and visit primary care.

All the health visitors interviewed reflected on the working practices locally and how that might affect potential changes in their role and their potential to exploit the primary prevention capacity of their role.

> *"Interestingly enough I think that there would be management support (for changes in ways of working to allow for more primary prevention work) I think they are definitely keen to change a lot of it....you know the over zealous sticking to routine you know but I think there would be a lot of health visitors who wouldn't. They are proud of the fact that they do have a lot of routine contact and that its pretty impossible to ever identify anyone who might need less input...there has been resistance....but it is slowly beginning to change" (health visitor)*

One of the health visitors had worked in London until a year before moving to the area and offered an interesting insight into the different ways of working.

> *"Here they are more rigid in terms of their child health checks, they do more checks here...in London we had been moving toward family assessments, after the routine post-natal you would make an assessment as to whether that family could generally cope. Here its much more of a sausage machine everyone gets a visit at one month and two months and there is a high contact pattern on top of that" (health visitor)*

The health visitors reflected on how these working practices, and what is valued within their work may inhibit the flexibility of their role in relation to the locality in which they practiced.

> *"Things like that obviously eat up your time, so you might feel that you ought to do this or that but you have got a load of monthly checks....". "You*

know the fundamental value base is it's how many times you see someone that counts" (health visitor)

One of the health visitors reflected on a recent change in this situation.

"funnily enough we have just appointed a nursery nurse for a couple of sessions a week....so I will be able to get out there and really get a feel for what's going on" (health visitor)

The community dietician interviewed also reflected on the restrictive nature of her current role in relation to CHD prevention.

"Still probably a misunderstanding of our role from other health care professionals particularly the GP`s..that people see a dietician to be told how to lose weight whereas that is only one small part of our whole role potentially. We are highly trained and that is not recognised..we can do more population based work, we provide training. We have different relationships with different GP`s some utilise your skill more broadly...we worked only with sick people whereas now we are saying that we can do preventive work its just taking a while to filter through" (community dietician)

The dietician interviewed stated that no one in her department had been involved in developing the response to the NSF for CHD.

4.3.3 Current partnership working

`Partnership` working, in terms of the health care professionals working with other agencies, both statutory and voluntary, and with local residents within this locality was limited. Two of the health visitors reported having worked with social services in the past. However, this work had stopped, due to lack of funds being available to support the social workers` involvement. Three health visitors interviewed felt that there were other factors which affected the process of working with social services.

"I think like social services find it very hard to break through the traditional boundaries to work in a meaningful way with the community", (health visitor, undertaking work to tackle health inequalities locally, funded by the university). "Social services are so hemmed in with the umm hard end of problems that they struggle really to do anything in prevention although they may like to" (health visitor who until a year before our interview had worked at a homeless family drop in centre with social workers who had withdrawn due to lack of funds).

The health promotion worker for the area felt that social services had undertaken,

"crisis intervention only....for sometime and you know a number of issues come out of that you know, people that are not getting the support that they need but not on the at risk register...not getting the support the safety nets you know (are gone)" (health promotion worker)

The health visitor who sits on the Primary Care Trust board felt that within the structures already in place to enable the passage of information between the PCT staff and the Local Authority there was a lack of effective functioning.

"I think that health visitors and that is the key person in this in terms of families are in such a good position to inform the PCT who then sit on housing strategy for instance, but perhaps they do not understand that...as with many services within the PCT the links with the ground force and the policy making bodies is very poorly understood. Within the PCT I know the board have said they must ask their staff to inform their practice plans but I do not think it happens...I think that there is a lack of know how on how to influence policy although the structures are there" (health visitor who sits on PCT board)

Pursuing funding for primary prevention projects locally, based around exercise and healthy eating for instance seemed to be time consuming and overall demoralising for the health visitors involved (n=2).

> *"That's what wears you out...perpetually asking for money". "Well...we have been given dribbles of sort of set up money, the (local) Public Health Action Area money was for setting up new projects (ceased to exist twelve months before these interviews)...what do you do when you have a successful project?" "We want to move into consolidation....we cannot do that without secure funding and funding for future developments. Because we are dealing with the public...with local residents who have had their confidence bashed so many times...and seeing nothing come of it you're conscious that you don't want to raise expectations." (two health visitors one of whom has been involved in partnership work)*

`Partnership working` with local residents, and the Environmental Health Officer (EHO) from the local authority was occurring through the work being undertaken by one health visitor whose role was funded by the local university. Otherwise, local residents were not considered within responses regarding partnership working. The health visitor undertaking this work expressed intense frustration regarding the funding of it.

> *"It's an example of where we are saying to residents we want you to have control, tell us what you want and then when they do, they are saying it emphatically, and they are not just saying it they are prepared to be involved in it then we are turning around and saying there is no money. You know, how many steps back do they take about their own feelings of being in control, really yeah its very frustrating for me and yes it makes me angry" (health visitor)*

The EHO involved in working with one of the health visitors running a local lunch club for families was able to be actively involved as he has the flexibility within his role to enable this. However he had also gained funding from Central Government, via the Local

Authority for a local `food initiative` which included getting ten food provision premises per year to offer `healthy choices` on their menus. The EHO saw this project as a direct follow on from the previous Health Education Authority Heartbeat Awards (originally launched in this area ten years before), and through the funding for this new food initiative (£70,000) over three years has been enabled to take an active part in local health promoting project work. At the lunch club the EHO has been involved in providing Hygiene Certificates for those residents who work in the kitchen preparing the lunch. The menus for the lunch club have been developed by the community dietician and the residents involved. When asked about current partnership working the EHO felt that, as well as the work with the health visitor, he was working closely with the community dietician.

> *"The dieticians, for heartbeat...years ago I used to have to suss out the menus myself, there was a situation there when we asked the dieticians...they were going to charge us...well that was not cost effective you know...we don't charge for heartbeat it's free.....She is great she will look at the menus and say yeah it's worth this it makes it even more credible" (Environmental Health Officer)*

The EHO felt that for this partnership work, focusing on a healthy diet, and what he saw as the more `traditional` aspect of his role, the food hygiene, he needed project funding to be involved, and to get projects up and running, especially to get people interested.

> *"Oh yeah the spin-offs are huge (of having some money) it makes a huge difference it really opens doors its like a golden key as I say it would be interesting to see how far I would have got if I had not got it" (environmental health officer)*

As the researcher had discussed the evidence base for primary prevention work with the health care professionals it was appropriate to pursue it with the EHO especially in order to consider what underpinned his activities in this area, and how `evidence` is used within decision making regarding his role.

"You have got to get across that what your doing is for the right reasons, but no I have never really come across that situation where you have almost got to put a paper together before you do anything else (has been an EHO for ten years)....you know I say I think we should be doing this because its the right thing to do and if it ties in with the ethos of environmental health its very difficult for them to say no....my boss is getting better at being a bit more innovative in our approach to things rather than just doing the regular bog standard stuff" (environmental health officer)

This is an interesting comparison to the process gone through by the health visitors for instance to gain funding which included putting together papers regularly to ask for very small amounts of funding (as little as £20 in one case) which is seen as very time consuming and frustrating. For the Local Authority being involved in the Food Initiative locally was seen as doing the right thing and an opportunity for "gaining some good publicity". These differences in relation to gaining funding for community based projects are relevant for partnership working, and understanding the motivation, and potential rewards for the parties involved. However they are also to some extent predictable given the political nature of the local authority processes and procedures.

These findings indicate that one health care professional was undertaking partnership working with the local EHO as a result of special project funding, and this was the only partnership working discovered.

4.3.4 What limits the women`s ability to change their lifestyle?

The inhibiting factors which emerged from the interviews with the women were clearly perceived by the health care professionals (n=11).

"Children (when asked what might affect decision making) we certainly see that at the drop in when the parents... (don`t want things on the menu) because they say little Tommy won`t eat eggs and then there it is provided and he eats it so its their ideas being imposed and also its not a priority

for lots of people, the priority lies with the children to make sure that they are not the ones going hungry. I think you know if you are on a limited budget its the most flexible part of your budget, once you have paid your rent and bills I do not think that its as high up on peoples agenda as we would like it to be....so I think the financial side of things and priorities with children (affects decision making)" (health visitor).

Lack of awareness regarding what constitutes a healthy diet and beneficial exercise were perceived by the health care professionals (n=6) and this was also a finding from the interviews with the women in the first stage of the study.

"I think some are (aware of what constitutes a healthy diet) but a lot of them aren't....I do not think they really know (health visitor)

Stress, was perceived both by the women and the health care professionals as negatively affecting potential lifestyle change (n=10).

"I think stress, relationship breakdowns, housing and the common umm stress of single parent families, I do not know what the statistics are here but they must be enormously high for single parents" (general practitioner)

The causes of stress as identified by the women and the health care professionals focused on relationships, with children and partners and the break down of relationships, housing and economic problems and lack of support.

"They have got family commitments or are in circumstances where life stress makes it very difficult to make lifestyle change because like in the deprived areas...they will be struggling to make an existence for themselves and their family and will not concentrate on making changes for their own health unless you know they have got support" (practice nurse)

4.3.5 Control, demand and support

Lack of control was mentioned as an important element that could affect the ability of the women to change their lifestyles, in the experience of the health care professionals (n=8), as also emerged from the analysis of the interviews with the women.

> *"Certainly the ability for these women to have control over their lives and decision making processes (is lacking)....them having control over decision making is really important and linked with their lack of control over financial resources, housing resources, umm time resources" (health visitor)*

Whether the women could exert control over different aspects of their lives was seen as important, and if they could not, then a potentially negative impact on their lifestyle decision making was seen as a potential end result (n=5).

> *"Its got to link into their lifestyle...you know about lifestyle decisions and their ability to umm make informed choices or be in control of what risk they are placed under" (health visitor)*

The health visitors interviewed (n=3) also reflected on their own practice and control,

> *"how much control have they (local residents) got anyway and how much do the systems in place including the health system allow them to make those changes".*

The health visitors mentioned `letting go of control`, or not in relation to providing services locally.

> *"We often do not offer a service which enables them to change, that puts them in the driving seat and us supporting because we are always still in the place of controlling them and we are very reluctant to let go of that control*

and allow them that informed choice rather than just doing what we have told them" (health visitor)

The women when reflecting on their experience of lifestyle change had little positive experience of exerting control. The health care professionals clearly viewed the women as having little real control over many elements of their lives when they were living on a low income. So these experiences of exerting control and the reality of taking control for the women, which have emerged from the data analysis, indicate that this is a potentially important area in relation to lifestyle change. In relation to the demand, control, support model (Theorell 1998) and parallels between the women interviewed and the health care professionals' experiences of working in this area, the one shared theme which emerged from both sets of interviews was a feeling of lack of control. Particularly, for the health care professionals in relation to gaining funding for primary prevention work, and partnership work (n=1).

"Do you feel you have any control over funding for preventive work, *(no) its very stressful for me and frustrating but I also feel its sort of letting them down...the residents (health visitor)*

Those health care professionals who were undertaking primary preventive work felt supported in relation to the Smokestop work or the health checks. The health visitor whose role was mainly based in tackling inequalities in health locally (funded by the local university) felt supported by her manager in undertaking the work, but not in gaining funding for it.

"She's quite innovative in her thinking...and she has given me every bit of support that she can, she has given me time and space and she does not keep on looking down my neck, she has given me some professional space which is why I think the thing has succeeded, but she is limited in that she cannot give me funding she does not control the purse strings." (health visitor)

All those interviewed felt that there was money available for work based in this community with residents, and that this work could include both health improvement and community development elements. However once again those health care professionals who had attempted to gain funding for work with local residents had found it very problematic and they felt they had little control over the process or the outcome (n=2).

> *"The bureaucratic system seems to prevent the release of funds to where its actually needed and you think well where is it all going who is getting the money and why is it not released in such a way that it is trickling down to grass roots level, it's everyday things...you know bits of equipment or people, it's very frustrating and I don't really know how to get through this iron curtain sometimes...I have tried applying for grants, I have tried the PCT route. Everyone is sort of saying yeah it's a good idea but still nothing is forthcoming PCT money just seems to be sort of sat on" (health visitor).*

The process of gaining funding efficiently and effectively was a recurring theme and one which both demoralised the health care professionals who undertook to do it, and also took a lot of time and effort. In working with local residents the professionals felt that they did not want to undertake work and risk disappointment for the residents due to not gaining funding. Or if they embarked on working with local residents they expressed anger and regret at the limitations placed on this work, and the set backs faced by both themselves and the residents involved.

Funding streams which affect primary preventive work are not just those associated with project money or grants; the organisation of work as mentioned here is important. The community midwife talked at length in her interview about the re-organisation of midwifery services for the area, and that she felt that the locality in which the study was based was special.

> *"They are planning at the hospital to rotate us all and use F grades and rotate us around locally to cover communities rather than have fixed patches, this really worries me in relation to continuity for these women who move*

around. I have worked really hard for over five years to build up networks and we all work as a team to enable some continuity....that will all go, it's a cost cutting exercise...it negates what I have done and all the work" (community midwife)

As 25%-40% of the population changes each year in the area in which the study is based (Local Authority 1997), and many of those living in the HM0`s are women with young children or pregnant this potential change of the organisation of community midwifery services could have a negative affect on the quality and continuity of support and service provided. The midwife and the local health visitors are of course aware of this aspect of their local population and currently structure their contact accordingly

"a lot of my work is done in low income areas....a lot of my clients need extra care and a high input with social services not just for substance misuse but for other things child protection issues. so I work very closely with health visitors in this area, very close contact more than in other areas, I work closely and meet up certainly with most of them once a week" (community midwife).

The proposed changes to the provision of community midwifery could jeopardise this network of support to these potentially vulnerable expectant mothers. Midwifery services however are funded by the acute Trust locally, which may cause in itself a lack of insight into the special support needs of this community.

It would appear that there are parallels between the women residents interviewed and the health care professionals, particularly the health visitors, practice nurses and community midwife interviewed (n=7 all of whom were female) in relation to control, particularly over finances. Although the limitations placed on the potential of the health care professionals by inflexible or historical job or role structures was another important element arising from the interview data.

4.3.6 Views on effective primary prevention activities

The health visitors, the community midwife and the community dietician interviewed had a shared theme emerging from their interviews relating to what they feel works.

> *"I'ts got to be down to earth, its not something that can be done at the surgery just by the practice nurse, its got to be community based where people are" (health visitor)*

A shared phrase used was `getting out of the office`, or, `we really need to get out there`. These practitioners were aware of what was going on locally such as the drop-ins, and school based clubs and they actively valued them.

> *"Looking at what facilities are available and trying to make the most of them rather than making everything practice based, I think that is what we have done wrong in the past, we have waited for people to turn up at the surgery and make an appointment, I think we need to go back a few steps and look at what community life is for those people, where do they go during the day, what do they do, what are their needs" (dietician)*

This preventive work `out of the office` which was seen as potentially beneficial was based on behavioural risk factors for CHD, namely eating healthily, taking exercise and stopping smoking. It was also based on providing support to individuals living in difficult circumstances, and in finding out what it was really like to live locally. However, one of the health visitors reported having difficulty trying to set up a baby clinic within one of the local schools to attempt to increase uptake; although the school head teacher was very supportive she stated that,

> *"the other health visitors were not supportive and felt it would make the parents even **more** lazy, (her emphasis)".*

This view on `what works` was not shared however by the practice nurses and the GPs, whose responses focused on valuing one to one work with patients in the surgery and brief interventions during booked appointments.

> *"What I get from the evidence...brief interventions are helpful in primary care so that telling someone that if they don't stop (smoking) its likely they will get into trouble spelling it out in two or three minutes is known to be quite helpful, I will go into brief interventions for a lot of things" (general practitioner)*

> *"I think when you do have quite vulnerable people that one to one can be quite helpful (to support smoking cessation" (practice nurse).*

This disparity in view however may purely reflect the difference in role between different PCT staff and may indeed be the best focus for these different roles in relation to primary preventive work provided that the differing strategies are both supported.

Two different ways of viewing `what works for this group` were expressed. One focused on risk factors and was described as a `medical model`, the other considered community based approaches and life circumstances. One practitioner expressed beliefs which encompassed both areas.

> *"From the PCT I would say we would look at you know identifiable modifiable risk factors and those that can be identified in that target group, it would be sort of a very medical model. Me personally I would probably say there is a much wider....looking at what impacts on the wider health on that area of the population on their lifestyle and their sort of experience of health generally rather than their experience of health services" (general practitioner).*

This view was also expressed by one health visitor in relation to tackling inequalities,

"rather than looking at inequalities in access to health services but looking at inequalities in access to health enhancing activities, you know things about physical activity things about lifestyle decisions" (health visitor).

Resources were also introduced as an issue in relation to what works (n=5).

"Any strategy needs to be resourced properly and launched properly and if there is not the resources to do that then you're not achieving much" (community dietician).

"There is heaps of things that could be done....if we had more manpower" (health visitor).

4.3.7 Knowledge of local response to the NSF for CHD

Two of the health care professionals who had been involved in writing the response plan (one GP and one health visitor), were familiar with the process and targets locally, none of the others interviewed knew what was involved. However they all knew where to get information, and clearly some of the training they were intending to do (Smokestop) was aimed at implementing the plan. The dietician interviewed had not been consulted on developing the plan, neither had the community midwife. If indeed the plan were to consider a lifelong strategy for the prevention of CHD including support during pregnancy (the NSF does mention pregnancy, early life and childhood poverty) then the midwife and dietician may be useful advisers along with local residents in developing the strategy.

The health visitor who sits on the PCT board (which is for the whole of the area, including these four practices) explained the current strategy to respond to the NSF.

"On the board anxieties were expressed initially on considering the NSF for CHD that primary prevention was going to get lost, so we managed to get agreement from the health authority that they would give us what they called

health improvement performance scheme money for CHD prevention for the next three years" (health visitor who sits on PCT board).

At the time of writing this a group had just been set up to move this forward, including representatives from medicine, nursing, a local counsellor and a link person with secondary care. There were no plans to include local residents on this group.

It is relevant that the NSF for CHD particularly mentions `women of child bearing age`, low birth weight babies and CHD in later life, and the Acheson report and child poverty. However, never in our discussions of CHD prevention was any of this evidence or focus mentioned by the health care professionals. Indeed as mentioned earlier, doubt was even expressed that stopping women in this age group from smoking was an effective use of the health care professionals` time.

4.3.8 Internet access

Following the interviews with the women the researcher wished to further pursue the main themes which emerged with the health care professionals, initially in terms of their views of the lives of the women, and their lifestyles. However in the initial three interviews in stage two with the health care professionals the researcher became aware of some parallels between the women and the professionals` experiences of living and working in this area. It became apparent that apart from the GPs and dietician interviewed the health care professionals (health visitors, practice nurses, community midwife n=8) had no access to the internet in their professional lives. When they reflected on accessing evidence to undertake preventive work, this fact quickly became apparent; interestingly little was offered within the taped interviews relating to this issue. However once the tape was turned off on completion of the interview n=four of those interviewed reflected on the fact that only one of the staff in the surgery had internet access, and as the computer with the access was placed on their desk then nobody else had access to it. As all the staff interviewed without internet access were women the parallel with the women interviewed in the first stage became more salient in relation to the study. Currently there is a movement within the Community Practitioners & Health Visiting Association to lobby for more internet

access for these staff groups within PCT's. This situation is mirrored in some acute NHS Trusts, however many of those staff have access to a library where evidence for practice may also be accessed. Library access can be much more problematic for PCT staff and therefore internet access provides a logical practical alternative if it is equitably available, and time is given to exploit it. Indeed as the role of community practitioners changes and develops their access to shared experiences which may be achieved via the internet, and to evidence for practice is vitally important if these changes and developments are to be shared promptly, along with the evidence to underpin them. Lack of access to e-mail facilities has also been shown to limit the ability for individuals from different agencies to work in partnership together (Hemingway 2004).

4.3.8
Conclusion

The main findings from this data would suggest that health care professionals are currently not involved in primary prevention of CHD for the group under study, and that there are particular factors which may inhibit their involvement which include lack of knowledge and rigid role structures. In addition it would appear that the three areas which emerged from the analysis of the interviews with the women (high demand, lack of control and support, Karasek and Theorell 1990) were recognised by practitioners as potentially affecting the health behaviour of the women. These emergent areas will be considered in relation to the wider evidence base within the discussion section of this thesis.

4.4 Findings from the analysis of the Community Plan (2000), Health Improvement Plan (2001), Primary Care Trust Business Plan (2001/2) and the meeting minutes from the Health Improvement Group (2001/2)

The researcher has been actively involved in the Health Improvement Group which covers the area under study, following initial involvement as a researcher to inform this study. This has enabled the researcher to attend meetings of the group (as a researcher and then representative from the university) and to have access to the Health Improvement Plan (2001) and the Community Plan (2000), and the processes which have generated and informed these plans. The researcher has also considered the Primary Care Trust Business Plan for 2001/2002. All these local plans will finally be considered in light of the recommendations from the National Service Framework (NSF) for CHD.

These plans will be analysed in order to put the responses of the health care professionals in to their local policy context, and to further explore the partnership working being undertaken locally relevant to CHD prevention within the group under study. This analysis has been complemented by the researcher`s fieldwork notes which focused on the meetings attended. All the meetings attended and documents considered related to the whole of the local area; any issues of particular relevance to the ward under study have been highlighted within this analysis.

4.4.1 The Community Plan (2000)

The priorities which the Community Plan (2000) focus on were generated through a consultation process undertaken by the Borough Council which involved over 100 different statutory and voluntary agencies and local businesses, and business associations. Over one third of those consulted consisted of local businesses, or business interest groups. This consultation which occurred in the year 2000 included community groups, such as church and religious groups; however no resident associations were consulted, and resident opinions were not sought at this stage.

The five areas outlined for agreed action were:

- Strengthening our economy
- Learning throughout life
- Developing Communities and Tackling Crime
- Sustaining our Environment
- Health Improvement

The agencies involved in this consultation then became `The .... Partnership` (Local Strategic partnership) who will monitor and review the progress focusing on these areas. Targets have been set for each of these five areas for the period 2000-2005.

Potentially all these areas may have some degree of relevance to the area under study here and the findings from this study. However in order to focus this study appropriately in relation to the main themes emerging from the data analysis thus far the following three areas, and their targets will be considered.

- Learning throughout life
- Developing Communities and Tackling Crime
- Health Improvement

I. Learning throughout life

The targets for the period 2000-2005 relating to this area focus on school age children. However two subsections relating to target CT16 `To widen a range of community based learning opportunities by 2005` are:
- Literary Skills Courses in Libraries, and
- adult basic education and IT opportunities.

As discussed the women interviewed particularly perceived their lack of computer/internet access as problematic in terms of their childrens' and their own development. They all had plans regarding job opportunities or educational opportunities; these were however inhibited by a lack of reasonably priced child care. In the area there are basic adult education opportunities offered at the Centre for Community Arts whereas currently the IT

training opportunities are outside of the area and require a bus ride (costing 80 pence). Neither of these opportunities, however, offer subsidised child care, or indeed child care, and as overall in the area there is a lack of child care available this issue as stated by the women is a real problem which will prove to be an inhibiting factor in achieving this target in this area if not addressed.

2. Developing Communities and Tackling Crime

The targets for this area focus on percentage reductions of a range of crimes within the borough by 2005. Mention is also made of increasing the number of houses which are fit to live in over this period. This area is unique among the five outlined above in that as one of its targets CT26 it aims to `find out annually what local people think (including minority groups) about local services, publish the results and take action` remembering that the overall monitoring of progress towards these targets will be carried out through the statutory and non-statutory agencies represented on the `Partnership Group` which do not include resident groups or residents themselves.

There is one target for this area which focuses on community development, as in the title and this is CT24 which aims to `increase voluntary hours spent supporting community and environmental activities by 25% by 2005`. Again no mention is made of ensuring equal access to these opportunities through the provision of support with caring responsibilities for local people as this has emerged from these findings to be an area of local need.

3. Health Improvement Group

The health improvement targets are focused on national health targets (Our Healthier Nation 1999), relating to the reduction of rates of CHD, accidents, suicide and teenage conceptions. The one additional target CT44 focuses on providing `at least 7,000 `New Deal` leisure cards for low cost leisure activities by 2005`. This may aid the group under study here in accessing leisure facilities; however without adequate child care provision the benefits will still be difficult for them to exploit.

This group includes representatives from the local authority, primary care trust, housing associations, local councillors and university. The Health Improvement Group reports to the Partnership Group. It is planned that this group will also link with the Single Regeneration Bid program in 2002/3.

It is relevant to mention that in 2001 the borough council set up a `People's Panel` to help inform the community plan. This consists of 1,500 residents from across local wards sampled from three groups, young people, older people and parents, who have agreed for a three year period to fill out questionnaires and be involved in focus groups in order to inform the community plan work. Structuring resident involvement in this way, however, may limit the ability of individual residents to raise issues of concern outside those identified by the council in the questionnaires or identified by the council to focus discussion on in focus groups and may not offer insights into the differences between wards in the area which are extreme both in terms of wealth and facilities.

Enabling residents to sit on the Health Improvement Group may increase the community`s perception of their ability to control local service provision and priority both in terms of services offered by the borough council and those offered by health care, and makes it more likely that local concerns will be focused on (HDA 2000). However if active involvement for residents requires travel expenses or caring expenses, then it is essential that these are provided for those involved, and that this is made clear to potential applicants. Currently there are no resident representatives on this group. If residents were enabled to sit on the steering groups for all the areas focused on within the Community Plan, strengthening our economy, learning throughout life, developing communities, tackling crime and sustaining our environment, it would enable them to work with the police, local businesses and local authorities.

4.4.2 The Primary Care Trust Business Plan for 2001/2002

It is relevant to mention that within the Primary Care Trust`s Business Plan for 2001/2 under the section headed `Partnership Working to Improve Health`, the partners mentioned include the statutory, voluntary and private sector, the Community Partnership and the

Health Improvement Group. No mention is made of working in partnership with local community members or patients. However, within the document mention is made of a bid to the Workforce Development Confederation to support the employment of locally based Public Health Lecturer Practitioners (unsuccessful). Within discussion of this bid, mention is made of the intention to "integrate local people within the whole program" (PCT Business Plan 2002/3 page 68) although the mechanisms for this are not made explicit. However a project which is based in the area under study and other deprived local areas, which the researcher has been working on, and through which work has been enabled to reach local residents (as discussed within the method section) has been given limited funding by the PCT. Over 90% of this project is currently funded by the University and the active involvement of local residents is the main aim and achievement of this project work which is referred to within the PCT Business Plan. The current explanation from the PCT as to why funding is not available to support this health improvement work, co-ordinated by local health visitors and actively involving residents is an overspend on the prescribing budget. This explanation is supported by comments from the health care professionals interviewed.

4.4.3 The Health Improvement Plan 2001-2004

Within the health improvement plan it is acknowledged that health is influenced by many factors. These are listed as:

- Economic conditions,
- social support,
- physical environment,
- educational achievement,
- differences in personal lifestyle and
- access to health and social care.

This plan also states that the health authority (as was) will work together with the Borough Council, local NHS Trusts, Primary Care Trusts, the voluntary sector, the private sector and other partners in the health and social care community to tackle disadvantage and improve health and health services for local people in the Borough. This plan also makes

up part of the county health improvement programme which forms the basis of the Health Care Community Performance Agreement with the NHS Executive for the region. This was the principal means through which the performance of organisations in the health community was assessed and managed at the time this study was undertaken.

The discussions which led to the development of the plan involved "officers from the Health Authority, the local Primary Care Trusts, local NHS Trusts, and officers from the Borough Council with responsibility for social services, education, youth services, leisure and cultural services, environmental health, housing, community development, economic development, transportation and planning, representatives from the Police, Fire and Rescue and Probation Services and representative from the local voluntary and business sectors" (Health Improvement Plan 2001-2004 p1). No involvement of residents or resident groups was apparent from the documentation of the development discussions for the plan.

The number one public health priority within the stated objectives and performance measures for the Health Improvement Plan is the reduction of heart disease and stroke. The stated objective is to "reduce premature death and incapacity from heart disease and stroke" (Local Health Improvement Plan 2001-2004 page 1). The stated causal factors within this objective include; hereditary factors, family history, birth weight, smoking, high blood pressure, high blood cholesterol, lack of exercise, poor diet, social isolation, poverty and unemployment.

The discussion regarding evidence of effectiveness for this objective in terms of primary prevention includes the need to "tackle smoking in early pregnancy, reduce sedentary behaviour in childhood, and combined dietary, exercise and behavioural approaches to reduce obesity in adulthood" (Health Improvement Plan 2001-2004 Appendix 1 page 1). The one target (out of a total six) included within this section which related to primary prevention is:

- "Each Health Authority should prepare quantified plans to increase access to and consumption of vegetables and fruit, particularly among those on low incomes, to support the national five a day program."

When linking the stated causal factors for CHD with the evidence of effectiveness quoted within this priority and the target it is relevant to note that the target has a very limited focus on one area whereas the evidence mentioned shows effective interventions could be made across the areas of smoking prevention and exercise.

4.4.4 The Health Improvement Group Meetings

The researcher attended these meetings in order to gain insights into the development and implementation of the Health Improvement Plan. Three meetings were attended, over an eighteen month period (2001/2002) and the researcher kept notes regarding the process and outcomes of these meetings, and was supplied with minutes of the meetings. This group includes representatives from the local authority, primary care trust, housing associations and local councillors.

It was agreed within this group that all the represented groups working together would more effectively tackle health improvement within the area. It was also agreed that as this area has the greatest number of premature deaths within the Region, this was an area of priority for all those involved.

A key area which emerged from all the meetings, but growing in urgency as each meeting went by, was the issue of how to change practice through partnership working as opposed to "making lists and not changing practice" (a quote gained from the researcher`s field notes from one of the Borough Council Housing Department Staff). This sentiment was expressed by different group members across the agencies represented at the different meetings, supported by the minutes from the meetings and supported by the health care professionals interviewed for this study. At the final meeting attended by the researcher it was decided that deprivation and its effects on ill health were to be the focus of this partnership work initially within the area. Further opportunities for joint working with this focus were identified as:

- Sharing resources such as premises, bidding for resources, training, communication networks.
- Access and transport.

- Sharing consultation, through the Citizens Panel, the voluntary sector, media campaigns and newsletters.

In addition the Borough Council made a commitment to have a named councillor on each of the five Community Plan focus areas to help carry the work forward.

These areas of potential partnership working were viewed as falling within the area of `deprivation and its effect on ill health` in meeting notes. However, the links between this aim and potential actions were not discussed or made clear in the notes; it was apparent through attending these meetings that changing what happened in practice through partnership working was proving problematic for all parties involved.

4.4.5. National Service Framework (NSF) for CHD (DOH 2000)

As mentioned already here the NSF for CHD mentions explicitly that,

"a person's chances of developing CHD can be influenced very early in life, low birth weight and poor weight gain in the first year of life - are strongly associated with CHD. The lifestyles of children and young people often influence their patterns of smoking, diet and physical activity in adulthood. Poverty falls disproportionately on children and their carers; in the mid 1990`s 1 in 3 children were living in poverty. For all these reasons, children, expectant mothers and women of child bearing age require special consideration" (2000, p8).

Within the results of this study there is no evidence of `special consideration` for this group, health care professionals interviewed were unaware of the evidence underpinning this focus within the NSF. They were, however, well aware of the circumstances of women in this group living in their locality, and even without an awareness of the evidence felt that the circumstances in which the women found themselves could potentially affect their health and behaviour. However from the interview with the community midwife and health visitors it was apparent that no flexibility or particular focus within their role is formulated due to the particular assessed needs of the deprived community within which they practice. The midwife was re-deployed due to a general reorganisation of community midwifery,

enabling the employment of midwifes on a lower salary grade across the area. This change was initiated by the local acute trust who employ the community midwives.

Chapter 1 of the NSF sets out how local public agencies can maximise their contributions to the reduction of CHD through the following strategies (NSF for CHD 2000):

- Evening up opportunities for health.
- Using a community development approach that allows people to take responsibility for their own health.
- Developing skills for health, and
- Reorientating and empowering service delivery systems in local government and the NHS.

A community development approach is defined within the document as "one which enables communities to make the decisions necessary to achieve better health for themselves" (NSF for CHD 2000 p13). Community development may to be promoted by public bodies who encourage social advocacy, devolved decision making and through developing partnerships with the local community (HDA 2002a).

An approach being used by one of the health visitors alone among the health professionals interviewed fell within the remit of community development as defined within the NSF for CHD, as discussed within the section analysing these interviews. She has been working with local residents to develop their skills particularly in relation to food preparation and exercise, and had provided self development opportunities for residents. This work has focused on homeless families and those living in HMO's. It is relevant to mention here however, that due to a shortage of health visiting staff in this area, and the job focus and structure expected of health visitors here, the health visitor working in this way has been re-deployed to what is locally seen as a standard role focusing on monitoring childhood development and home visits in another local area. After her job was changed in this way with just one week's notice, this health visitor has resigned from her post.

Within this first chapter of the NSF for CHD the section on effective interventions and policies mentions particularly promoting healthy eating and physical activity and states

that particularly hard to access at risk groups should be targeted, as was the case with this health visitor's work. This health visitor had been working within this deprived area for four years Due to her style of work however some activities have still continued after she left as residents have been enabled to organise and run them.

Within the section focusing on community development within the NSF it is stated that "health visitors' roles will be re-focused to include the assessment of the needs of individuals, families and communities and will be a vital resource in securing successful community development. Their redefined roles will make them an important link between local authority and NHS services and will open the way for new employment arrangements that span organisational boundaries" (NSF for CHD p13).

As prescribed in the NSF for CHD document it will be necessary each year from 2001 for local public sector organisations to report on community development projects in their local area, their key features and main achievements. It is also prescribed that local authorities and PCTs need to work together so that there is at least one community development project with a focus on CHD under way in one of the most deprived communities in every local authority area.

Public agencies as employers are also mentioned within this section of the NSF for CHD (2001) considering effective policies and interventions where it is stated that they need to "develop organisational policies which help promote job control". This was included as an effective intervention within this document as it is concluded within this NSF that lack of control within one's work is detrimental to cardiac health. This study has found that some of the health care professionals interviewed, particularly the health visitors, community midwife and community dietician felt that their lack of control over their job structure inhibited their potential for CHD prevention work. In addition as employees they experienced feelings of intense frustration regarding gaining control over the structure of their own role and funding for preventive community based work which involved the active involvement of residents, as they felt that their lack of control may result in disappointment for the residents involved.

This section has attempted to place the data collected for this study within its local policy context, while giving due consideration to the National Service Framework for CHD, in order to inform the discussion section of the thesis. The analysis has shown that there is little partnership working occurring, particularly in relation to working with local communities; and that the group under study are not recognised as being important to focus on in order to reduce inequalities in health.

4.4.6 Conclusion

It would appear therefore that through the findings in this study it has been possible to outline issues relating to three key areas:

- The women's awareness of CHD as a potential risk to their health.
- Factors which influence the women's attempts at lifestyle change, and
- Factors which influence the health care professional's practice relating to CHD prevention, within the context of local and national policy.

It is important therefore to discuss these insights in relation to the wider evidence base as considered within the literature review which will be undertaken within the next chapter of this thesis, using the original objectives of the study to structure the discussion.

Chapter 5

The findings, current knowledge and practice development

5.1

This discussion chapter will consider the findings from the study in relation to current knowledge as reviewed within the literature review. In order to properly structure this discussion it is necessary to return to the original objectives of the study, while giving due consideration to the contextual issues inherent within the case under study.

Aim of the study

To undertake a lifestyle, practice and policy analysis to inform the primary prevention of CHD for pre-menopausal women living on a low income.

Objectives of the study

Specifically the study will examine the:

- Women's health behaviour, and attempts at behaviour change relevant to CHD in the context of their own circumstances and the area in which they live.
- Whether the factors which the women identified as influencing their attempts at lifestyle change influenced local CHD prevention involving health professionals, and
- Whether local partnership working and strategic planning addressed these influences on lifestyle change relevant to CHD prevention for local women, and enabled partnership working including primary care professionals.

This discussion will address the key findings from all data sources which will be considered in relation to the objectives of the study in the order shown above.

5.2

Objective One

- Women's health behaviour, and attempts at behaviour change relevant to CHD in the context of their own circumstances and the area in which they live.

Key findings

- The women's lack of awareness of CHD as a risk to their health.
- Factors which emerged as limiting the women's ability to change their lifestyle.
- The impact of living in houses of multiple occupation on the ability of the women to change their lifestyle.
- Personal computer and internet access.

• 5.2.1 Lack of awareness of CHD risk

The women interviewed were not aware of CHD as a potential risk to their health, as they perceived that reproductive problems were the most common health problems for women. CHD if it happened, occurred late in life and was not linked to their current health behaviour, particularly relating to smoking and dietary intake. These findings coincide with those reviewed in the literature review to inform this study which also found that women were not aware of CHD as a potential risk to their health (Elmslie et al 2001), and that even after they had been diagnosed with heart disease they were unaware of their disease or its implications ((Ruston & Clayton 2002).

As rates of CHD for women in the UK are among the highest in the world (NHF 1998), and increased rates of smoking and obesity are linked to low income groups (HDA 2001a, NHS Centre York 2002) this result is important as it indicates that women who are at risk from CHD are not likely to consider lifestyle advice and opportunities relating to reducing CHD risk as relevant to themselves, and are therefore unlikely to modify their lifestyles. In a survey carried out by the Health Education Authority (1990) women were more likely to perceive cancer as a risk to their health than CHD. The findings from the group under study here would suggest that for this group these perceptions have not changed more than ten years on from this previous work.

When reflecting on their daily diet the women ate on average three portions of fruit and vegetables a day; this was found to be the average in 1996 across the UK population (NHF 1997). Since that date the National Heart Forum`s `At least five a day` strategy has been launched (1997) which has encouraged individuals to increase their intake to five portions a day. This recommendation has provided a basis for healthy eating advice and policy support for healthy eating since then (NSF for CHD DOH 2000). However, the women interviewed in this study did not achieve this goal despite having access to fresh fruit and vegetables in their local area at reasonable prices. The Ministry of Agriculture, Fisheries and Food in their 1993 survey of British adults found that women in manual social classes were eating two thirds of the fruit and vegetables consumed by women in social classes 1 and ll. The findings from this study would suggest that this may be the case in the area under study some six to eight years later, although any comparison between different groups was outside the remit of this study.

In addition the findings from this study would suggest that women are unaware of the specifics of advice relating to a healthy lifestyle, particularly relating to dietary intake and alcohol intake (NHF 1997, DOH 2000a), and unaware or not acknowledging the potential harm to their health of smoking. It would appear that previous studies have found that individuals on low incomes are aware of current health related advice (NHF 1998) in relation to eating a low fat diet and fresh fruit and vegetables, and in relation to smoking cessation (Cohen & Jarvis in Bolliger & Fagerstrom 1997) when a survey based research method is used. It is relevant to consider that within this qualitative study a different result emerged when this small sample of women were asked to recall advice, without the use of written questionnaires. It may be useful in the future to compare different types of research method in terms of their effectiveness in gaining insights into levels of awareness regarding health related advice.

Having knowledge of what constitutes a healthy lifestyle does not of itself mean that an individual will change their lifestyle successfully (NHF 1998, Graham 1993b, Graham 1998), particularly when living on a low income. However, part of ensuring equity of potential for lifestyle change is to ensure that information is available to all, and understood by all. The influence that a women has as a carer within the home on the

lifestyle of others may place her in a unique position to enable a healthy lifestyle for others (Spencer 1996),

therefore successful awareness raising for this group may be of particular importance. However, this study has indicated the problems inherent in changing lifestyles within the often difficult circumstances outlined in this study, for this group. This discussion will now go on to consider the influences on lifestyle which emerged through the findings from this study.

- **5.2.2 What influenced lifestyle change**

As already discussed within the first literature review chapter and the findings section the demand-control-support model, or iso-strain as it has been described, (Karasek and Theorell 1990 p.6) has been developed previously in relation to occupational psychosocial factors which increase the risk of CHD.

The characteristics of the model which emerged from the analysis of the interviews with the women in relation to influencing their health behaviour were:-

- High workload demands potentially from self, partner (if present) and children.
- Lack of control or low decision latitude in relation to conditions inside and outside the home, including the possibility of influencing decisions and learning new things.
- Absence of social support, both emotional and instrumental.

The role a woman has as a carer within a family can be viewed as particularly relevant in terms of its impact on the health and lifestyle of the family members overall (Spencer 1996). Childhood behaviour is most influenced by relations between child and carer (most commonly their mother), within the home, particularly in the pre-school years and `home` is clearly a place of work for mothers (Daykin & Doyal 1999). It therefore seems reasonable to apply an occupational psychosocial model which increases CHD risk to the home. Does this combination of factors (high demand, lack of control and lack of support) inhibit changing ones lifestyle? This conclusion emerged from the interviews with the women who seem to be perpetually compromising on behalf of others, either children or

partners or because of the limitations placed on them by their income. The result is that their own health decisions are directly affected and seem to be at the bottom of the pile of daily challenges. These pressures, combined with a lack of knowledge regarding the details of a healthy diet and exercise recommendations, and a lack of insight into the long term importance of stopping smoking mean that the likelihood of the women changing their lifestyles successfully is small.

Recognising the relevance of the demand, control, support model for work both inside and outside the home is somewhat different from its previous application. However it has been shown in previous studies using this model (Karasek & Theorell 1990) that support both at work and outside of work is relevant in terms of an increase in CHD risk. Marmot (Marmot & Wilkinson 1999) in considering this model stated that "an exclusive focus on working life runs the risk of underestimating the true costs on health produced by adverse circumstances that can occur outside of work".

- **5.2.3 High workload demands**

The women interviewed stated unanimously that they felt that stress made them ill. When asked what they meant by the term stress, they mentioned areas of their life which often increased the demands placed upon them, and felt outside of their control. When they considered what increased the demands on them the women would mention relationships, family pressures and lack of money. Interestingly Stansfeld & Marmot (2002) when defining stress in relation to CHD, consider it to consist of "a range of psychosocial factors that influence health and disease either indirectly, by influencing risk behaviour, or directly by affecting neuroendocrine or immune functioning". The first of these two influences links directly with the women`s responses; when asked what affected their lifestyles they would say that the demands placed upon them negatively affected their eating, sleeping and smoking habits. The women stated that their eating habits were affected negatively, in that feeling under pressure made them more likely to eat high fat foods, and potentially a greater volume of food. This indirect pathway may be seen as the `biomedical explanation` (Brunner 1997) that negative health behaviours such as smoking and dietary habits are exacerbated by social factors which may indirectly cause CHD. With

the direct causal pathway being a `public health explanation`, which is that the wider social influences of material and social deprivation cause biological changes, which directly cause CHD.

Neither of these pathways however are mutually exclusive, and advocacy of prevention strategies which focus solely on either one without consideration of the other would not seem to reflect the current evidence base. The evidence base relating to the direct pathway to CHD developed through the Whitehall II study (Marmot et al 1991) which was designed specifically to determine the role of psychosocial factors in generating social gradients in physical and mental health (Marmot et al 1991, Stansfeld & Marmot 2002). However, the remit of this study has not been to consider the physiological manifestations of stress on one`s heart but to consider how factors influence behaviour. The experience of this group of women was that every day demands such as relationships, family pressures and lack of money negatively affected their health, and their health behaviour, and this was a major theme for all those interviewed. It was also commented on extensively by the health care professionals in relation to what affected this group`s ability to change lifestyle.

It would seem then that the results of this study would indicate that the `indirect pathway` to CHD, which affects health behaviour may be a reality for these women. However, just because this study did not focus on physiological measurement does not preclude the possibility that the `direct pathway`, with stress causing direct physiological changes, may also be at work for this group, which could explain some of the income gradient in CHD risk for women not accounted for by their health behaviour (ONS 1997).

Research on psychosocial work-related stress does not rely on direct physical or chemical measurement, as is the case with biomedical occupational health research. Rather it uses theoretical concepts to identify particularly stressful job characteristics. This has allowed these characteristics to be identified in a range of occupations. The methods used to identify these concepts within the workplace are observation, interviews and questionnaires and the demand, control, support model through testing in a number of studies has been shown to be reliable, sensitive to change and valid (Marmot et al 1991).

This study has relied on in-depth interviewing using multiple sources, documentary records relating to the area in question, and the researcher's involvement in health improvement planning to inform its conclusions. The model's (Karasek & Theorell 1990) emergence from the analysis of the interview data with the sample of women was grounded in their reflections on their lived experiences, and led the other avenues of investigation. It has been indicated by this study therefore that the elements of this theoretical model characterise the lives of the women and may negatively influence their health behaviour.

The demand, control, support model (Karasek & Theorell 1990) is unusual in its focus on environmental factors which increase risk of CHD as opposed to individual characteristics of behaviour, genetic factors and individual responses to stress which have characterised studies in the U.K. into the prevention of CHD (Marmot & Wilkinson 1999, Stansfeld & Marmot 2002 introduction). This model (Karasek & Theorell 1990 has been applied previously to groups to compare those suffering with CHD and the reported nature of their work environment, and those without disease; and has found that these three factors do increase risk (Karasak et al 1987) and decrease the age at which an individual may suffer with CHD. It has also been discovered that an individual exposed to high demands, low control and lack of support in their job has an increased likelihood of being a smoker (Karasak et al 1987, NHF 1998) which would suggest that the characteristics of this model may have an influence over health behaviour.

As stated within the analysis of the interviews with local women, the jobs they took tended to be of low status, and as they saw it, lacking in responsibility. This work was very much secondary to their caring responsibilities, and was not seen as offering personal growth and development opportunities. Work has been defined as "a most important criterion of social stratification in technologically advanced societies" (Stansfeld & Marmot 2002), influencing the amount of esteem and social approval which an individual gains. This was not the case for the women interviewed, their identity as carers dominated their reflections on their lives. Their jobs were part of the background, an unsatisfactory and at times exploitative (in terms of monetary reward) background to their main focus.

The status which our society affords individuals who work as carers both in the home and outside is low, as is reflected in the pay and conditions for this group, particularly in relation to those who `care` as compared with those who `cure` (Daykin & Doyal 1999). As already mentioned it would appear that CHD risk is negatively affected by low status (Stansfeld & Marmot 2002), and although many studies considering women and low social status have focused on the mental health of women, there are relevant parallels with studies considering CHD risk and social status (Daykin & Doyal 1999). Indeed studies considering the link between depression and CHD have shown some evidence to support depression being seen as an antecedent of CHD, as well as a potential issue associated with existing CHD (Ferketich et al 2000). The mechanism linking CHD and depression may be explained in several ways, one of which is through the adoption of unhealthy behaviours due to depression. Another pathway for this link may be through psychosocial factors; depression may be an outcome of exposure to adverse social circumstance and social isolation, both of which are risk factors for depression, post-natal depression and CHD (Kawachi et al 1996). Depression may also be the outcome of exposure to work and home situations associated with low perceived control which was the experience for some of the women interviewed to inform this study (Stansfeld et al 1999).

In our society low status is associated with low income and low status has been shown to potentially affect a number of CHD risk factors, such as higher blood pressure, increased central obesity and a poorer blood lipid profile (Shively et al 1997). The women interviewed were either in receipt of benefits, or working in a low status occupation and in receipt of benefits, in several cases in more than one occupation. Benefit levels are of course set nationally and have been shown to be inadequate to provide women and children with an adequate diet, while in addition they are difficult to understand and claim (Mackenzie 2001).

It would seem then that living on a low income may cause increased demands, as well as potentially negatively influencing health behaviour. That the experience of living on a low income, the lowest income within our society, is demanding and stressful would appear to be common sense. However further investigating its influence over health behaviour is relevant as it may offer practical guidance on how best to enable behaviour change for this

group, and may provide new theoretical links which may help to explain this influence. Attempting to prove a link between the `direct` biological changes which may occur in this situation and CHD is beyond the remit of this study but would be a relevant area for further investigation.

- **5.2.4 Lack of control**

The women perceived themselves as having little control over their environment or occupation, and in many cases their health behaviour. It is relevant to note that in the Whitehall II study (Marmot et al 1991) chronic low control at work was linked with raised plasma fibrinogen concentration, thereby increasing the risk of developing CHD. It has been noted that loss of control is not only encountered at work and that raised fibrinogen levels are also seen in tenants when compared with owner occupiers, and among adults who experienced poor childhood socioeconomic circumstances (Brunner 1996).

Within Karasek & Theorell`s (1990) theory, the worker, like the women in this study who experience lack of control in their `work` may be seen as `isolated prisoners`. They go on to theorise that there is no clear analogue with this position in any animal society; and that being in this position represents a clear sociobiological misfit with human capabilities.
In the Swedish Five County Study, as already mentioned, (Karasek & Theorell 1990) the excess risk of CHD associated with working in `strained` (hectic and monotonous) occupations was stronger for women than men. Thus, despite the much lower incidence of CHD in working women, the findings indicated that job strain is associated with risks of CHD for women at least as strongly as for men. Within this study it was also found that overtime work (more than ten hours a week) was associated with a lower incidence of myocardial infarction in men but an elevated incidence in women. Applying the demand, control, support model we could say that those who are forced to do extra work in uncontrollable and boring jobs, (a situation more common for women, Daykin & Doyal 1999) will suffer more strain than those in controllable stimulating jobs. In addition women have more responsibility for the home and children, in addition to their work outside of the home.

The women all had plans related to learning new skills, or changing/developing their work roles, inside and outside the home. The degree of control they were able to exert over pursuing their ambitions was very limited due to the lack of child care in the locality, their lack of income and their lack of access to information technology. This resulted in the women feeling frustrated, and in some cases depressed, due to as they saw it, To their lack of opportunity and choice. As an individual`s level of education has been linked to their risk of CHD through its influence on income and status (Davey Smith et al 2001) it is important to consider this issue here as it relates to both the limits placed on the women`s educational development, and their ability to control their development potential. Within the Acheson Report (1998) it was stated that "enhanced education is likely to lead to health gains both directly, for instance through the adoption of health promoting behaviours and indirectly through a greater likelihood of employment". These perceived benefits of enhanced education were included within the section of the Acheson Report focusing on school resources; however, in relation to the findings from this study they have relevance for this adult group in addition to benefits for their children.

Interestingly within the NSF for CHD (DOH 2000) public agencies are encouraged to provide healthy workplaces by "developing organisational policies which help promote job control". This focus therefore, is of relevance for not only the women within this area but also the health care professionals, some of whom within this study expressed frustration and feelings of lack of control over particular elements of their jobs particularly relating to funding for community development work, and their ability to be flexible enough to respond to community need (both of these areas are also referred to within the recommendations for effective policies and practice within the NSF for CHD DOH 2000 respectively).

Previous studies focusing on control and health have considered how much perceived control individuals felt they had over changing their behaviour (Schwarzer 1994). These studies have not however, addressed actual control and inhibiting factors and have focused on the individual in isolation. This would appear to limit their relevance for individuals living on a low income as realistically the practical issues of every day life may dominate one's ability to control a situation, as evidenced by the findings from this study.

- **5.2.5 Absence of social support**

Social support or social resources have been recognised as an important element of the concept of social capital (Putnam 1993, 1995, Kawachi et al 1996), as well as within the demand, control, support model (Karasek & Theorell 1990).

No formal assessment of levels of social capital has been undertaken within the area in which this study was based, and such a task was outside the remit of this study. However, as the women interviewed within this study lived in an area with a very high turnover of population (25-40%), and mainly in houses of multiple occupation where crime and frequent changes of accommodation were common, one could reasonably theorise that the levels of social capital may be limited (Blaxter & Poland 2002).

A secondary analysis of British Data (Health Education Authority 1999b), including the HEA health and lifestyle survey (1996) and the Health Survey for England (1993/4, considered within the literature review undertaken to inform this study) indicated that levels of social capital are independently associated with health behaviour. However, it would appear that it is still not clear whether social capital has an influence on health behaviour over and above that of material conditions particularly when small geographical areas such as local electoral wards rather than aggregates of states or whole countries are studied (Mohan et al., 2004).

This study would suggest that there are particular elements of the circumstances of an individual which may impact on their health behaviour one of which is social support (Karasek & Theorell 1990). Social support has been identified as an aspect of social resources (Morgan & Swann 2002, Mohan et al., 2004) which as stated here is a key element of social capital (Putnam 1993, 1995). Indeed, is social resource the element of social capital which impacts on health behaviour, or do other elements of the concept such as cooperation, reciprocity, or participation impact on health behaviour either alone or through their inter action with each other within local communities (Morgan & Swann 2004)?

Interestingly within the literature review relating to social capital undertaken to inform this study it was discovered that research and thinking about social capital has often lacked attention to differences in the meaning and relevance of social capital for men and women (Burt 1998, Morgan & Swann 2004). When the results from the General Household Survey (2000) were analysed with a focus on gender and social capital (Ginn & Arber 2004) it was found that there were health benefits if both men and women perceived they had social support. However, in relation to instrumental social support (practical social support) the health benefits were substantially reduced for both groups once account was taken of differential socio economic circumstances (Ginn & Arber 2004). This suggested that the availability of instrumental social support may be associated with advantaged socio economic circumstances and better health (Ginn & Arber 2004). The findings from the women interviewed for this study (all of whom were living on a low income) would concur with this finding in that their opportunities to build up and utilise supportive social networks were reduced due to their socio economic circumstances. The experience of the women indicated that they needed support in order to undertake successful lifestyle change. However, their environment prohibited the development of support networks and their income and lack of local child care provision meant that they could not travel or pay to further develop these networks. The result of this combination of circumstances for the women meant that they had real problems gaining support for lifestyle change.

Previous studies which have considered the demand, control, support model in the work place have shown an increase in CHD risk (Karasek & Theorell 1990) when support is lacking for employees. These women lacked practical support in terms of help with their children, and issues relating to running a home (instrumental support). The women also lacked emotional support in terms of others to share their feelings and experiences with and to offer advice and understanding. These two elements of support have been described within previous studies undertaken to examine the effects of lack of support in the work place (Karasek 1989, Marmot & Theorell 1988). Lack of both types of support have been linked with an increased risk of CHD and have been shown to negatively affect health behaviours such as smoking (Karasek & Theorell 1990). This increase in risk is thought to

be due to the psychological strain caused by lack of perceived support at work for both women and men as well as behavioural risk factors (Karasek & Theorell 1990).

The issue of social support could be a focus in relation to further research and practice development to ascertain whether practical locally based strategies can be developed to enhance social support, both instrumental and emotional for women in the group studied here. It would be useful to focus on whether enhancing support impacted on health behaviour and the elements of social capital (social resource, cooperation, reciprocity and participation). It has been acknowledged that finding practical solutions to building social support will not be simple (Swann & Morgan 2004) considering the barriers that different groups have to accessing community resources and the many different community contexts that exist. However, conceptualising and evaluating public health interventions to enhance social support at a community level would be a positive step forward. The research strategies needed to explore this area should include qualitative strategies (Blaxter & Poland 2002, Cattell & Herring 2002) as only then can the types of social support available to different groups within a community be examined within their own local context.

- **5.2.6 An alternative explanation for these findings**

The findings which emerged from the interviews with the sample of women included in this study accorded with the demand, control support model (Karasek & Theorell 1990) as discussed already. However in relation to possible alternative explanations for the findings it is relevant to consider a related model, the effort-reward imbalance model (Siegrist et al 1986) which focuses more on the links between work tasks and labour market dynamics. Effort put into work is seen as part of an exchange process (socially organised) to which society contributes in terms of rewards. There are three types of rewards outlined, money, esteem and career opportunities, including job security. This model claims that lack of reciprocity between cost and gain (or high cost low gain conditions) may create a state of emotional distress which can lead to the arousal of the autonomic nervous system and associated stress reactions. For example, having a demanding but unstable job, and achieving at a high level without being offered promotion prospects are examples of high cost low gain working conditions. This imbalance is common among service occupations and professions, those people who deal with person based interactions. In the Whitehall II

study (Marmot et al 1991) an attempt was made to compare these two models (Siegrist et al 1986, Karasek & Theorell 1990) with respect to the prediction of future CHD. The results showed that both were independently related to CHD outcomes.

In terms of the theory of reward-imbalance (Siegrist 1986) and its relevance for the findings from the interviews with the women in this study it is important to consider where it and the model of demand, control and support differ. The demand, control support model (Karasek & Theorell 1990) focuses on situational characteristics of the work environment, while the effort-reward imbalance model makes a distinction between situational and personal characteristics. Secondly, components of the effort-reward imbalance model such as job security and salaries may be linked to macro economic job market factors, while the former model`s focus is on workplace characteristics. For this study the women were reflecting on their lifestyles currently and their previous attempts to change lifestyle. The women did reflect on their income in relation to others, but not their overall situation in relation to others which is a key element of the effort-reward imbalance model. The demand, control, support model (Karasek & Theorell 1990), therefore, appeared to have more relevance to work in the home, and the group under study here.

The researcher therefore felt that the features of this model did not emerge from the analysis of the interview data with the women, due to its fundamentally different structure and focus. However despite these differences there may be promise in studying the effects of both models in future studies (Marmot & Wilkinson 1999) in relation to this group and health behaviour.

- **5.2.7 The impact of houses of multiple occupation**

The women interviewed lived in housing which consisted mainly of houses of multiple occupation (HMO`s), with those women who owned property with partners (n=2) owning a bedsit in one case and a one bedroomed flat in another, in which they lived with their children.

After conducting and analysing interview data with both the sample of women and the health care professionals it became apparent to the researcher that local housing was a major issue for both groups. The women viewed their housing problems as being a negative influence on their general health in terms of increased stress due to overcrowding, personal safety issues, damp and food preparation problems. The health care professionals also had great insight into the problems of their local population in relation to HMO`s and outlined within their interviews the same issues as the women. As covered within the literature review women spend longer in their homes and are at greater risk from their homes` health threatening features due to their almost continuous exposure to them as carers (Payne 1991).

The knowledge which both groups (residents and health care professionals) had regarding poor housing was routinely shared during visits to the surgery. Otherwise the information seemed only to be shared by the health care professionals with the local authority housing department via letters on the request of individual residents. The women, when asked what results they got from complaining to their landlords, stated that nothing much happened or they had difficulty leaving messages or contacting the landlord. It is of relevance to note that the environmental health officer felt that in his opinion the residents of the HMO`s were not inclined to complain to the landlord as they felt intimidated. This was seen as being due to their vulnerable position regarding housing, particularly if they have children, as alternative housing without a cash deposit of several hundred pounds may be impossible to find locally in an area of burgeoning housing prices. Partnership working which sought to increase communication and action regarding improving local housing and access to housing could work effectively for these women and their children, but agencies need to share information and resources effectively. This was not happening at the time this study was undertaken.

- **5.2.8 Personal computer and internet access**

None of the women interviewed had internet access in their own home for themselves and their children; in rented accommodation the likelihood of having an extra phone point, as well as the expense of purchasing a computer was considered by the women to be an

unattainable goal. In the U.S.A. this issue has been termed the digital divide (NHF 1998) as it has been recognised that educationally children may be disadvantaged by having no internet access throughout their education.

Lack of computer access seriously disadvantages mothers and children with regard to information access, development of basic information technology skills and the exploitation of educational opportunities. As poor educational attainment increases CHD risk (Davey Smith et al 2001) then this is an issue which may help to maintain inequalities in CHD.

Within the interviews with the health care professionals it became apparent that other than the GP`s interviewed (n=2) the staff also had no internet access. Within the sample for this study all those health care professionals without internet access were women. In the interviews, when considering the primary prevention of CHD, the lack of ability to share best practice with other professionals working in similar roles became apparent, as did the lack of ability to access up- to- date evidence for this area of practice. In addition the potentially negative effect on partnership working of lack of computer access (Hemingway 2004) for primary care staff needs to be considered.

The Primary Care Trust does not have its own library facility, although the staff may access the local Acute Trust library; however, in their reflections the staff interviewed stated that this would inevitably need to be done in their own time due to the demands and structure of their professional roles within local practices.

5.2.9
Conclusion

Within this study it has become apparent to the researcher that it is impossible and in fact inappropriate to attempt to separate a research participant`s life circumstances from their lifestyle, and attempts at lifestyle change. Indeed research which does this runs the risk of exacerbating health inequalities and creating false expectations of lifestyle change for some groups or individuals. Within the analysis of the interviews with this group of women

it was necessary to consider their living, working, and caring circumstances along with the environment in which they live when considering how they made decisions regarding their health behaviour and how best to support them in lifestyle change.

- **5.2.10 Recommendations for further research**

Within the research findings relevant to the first study objective (women's health behaviour, and attempts at behaviour change relevant to CHD in the context of their own circumstances and the area in which they live) several areas of potential further study have emerged.

- The demand, control, support model (Karasek & Theorell 1990), and the effort, reward imbalance model (Siegrist 1986) and their potential links with inhibiting lifestyle change.
- The potential to use and evaluate the elements of the demand, control, support model (Karasek & Theorell 1990) as a focus for health care professionals to enable effective lifestyle change with the group under study; through reducing demand, increasing control and providing, or developing support mechanisms. This process could also provide insights into whether perceptions of the level of social capital in an area are increased through efforts to develop support networks in particular.

5.3.1 Objective two

Did the factors the women identified as influencing their attempts at lifestyle change influence local CHD prevention involving health professionals?

Key finding:

- That the factors which the women identified as influencing their attempts at lifestyle change did not influence CHD prevention involving health professionals, although they were aware of the circumstances of local women living on a low income.

- **5.3.2 Prevention in practice**

This section of the discussion chapter will focus on what emerged from the literature as the characteristics of effective interventions for the group under study here, in relation to the

health care professional`s practice; and will then consider their practice in relation to the themes which emerged through this study as negative influences on the local women`s health behaviour.

Attempts to improve health overall seem to come from two different ends of a continuum, with one end consisting of individual behaviour change approaches and the other the `new public health approach` which considers healthy public policy, community development and developing personal skills and a supportive environment (Ottawa Charter 1986). Criticisms of both ends of this preventive continuum consist of a lack of evidence regarding their effectiveness in improving overall health, with the possible exception of cigarette smoking initiatives (Egger et al 1999).

Internationally there is a marked unanimity of opinion regarding the causes of heart disease, and in many countries job characteristics are not among the commonly accepted causes (Theorell 1998). In the UK and the USA the accepted risk factors are often listed in both scientific journals and the mass media as high serum cholesterol due to a high fat diet, high blood pressure, smoking and lack of exercise and interventions focus on health education and general information giving. This degree of certainty regarding both risk factors and appropriate interventions may seem surprising given the inconclusive success of many large scale studies aimed at reducing behavioural risk factors alone, as discussed within the literatuare review chapter (Stansfeld & Marmot 2002). Experiments which focus on reduced smoking, diet changes or hypertension medication have been successful in relation to lifestyle change but in several studies have failed to show a lowered incidence of CHD itself, which is the ultimate goal (Hjermann et al 1980, Multiple Risk Factor Intervention Trial Research Group 1982, Salonen et al 1979, World Health Organisation 1984 and Lynch et al 1996).

The overall agreement on risk factors is also surprising considering the many unanswered questions about what causes high blood pressure and serum cholesterol, both of which are in part measures of internal physiological regulatory mechanisms that mediate the successful adaptation of the individual to the environment, and its demands. Yet these environmental challenges have not been discussed extensively within the literature on the

causation of CHD (Marmot & Stansfeld 2002). In health education material almost all heart disease is attributed to personal life style but, as has been noted here, smokers smoke more in high stress settings (Marmot & Stansfeld 2002), and exercise behaviour is directly affected by one`s personal and material circumstances (Tkachuk & Martin 1999). It is apparent that there is a real tension between `accepted` causes of CHD and the evidence relating to `environmental` causes if the environment is seen as the whole context of an individual`s life.

This tension appears to mirror in some aspects the tensions between prevention which focuses on the individual or on these wider determinants of health. The individual behaviour change approach sits well with the accepted causes of CHD in the UK which relate to individual attributes and lifestyle, while the environmental or contextual causes of CHD may sit well within a partnership based approach which acknowledges the wider determinants of health and health behaviour.

Interestingly occupational strategies to prevent `job stress` have also traditionally focused on the individual rather than their working environment (Theorell 1998). One way to deal with job stress is through individual stress management programmes, which can be of some benefit. However there is increasing evidence that aspects of work organisation in themselves contribute to increased risk of CHD (Stansfeld & Marmot 2002). This tension between the individual and their circumstances both at work and home is mirrored within CHD prevention overall, with the traditional focus being on individual attributes and lifestyle; with evidence now showing that a re-focusing towards an individual's circumstances and the wider determinants of their health is needed to complement this in order to achieve reductions in mortality and morbidity from CHD across all groups within the U.K. population (HDA 2001).

- **5.3.3 Health improvement and low income groups**

Within the literature review to inform this study the characteristics of health improvement interventions identified as most likely to be successful with the group under study here were:

- health education interventions that provided a combination of information and personal support,
- those that involved structural measures, and
- interventions that provided a combination of health promotion and structural measures (Gepkens & Gunning-Shepers 1996, Arblaster et al 1995).

One of the health visitors interviewed was involved in a partnership initiative with the local environmental health officer which fell into the first of these three categories, and focused on increasing physical activity and improving dietary intake through community based initiatives for local families. However, this was the only practitioner and the only initiative identified which fell into any of these categories. Long term support for this initiative from the local PCT in terms of staff or money was not forthcoming due to an increase in the prescription budget and therefore it has since stopped. Therefore, by the end of this study none of the health care professionals interviewed were involved in any initiatives that fell within these three categories outlined as potentially effective for the group under study.

The health care professionals interviewed were aware of the circumstances of women living in the area in which they practiced in relation to their attempts to change their lifestyles, particularly in relation to smoking. They reflected on the fact that the women did not appear to be able to take control of this area of their lives, and were aware of the great demands placed on women living in poor accommodation with young children. However, the health care professionals did not see this group as potentially at risk from CHD, and one General Practitioner even questioned whether it was worthwhile helping these women to quit smoking, pre-menopausally, which showed a marked lack of insight into studies relating to maternal smoking, deprivation and infant and child health (NHF 1998). The health care professionals saw their practice in relation to CHD as focusing on secondary prevention and that only when an individual had existing disease and expressed a commitment to stop smoking would they be supported in doing so, as they had no resources to offer this facility to all individuals who smoked at the time the study was undertaken.

The women interviewed who smoked had repeatedly attempted to quit, but with little success. The health care professionals also reflected on the inability of this group to give up smoking. Indeed one practice nurse stated that she had known only three women in the locality to give up for more than a few months over her ten years of practising there. The health care professionals also reflected on the additional support required to enable their patients to quit and they were in the process of asking the Primary Care Trust for extra money to provide one to one support while this study was being undertaken. However, it is interesting to consider that the Primary Care Trust's smoking cessation strategy (2003) did not plan to provide any additional support for particular groups and did not mention health inequalities at all in relation to reaching its targets of `571 four week quitters`. As shown in the findings from this study and existing evidence when living on a low income the lack of control over one's circumstances and lack of opportunities do not breed optimism and therefore enable success (NHF 1998). Indeed intensification of current smoking policies without fresh thinking, particularly in relation to supporting individuals in difficult circumstances to quit, may well succeed in further reducing prevalence but only at the cost of still wider health inequalities (Jarvis & Wardle in Marmot & Wilkinson 1999).

It would appear therefore, that the health care professionals were aware of the circumstances of women living in the area in which they practiced, and were aware of the three areas of high demand, low control and low support for these women. Yet this awareness did not influence their practice substantially, imbedded as it was within a model of secondary prevention for those with existing disease. Indeed doubts were expressed as to whether primary prevention of disease was an issue relevant for primary care at all within this deprived area.

- **5.3.4 Practice development**

Within the interviews with the health care professionals it became apparent that different views were held by different professional groups about what interventions may work to improve the health of the group under study, and that the evidence relating to effective interventions may support this (Gepkens & Gunning-Shepers 1996, Arblaster et al 1995, HDA 2003). The Practice Nurses and the General Practitioners felt that individually

focused brief interventions and effective monitoring of high risk groups was both supported by the evidence base and an appropriate focus for their primary prevention work. This finding appears to concur with the evidence relating to what types of interventions may work in relation to smoking cessation as considered within the second literature review chapter in this thesis (Lancaster 2000, Fiore et al 2000), although the literature reviewed would indicate that interventions do need to offer further support, and be tailored to an individual's needs (Lancaster et al 2000, Fiore et al 2000 & Jaen et al 1997). These important additional factors did not appear to influence the practice of practitioners interviewed within this study.

The health visitors, the community midwife and the community dietician felt that the interventions needed to be based in the community where people are, such as drop-ins, schools, local businesses and other local facilities and that they needed to work together and with other agencies to be effective in relation to local health needs. The literature reviewed in relation to what health improvement activity works for low income groups within chapter two of the literature review in this thesis would concur with the views of these practitioners ((Gepkens & Gunning-Shepers 1996, Arblaster et al 1995). It is logical therefore, to consider that these different but complementary roles within primary prevention, focusing on both an individual and community based model could be enabled and further developed to comply with the evidence base through staff development within the PCT's.

Different staff need to be aware of strategies and underpinning evidence which most effectively exploit the context in which it would appear their role in primary prevention may be most effective. Indeed in focusing staff development in this way, this aspect of their role may be perceived as more relevant and achievable, and less of an unwanted extra burden. This may indeed be a most effective focus for the future development of roles and skills within developing public health teams in PCT's, which may be enabled by the appointment of Directors of Public Health to Primary Care Trust Boards. Based on the findings of this study it is appropriate that funding needed for different areas of role development and the continuing support for a diversity of roles should be flexible and available to staff in practice through a simple direct route. No Director of Public Health

had been appointed to this PCT by the completion of this study, although a Consultant in Public Health was chairing the local sexual health planning group.

Within these two areas of staff development and funding for community based health improvement work the role of the Director of Public Health could help to co-ordinate activity and funding arrangements, which may enable greater flexibility. It could also help to foster a team approach to health improvement, as is the case with current effective management of individuals with existing disease within primary care (Glendenning et al 2001). In addition this role could enable community participation in health improvement and begin to address the issue of sharing, or giving control to local residents. As mentioned previously within this discussion, engaging the workforce within primary care to undertake primary prevention may in itself be a challenge. The appointment of a Director of Public Health to PCT boards may help to focus this work; however it will not of itself ensure support for health improvement from all staff. Although, as through these appointments nationally, non-medical directors are appointed this may then offer a perceived formalised career structure within the public health aspect of PCT work which had previously been lacking; this may encourage workforce participation.

5.3.5
Conclusion

The emergence of the National Occupational Standards in Public Health Practice (Skills for Health 2003), and the CHD National Workforce Competence Framework (Skills for Health 2003) will mean that practice development for practitioners who spend the majority of their work/practice improving the health of populations, communities and groups (and through them the health of individuals) will be offered a means of identifying learning needs and skills gaps in relation to CHD prevention. This will give organisations the opportunity to work with practitioners to plan their development needs, and will offer a format for work based learning while offering educational providers a format for academic programmes/modules. However, as the status of these development frameworks remain optional it is unlikely that educational opportunities will be funded or attended by PCT staff unless they both recognise the importance of community based health promotion and

are enabled to translate this recognition into practice. The findings from this study would suggest that some of the health professionals interviewed recognised the importance of primary prevention approaches based in the community and responsive to local health needs, but were unable to change and develop their practice in response.

- **5.3.6 Recommendations for further research**

Within the research findings relevant to the second study objective (whether the factors which the women identified as influencing their attempts at lifestyle change influenced local CHD prevention involving health professionals) several issues have emerged as potential areas of further study.

- The effectiveness of implementing different areas of role development for different members of the Primary Care trust workforce relevant to the scope of their job. This may have further relevance following the implementation of the new General Practitioner Contracts (1st April 2004) whereby this role will be focused even further within the surgery on brief consultation, rather than in relating to the wider community and their health needs. This may be more appropriately engaged with by other health care professionals, such as community midwives, health visitors and dieticians, who may not currently be employed on a geographical basis through Primary Care Trusts.
- The evaluation of the development of local multi-agency public health teams, with a focus on the reduction of health inequalities in a geographical area (Hemingway 2004).
- The take up of optional educational development by staff engaged in primary prevention of CHD through the CHD Workforce Competency Framework (Skills for Health 2003).

5.4.1 Objective three

Whether local partnership working and strategic planning addressed the influences on lifestyle change relevant to CHD prevention in local women and enabled partnership working including primary care professionals.

Key findings:

- That local partnership working and strategic planning was very limited and had not successfully engaged local health professionals, and
- that local partnership working did not address the influences on lifestyle change relevant to CHD prevention for local women.

- **5.4.2 Local partnership working**

The Health Act (1999) imposed a duty on all NHS organisations to work in partnership. Primary Care Trusts are required to give priority to forming partnerships with local authorities; collaboration is seen as essential to tackle `wicked issues` (Audit Commission 1998) which are complex problems such as health improvement, community safety and community care. However it would appear that implementing these activities and assessing progress is not easy (Glendenning et al 2001).

Local partnership working in which health care professionals or residents are involved within this area is limited, which would appear to fit with the national picture at the time in which this study was undertaken (Glendenning et al 2001). Indeed where partnership working is taking place in this area it is not funded or supported by the structure of working roles currently within the PCT. In addition the group through which partnership working may be enabled and given a local strategic focus in the future had not met for the seven months prior to the preparation of this thesis (Health Improvement Group, now one of the Local Strategic Partnership working groups). However that the group is planned and is linking actively with the Community Plan is positive and that the group plan to consult residents through the citizens' panel is also positive. It does not, however, allow the markedly different circumstances of residents living in local areas to be represented effectively by the residents themselves or by local health care professionals which in relation to localised health inequalities is a missed opportunity. As indicated within the findings from this study, the residents and health care professionals are aware of what affects the health and health behaviour of local people, within the wider context of their lives. This knowledge is currently not exploited within either current or proposed

partnership arrangements with other local agencies, who may have more control over these contextual issues, such as housing or education.

The areas which emerged from the literature review undertaken to inform this study which would seem key to enabling partnership working included the following:

- Having clear shared aims and objectives with all partners gained through effective communication.
- Seeing and sharing the benefits of partnership working.
- Achieving sustainable changes in funding which makes the partnership working not dependent on injections of external resources.
- Allowing individuals to work in new ways, and valuing every one's contribution.
- Actively involving local residents as partners in the planning and process of partnership working, and enabling the involvement of residents who may not normally be the first to volunteer to be involved in community development activity (Gregory 1998).

It would appear through the analysis of professional practice and the local Strategic Partnership that these areas are not being focused on within current local arrangements. Indeed seeing and sharing the benefits of partnership working is not evident as little operationalised partnership working had been undertaken to enable this to happen. Sustainable changes in funding were not evident and neither were individuals enabled to work in new ways. Finally the active involvement of local residents as partners was not apparent through current strategic partnership arrangements, or professional working practices. The practitioners interviewed in this study focused their practice on individual attributes and lifestyle, and did not engage with the wider causes of CHD. Indeed, they will only be enabled to engage with this 'different' approach if they are able to change the focus of their practice, and join with other agencies in sharing the evidence and their experience relating to the wider determinants of CHD, as these other agencies may have more influence over an individual's circumstances or environment.

The most recent evaluation of local strategic partnerships published in February 2003 highlighted a number of issues as potential teething difficulties (HDA 2003). These included:

- Establishing a role and purpose, agreeing priorities and ensuring effective delivery
- Stakeholder engagement, including community engagement
- Resources and capacity
- Developing effective ways of working

These areas effectively mirror those which emerged from the earlier reviews considered here in the literature review chapters and agree with the findings from this study which has focused on whether local needs are being met for the group under study. Of particular relevance for the findings from this study are the points relating to effective delivery and community engagement which were found to be lacking in this local area and may have proved beneficial in relation to meeting local health needs for the group under study.

The national tracker survey found that many barriers to working in partnership remain within existing or developing arrangements (Wilkin et al 2001), not the least of which is that partnership working may be seen as an end in itself rather than as a means to an end. The seeming lack of ability in the locality under study here to operationalise partnership working currently would seem to support this explanation.

The following findings from this study are supported by the national tracker survey (Wilkin et al 2001):

- Differences in perceived organisation and different arrangements for accountability between the PCT and the local authority. This finding from the national tracker survey (2001) was mirrored in this study in the differences in managing and gaining funds for health improvement work evident between the experiences of the health visitors and the environmental health officer interviewed. In order for the health visitors to gain funding they needed to undertake (as they saw it) laborious and time consuming bids which included the relevant evidence for even small amounts of funding (such as £20), while the environmental health officer was given a budget to manage (of £75,000) for health improvement work, upon which the local authority placed very little prescriptive limitations. Indeed the environmental health officer did not need to produce `evidence` to underpin his actions but relied on lobbying politicians and fellow workers for support for what he felt was the `right thing` to do with the money.

- Lack of partnership working, as reflected within the interviews with the health care professionals and the activities of the Health Improvement Group. Through the findings of this study it is apparent that the women and the health care professionals are aware of the potentially negative effects on their health of living in this area on a low income. However this knowledge and experience is not utilised within current partnership working arrangements to enable other agencies to share these valuable insights. Indeed it is unclear whether all agencies are aware of the potentially negative effects of their policies on life long cardiac health, for instance the planning of leisure and transport facilities, provision of reasonable or subsidised child care, the enabling of educational/information technology skills development and the provision of safe housing.

The Health Development Agency has published a report tracking the development of Health Improvement Programmes (HDA 2002), and three key areas mentioned within the report as examples of a more integrated and co-ordinated approach to local working on health improvement were not apparent within local health improvement plans for this area:

- Strong links with service users and NHS staff,
- provision of staff training on community involvement, and
- initiatives linking health and housing and other broader determinants of health such as the environment and education.

It would appear from this study that these areas which enable a more integrated and co-ordinated approach to local working on health improvement have not yet been addressed within this locality, and are not within current planning for health improvement or partnership working.

Setting targets for health improvement activities is challenging and without some indication of progress it may be unlikely that PCT`s will be able to engage their staff in this work if they do not feel that it is an appropriate or effective use of resources, as was found within this study. Indeed targets set may need to relate to outputs rather than health outcomes since changes are not likely to be detected and are difficult to attribute to a particular group or intervention (Gillam 2001). In addition, in order for logical evidence based strategies to be developed to meet targets, the targets need to show the links between

causal factors, local need and evidence of effectiveness for prevention strategies planned; these links were not evident within health improvement targets set for the locality considered here.

Partnership facilitated interventions related to the areas of high demand and little social support for this group could include the development of a local community creche or nursery, and/or the active development of more registered child minders within this area, possibly with a referral system (from health and social care professionals) for subsidised places.

Social support can be offered in a variety of ways to this group, through drop-ins, lunch clubs, stay and play schemes, school based baby clinics or parents groups, or a `buddy` system for new mothers who move into the area and have few social contacts. These strategies could also offer development opportunities for residents who wish to be actively involved in planning and delivering services, thereby allowing residents to be involved in controlling and planning this preventive work in the future. A key focus for partnership work in relation to any of these activities within the area under study could be the provision of premises for the above activities, which is an issue locally for both PCT and local authority staff. This work could be enabled through the Health Improvement Group, and aspects of it could be funded through the Single Regeneration Bid funding; however, without a co-ordinated strategic approach this is unlikely to occur within current arrangements.

These interventions have overlaps with initiatives which may be undertaken to support homeless families, to improve parenting skills, or to support individuals with mental health problems (Harker & Hemingway 2001), which is why a strategic approach to each locality is needed. It is planned within the PCT in this area to take a locality based approach to health improvement work, therefore the potential is there to enable a co-ordinated strategy with the Health Improvement Group, and the future Director of Public Health to exploit existing resources for this work, and to develop further resources within and across localities.

- **5.4.3 Recommendations for further research**

From the discussion relating to the findings from the third study objective (whether local partnership working and strategic planning addressed the influences on lifestyle change relevant to CHD prevention for local women) the following areas for further study have emerged.

- An investigation of the efficacy of setting local targets relating to outputs rather than health outcomes since changes are not likely to be detected and are difficult to attribute to a particular group or intervention (Gillam et al 2001). In addition in order for logical evidence based strategies to be developed to meet targets, the targets need to show the links between causal factors, local need and evidence of effectiveness for prevention strategies planned.
- The effectiveness of partnership initiatives which focus on reducing demands, and increasing control and support in enabling effective lifestyle change for the group under study here.
- Although the powers and duties of local housing authorities are laid down in legislation, they are complex and relatively few duties are sufficiently precise to identify whether they are being carried out or not (Day et al 1993). This situation coupled with the possibility of tenants feeling unable to complain regarding their situation, through fear regarding their real or perceived vulnerability is unsatisfactory. As is the case in this area this situation can result in housing which has potentially negative effects on health being inhabited by some of the most vulnerable members of our society (Acheson 1998) namely women and children living in poverty, and is undoubtedly an area which warrants further study, in terms of how improvements can be made to the management of private rented housing in order to inform local and national policy.

5.5 Policy implications

Within the literature review which informed this study the policy background to the prevention of CHD was considered over the last twenty years in England, it was clear that during the nineteen seventies and eighties deterioration in social and health indicators (Black Report 1980) focused renewed attention on the issue of inequalities in health. This led to a series of initiatives including the Chief Medical Officer's report on variations in health (1995), and the Joseph Rowntree Foundation inquiries one on British housing (1991) and income, wealth and health (1995). These culminated in the Acheson report (1998) which has been used to inform the development of the aim and objectives for this study. It is however interesting to note that beginning with the Chief Medical Officer's report (1995) the message from these various groups has focused on partnership working between local authorities and health to consider the wider determinants of health and encourage social and health policy and practice which actively promote health. In addition government policy documents reiterate this need for partnership working between agencies and practitioners, as seen in the Our Healthier Nation document (1998), while the Chief Medical Officer's Project to Strengthen the Public Health Function (2001) called for health care professionals and local authority staff to develop a 'public health mindset' and to gain a greater appreciation of how their work can influence the health and well being of local communities.

As mentioned within the literature review for this study many modern diseases such as CHD and cancer do not have a single predisposing cause as there appears to be a hierarchy of associated factors, the basis of which may be seen as social and behavioural though they may also be related to political and economic factors (Stansfeld & Marmot 2002). Historically in England the main focus of CHD prevention has been to encourage individuals to change their lifestyle through health education (National Heart Forum 2001). This focus has come about through the influence of political interests which focus on the responsibility of the individual for maintaining and improving health as seen within the previous government's Health of the Nation document (DOH 1992) and is still a large part of current debates on preventing ill health (Wanless 2004). In addition to this, health behaviour change research and practice has focused on changing the behaviour of individuals. Intervention based health promotion theories have been developed from psychological models (Whitehead 2001) which see people as context free and do not

engage with their individual circumstances. It is however clear that many other social, economic, political and environmental issues impact on our health (Graham 1998), and as indicated by the findings from this study on our health behaviour. It would appear then that this individual focus needs to widen to consider these other areas if we are to be successful in reducing inequalities in CHD for the group under study here. It is necessary for policy to be implemented by local practitioners and for this to occur successfully these practitioners and local partnership members need to develop insights into these wider determinants of health and health behaviour, and develop local strategies for action.

It would appear from the results of this study that this `public health mindset` and change in approach has not been adopted by health care professionals, and partnership working to improve health is not putting policy into action within the area considered here. Indeed, any preventative work undertaken by staff focused on individual prevention, with little or no consideration of the wider determinants of health evident from their practice. This focus on individual behaviour change by practitioners, when considered in juxtaposition with the results from this study indicate that for individuals whose health behaviour is impacted on by their circumstances attempts at enabling life style change are likely to fail. This likelihood was reinforced within this study through the very low rates of smoking cessation success among this group of women locally. Their lack of success may indeed reinforce any doubts that health care professionals have regarding the effectiveness of health promoting interventions, which may then make them less likely to invest in developing this part of their practice. When this experience is combined with a marked lack of knowledge regarding the wider determinants of health and what impacts on health behaviour as indicated by the findings from this study the likelihood of local health care professionals investing their time and effort in this area and changing their `mindset` becomes even more remote. It is possible that health care practitioners view themselves as experts at working on a `one to one` basis with their patients/clients and their families or significant others (Gillam et al 2001). The idea of informing a wider debate on the circumstances of the local population they serve, and the effect of circumstances on health and well being may not appear to be a useful focus for their energies. Indeed, if they do not feel it is a useful focus then it is unlikely that they will see the need to work with other agencies and it will not appear to be a necessary part of their work. In addition their lack of awareness of the wider

determinants of health and their influence on health and well being (HDA 2001a) means that health care professionals are even less likely to develop a `public health mindset`.

Persistent inequalities in health across England have however influenced government led area based developments designed to tackle these inequalities, such as Health Action Zones, Public Health Action Areas, Healthy Living Centres, Sure Start programs and Single Regeneration Funding (Integrated Care Network 2003). These initiatives offer real opportunities to prevent persistent inequalities in heart disease through addressing underlying social adversity nationally (Harker and Hemingway 2001). Although as in the area under study here pockets of deprivation within overall affluent areas may loose out in funding allocation if investment always goes to those areas of geographically dictated greater need.

The area in which this study is based has been successful in gaining funding for a Healthy Living Centre, which, if planned with local residents and designed to meet their expressed needs, could help this group considerably in relation to providing support. The area has also gained Single Regeneration Bid money and individuals are being appointed at the time of writing up this study to manage this regeneration process, which, if it focuses on housing, and child care for instance could greatly help the group under study here. If, however, these programmes were funded for areas with particular characteristics of deprivation rather than through a bidding process the provision of opportunity for residents may be provided more equitably, particularly for those who live in a pocket of deprivation that may lose out through current funding arrangements.

The Welfare to Work program (Department of Education and Employment 2000) is designed to help individuals at the bottom of the socio-economic scale. However, it needs to be identified that the path out of benefits for women in the group under study here may well be into low paid work, which still requires the individual to claim benefits in order to gain an adequate income. However as the findings from this study indicate this program without opportunities for educational development and an increase in child care support is unlikely to succeed for this group (Graham 1998). The National Child Care Strategy for England (Department of Education and Employment 1998), which has enabled a threefold

increase in the annual investment in child care from £66 million in 2000 to over £200 million by 2003-2004, has the potential to positively affect the group under study here both in relation to reducing demands and providing support but only if a positive effort is made locally to support the development of affordable child care provision within this locality.

The potential provision of greater local council powers over neglectful landlords and scrutiny of houses of multiple occupation as featured in the consultation paper Licensing of Houses of Multiple Occupation (Dept of Environment, Trade and the Regions 2000/2001), would be of benefit to this group through providing tighter controls over the quality of rented housing and the burgeoning numbers of HMO`s within areas with few supports for the individuals and families whose only housing choice is this type of accommodation.

The health and well being of the group under study here has been identified within the Department of Health Cross Cutting Review, Tackling Health Inequalities (Nov 2002) as an essential target group if inequalities are to reduce. In addition the review refers to CHD and work related stress, particularly mentioning high demand and low control at work and their relevance for continuing health inequalities across different social groups. This cross cutting review was intended to show progress so far towards reducing health inequalities and to ensure that their reduction remains a priority for the Department of Health and local government. In addition the review aims to ensure that reducing health inequalities are tackled through effective joint working at local level, particularly through Local Strategic Partnerships, which clearly was not occurring in the area under study here at the time the study was undertaken.

It is apparent through the consideration of policy undertaken to inform this study and from the study results that policy is focusing on reducing health inequalities through considering the wider determinants of health. However, it is also focusing on the responsibility of the individual to maintain their own health Choosing Health Consultation (DOH 2004). These two strands of policy reflect the major strands of research evidence (epidemiological and behavioural) as they have developed within the UK scientific and political contexts (Stansfeld & Marmot 2002). As the findings from this study would indicate however, the separation and focus within these two strands does not allow for a clear consideration of

how circumstances impact on health behaviour. This study has found that key attributes of an individuals circumstances may impact on their health behaviour negatively (high demands, lack of control and support) and that these key issues are not being focused on by health care professionals or through any partnership working occurring in this area.

The 'Tackling Health Inequalities, a program for action' document (DOH 2003) outlines how delivering change on health inequalities will only be achieved through supporting families, mothers and children. A key intention of this strategy is to enable government departments to work together in order to address the wider determinants of health and the development of local teams including parents, health visitors, and social workers. If this is to happen then the role of the health visitor and social worker within the area under study will need a major review and practitioners from health and social care will need to be supported to develop skills enabling them to work with local parents and focus their services on user needs within their local areas. Indeed, as indicated by this study currently, these practitioners are not able to share their knowledge of local need in any structured way, and are not able to influence provision or organisation of services to respond to local need through partnership arrangements currently.

If a public health function to tackle inequalities in health is to be developed within PCT's and LA's then the professionals considered in this study are key to that development and it is essential that they are actively enabled to work together and influence services with local residents (Hemingway 2004). It would appear that national policy supports joint working to tackle health inequalities and that from central government there is an intention to influence and implement change in local areas (DOH 1998a, DOH 2000a, DOH 2000b, DOH 2001a, DOH 2001b, DOH 2003). This study would suggest that implementing this effectively through local PCT's and LA's is proving a considerable challenge in some areas. However, in the future The HDA's initiative to provide regional support for practice development in public health and to support practice development collaborating centres (2004) to generate knowledge on how best to develop practice may influence this area positively.

Current government policy (DOH 1998) appears to support preventive strategies which tackle individual attributes, socioeconomic circumstances and contextual elements relevant to increased CHD risk in the group under study here; however, is this happening in practice? The results from this study would suggest not, and would suggest that an individual focus dominated throughout policy and practice in the area considered. To a limited extent a dual approach, considering both the wider determinants of health and an individual's health behaviour is also encouraged via the National Service Framework for CHD (DOH 2000). However, it is totally supported by the HDA (2003) guidelines for responding to the NSF for CHD. The recommendations within it relating to enabling lifestyle change focus on comprehensive approaches, which involve working in partnerships in localities in order to influence both individual behaviour and the environmental, social and cultural conditions within which that change may take place. It is clear from the findings of this study that within the locality under study these comprehensive approaches were not being focused on, and the partnership structures to enable this to happen were not being exploited effectively.

The three key areas which emerged from this study as potential negative influences on the women's health behaviour do lend themselves to this type of comprehensive approach which could provide support and a reduction in demands through different agencies working together. An important additional point is that the practice of individuals working in the area was not being actively supported to change at the time of undertaking the study. As indicated by this study practitioners may still not be acknowledging or attempting to tackle the wider determinants of health within their practice under current structures within PCT's where targets focusing on access to health care from central government are creating considerable challenges for all practitioners (Jee 1999, Fitzpartrick 2001, Gillam et al 2001, Glendenning 2002). Without a requirement for and investment in practice development in this area it may be unlikely that government policy will be effectively implemented across the country.

5.6 Structuring future practice development

The following factors which have emerged through this study as potentially limiting the prevention of CHD for women living on a low income could be used to structure practice development for public health practitioners, and their employing organisations, as will be discussed here in further detail. This could enable the areas highlighted by these findings to be addressed within professional practice and partnership working.

- Apparent lack of knowledge; it is commonly believed by both health professionals and the public that women do not suffer as much as men with CHD although currently in retirement years rates of mortality and morbidity from CHD for men and women are not now equivalent, women are dying in greater number from CHD than men in the UK (BHF 2003). Within the recently published findings from the MONICA study (WHO 2003, the largest ever global collaboration on heart disease) it was found that, out of a total sixteen and a half million cardiovascular disease deaths annually, over eight and a half million of those dying were women. It was also found that heart attacks and strokes are responsible for twice as many deaths in women as all cancers combined (WHO 2003). Indeed within the findings from this study neither the women nor the health care professionals could always see the relevance of CHD prevention activities for this group, and were unaware of the focus within the National Service Framework for CHD on improving the health of women of child bearing age. The knowledge base of practitioners and the public would appear to need development therefore, to ensure that awareness of potential risks for this group, and their influence on the health of future generations is recognised and acknowledged within preventive strategies.
- As women tend to suffer with CHD later in life, it appears that they may be treated less actively and the prevention of factors in early life may be seen as unnecessary due to the focus on the protective characteristics of hormones in the pre-menopausal woman (National Forum for CHD Prevention 1994, British Heart Foundation 2003). This factor was directly referred to by both the women interviewed, who felt that CHD was only a problem in later life, and one's current lifestyle did not affect it, and by the health care professionals, who doubted the benefits of supporting women to stop smoking at all pre-menopausally. Once again therefore, both practitioners and women in this group need to be made aware of how health behaviour throughout life can affect their risk of CHD (NHF 2001). In addition practitioners need to be aware of the evidence base regarding the

potential benefits of behaviour change, and what may limit behaviour change for this group, in relation to smoking, diet and physical activity for the women themselves and the children they care for.

- Lack of consideration of a life course preventive approach to CHD (this builds on the previous point). It is necessary to focus on the health of women of childbearing age and children as laid out in the Acheson report on Inequalities in Health (1998) in order to prevent the perpetuation of inequalities in health; and in order to recognise the influence that a woman has over the health of those she cares for. Current rates of CHD mortality and morbidity within pre-menopausal women are low; therefore preventive strategies are not focused there, as seen here through the interviews with the health care professionals. Preventive activities are, however, focused on opportunistic individual interventions to enable behaviour change based within `the surgery` which give no consideration to other factors, as identified within this study which may negatively influence lifestyle change. Within this case study this focus is underpinned by the limited knowledge base of health care practitioners, the rigidity of job roles and a focus on prevention of CHD in those with existing disease.
- Attempts to promote health and to educate the public in relation to health issues are too often rooted in traditional psychological models which encourage us to see health and risk as black and white value free choices (Crossley 2001). Consumers of this information and advice are too often perceived as passive, waiting to receive direct categorical advice which enables them to live their life safely in accordance with scientifically discovered truth. However, knowledge relating to health improvement is not this clear cut and unambiguous and neither are the circumstances of its audience, as evidenced by the findings of this study. Practitioners need to be aware of these complexities and to be enabled to develop strategies to address these issues, along with local partners whose roles and responsibilities may have a considerable influence over the health and well being of the group under study here.
- Lack of support for professional practice which focuses on providing support networks and continuity of care for women living on a low income, as evidenced here through the rigidity of health visitor roles and the reorganisation of the community midwifery services, funded by the local acute hospital trust. This lack of support may for instance decrease the likelihood of early detection of post-natal depression within the population, a need which

was detected through the interviews with the sample of women in this study. This lack of support may be organisational in nature or manifested through insensitive or inflexible funding of posts and may result in a lack of flexibility in relation to primary care staff job structure, organisation and funding, all of which may inhibit the individual practitioner from developing skills relevant to their own role in primary care. This lack of support may also prevent practitioners from focusing on the expressed or assessed health needs of local residents which need to be considered within strategic planning of services and practice development within localities.

- As stated by the Parenting Education & Support Forum in a paper (June 2002) presented at the Royal Society, parents want to feel in control, they want input into defining their needs and to experience a sense of agency. Often services are designed to meet needs which are generated by health and social care professionals, and do not emerge from consultation with local users (Parenting Education & Support Forum). In addition, health care professionals appear to try to take control from individuals within interactions, the health care professionals interviewed for this study shared honest insights into the potential for this to occur in their own practice. Indeed, a specific development need for practitioners may lie within how to work with local communities effectively, sharing decision making and allowing community members to be involved in setting local priorities.
- Lack of internet access for practitioners which would allow them to access up to date evidence and local health data independently or through electronic library access, or share changes in practice with peers through this medium across surgeries and potentially PCT`s.
- A continued focus on financing, publishing and publicising evidence which focuses on one end of the continuum, that of individual behaviour change with funding for preventive projects often looking for measurable short term results which can only be achieved by focusing on weight loss, smoking cessation, lowering blood pressure and increased screening services; these are often accessed by the middle classes (Arblaster et al 1995) who may not suffer with the contextual issues outlined here in relation to their lifestyles. This approach may be viewed as the `soft option` (Egger et al 1999) in relation to health improvement, and "does not help to give teams or individual health care professionals the `tools` to improve the health of those living on a low income" (Kelly 2002).

5.7 Further relevant recommendations for research

It is relevant to note that Doyal (Daykin & Doyal 1999) in considering women, domestic labour and a future research agenda stated that, "just as the scope of occupational health research is being expanded to include factors such as stress in working life, so we have to explore the ways in which unpaid and low status work may be damaging to the health of women". These two areas of study should not be seen as mutually exclusive. Research methods may differ, however there is urgent need for studies which use multiple methods, both to open up new avenues of investigation as this study may have done, and to measure the potentially harmful effects of living on a low income, for women in this group. Studies need to engage with the reality of a life on a low income, particularly in relation to the group under study here, as they may influence the future health and well being of others. Only in this way will substantive theoretical and practical links be made, and multi-agency policy be developed to tackle these issues.

When considering individually focused intervention based studies which link CHD and psycho social issues Burg & Berkman within their recent review of the literature (2002) identified possible areas that may inhibit the effective development and testing of interventions with low income groups.

- Investigators who are responsible for developing interventions do not believe the evidence linking psycho social issues and CHD; they feel that those issues are not causally linked to CHD.
- Investigators believe the evidence but do not know how to change the psycho social conditions or they believe it is too difficult to change these conditions in any efficacious way. They feel that social status is a product of vast historical, economic and cultural forces and short of revolution it is not something that one targets for intervention, so it is ignored and instead people are urged to lower their fat intake (Syme 1994).
- Investigators believe the evidence, know how to change the conditions but believe it is not their job to do so owing to professional, political, ethical or legal obligations as they

view them. This potential block regarding the development of appropriate interventions has also been recognised within the National Tracker Survey (Wilkin et. al, 2001) which has tracked the development of Primary Care Groups and Primary Care Trusts.

- Social scientists concerned with the social environment are reluctant to integrate their work with medicine and public health, and vice versa as this would mean familiarising themselves with potentially different research methods and areas of knowledge (Stansfeld & Marmot 2002).

In addition a greater integration of knowledge based within the paradigms of social science with that of medicine and public health would better serve the research and evaluation agenda required to reduce inequalities in CHD (Stansfeld & Marmot 2002). This study has attemped to combine knowledge regarding increases in CHD risk with its origins in medicine and public health, with knowledge regarding health beliefs, and the influence circumstances may have over health behaviour; the origins of which lie within social science, nursing and psychology. This integration has enabled insights into not only the factors which may inhibit health behaviour, but also the factors which may limit prevention in practice.

The findings from this study (interviews with the women) have been used to inform a paper for the National Heart Forum Expert Summit in 2001 (Harker & Hemingway 2001). The results of this summit and the commissioned papers appear as chapters within the policy recommendations document underpinning the National Heart Forum young@heart campaign launched at the House of Lords on Valentine's Day 2002 (available from the NHF 2004). The aim of this campaign is to promote heart health throughout life and through the development of healthy public policy as well as interventions to promote behaviour change. The findings from this study have also been used to inform the Healthy Living Centre Steering Group (which the researcher now sits on) which was set up shortly before the submission of this thesis, and it is intended that these findings will be presented to the Local Strategic Partnership, Local Authority Housing team, the Single Regeneration Steering Group, and the Director of Public Health and local PCT practitioners in this locality. The researcher has also been invited to present these findings at the newly formed local health visitor modernisation group.

5.8 Limitations of this study

In using elements of a grounded theory method the researcher should, on commencing a study, use the existing relevant literature to increase `theoretical sensitivity` (Strauss & Corbin 1990 p.75) in order to aid data analysis, rather than using it to structure or lead the analysis. The interplay between the themes emerging from data analysis and the existing literature supporting this study could be viewed as a potential weakness, if not adequately discussed by the researcher to ensure transparency of processes. Within this study what emerged from the constant comparative data analysis were elements of a pre-existing theory which the researcher had considered to increase theoretical sensitivity, rather than a `new theory` emerging from this study. The researcher has shown within the development of the interview guides how, and at what stage this theory emerged. However it is worthwhile noting here that the researcher, rather than experiencing elation on detecting and developing the emerging theory, experienced a sensation of doubt as to whether this study would not be perceived as using elements of a grounded theory method inappropriately. In fact if the researcher is honest within her own performance there was more a slight tendency to resist the emergence of the theoretical model, than a tendency to apply it where it did not fit. This occurred due to the researcher's genuine fears `as a student`, and because of possible resistance to using a qualitative research method (see discussion on `the first four interviews` in the method section).

However on reviewing what Strauss states about `the uses of the technical literature` (Strauss & Corbin 1990 p.50) it becomes clear that:

- It is acceptable within the grounded theory research paradigm to use the literature to stimulate questions to inform your interview guide, and;
- that it is acceptable <u>after</u> a category has emerged from the researcher`s data, to return to the technical literature to "determine if this category is there, and if so what other researchers have said about it".

Through this process the literature may be used as supplementary validation, and in writing up the study the researcher may want to point out how these findings differ from the published literature, as has been done within this thesis.

This case study has focused on one geographical location; as such the findings are theoretically generalisable but not statistically generalisable (Stake 1994). They do however provide a basis for further study on this area, and may prove particularly relevant to areas of deprivation with similar characteristics, such as poor housing and a rapid turnover of population.

This study used a sample of Caucasian women, 2 of whom were of Portuguese origin which reflected the population for this geographical area. The application of these findings therefore to women from other ethnic groups would be questionable, and would need further study to ensure applicability. Some studies have already shown similarities between white mothers living on a low income and South Asian and African-Caribbean mothers caring for children in disadvantaged inner-city communities with regard to their health behaviour (Costello et al 1992, and Cruikshank & Beever 1989). However marked disparities have also been discovered (DOH 1994) particularly in relation to smoking, drinking (alcohol) and dietary habits.

By focusing on CHD prevention alone rather than a generally healthy lifestyle this study may have reduced its relevance for other health problems with which it shares risk factors, such as stroke, osteoporosis (for the group under study here) and cancer. The main evidence however for examining the lifestyle of this group within context originates from research considering CHD risk and prevention and it was perceived by the researcher while planning this study that a clear focus was needed. Some elements of the findings however may have relevance in relation to the prevention of other health problems, such as the perceived lack of ability of the women to change their lifestyles, and their lack of knowledge regarding current advice on what constitutes a healthy lifestyle.

5.9 Conclusion

In conclusion, the main findings from this case study are:

- Both the women in this locality and the health professionals are not aware of CHD as a risk to women`s health.
- The factors which inhibit life style change for women living in this locality are not addressed within health professionals practice, or local partnership working.

The NSF for CHD (DOH 2000) states that "poverty falls disproportionately on children and their carers, in the mid 1990`s 1 in 3 children were living in poverty. For these reasons, children, expectant mothers and women of child bearing age require special consideration in relation to the prevention of CHD". No such special consideration for women of child bearing age was detected in the practice of local health carers, their partnership working activities or local strategic planning for health improvement and partnership in the findings from this study. As strategies relating to this group are recognised within both the Acheson Report (1998) and the NSF for CHD (DOH 2000) as essential components of a strategy to reduce inequalities in CHD, this lack of consideration would appear to be an area needing focus and development within provision.

The three areas of high demand, lack of control and lack of support which emerged from the interviews with the women as influencing their lives are areas which, particularly when living on a low income, may be outside the remit of the women to change. As recognised here these areas require further study in relation to behaviour change. However in terms of increasing CHD risk there is an evidence base to support using these areas to structure practice (DOH 2002). These areas could provide a focus for the development of professional practice, at least in relation to reducing demands, and increasing support as these areas were also identified by the health care professionals as potential negative influences on health behaviour. This could be done through providing one to one support, or co-ordinating partnership working to provide community based interventions, or indeed through enabling residents to become involved in local community profiling and planning to ensure that all agencies are aware of what the realities of living in an area really are. However, it is clear from this study that practitioners may have neither the skills nor the enthusiasm to undertake this type of work, and a refocusing of their role, and job structures

is needed; along with further training on particular areas such as inequalities in health and engaging with their local communities.

Attempts to focus primary care services towards improving the health of their populations have a long history in the UK (Gillam 1997). However at the heart of the relationship between general practice and public health there is a potential ethical conflict between individual freedom and responsibility and the collective good (Gillam 2001). Indeed primary care staff may not be trained as health educators, may have a narrow view of health promotion and limited experience of community development (Fitzpatrick 2001, Hemingway 2004); indeed many primary care staff are against social interventions to improve health, particularly if the opportunity costs of such activities compromise their traditional role as carer (Fitzpatrick 2001). These perceptions of health promotion and community development were apparent within the interviews with primary health care practitioners in this study, where doubts regarding the ability or appropriateness of using primary care resources to improve health were clearly articulated.

Overall the experiences of women living in poverty are largely invisible, hidden within analyses which have seen poverty in relation to the financial circumstances of families or households which have taken little account of what goes on within that setting (Glendenning & Millar 1992, Daykin & Doyal 1999). As found within this study the juxtaposition of a low status, low income position within the labour market with their caring responsibilities has had profound consequences for women. These consequences may be viewed in terms of the ability of a woman to provide for her dependents, her ability to enable a healthy lifestyle for herself and her dependents and her treatment within social welfare, housing and health care systems. Indeed it may only be through interventions which span these different aspects of life that real progress in terms of health inequalities may be made. It is important to remember that the health and well being of the women within the group under study here is vital not only for their own health but for the health of future generations.

In order to prevent disease we must continue to gain understanding regarding the genetic basis of health. This understanding, however, will not help to reduce income inequality,

relieve discrimination or help in providing social support to those who are isolated. To address these issues we need to better understand social factors which affect disease risk and health behaviour, and to allow this understanding to influence our preventive practice.

Our understanding of this issue will only be further enhanced through the use and valuing of a variety of research and practice strategies which allow us to explore not only the measurable components of life, but also the experience of living that life.

Appendix 1

Databases searched to inform this study

Searches undertaken over last twenty year period, at commencement (1998) and during data collection and analysis (1999 and 2000) and prior to (2001) and on completion (2002). Studies were considered which were undertaken prior to this period if they appeared to be currently relevant from references made to them within the literature retrieved from the searches.
(Databases are arranged in alphabetical order, with the main databases used in bold)

AMED
Allied and Complementary Medicine Database
(via Winspirs)

ASSIA
Applied Social Sciences Index and Abstracts
(via Infogates)

BIOSIS
International Life Science Journals
(via Athens password)

BNI
British Nursing Index
Produced by the Royal College of Nursing and Bournemouth University
(via Winspurs)

CINAHL
Cumulative Index of Nursing and Allied Health
(via Winspirs)

COCHRANE LIBRARY
contains
- Cochrane Database of Systematic Reviews
- Database of Abstracts and Reviews of Effectiveness
- Cochrane Controlled Trials Register

(via National Electronic Library for Health, NeLH, with Athens password)

Department of Health Publications
Available from the Stationery Office

EMBASE
Human Medicine and Related Biomedical Research
(via Webspirs)

MEDLINE
Covers health care, environmental health, disease, anatomy and biological sciences
(via Winspirs)

PsycInfo
Covers psychology and related disciplines
(via BIDS and needs Athens password)

Web of Science
Includes SSCI, Social Science Citation Index
Includes public health, social work, community development and some nursing

Search terms used within these searches

Women (used in combination, and without all other search terms)
Coronary heart disease (used in combination with all other search terms, except health beliefs, general health, self esteem and self efficacy)
Low income
Income inequalities
Lifestyle
Behaviour
Behaviour change
Circumstances and behaviour
Smoking
Diet
Exercise
General health
Self esteem
Self efficacy + risk factors for CHD, smoking, diet and exercise
Risk factors
Employment/unemployment
Health beliefs
Wider determinants of health, education, housing, mobility
Partnership working

Your being invited to take part in a research study. Before you take part it is important that you realise why the study is being done and what will be involved. Please read this and take time to consider if you wish to take part. I am Ann Hemingway a research student with the University of Southampton and would like to interview you in order to help plan future health promotion locally.

What will I have to do if I take part?

If you agree to take part in the study you will be interviewed in your own home or a mutually agreeable place for one hour and that interview will be taped. I will ask you questions about;

- your health,
- your diet,
- any exercise you take and
- if you smoke or drink.

Will my taking part in the study be kept confidential?

Your contribution to the study will be anonymous, only the researcher will know your identity. The tape of the interview will be kept in a locked cupboard and destroyed on completion of the study.

Do I have to take part?

Whether you are involved in the study at all is your decision, and you will be free at anytime to say you do not wish to participate in the study and you do not need to give a reason.

What if after the interview I have more questions about my health?

For more information please contact your own health visitor or practice nurse.

What will happen to the results of the research study?

You will not be identified as an individual in any report on the study. The results will be made available to health professionals practicing locally and will then be submitted to the University of Southampton as a thesis. You can contact the researcher (see below) for details of the completed study if you wish to.

Who do I contact for more information about the study?

You can contact me Ann, the researcher on 07747788238.

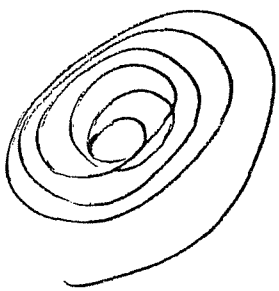
This information sheet is for your reference, thank you for reading it.

Interview Guide 1
(Ann Hemingway Sept 1999)

- Can you tell me what you think is the most common cause of ill health in women
- What do you feel affects your health
- Risks to the health of your heart
- Food, knowledge, how much spent per week, what affects decisions
- Typical days food
- Alcohol, knowledge, how much spent per week, what affects decisions
- Typical days alcohol intake
- Exercise, knowledge, how much spent per week, what affects decisions
- Typical days activity
- Smoking, knowledge, how much spent per week, ever tried to stop, what affects decisions, when did you start and why
- How to get information on your health, where, who, how
- Ever tried to change your lifestyle to make it healthier, what how why, what affects decisions
- Employment
- Income
- Educational attainment
- Housing tenure, rent, own
- Car access

Make appt to check out transcripts

Could you tell me more about that?
Do you have any examples of when that has happened?
Can you give me more details about that?



Appendix 3

Interview Guide 1
(Ann Hemingway Sept 1999)

Can you tell me what you think is the most common ~~cause of ill health in~~ women suffer from
What do you feel affects your health
Risks to the health of your heart
Food, knowledge, how much spent per week, what affects decisions
Typical days food
Alcohol, knowledge, ~~how much spent per week~~, what affects decisions
Typical days alcohol intake
Exercise, knowledge, how much spent per week, what affects decisions
Typical days activity
Smoking, knowledge, how much spent per week, ever tried to stop, what affects decisions, when did you start and why
How to get information on your health, where, who, how
Ever tried to change your lifestyle to make it healthier, what how why, what affects decisions
Employment
Income
Educational attainment
Housing tenure, rent, own
Car access
Make appt to check out transcripts

Could you tell me more about that?
Do you have any examples of when that has happened?
Can you give me more details about that?

guide 3 2.000

- Stress and feelings about yourself affecting self efficacy are a recurrent dominant theme emerging from the women.
- The costs of using local leisure facilities was considered prohibitive by those interviewed.

These emerging themes then re-focused the following interviews with the sample of women, and this revised interview guide

* Knowledge of CHD as a risk to their health
* Knowledge of CHD risk factors
* What the women considered affects their health and the health of their heart
* What the women view as healthy
* Their lifestyle habits, particularly in relation to CHD h. promotion recommendations
* Their circumstances particularly in relation to social support
* Any previous/current changes/decisions regarding lifestyle the women had made
* Stress, how the women feel about themselves and self efficacy (including perceived control)
* Use and cost of local leisure facilities
* Any educational or work based development the women wish to undertake and the potential limitations to this
* Education attainment/employment status/computer access/car access/phone access/housing

* Accessing health information?
* What makes women sick? — literature
* recommended diet + exercise? disease
* demands on them/control
  improve

(1)

Appendix 4

Interview guide for sample of health care professionals (May 2001)

- types of CHD prevention they are involved in?
- does this CHD prevention focus on particular groups
- do they consider the CHD prevention formal or informal within their role/define formal
- does this CHD prevention focus on particular risk factors
- PARTNERSHIP WORKING TO PREVENT CHD
- how does CHD prevention fit into average day at work
- with pre-menopausal women what CHD prevention might be undertaken
- do they wish they could do more/different CHD prevention in their role
- what method/s of CHD prevention do they feel would/does benefit clients/patients most
- what method/s of CHD prevention do they feel would benefit pre-menopausal women most
- [illegible]
- is there anything that they feel limits/enhances their potential for CHD prevention
- NSF response plan

COULD YOU TELL ME MORE?
DO YOU HAVE EXAMPLES OF WHEN THAT HAS HAPPENED?
CAN YOU GIVE ME MORE DETAILS ABOUT THAT?

Control
demand
Empower
> to women nearby

control
demand
Empower
> their own !

(2)

Appendix 4

Interview guide for sample of health care professionals (May 2001)

- types of CHD prevention they are involved in?
- does this CHD prevention focus on particular groups
- do they consider the CHD prevention formal or informal within their role/define formal
- does this CHD prevention focus on particular risk factors
- how does CHD prevention fit into average day at work
- Partnership working
- with pre-menopausal women what CHD prevention might be undertaken
- do they wish they could do more/different CHD prevention in their role
- what method/s of CHD prevention do they feel would/does benefit clients/patients most
- what method/s of CHD prevention do they feel would benefit pre-menopausal women most
- what do you think affects the lifestyle of these women
- is there anything that they feel limits/enhances their potential for CHD prevention
- NSF for CHD response plan
- control-demand-support

COULD YOU TELL ME MORE?
DO YOU HAVE EXAMPLES OF WHEN THAT HAS HAPPENED?
CAN YOU GIVE ME MORE DETAILS ABOUT THAT?

Appendix 5

Choose the box which best describes you and put a tick in it

	Strongly Agree	Agree	In Between	Disagree	Strongly Disagree
I feel that I'm a person at least on an equal basis with others					
I feel that I have a number of good qualities					
All in all I am inclined to think that I'm failure					
I am able to do things as well as most other people					
I take a positive attitude toward myself					
I feel I do not have much to be proud of					
On the whole I am satisfied with myself					
I wish I could have more respect for myself					
I certainly feel useless at times					
At times I think I am no good at all					

	Not true	Hardly true	Moderately True	Exactly True
I can always manage to solve difficult problems if I try hard enough				
If someone opposes me, I can find the means and ways to get what I want				
It is easy for me to stick to my aims and accomplish my goals				
I am confident that I could deal efficiently with unexpected events				
Thanks to my resourcefulness, I know how to handle unforeseen situations				
I can solve most problems if I invest the necessary effort				
I can remain calm when facing difficulties because I can rely on my coping abilities				
When I am confronted with a problem, I can usually find several solutions				
If I am in trouble, I can usually think of a solution				
I can usually handle whatever comes my way				

GENERAL HEALTH QUESTIONNAIRE GHQ-12

NFER-NELSON
INFORMING YOUR DECISIONS

Appendix 5

ease read this carefully:

e should like to know if you have had any medical complaints, and how your health has been in general, *over past few weeks*. Please answer ALL the questions simply by underlining the answer which you think most arly applies to you. Remember that we want to know about present and recent complaints, not those you had the past. It is important that you try to answer ALL the questions.

ank you very much for your co-operation.

AVE YOU RECENTLY:

-	**been able to concentrate on whatever you're doing?**	Better than usual	Same as usual	Less than usual	Much less than usual
-	**lost much sleep over worry?**	Not at all	No more than usual	Rather more than usual	Much more than usual
-	**felt that you are playing a useful part in things?**	More so than usual	Same as usual	Less useful than usual	Much less useful
-	**felt capable of making decisions about things?**	More so than usual	Same as usual	Less so than usual	Much less capable
-	**felt constantly under strain?**	Not at all	No more than usual	Rather more than usual	Much more than usual
-	**felt you couldn't overcome your difficulties?**	Not at all	No more than usual	Rather more than usual	Much more than usual
-	**been able to enjoy your normal day-to-day activities?**	More so than usual	Same as usual	Less so than usual	Much less than usual
-	**been able to face up to your problems?**	More so than usual	Same as usual	Less able than usual	Much less able
-	**been feeling unhappy and depressed?**	Not at all	No more than usual	Rather more than usual	Much more than usual
-	**been losing confidence in yourself?**	Not at all	No more than usual	Rather more than usual	Much more than usual
-	**been thinking of yourself as a worthless person?**	Not at all	No more than usual	Rather more than usual	Much more than usual
-	**been feeling reasonably happy, all things considered?**	More so than usual	About same as usual	Less so than usual	Much less than usual

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Appendix 5

Self report questionnaires

The following questionnaires were considered at the outset of the study for their potential appropriateness.

Psychological well being

Several questionnaires were considered, within this context, the Self Reporting Questionnaire (Harding et al., 1980 p.231) is a 20 or 24 item screening questionnaire developed by the World Health Organisation to be used in general medical settings in developing countries. However this questionnaire offers a single score only rather than a profile and 20 items is a considerable amount to ask the women to complete when this may not be the only questionnaire used in the study.

The original work upon which the General Health Questionnaire (GHQ) was based sought to discover those features which distinguish an individual with a mental health problem from those in the community who consider themselves to be healthy. Therefore the GHQ is specifically concerned with the area between psychological sickness and psychological health. It can be argued that the distribution of psychiatric disturbance within a community does not equal a sharp difference between `cases` and `normals`, and that it is not possible always to measure where normality ends and clinically significant disturbance begins (Goldberg & Williams 1991). The GHQ is available in different formats, ranging from 12 to 60 items and depends as do all the scales on the willingness of participants in the study to share their experiences through the medium of a paper and pencil test. Although within this study the interviewer will be present during the time the participants complete the questionnaire which will enable clarification to be gained during this process. Several studies have tested one or other version of the GHQ (most commonly the GHQ 30) together with other self reporting measure of mental health, and then calculated the correlation between them, in order to determine whether they measure the same thing, do they offer convergent validity (Chan & Chan 1983 p.363 and

Cavanaugh 1983 p.15). Overall the correlation was just under +0.70 in these studies (Goldberg and Williams 1991). Mari and Williams (1985 p.651) also found a correlation of +0.78 between the GHQ 12 and the Self Reporting Questionnaire (SRQ-20) when tested by primary care workers in Brazil, thereby suggesting that they are valid with large sample groups.

Adopting healthy behaviour

There is debate currently regarding what variety of factors affect the ability to adopt healthy behaviour. Indeed models have been designed to predict a behavioural intention (Bandura 1986) to better understand why individuals fail to maintain healthy behaviour to which they have committed themselves. Self efficacy expectations refer to the perception of the possible consequences of one`s actions, personal action control or agency (Bandura 1986). Self efficacy theory states that an individual who believes they can change their life will conduct a more active and self determined life course. The role of judgements of self-efficacy in human behaviour however, is a complex one and is affected by a number of factors. Even highly efficacious individuals may choose not to behave in line with their beliefs and values because they simply lack the incentive to do so, or because they lack certain resources or feel there are social constraints in their path (Gerin et al., 1996 p.485). Self efficacy has been shown however, to predict behavioural change for several coronary heart disease risk factors, smoking behaviour (Blair et al., 1989 p.2395), weight loss (DiClemente et al., 1995 p.109), low fat diet (Plotnikoff and Higginbotham 1995 p.97), physical activity (McAuley 1991 p.382 & 1994 p.551) and coping mechanisms in relation to job related stress (Gerin et al., 1996 p.485).

When considering the tools which have been developed to measure self-efficacy it became apparent through the literature that there are two schools of thought in relation to;
a) whether there is no standard tool for measuring self-efficacy, and each health related behaviour must be considered individually (Gerin et al., 1995 p.390); or,
b) whether a `general self-efficacy` measurement tool is a valid measure of an individual`s sense of personal efficacy (Schwarzer et al., 1997 p.69).

A brief scale for measuring self-efficacy has been developed which refers to a global confidence in one`s coping ability across a wide range of demanding or novel situations. The original version of this scale was developed by Jerusalem and Schwarzer (1986 p.15), first as a 20 version scale and later as a reduced 10 item version (Jerusalem & Schwarzer 1986 p.15 & Jerusalem & Schwarzer 1989 p.785). This ten item scale consistently yields internal consistencies between alpha =.75 and .90 (Weinman et al., 1995 p.35 & Schwarzer et al., 1997 p.69) and therefore suggests some degree of reliability. The scale has also proven valid in terms of convergent and discriminant validity (Schwarzer 1993). Therefore this brief scale, considering general self efficacy would seem to be appropriate for this study providing as it does an insight into what the women consider to be their ability to cope with challenges in their lives. There is still scientific debate regarding the relevance of measuring general self-efficacy as opposed to behaviour specific self-efficacy (Gerin et al., 1995 p.390); however due to the multi-causative nature of coronary heart disease any attempt to consider all the potential lifestyle related risk factors with these women would have been impractical in the context of this study.

3.12.4 Self esteem

During discussions with local health practitioners undertaken when planning the study (practice nurses, health visitors, general practitioners and public health physicians) in this locality one area of concern for them, with its roots firmly in their everyday clinical practice was the low self esteem of women living on a low income in this area. Self esteem in this context was seen as having respect for oneself, and seeing oneself of value (Kaplan et al., 1982 p.274).

Studies considering self esteem in women have generally focused on gynaecological problems or developmental stages (Stanton & Gallant 1996), mental illness, physical illness or comparisons with mens self esteem at different life stages (Bowling 1995, Bowling 1991). However self esteem in relation to health promotion and behaviour

change in women lacks systematic study as an area of potential risk, focus or development. The local practitioners considered that whether the women valued themselves directly influenced their behaviour, in relation to CHD risk, namely exercise habits, smoking habits and eating habits. As one health visitor recounted to the researcher "if you feel that your worthless or worse you feel bad or guilty about something then making an effort to improve your health does not even enter your head, you`re more likely to do harmful things aren`t you".

Among the most widely used tools for considering self esteem are The Tennessee Self-Concept Scale (Fitts 1965), the Self Esteem Inventory (Coopersmith 1967) and the Self Esteem Scale (Rosenburg 1965).

The Self-Esteem Scale (Rosenberg 1965) was originally developed through a study of school children using Guttman scaling (1944 p.139). Rosenberg defines self-esteem as self acceptance or self worth. The measure was designed as a ten item scale with category responses ranging from strongly agree to disagree. Silber and Tippett (1965 p.1017) considered the convergent validity of the scale and reported correlations of 0.56 and 0.83. The reliability when tested by Rosenberg (1965) reported a reproducibility coefficient of 0.92 and scalability coefficient of 0.72. The scale has been used and tested with adult women (Ward 1977 p.167) and is highly recommended by George & Bearon (1980) in relation to measuring quality of life in older people, the scale takes five minutes to complete. It was therefore decided that the Self-Esteem Scale (Rosenberg 1965) could be used, within the study as both practical and theoretical requirements were met within it.

Appendix 6

Findings from the self report questionnaires

Three questionnaires were completed prior to the interviews with the women by all of the seventeen women sampled. These consisted of the General Health Questionnaire (GHQ 12, Goldburg & Williams 1991), the General Self Efficacy Scale (Schwarzer et al., 1995), and the Self Esteem Scale (Guttman 1965). The findings from the three questionnaires will be reported separately here beginning with the GHQ.

4.3.1 General Health Questionnaire (12 item)

The general health questionnaire was scored using the GHQ scoring method (Goldburg & Williams 1991 p.63) which assigns a different weighting to each column of the questionnaire (see appendix). Therefore, the higher the score, (which may range from 0 to 12), the greater the likelihood of psychiatric symptoms, with 5 being seen as the threshold score. However, it can be argued that the distribution of psychiatric symptoms in the population does not offer a clear definition between `normal` and `abnormal`. The questionnaire score may be seen therefore as giving an assessment of a position on an axis from normality to illness and can be considered to give a probability estimate of that individual being a psychiatric `case`.

The scores for the women ranged from 0-7. Two women interviewed had a GHQ score of 7, more than the threshold score of 5, both of these women within their interviews discussed mental health problems, one suffered with depression, the other with post-natal depression. At the time of interview both women were receiving care and treatment through their GP`s for these problems. One of these women went on to score herself as having low self efficacy and low self esteem, while the other showed an average score in these areas. Other women interviewed stated that they were suffering from depression and on medication (n=4). However this diagnosis was not reflected within their GHQ scores. In total six women interviewed stated that they were suffering from depression or

post-natal depression. Six out of seventeen is a large proportion, though, such a small sample is obviously not representative of all the women in the area.

4.3.2 General Self Efficacy Questionnaire

In order to gain additional information regarding the ability of the women to adopt and maintain healthy behaviour a general self-efficacy questionnaire was completed by all the women interviewed prior to the taped interview.

This scale is scored from 10-40 with higher scores showing more evidence of self-efficacy.
Studies carried out with samples of women in England and Canada have shown an average score of 29-30 (Schwarzer et al., 1995 p.35). The scores of the women sampled in this study range from 21 to 40, with the majority scoring between 25 and 35.

4.3.3 Self esteem questionnaire

The self esteem scale was used within this study in order to complement findings from the self efficacy scale, as that scale correlates positively with self esteem, and to offer a general view of the level of self esteem. The self esteem scale used within this study (Rosenburg 1965 p.16), is a ten item scale and the scoring system runs from 0 which indicates an individual with high self esteem, 3 showing average self esteem and 6 showing low self esteem. The majority of the women interviewed scored between 0 and 3 (n=15). This would seem to indicate average to high self esteem. The two women who scored less than average, with scores of 4 and 5, both stated they had been suffering with their mental health, one had suffered with depression in the past, and the other stated she was seeing her G.P. as she had been suffering with post-natal depression. One of these women had recorded a GHQ score which indicated she may have a mental health problem. Both these women within their interviews expressed lack of success in relation to previous attempts at lifestyle changes, however so did all but one of the other women interviewed within the study (n=17).

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