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Physical activity, noncommunicable disease, and wellbeing in urban South Africa

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Physical activity, noncommunicable disease, and wellbeing in urban South Africa

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Acknowledgements

Abstract

If there is one thing that policy makers at the World Health Organisation (WHO) and residents of the South African township of Langa are likely to agree on, it is that 'just sitting' is not good for you. The positions from which they approach this conclusion however differ profoundly. This research investigates different conceptualisations of physical activity, health, and wellbeing, and the implications of these differences for policy on the prevention of noncommunicable diseases (NCDs) in low and middle income countries, taking South Africa as a case study.

With four out of five deaths from diseases such as diabetes, heart disease and stroke now occurring in low and middle income countries, prevention, of what have been termed 'NCDs', in these countries is rising rapidly up the global public health agenda. Physical activity is one of the four primary risk factors which have been identified as intervention targets, but there is an acknowledged paucity of research which helps us to understand how physical activity, and inactivity, are conceptualised in low and middle income country contexts. As a result the evidence base for design of physical activity policy interventions to address NCDs is also weak.

The global discourse recognises the determinants of health as socially embedded, but struggles with what this means for policy on prevention. This study explores the detail of this social embeddedness by way of ethnographic research into wellbeing, health and physical activity carried out in a South African township, and juxtaposes this with conceptualisation of these same themes emerging from a review of academic and policy-oriented literature on the prevention of NCDs in low and middle income countries.

The struggles of local research groups to reconcile the demands made on them from these very different worlds are explored, and strategies for addressing the specifics of NCD prevention without abstracting health from the broader context of the person or society are discussed. The research is theoretically informed by work on wellbeing in developing countries.

List of abbreviations

ACC	African Centre for Cities
BMI	Body Mass Index
CDL	Chronic Diseases of Lifestyle
CSDH	Commission on Social Determinants of Health
ESRC	Economic and Social Research Council
ESSM	Department of Exercise Science and Sports Medicine
IPAQ	International Physical Activity Questionnaire
GIS	Geographic Information Systems
GPS	Geographic Positioning System
MID	Masters of Science in International Development
NCD	Noncommunicable Disease
NGO	Non-Governmental Organisation
NHS	National Health Service
PERC	Programme for the Enhancement of Research Capacity
PURE	Prospective Urban-Rural Epidemiological Study
SOPH	School of Public Health
TB	Tuberculosis
UCT	University of Cape Town
UWC	University of the Western Cape
UN	United Nations
WeD	Wellbeing in Developing countries ESRC research group
WHO	World Health Organisation

1 Introduction

If there is one thing that policy makers at the World Health Organisation (WHO) and residents of the South African township of Langa are likely to agree on, it is that 'just sitting' is not good for you. The positions from which they approach this conclusion however differ profoundly. This research investigates different conceptualisations of physical activity, health, and wellbeing, and the implications of these differences for policy on the prevention of noncommunicable diseases[1] (NCDs) in low and middle income countries.

1.1 Background

My approach to this research was shaped by my background, and thus I will begin with a summary of this, and how it contributed to my choice of research questions and methodology. Having started my working life as a clinical scientist in the United Kingdom's National Health Service (NHS), in 2002 I found myself applying to do a Masters of Science in International Development (MID). My return to study was driven by my interest in working in international development, and my belief that my qualifications and experience at that time would be likely to be seen as too technical and not terribly relevant in a 'developing country' context. I saw MID as a way to address this.

As I already held a Masters of Science in Medical Physics and Clinical Engineering, I was bemused during the application process when one of the academics who taught on MID suggested that I might find the course particularly challenging. But it turned out that he was right. The ways of thinking and using language to which I was introduced during my first encounters with the disciplines of economics, politics and sociology were alien to me. MID proved to be a significant step for me in an on-going process of learning to appreciate a multitude of different ways of understanding the world, and of learning about the challenges and opportunities inherent in interdisciplinary work. Dimensions of meaning of which I had previously been unaware began to appear in news stories and social situations. It was quite exhilarating – rather than just gaining a useful qualification I felt that there had been a real shift in how I looked at the world.

After completing MID I spent two years working for a medical humanitarian NGO in the Democratic Republic of Congo and in Ethiopia. I returned from this experience further convinced of the importance of interdisciplinary approaches. The NGO's medical and operational teams had regularly not seen eye-to-eye regarding what the objectives should be or how to go about achieving them. As a project manager I was part of the operations team, but my interdisciplinary background meant that it was much easier for me to understand why medical staff might prioritise something which the operations team considered unimportant, and *vice versa*. MID had also sensitised me to the many debates surrounding development intervention, including issues of power imbalances between stakeholders, and the possibility of unintended effects.

While the NGO aspired to a participative and 'capacity building' approach, I also observed well-intentioned but problematic 'top-down' ways of working. The urgency of the 'emergency' context,

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[1] Many terms have been used to label these diseases as a group, but at the global level the term 'noncommunicable diseases' (NCDs) has now become common. While this is certainly not universally considered an ideal choice – the fact that infectious agents play a role in many cancers being just one issue – it has been accepted by many stakeholders as a consensus term, and thus is the term I use here.

and the 'evidence-based' discourse of medicine were often used to justify these top-down approaches and decisions. Context was taken into account, but the focus was primarily on the extreme security and logistical challenges which that context presented, particularly in the Democratic Republic of Congo. After two years I thus decided it was time to think about things a little more, and in 2005 I joined the Wellbeing in Developing Countries ESRC research group (WeD) as a research manager. This position introduced me to debates about concepts of wellbeing, and the possibility of using such concepts to guide work in international development. The research group sought to take an interdisciplinary approach to their multi-country study, and therefore included researchers with backgrounds in economics, anthropology, sociology, and psychology amongst their number. Working with the WeD group was another milestone experience in terms of my embracing and committing to interdisciplinarity.

As the WeD project drew to a close, I decided that I would like to carry out some research of my own, and I thus applied for the Economic and Social Research Council '1+3' studentship which funded this study. My original plan was to use a wellbeing approach to study the work of medical humanitarian NGOs, but over the course of the Masters of Research degree which I was required to complete as part of my studentship, I struggled to see how I could make a useful contribution in this area of research. I therefore decided to look for an alternative topic of study. While doing so I came across literature from public health which highlighted the growing problem of NCDs in low and middle income countries.

1.2   Noncommunicable diseases in low and middle income countries

This literature noted that while heart disease, stroke, diabetes, chronic respiratory disorders and cancer were commonly perceived as diseases of affluence, four out of five deaths from NCDs were now occurring in low and middle income countries (WHO 2008a). NCDs were widely affecting both men and women, and in low and middle income countries people were being afflicted at younger ages, and dying sooner, than in high income countries (Suhrcke *et al.* 2006).

It also noted that low and middle income country health care services faced a shortage of relevant diagnostic and curative capacity – in part because of the relative newness of NCDs as a widespread health issue in many lower income countries, but also due to an overall lack of health care resources and serious competing demands from, for example, communicable diseases.   This, combined with limited access to health or social insurance, means that when NCDs do strike, individuals in low and middle income countries are likely to experience a more serious impact on their and their families' wellbeing than tends to be experienced in high income countries.

In this context a preventative approach which seeks to reduce risk factors for the development of NCDs is prioritised. Indeed WHO, and the authors of the academic literature on NCDs in low and middle income countries which I had found, were campaigning for urgent action on prevention. Prevention targets the major primary risk factors which are considered modifiable: low levels of physical activity, unhealthy diets, tobacco use and the misuse of alcohol. While the literature presented much robust evidence supporting interventions targeting these risk factors, gaps in this evidence were also acknowledged, in particular in the understanding of influences on physical activity in low and middle income countries, and interventions which attempt to increase it (Horton 2005; Banatvala & Donaldson 2007; Ebrahim 2008; WHO 2009).

1.3   Physical activity in prevention

Studies on factors influencing levels of physical activity, and of interventions intended to increase these levels, have been overwhelmingly based in high income countries, and it is uncertain how reliably results can be applied in other contexts (Frenk *et al.* 1989; Nugent 2008). This particular gap was widely acknowledged in the literature on the prevention of NCDs in low and middle income countries. However, my background working in health intervention in low income countries, and subsequently with WeD, sensitised me to some other possible issues concerning the completeness of the evidence being drawn on in this policy-oriented literature.

I am a very physically active person with a background in medical sciences, and yet I found that my own experiences of physical activity and its relationship with wellbeing were not well reflected in the policy-oriented literature. If this was the case, I wondered how much more likely it was that people in the low income contexts targeted for intervention would have experiences which diverged from the ideas encompassed within the policy literature. While there is a broad range of research across several disciplines which deals with physical activity, many of the policy-oriented studies have focused on physical activity in the leisure domain alone (Bauman *et al.* 2012), or have conceptualised physical activity as a 'health behaviour' (e.g. Haase *et al.* 2004; Ferreira *et al.* 2006; Vrazel *et al.* 2008). This may be less appropriate in a lower income country context, but in any country such an approach marginalises physical activity to one domain of human life, and may miss out on important ways of understanding the actions people take, the constraints they face, and opportunities for public policy intervention.

The voices of the people who were the targets of intervention were rarely audible within the prevention literature, and the embodied nature of both health and physical activity was often not palpable. Important sources of knowledge were thus at risk of being excluded, compromising capacity to both understand the challenges and come up with appropriate responses. I therefore sought to design a study which could contribute to a more complete understanding of physical activity in the prevention of NCDs in low and middle income countries. I found Bourdieu's suggestion[2] for confronting limited concepts of what constituted relevant knowledge particularly insightful:

> "I think that the only effective way of fighting against national and international technocracy is by confronting it on its own preferred terrain….and putting forward, in place of the abstract and limited knowledge which it regards as enough, a knowledge more respectful of human beings and of the realities that confront them" (Bourdieu 1998: 27-28).

The global discourse on prevention recognises the determinants of health as socially embedded, but, drawing as it does on an evidence-base which is frequently technical and medicalised, struggles with what social determinants mean for policy on prevention. This study explores the detail of this social embeddedness by way of ethnographic research into wellbeing, health and physical activity carried out in a South African township, and juxtaposes this with conceptualisation of these same themes emerging from a review of policy-oriented literature on the prevention of NCDs in low and middle income countries. In doing so it seeks to contribute knowledge respectful of the human beings who

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[2] Albeit not one which he was using with reference to technocracy specifically in the field of health.

live in the township, and the realities that confront them, and to show how this knowledge is relevant to the policy debate on prevention of NCDs in low and middle income countries.

1.4   Case Selection

WHO predicted in 2008 that the greatest increase in NCD deaths in the next ten years would be in the African region (WHO 2008a: 5). Low levels of physical activity have been identified as one of the primary risk factors for NCDs, and a study found that 44.7% of men and 47.6% of women in South Africa would be considered physically inactive based on the International Physical Activity Questionnaire scoring protocol[3]. This placed physical inactivity prevalence in South Africa 3rd of 51 countries in Africa for men and 4th for women (Guthold *et al.* 2008)[4].

I thus began to explore the possibility of locating my case study in South Africa. On the day I read the South African Medical Research Council's (MRC) 2006 review of 'chronic diseases of lifestyle' (CDL) research I felt that the arguments for doing so had been greatly strengthened. The review stated that:

> "it has become critical that South Africa utilise its limited resources optimally and implement cost-effective health-promotion interventions to prevent the predicted epidemic of CDL in the face of all the other health needs in this region." (Steyn 2006: 1)

The chapter in the MRC review which focused on physical activity concluded that, despite setting "identifying factors that influence physical activity behaviour in various communities" as one of five research priorities in this area in 1995, data was still lacking on determinants of, and barriers to, physical activity in South Africa (Lambert & Kolbe-Alexander 2006: 24).

South Africa's high levels of inequality and rapid urbanisation contribute to what has been termed the country's quadruple health burden. The types of diseases traditionally associated with poverty (such as communicable diseases, peri-natal and maternal mortality and malnutrition) coexist alongside the NCDs conventionally perceived as being associated with a more affluent lifestyle. The HIV/AIDS epidemic along with high injury rates associated with violence and road traffic accidents exacerbate the detrimental effects on South African wellbeing (Steyn 2006).

The causes of death in Cape Town in 2009 shown in figure 1[5] (Groenewald *et al.* 2012) illustrate this quadruple burden of disease. Much of the empirical work on physical activity and the prevention of NCDs has been undertaken in high income countries which have passed through the epidemiological transition, and where the other causes of premature mortality have diminished greatly. As these data from Cape Town illustrate, in low and middle income countries, and South Africa in particular, the impact of potential interactions between multiple disease burdens cannot be ignored.

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[3] www.ipaq.ki.se

[4] Countries in Africa found to have a higher prevalence of physical inactivity had much smaller populations than South Africa, being Mauritania and Swaziland (men & women), and Namibia (women).

[5] The peak in female 85+ deaths, which was replicated in data for 2006, goes unremarked upon in the Groenewald *et al.* 2012 report, and my collaborators in Cape Town were unable to shed light on it.
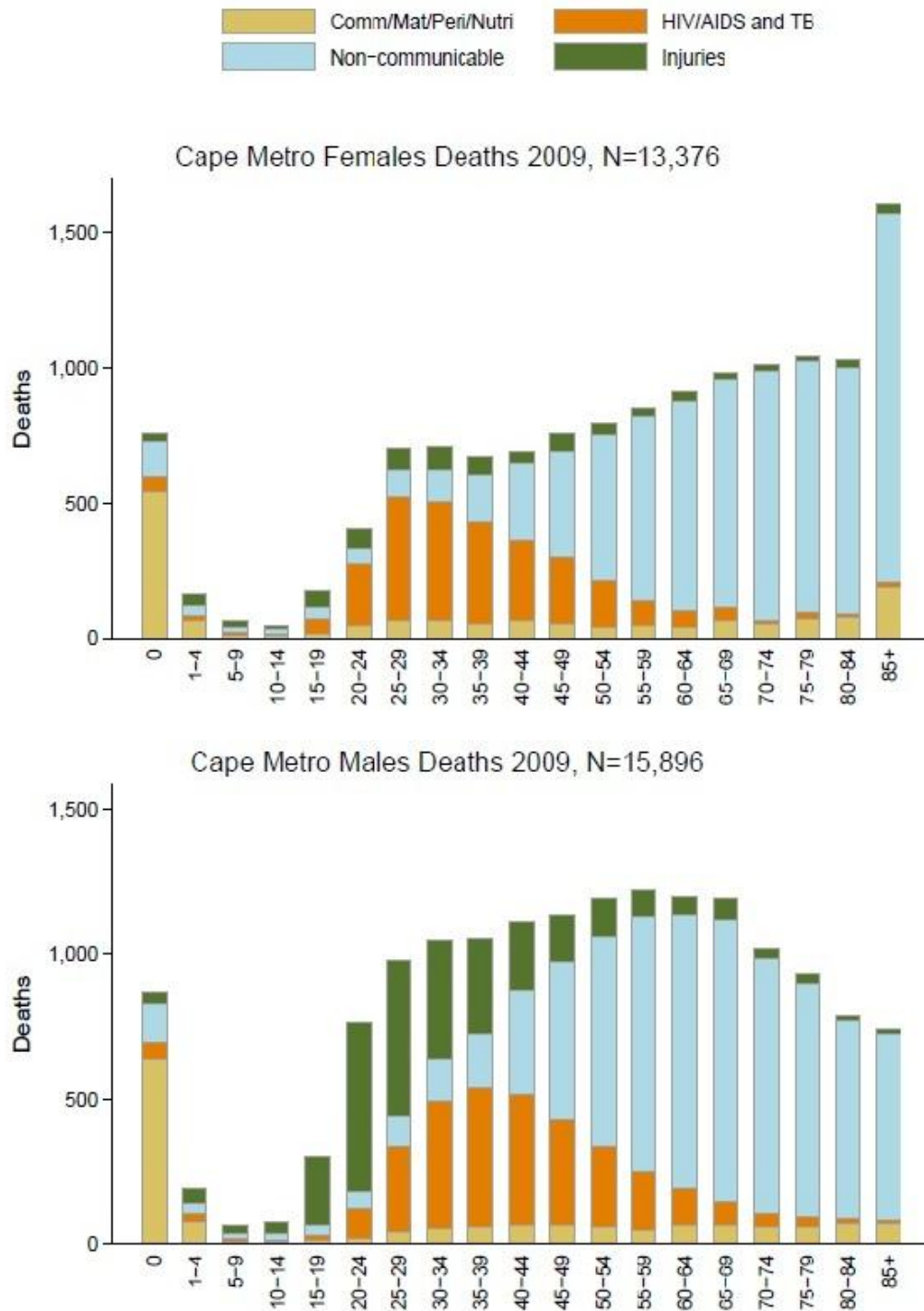
Figure 1.1: Age distribution of deaths by cause group and sex, Cape Town 2009. **Source: Groenewald *et al*. 2012: 35**

This study focuses on adults only. While physical activity in early life has been found to impact that in adulthood (Ferreira *et al.* 2006) – although inconsistently (Sherwood & Jeffery 2000) - the levels, types, and influences on such activity in childhood are likely to be quite different to those of an adult population. In a small exploratory study it was thus important to limit the age range of those studied, and I chose to focus on the age range in which NCDs and their precursors often emerge – adults over the age of thirty[6]. Urbanisation (WHO 2005a; CSDH 2008; Stuckler 2008; Habib & Saha

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[6] See figure 1.1, which illustrates a rapid increase in deaths from NCDs in Cape Town after the thirties.

2010), and poverty (WHO 2008a: 9), have both been shown to be associated with increased vulnerability to NCDs. This influenced the decision to carry out case study research in the township of Langa in Cape Town, where, according to the 2001 census, 72% of households were living below the Household Subsistence Level in use at the time[7].

1.5   Research questions

This research aims to address the following questions:

1. How is physical activity in the prevention of noncommunicable diseases in low and middle income countries conceptualised in global academic and policy-oriented literature?

2. How does physical activity fit into the lives of adult residents of a low income community in Cape Town?

3. How are researchers in this field in Cape Town seeking to reconcile demands from global public health and the local context?

4. How do these three perspectives relate to each other, and what does this suggest for future research and policy?

In order to address these questions, the thesis is structured as follows:

Chapter two reviews and critiques academic literature on physical activity in the prevention of NCDs in low and middle income countries. This includes reviewing how the problem and potential solutions are presented, and how evidence and sources of knowledge are discussed. The location of public health in approaches to prevention is considered, as is the understanding of physical activity. Chapter three reviews theoretical material which was used as a framework for the research, describes how the research was carried out, and catalogues the data. It also discusses ethical considerations and some limits of the work. Chapter four reviews the global policy discourse on physical activity in the prevention of NCDs in low and middle income countries, and considers how physical activity, inactivity, and their relationship with health and wellbeing are conceptualised in this discourse.

Chapters five and six present the results of the research in a low income community in Cape Town. Chapter five seeks to paint a broad picture of life in Langa, and chapter six considers how physical activity fits into that picture, as well as how the concepts employed here relate to those emerging from policy literature. Chapter seven is based on my interaction with three research groups in Cape Town, and discusses how they seek to reconcile their, often internationally driven, research and funding structures with the complexities of local contexts. The results of the research are brought together and discussed in chapter eight. Chapter nine returns to the research questions and presents conclusions, including a reflection on limitations of this research and potential avenues for future exploration.

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[7] http://www.capetown.gov.za/en/stats/2001census/Documents/Langa.htm

2 Academic literature review

2.1 Introduction

The boundary between academic and policy sources is very blurred in this field, and many of the authors discussed in this chapter were also involved in the production of the policy documents examined in chapter four. This chapter includes a review of 'calls to action' on NCDs from academic sources, suggested approaches to prevention, and evidence cited to support such approaches. Critiques of, and gaps in, this evidence and these approaches - which my research was designed to contribute to addressing - are also highlighted. These critiques focus particularly on the types and sources of evidence which are taken into account, and assumptions which are made about goals, values and visions of wellbeing.

Section 2.2 looks at how the problem and potential solutions are being presented, and how evidence and sources of knowledge are discussed. Section 2.3 examines how public health approaches to prevention of NCDs are located, and section 2.4 focuses specifically on the understanding of physical activity in the prevention of NCDs in low and middle income countries.

2.2 Defining the problem

The situation described in chapter one has been addressed by a body of academic literature, originating primarily in the field of public health.

2.2.1 Calls for action in the academic literature

This literature is very action focused, and is often explicitly directed at policy makers or healthcare professionals. It is closely linked with the policy documents discussed in chapter four, and contains recommendations on policy targets and approaches. For example, the launch of the WHO report *Preventing chronic diseases: a vital investment* (WHO 2005a) was accompanied by the first of three series of articles in the *Lancet* calling for urgent action on this "neglected epidemic" (Horton 2005). This 2005 series summarised work on NCDs done by WHO, and sought to refute common myths about these diseases which the series authors felt were acting as barriers to action (Epping-Jordan *et al.* 2005; Beaglehole & Horton 2010). By the second series in 2007, a "partnership of independent experts", the Chronic Disease Action Group, had been convened by those behind the 2005 series (Beaglehole *et al.* 2007: 2155). The initial purpose of the group was to prepare and review papers for the follow up 2007 series, entitled *Chronic diseases: the case for urgent global action* (Horton 2007), but they soon embraced a broader agenda – "to encourage, support, and monitor action for the implementation of evidence-based efforts to promote global, regional, and national action to prevent and control chronic diseases" (Beaglehole *et al.* 2007: 2155).

The 2007 series ended with a reiteration of the 2005 call to action on NCDs in low and middle income countries – this time seeking urgent and intensified action from all stakeholders, based on all the available evidence (which they described as unequivocal) that even modest investments in the prevention and control of NCDs could bring major and rapid health and economic gains (Beaglehole *et al.* 2007: 2156).

The third series, entitled *Chronic disease as a development issue* was launched in London in November 2010, and was described as the group's contribution to preparations for the September 2011 UN high level meeting of the General Assembly on noncommunicable diseases (Beaglehole &

Horton 2010). There were signs of frustration at the lack of progress when it came to action, with talk of development agencies, donor countries and private foundations continuing to "neglect the prevention of chronic disease despite the robust scientific basis for action". Action at a national level in most low and middle income countries was described as far from adequate despite the "plethora of WHO resolutions on the topic – the first over 50 years ago" (Beaglehole & Horton 2010: 1620). The group concluded that "our collective failure to address the chronic disease pandemic is a political failure rather than a technical failure", and saw the solution as being to re-frame "development discussions to emphasise the underlying societal determinants of disease and the inter-relationships between chronic disease, poverty, and development" (Beaglehole & Horton 2010: 1620).

However there was optimism too in this series, with the group seeing the then upcoming UN high level meeting as "an unprecedented opportunity to change the conversation of global health, to rewrite the political manifesto for health to include one of the most neglected—and yet most important—categories of death and disability" (Beaglehole & Horton 2010: 1619).

Another action-oriented academic group, the UK-Africa Academic Partnership on Chronic Disease, published a series of articles focusing on Africa's NCD burden in *Globalisation and Health* in 2009 and 2010, seeking to offer multidisciplinary analyses of the challenges, and identify practical and policy solutions (de-Graft Aikins *et al.* 2010a: 2). A number of interesting angles were explored in the series, including the sociocultural contexts within which NCD risks are increasing in sub-Saharan Africa (BeLue *et al.* 2009). Attention was drawn to the gendered nature of some of the "lifestyle factors" linked to NCDs (BeLue *et al.* 2009: 9), and the partnership argued that how culture shapes perceptions and experiences of risk and disease provides a crucial perspective on understanding why some risks are gendered, and on the emergence of NCD risk in general (de-Graft Aikins *et al.* 2010a: 2). This relates to a more general point that within the NCD prevention campaign in general there has been limited attention to culture, and to how it affects knowledge, perceptions and experiences within the communities which are the targets of intervention, as well as in academic and policy communities, and thus more work of this nature would be valuable.

Another interesting angle explored within this series is the interaction of NCDs with infectious diseases. For example, there are negative interactions between tuberculosis and diabetes – diabetes being associated with an increased risk of developing active tuberculosis, and the presence of diabetes in tuberculosis being associated with poorer outcomes. A further significant factor is the association of anti-retroviral therapy for HIV with an increase in various cardiovascular risk factors (Young *et al.* 2009: 1). Such research highlights the importance of understanding NCDs, and their risk factors, in the specific low and middle income country contexts in which they are now prevalent, and not relying excessively on research carried out in high income countries.

2.2.2   Momentum and evidence for action

The UN high level meeting on the prevention and control of NCDs, held in September 2011 produced a declaration acknowledging that "the global burden and threat of non-communicable diseases constitutes one of the major challenges for development in the twenty-first century" (UN 2011). This meeting has been a key focus for the momentum which is building behind calls for action on NCDs. The economic implications of NCDs are a recurring theme in calls for action - variously presented as rationales for action (along the lines of NCDs interfere with economic development,

economic development is important, therefore it is worth preventing NCDs) and as arguments on the cost effectiveness of interventions. This theme can have a ring of 'health for (economic) development' rather than 'development in the service of health'[8] about it on occasion, although it is not clear if this reflects the view of the authors, or reflects more their perceptions of how to win the argument for action.

The under-appreciation of NCDs as a development issue, and their underestimation as diseases with "profound economic effects", is seen as lying behind the lack of interest shown in their prevention by many governments, with the responsibility being left primarily to individuals (Beaglehole *et al.* 2007: 2152). Funding is presented as the major barrier to turning the tide on NCDs, alongside a lack of leadership at the national level.

NCDs as a cause of economic poverty, and a hindrance to economic development (Suhrcke *et al.* 2006; Beaglehole *et al.* 2007; Beaglehole & Horton 2010) are, if anything, referenced more often than poverty as a cause of NCDs. To me this emphasis is important because it is likely to shape the form of responses, creating a steering effect which competes with, and could undermine, calls for attention to the social determinants of health. If social determinants, and thus inequity, are to be taken seriously as the 'causes of the causes' of NCDs, there must be more acknowledgement that tackling such inequity is not compatible with a 'business as usual' approach to economic development, and that contestation and political struggle are inevitable (Green 2010).

Evidence claims

One of the striking features of the calls for action on NCDs in low and middle income countries is the level of certainty presented regarding the evidence for interventions. There are repeated references to the strength of this evidence, which is perhaps unsurprising in the context of an advocacy campaign. There is confidence that NCDs in low and middle income countries are preventable, that existing strategies can achieve such prevention, and that what is missing is commitment to action. The following are some examples of this:

"The science platform for advocacy was built on WHO's 2005 publication *Preventing chronic disease: a vital investment*, which proposed that we know sufficient about the causes of the major chronic diseases and have effective means of prevention and treatment to proceed to strong advocacy for changes in priority setting in developing countries and reallocation of resources towards chronic disease prevention" (Ebrahim 2008: 225).

"This acceleration is alarming considering that chronic diseases are highly preventable. At least 80% of heart disease, stroke, and type 2 diabetes, and 40% of cancer could be avoided through healthy diet, regular physical activity, and avoidance of tobacco use. Cost effective interventions to reduce chronic disease risks exist, and have worked in many countries; the most successful strategies have used a range of population-wide and individual approaches. Yet the upsurge of chronic disease risks in many low-income and middle-income countries exposes the paucity of successfully implemented preventive population-based interventions" (Epping-Jordan *et al.* 2005: 1667).

"The evidence is unequivocal" (Beaglehole *et al.* 2007: 2156).

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[8] Or, preferably, a broader concept such as wellbeing – see chapter three.

"The compelling science base for the prevention of chronic disease contrasts starkly with the limited action in countries where the burden is greatest" (Beaglehole & Horton 2010: 1619).

This confidence is in part based on reductions in NCD death rates in several high income countries which have implemented prevention programmes. Epping-Jordan and colleagues cite major reductions in NCD deaths in many countries which they attribute to the implementation of existing prevention and control interventions. While acknowledging that these were mostly high-income countries, they are uncompromising in their censure of those who have not yet taken action:

"The failure to use available knowledge about chronic disease prevention and control is unjustified, and recklessly endangers future generations. There is simply no excuse for chronic disease to continue taking millions of lives each year when the scientific understanding for how to prevent these deaths is available now" (Epping-Jordan *et al.* 2005: 1671).

But this level of confidence is not uniform across all types of intervention and context. Two areas where many of the same authors behind the calls for action acknowledge that evidence is not so robust are physical activity interventions, and lower-income country contexts.

Richard Horton described research on NCDs in resource-poor nations as "embryonic" in 2005, but still felt that what evidence there was - that on tobacco use - showed how critical it would be to intervene early (Horton 2005: 1514). Editorialising in the *International Journal of Epidemiology* in 2008, Shah Ebrahim spoke of extremely strong evidence that intervention improves outcomes in some areas, such as population-targeted tobacco control and the use of drugs targeted at high risk individuals, but stated that the evidence on population targeted interventions "drops to the level of case studies once food and physical activity come into focus" (Ebrahim 2008: 225). Banatvala and Donaldson note the scarcity of evidence on methods to achieve effective change in the "enormously diverse settings in which it is needed", and believe that innovative leadership, creativity, and sustained commitment will be needed because of this challenge (Banatvala & Donaldson 2007: 2078).

The contradiction between the uncompromising assertions about the robustness of the evidence on the one hand, and talk of gaps and a need for further research on the other, brings to mind comments by Lupton in 1995, which appear to still hold true:

"The certainty of the advice given to the public about risk factors and risk relationships therefore obscures the continuing, complex and often very fraught medical and epidemiological debates around the 'truth' of this advice. That epidemiological knowledges are 'dialectical/undetermined/underdetermined and under continual (re)construction' (Fujimura & Chou 1994: 1032) is little acknowledged in the public face of epidemiology and risk discourse" (Lupton 1995: 84)

2.2.3   Labels

Cardiovascular diseases, cancer, diabetes and chronic respiratory diseases: many terms have been used to label these diseases collectively, and such labels are a point of debate with regard to their accuracy and underlying assumptions. Frenk and colleagues noted the value judgements implicit in the labels traditionally given to groups of diseases, with the displacement of infections by NCDs often referred to as a sign of 'progress'. They took issue with those who designated NCDs the 'ills of

civilization', seeing them instead as a result of "a defective process of industrialization that has given priority to economic growth over human welfare"(Frenk *et al.* 1989: 31).

The terms 'chronic' or 'noncommunicable' try to capture shared characteristics of these diseases in a relatively neutral manner, but even these terms are vulnerable to challenge – communicable diseases such as HIV/AIDS have joined the ranks of chronic diseases in part thanks to the success of anti-retrovirals, and viruses have been implicated in the development of various diseases traditionally considered noncommunicable, such as certain types of cancer.

Compared to 'chronic' or 'noncommunicable', labels such as 'diseases of lifestyle' (particularly prevalent in South Africa), 'diseases of affluence' or the above-mentioned 'ills of civilization' are much more explicitly value-laden, and incorporate attribution of causation within them.

The naming of this group of diseases is not the only contestable labelling going on in this discourse. Another example is the ways in which 'modifiable risk factors' are discussed, with physical activity (along with eating, smoking and drinking behaviour) often termed "health behaviour" (Ferreira *et al.* 2006; Suhrcke *et al.* 2006; Ellis *et al.* 2007; Gaziano *et al.* 2007; Mensah 2008; BeLue *et al.* 2009; Lee & Macdonald 2009), or "risk behaviour" (Lechner *et al.* 2006; Stewart *et al.* 2006; Beaglehole & Bonita 2008). To me this communicates a highly contextual and limited outlook on where, how and why these behaviours fit into people's lives in the ways that they do. While the authors using such terms presumably recognise that the motivations and consequences connected to physical activity behaviour encompass many domains other than health, the way in which the label is applied can obscure this, and contribute to the creation of a medicalized discourse around prevention.

2.2.4   Taking account of social determinants of health?
The relevance and importance of social determinants of health is on the agenda of several of the key actors in the campaign for action to prevent NCDs in low and middle income countries. For example, Beaglehole and Bonita wrote in 1998 that specific social, economic and cultural factors profoundly affect what they termed "modern lifestyle risk factors", and that these risk factors should thus be assessed in terms of the global context. However, they lamented that they are "all too often considered in isolation as individual characteristics", with much of the public health effort thus focused on 'high-risk' individuals, rather than at the population level (Beaglehole & Bonita 1998-591).

Important questions therefore include how well placed 'the new public health'[9] is to take the social determinants agenda forward, and how well is the awareness of social determinants at the 'headline' level incorporated into actual research and policy on physical activity in NCD prevention? Section 2.3 on public health approaches, section 2.4 on physical activity, and chapter four on WHO policy discourse, will attempt to shed light on these questions, however several authors from the field of public health have raised concerns.

While Beaglehole and Bonita wrote in 2003 of the necessity of "action on the underlying structural determinants of social and economic deprivation" to reduce health inequalities, they found that such an approach was "notably absent from the agenda of governments, and public health efforts are mostly targeted at the 'downstream' effects of exclusion".   Beaglehole and Bonita called for

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[9] The idea of a 'new public health' will be discussed further in section 2.3

"serious" intersectoral action, but raised concerns regarding the skills of public health practitioners in this type of work (Beaglehole & Bonita 2003: 261).

The Commission on Social Determinants of Health published its final report in 2008 (CSDH 2008), and Beaglehole and Bonita considered it "a major contribution to global public health with its breadth of vision and strong evidence base", but they saw achievement of its goals as being dependent on widespread willingness to strengthen the social justice approach to health (Beaglehole & Bonita 2008: 1992). They felt that there had been a lack of progress in addressing the underlying social determinants of health, and that this amounted to a "glaring failure of global public health". They put forward a number of reasons for this failure, including "the dominance of the neoliberal approach to social policy with its emphasis on market-based solutions to health problems, the difficulty of intersectoral action, the focus by development agencies, foundations and politicians on short-term goals, and the absence of a strong global movement for health improvement and health equity" (2008: 1991).

Potvin *et al* wrote that the "crucial question" of social determinants of health had led to significant theoretical contributions in the field of social epidemiology, but found that the innovative public health practices prompted by such questions remained under-theorized "because they cannot be appraised through the traditional scientific bases of public health" (2005: 591). They described public health action as having evolved from a biomedical to a social orientation, and the development of practice-alliances with a broad range of social actors. However, they found that the theoretical foundations of public health, seen as being based largely on behavioural psychology, biomedical science and public administration since the beginning of the twentieth century, limited the field's capacity to "understand and form theories about the complex interactions involved" (Potvin *et al.* 2005: 591).

I am in agreement with many of the points raised by Beaglehole and Bonita, and Potvin *et al.*, and presented above. However, I also share a different kind of concern regarding public health and social determinants, which was raised by Lupton. Writing in 1995, she described a shift in the field of health promotion from viewing infective agents, such as bacteria or viruses, as the cause of ill-health, to ill-health as a product of society. She did not see this as an entirely positive development, but as a part of an approach which can see social issues "subsumed under the rubric of health" (Lupton 1995: 51). "Healthification" of social issues was in fact one of the approaches proposed by Potvin *et al.* to the problem of how to incorporate contemporary social theory into public health practice (Potvin *et al.* 2005: 591), and I will return to this theme in section 2.3.5.

2.3   Public health in prevention

2.3.1   Framing of public health within calls for action
There is broad recognition from the authors of calls for action that achieving prevention of NCDs will require action beyond the health sector, but the field of public health is presented as central to leading and coordinating such action. Banatvala and Donaldson see the move of health from a sectoral activity to a "broad-based multisectoral coalition of commitment" as both the greatest need and the biggest difficulty (Banatvala & Donaldson 2007: 2077). They call for all governments to give a central place for public health in policymaking, and the generation of policy coherence across government to support health (Banatvala & Donaldson 2007).

Beaglehole and Bonita warn of the difficulties for public health practitioners of achieving such an approach in practice. They agree that public health should extend well outside the health sector, yet, they say "we are hampered by insufficient experience of effective intersectoral action and a lack of preparation for confronting the new challenges" (Beaglehole & Bonita 2003: 257). The increasing awareness of the importance of determinants of health outside the realm of individual control led to blurring of the boundaries for public health professionals, and questions as to whether the skills emphasised in the public health approaches which dominated for much of the twentieth century would be adequate to address such broad concerns:

> "Most importantly, the scope and purpose of public health is unresolved. What are the current limits of public health? Should public-health professionals be concerned with the fundamentals of health such as employment, housing, transport, food and nutrition, and global trade imperatives, or should attention be restricted to individual risk factors for diseases? A broad focus inevitably leads to involvement in the political process, an arena which is not emphasised in current training; the intersection between public health and democracy demands exploration." (Beaglehole & Bonita 1998: 591).

Given the recognition that the causes of health inequalities "lie in the social, economic, and political mechanisms that lead to social stratification according to income, education, occupation, gender, and race or ethnicity" (Beaglehole & Bonita 2008: 1991), there is also a surprising expectation that attempts to address such fundamental issues will go relatively uncontested:

> "Compared with other components of development, health improvement should easily foster global cooperation; strong advocacy and political will are keys to continuing progress." (Beaglehole & Bonita 2008: 1988)

So with public health being positioned so centrally in the multisectoral action called for, what, in the context of this literature, does 'a public health approach' mean?

2.3.2   The new public health

The 'new public health' has now been around for some time. According to Lupton, the movement emerged in the 1970s as a refocusing of attention on the contribution of social and environmental conditions to health patterns, and an interest in radical change (Lupton 1995: 16). The *Ottawa Charter for health promotion*[10] (WHO 1986) was an important step in the establishment of this movement, and is frequently referred to as a guide to principles for action. Proponents of the 'new public health' argued that public health had lost its direction in the early to mid-twentieth century, with a shift away from the concern with environmental factors in its nineteenth century roots, and

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[10] This charter was drawn up at a conference held primarily in response to "growing expectations for a new public heath movement around the world". Health promotion was defined as "the process of enabling people to increase control over, and to improve, their health… Health is, therefore, seen as a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities" (WHO 1986: 1). Political, economic, social, cultural, environmental, behavioural and biological factors are all seen as potentially favourable or harmful to health, with health promotion aimed at making them favourable. Health promotion should focus on equity, including providing a supportive environment, access to information, life skills and opportunities for making healthy choices. "People cannot achieve their fullest health potential unless they are able to take control of those things which determine their health. This must apply equally to women and men" (WHO 1986: 2).

towards an individualistic and victim-blaming approach, and the curative model of biomedicine (Lupton 1995: 50). Kickbusch, writing in 1989, presented the situation as follows:

> "Public health has, over time, lost its broad gauged approach and moved into a phase of medical dominance and concern for behavioural epidemiology, preventive medicine and health education. It has individualized social and cultural patterns by concentrating on disease categories and risk factor causation principles (heart disease/high blood pressure/less fat/health behaviour change). Only recently has it begun to move to broader approaches that aim to incorporate a social model of health, make the healthier choice the easier choice and to improve the social climate for health" (Kickbusch 1989: 266)

Lupton however finds the distinction between 'old' and 'new' public health problematic, with the new version encompassing many of the 'old' approaches, including what she sees as a discourse dominated by the objective of ensuring productive citizens (Lupton 1995: 54) – a reading which could be applied to the references in policy literature to the importance of NCD prevention to economic development.

As major contributors to calls for public health action in the prevention of NCDs in low and middle income countries, Robert Beaglehole and his co-authors' discussions of public health and its challenges are of particular interest. Writing in 1998, in an article entitled "Public health at the crossroads", Beaglehole and Bonita saw public health sub-disciplines as encountering difficultly in implementing the "powerful rhetoric" of the Ottawa Charter on health promotion. Health promotion practice was described as often using an outdated model of health education, and further hampered by factors such as organisational models which diverted attention from intersectoral determinants of health (Beaglehole & Bonita 1998: 591).

With regard to the crossroads of their title, the authors saw the correct choice of direction as being for public health practitioners to "articulate and act upon a broad definition of public health which incorporates a multidisciplinary and intersectoral approach to the underlying causes of premature death and disability". They saw the value system of public health professionals as being egalitarian and in support of collective action, and felt that it was important that these values were affirmed and made explicit (Beaglehole & Bonita 1998: 591). The competing pathway available to public health at the time was described as "narrowly focused on health-services research, evidence based health care, and the search for new risk factors at the individual level". This however was the pathway which the authors saw as increasingly characterising contemporary public health (Beaglehole & Bonita 1998: 591).

An important ethical issue, and strong regret, for Beaglehole was what he saw as the failure of public health to successfully address health inequalities. He found that practitioners had always been much more successful when it came to contributing to overall improvements in population health than they had been in improving the health of the most disadvantaged, and were "better at getting our public health messages across to like-minded people than we are in confronting health inequalities". He saw the mainstreaming of ethical issues into public health as the route to addressing this, but was unsure how to go about this at a time when "public health itself is at a major crossroads—balanced on a fine line between a narrow individualistic path and a broad all-encompassing road—and desperately in need of reinvigoration" (Beaglehole 2004: 563). The picture

of 'the new public health' coming across is thus a very mixed one in terms of both aspiration and achievement.

2.3.3 Epistemology in public health

Clare, in the introduction to Payer's 1990 book *Medicine and culture*, commented that he found it particularly difficult to communicate to audiences, whether drawn from students of medicine or the general public, "the simple fact that medicine is not a science". Instead he encountered expectations that "the boundaries and core of modern medicine will be objective, verifiable and immune to bias and cultural influences", although in practice diagnoses and treatments often depend "as much on social and cultural factors as on the underlying condition" (Clare 1990: 5). When it comes to the discipline of public health, Lupton puts forward a similar view, claiming that, despite frequently being presented as such, "the practices and discourses of public health are not value-free or neutral, but rather are highly political and socially contextual, changing in time and space" (Lupton 1995: 2).

Lupton's 1995 work *The imperative of health: public health and the regulated body*, was described by reviewers as a welcome contribution to the growing critical work on public health and health promotion, bringing a much needed reflexiveness to the area (Bunton 1996: 425). Part of Lupton's critique in this book was that new directions in social-cultural and political theory over the previous decade, which had incited upheaval in the ways concepts such as knowledge, power relations, society and the human subject had come to be understood in the humanities and social sciences, had yet to be taken up by scholars and researchers in public health and health promotion to any significant degree. She challenged descriptions of public health research as multidisciplinary, suggesting that close links with biomedicine and its "positivistic forms of inquiry based on the gathering of empirical quantifiable data" had led to public health research undervaluing the more humanistic, critical, theoretical and interpretive approaches (Lupton 1995: 1). She saw quantitative sociology, biostatistics, epidemiology, social psychology, demography and the "stimulus-response model of communication" as traditionally dominating, with disciplines such as anthropology, philosophy and history "marginalized; at best treated with suspicion, at worst denigrated for being soft and non-practical". She observed that while health promoters and researchers had critiqued the ideologies underlying medical practice, they had not yet fully directed this critique at their own epistemology and practices (Lupton 1995: 1).

Raeburn and MacFarlane lamented what they saw as the failure in public health to move beyond its "scientific requirements and focus on narrowly defined disease conditions" and use "other epistemologies – such as those of a more qualitative nature" (2003: 244). They cited the Alma-Ata declaration on primary healthcare (WHO 1978), as a significant early expression of a broader approach, but concluded that "sadly the spirit of Alma-Ata was replaced by top-down selective vertical disease-based initiatives that are still being generated today" (Raeburn & MacFarlane 2003: 245).

MacDougall, referring in this case to common strategies to promote physical activity rather than public health more generally, described them as being developed from "positivist research methods and tendencies for professional dominance". Quantitative studies informed governments' goals and targets for physical activity, with interventions often expecting "principles of behaviour change to apply almost universally across groups of people (Sallis & Owen 1999)" (MacDougall 2003: 382).

Potvin and colleagues, in their 2005 call for more use of social theory in public health, noted that "professionals and practitioners who try to implement social-change programs rarely find conceptual tools pertinent to their practice in the evidence-based discourse" (Potvin *et al.* 2005: 593).

Bunton's words in a 2008 editorial in *Critical Public Health* on 'Public health and public involvement' illustrated some of the tensions for those coming from such a traditionally evidence-based field. Talking about developing critique in public health, and developing critical perspectives on public participation and involvement, he stated:

> "This work will acknowledge that public health is always a network activity and that despite our best efforts to make policy and practice scientifically sound, the uptake of research evidence is dependent upon those networks" (Bunton 2008: 133).

Making public health a genuine network activity, with meaningful public involvement, requires a certain amount of relinquishing of control, with the result that evidence might be interpreted differently, or different types of evidence might be used, which could prove challenging to the 'scientific' participants' understanding of the soundness of resulting policy and practice.

2.3.4   Theory in public health

In advocating a new approach to public health in 1989, Kickbusch called not only for a move from the contemporary behavioural epidemiology and surveillance mode to a more environmental and social approach, but for new basic assumptions in tackling "'risk patterns' of our societies". She felt that "new risk patterns" eluded simple models of causality and intervention, and that the intervention modes of public health were ill prepared for this new reality (Kickbusch 1989).

Lupton described the predominant models used to explain behavioural change in health promotion as primarily based on understandings of behaviour within the paradigm of social psychology. Theory, as the term was commonly employed in health promotion literature, was often conflated with the term 'model', and limited to "explaining links between attitudes and behaviour, adopting a cause-and-effect model, rather than an overarching attempt to construct an epistemology of public health" (Lupton 1995: 55). She described the dominant concern as being instrumental, directed at providing a model of explanation for the effects of interventions, with "the objective of more effectively influencing individuals or groups" (Lupton 1995: 55).

A decade later, editorialising in the *Journal of Public Health*, Connelly also discussed theory and its uses in public health. He warned against basing public health activities on "poor or meagre theoretical understanding – such as the dominance of rationality in personal decision-making about health", and called for empirical observations to be informed by strong theories, and for a better means within public health to change, improve, or drop theories.   He saw a need to articulate public health theories of disease causation, and to tackle the "acceptability and adequacy in public health science of retaining the conceptual and methodological distinctions between facts and values…..and subjective and objective knowledge". He spoke of the tension for public health practitioners between "describing the world and changing it", and asked:

> "Do we wish to describe in increasingly accurate terms the underlying causes that produce, sustain and increase poverty, injustice and misery – the project of a pure objective scientific

practice – or do we want theoretically and empirically grounded resources to transcend fact-value distinctions and guide a public health practice that seeks human emancipation?" (Connelly 2005: 315)

Also writing in 2005, Potvin and colleagues expressed concerns with the suitability of the instruments available to practitioners in public health for implementing the principles of the Ottawa Charter, with values of empowerment and community participation "all too often juxtaposed on expert models within which standardized activities are prescribed as a set of bodily or behavioural practices that reduce the prevalence of individual risk factors among the population". The authors state that there is still "little theory for invoking, and reflecting upon, the social and relational dimensions of public health practice." (Potvin *et al.* 2005: 591). However, they are optimistic about the kinds of innovative practices they see emerging in public health, the concern being with how this conflicts with public health's "scientific base", and they seek a way to "inform— and potentially transform - contemporary public health practice" (Potvin *et al.* 2005: 592).

They see the integration of contemporary social theory into the theoretical foundations of public health as a potential solution to this problem, and identify two large bodies of social science work of particular interest, described as follows:

"The theories in the first body of work reject both the determinism of a purely structuralist perspective and the idealism of an entirely voluntaryist conception of human action. Contemporary social theorists such as Pierre Bourdieu and Anthony Giddens believe human subjects are actors whose agency—or capacity to act deliberately or to exercise wilful power—is constrained by—yet reproduces and transforms—the social structure through a dialectical relationship…….The second body of work includes theories that explore and critique the role of reason and rationality in the regulation of human practice and in contemporary society, such as the work of Jurgen Habermas, Michel Foucault, Ulrich Beck, Anthony Giddens, Michel Callon, Bruno Latour, and others". (Potvin *et al.* 2005: 591-592)

They believe that situating the existing knowledge base of public health more coherently within such a theoretical perspective is a way of "reconciling public health practitioners, decision makers, and researchers" (Potvin *et al.* 2005: 594).

While the call for social theories to be applied in a public health context would seem to echo my own research interests, the emphasis is rather different here. Potvin and colleagues' call emerges from their observation of disconnects *within* public health, and says little about disconnects between public health and its 'publics'. However the authors also state that if they accept health as "a resource at the core of everyday life", then public health needs "conceptual tools that allow us to have an in-depth understanding of everyday life" (Potvin *et al.* 2005: 591), and this is a suggestion with which I have little argument.

2.3.5   Position and domain of health

The positioning of health as a resource for, rather than the goal of, living, links back to the Ottawa Charter for health promotion, which puts it as follows:

"Health is, therefore, seen as a resource for everyday life, not the objective of living." (WHO 1986: 1)

Kickbusch expands on this, describing health as "a fundamental resource to the individual, the community and to society as a whole", and as "a process engaging social, mental, spiritual and physical well-being", and calls for public health action to be based on this "knowledge" (Kickbusch 1989: 267). While the Ottawa Charter serves as an inspiration for proponents of the 'new public health', there is nevertheless a tendency to occasionally drift 'off message', with phrasing presenting health, or even public health, as the central focus:

> "Public health is under threat and needs to be strengthened so that it is at the centre of human endeavour—locally, nationally, and worldwide" (Beaglehole & Bonita 1998: 590)

> "The ultimate goal for public health practitioners is to ensure that the public health perspective is integrated in to all health, social and economic policies and programs" (Beaglehole & Bonita 2003: 265)

While such drift may be driven by attempts to compete with other visions of public health – such as the narrow, individualised approach – or with approaches which position economic growth at 'the centre of human endeavour', it also raises concerns regarding the taken-for-granted nature of health as a normative goal, and of public health as the means to deliver this goal.

While health as the central goal of human development might be preferable to economic growth playing such a role, better yet would be a broader conception of wellbeing[11] in that position. Economic growth and health represent objectives considered by different groups as the best proxies to use in chasing that much more elusive goal, wellbeing, but their proponents are often reticent when it comes to examining what forms and distributions of wellbeing these proxies may lead to. A lack of reflexivity can be camouflaged by the 'scientific' claims to knowledge widespread in both economics and public health, or by the way in which the compelling normative appeal of goals such as 'health for all' leaves much of what is actually done in its name unquestioned (Cornwall 2007).

Trade-offs which people have to make in achieving wellbeing – and wellbeing consists of more than health alone - are obscured by using other objectives as proxies in un-reflexive ways; a failure to reflect on the vision of wellbeing underlying intervention, public health or otherwise, removes the space for the visions of wellbeing held by targets of such intervention to be taken into account.

The positioning of public health at the centre of human endeavour also does work in opening up a very broad territory to the authority of public health. Writing in 1998 and again in 2003, Beaglehole and Bonita draw attention to the need to clarify the scope of public health. They state that "all would agree that public health extends well outside the health sector" (Beaglehole & Bonita 2003: 257) and ask if it extends to concerns with employment, housing, transport, food and nutrition, and global trade imperatives (Beaglehole & Bonita 1998: 591). They note that this kind of scope would inevitably lead to involvement in the political process, an arena they say is not emphasised in contemporary training (Beaglehole & Bonita 1998: 591). While this may be the case, Lupton felt that, acknowledged in training models or not, the practices and discourses of public health were already "highly political and socially contextual" (Lupton 1995: 2).

Potvin *et al*. go further with their vision of the appropriate territory of public health:

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[11] See chapter three for further discussion of the concept of wellbeing.

> "Innovative public health practice is increasingly understood to be the permeation of health issues into the social realm, where a growing number of situations traditionally regarded as social problems are reinterpreted within a health framework." (Potvin *et al.* 2005: 591)

While I support their call for the integration of more social theory into public health, I cannot agree with the use to which they appear to want to put it – the colonisation of the social sphere by health:

> "In our opinion, this 'healthification' of social issues, which justifies the overlapping actions for social change repeatedly called for by current public health policy, is an important way of incorporating contemporary social theory into the theoretical foundations of public health practice". (Potvin *et al.* 2005: 591)

This idea of 'healthification' echoes the definition of 'medicalization' provided by Turner, but without his attention to the exercise of power which such processes entail:

> "In sociology, the social processes whereby social activities come under the control of medical institutions are called medicalization in order to indicate the power of medical institutions. More precisely, medicalization involves the use of medical explanations and modes of medical thinking across different areas of society, for example by explaining criminal behaviour as a consequence of a medical condition (Conrad 1992). People who are delinquent are also regarded as people who are sick. People who constantly flout social convention are likely to be defined as mentally disturbed. Medicine is, in this sense, an institution of normative coercion" (Turner 2004: xiv)

While acknowledging that the rise of public health and health promotion in western countries has been associated with improvements in health at the population level, Lupton believes that "the discourses and practices of these institutions have also worked to produce certain limited kinds of subjects and bodies" (Lupton 1995: 5). Drawing on the work of Foucault, she points to the relative neglect of public health in the critiques directed at biomedicine as a "symbolic system of beliefs and a site for the reproduction of power relations, the construction of subjectivity and of human embodiment" (Lupton 1995: 4).

She sees public health as often displaying very overt signs of attempts to shape the behaviour of citizens, but finds this attempt at control "becomes invisible" in the justification used – "in the interest of health, one is largely self-policed and no force is necessary" (Lupton 1995: 10). She also notes the lack of space left by "official definitions and interpretations of health" for individuals' own definitions. Instead she sees a "version of health" being imposed from above, and generally excluding the individual definitions which are "relative, dynamic and strongly linked to personal experience and observation" (Lupton 1995: 72).

Bunton also notes the critiques of 'surveillance medicine' which have drawn attention to the potential for techniques in public health to "discipline and govern populations, communities and subjects (Armstrong 1983; Castel 1991)" (Bunton 2008: 131) . He recognises public health practice as actively building particular forms of subjectivity, and while participation may be put forward as the easy answer to concerns with a top down approach, he acknowledges the hazards involved, and the need for more critique of "the creation of expertise citizenship in public health and more

assessment of the capacity of such approaches to empower, alienate, co-opt, manipulate, etc." (Bunton 2008: 131).

2.3.6   Participation and dialogue

Critiques of public health have drawn attention to the hazards of a lack of meaningful engagement with the experiences, knowledge and values of those who are the targets of intervention (Lupton 1995; MacDougall 2003; Raeburn & MacFarlane 2003; Bunton 2008). Ideas about participation and dialogue are important in the legitimation of public health action. An important theme is the relative positioning of 'experts' and 'ordinary people' in such dialogue.

Bourdieu discussed the framing of opposition between "the long-term view of the enlightened 'elite' and the short-term impulses of the populace" as typical of "reactionary thinking at all times and in all countries", and the new form of this as "the state nobility, which derives its conviction of its legitimacy from academic qualifications and from the authority of science" (Bourdieu 1998: 25). Lupton too raises the idea of experts as mediators between authorities and individuals, this time in the context of public health and Foucault's notion of governmentality, and speaks of them as "shaping conduct not through compulsion but through the power of truth, the potency of rationality and the alluring promises of effectivity" (Miller & Rose 1993: 93, in Lupton 1995).

This theme is brought into the discussion of physical activity in public health by MacDougall's paper on ordinary and expert theories on health and physical activity. MacDougall finds two interrelated barriers to the WHO-endorsed goal of 'community participation' in health promotion: research paradigms and professional culture and training (MacDougall 2001).

> "Researchers who adopt a positivist paradigm are less likely to use methods that take the time to distil the views of the community from in-depth interviews or focus groups (Baum 2002). Conventional professional training is more likely to prepare workers for a role of professional dominance than one of enhancing community participation (Baum 2002)" (MacDougall 2003: 381-382).

MacDougall argues that a culture of positivist research and professional dominance is most likely to advance expert theories (MacDougall 2001) which, if unchallenged, can "relegate ordinary theories to the status of anecdotal or subjective", easily dismissed (MacDougall 2003: 394). He gives a striking example of such professional dominance in the way physical activity researchers discuss opinions from 'the community':

> "If you have talked informally to people about physical activity, you have no doubt heard lists of reasons for not being active. The all-time winner is 'I don't have the time.' . . . although that is difficult to take seriously when the average US adult watches three hours of television each day. It is not clear whether these lists referred to true reasons or convenient 'excuses' but the ubiquity of these reasons makes them important to study" (Sallis & Owen 1999: 119, in; MacDougall 2003).

While the authors state that the reasons given for not being active are important to study, the position from which they are approaching such study has already de-valued and belittled those reasons. MacDougall on the other hand believes that health promotion has a lot to learn from the difference between 'ordinary' and 'expert' theories, with 'ordinary' intended as a neutral term to refer to those theories arising from people who are not public health professionals. His study, using

focus groups in South Australia, found that much ordinary theorizing was heavily influenced by, or even a response to, expert theories on health and physical activity. However, he found that people contextualized expert theories, discussed what such theory meant for people like themselves, and considered how theories needed to be modified to influence their personal health and physical activity – "they acknowledged specific health benefits of physical activity, then broadened the debate" (MacDougall 2003: 391). MacDougall suggests that this finding may help with understanding "the observation that most respondents to community surveys understand the stated benefits of physical activity, even though a substantial proportion does not follow the expert prescriptions about regular, moderate physical activity (Bauman *et al.* 2002)" (MacDougall 2003: 391).

Rather than framing the community view as "anecdotal or subjective", he suggests that the role of experts should be to provide theories as scaffolds and then "support ordinary people to theorize". With such an approach he hopes it may be possible to avoid the problem described by Milburn (1996) of "experts using a biomedically derived definition of health to explore attitudes and behaviours and, in the process, constraining the agenda by separating individuals from their social, physical and economic environments." (MacDougall 2003: 391-392). To achieve this MacDougall calls for health promotion to be "informed by research methods that explore community views in hectic and messy practice structures, and by professional practice that critiques professional dominance and promotes values and skills that increase community participation" (MacDougall 2003: 382).

While this is a significant step forward in terms of the level of engagement with the people who are the targets of intervention, there remains a power imbalance, with ordinary people positioned as 'learners', and while they are permitted to "construct their own long-term theory to guide their actions", that theory hangs on the expert theory "scaffold" (MacDougall 2003: 391). A more fundamental challenge to the experts' theories is not considered.

Raeburn and McFarlane also found shortcomings in the tools available to public health practitioners, with their "predominantly epidemiological skills" not sufficient to meet the new challenges. Calling for the 'public' to drive the public health agenda, they saw a need for public health practitioners, policy makers and researchers to "be trained to partner with communities in the formulation of public health priorities, programmes and values" (Raeburn & MacFarlane 2003: 241).

Bunton found that involving the public in public health initiatives was seen as a routine part of public health to the extent that it was rarely reflected upon, either as a principle or a process (Bunton 2008). However, participatory methods span a spectrum of inclusion and empowerment possibilities, ranging from providing genuine ownership to offering mere token involvement (Bunton 2008: 131). A critical stance can focus on the nature of inclusion – "who is around the table and who is not, what rights of discourse they have, etc. This raises some familiar issues of equity and power" (Bunton 2008: 133).

Lupton was scathing in her criticism of health promotion's modes of inclusion, quoting Farrant's claim that "health promotion priorities continued to be professionally , specifically medically, defined, with 'community participation' being used to describe what often amounted more to community manipulation" (Farrant 1991: 421, in Lupton 1995) and noting problems with the use of the term 'community' itself, not least its use in "bureaucratic rhetoric as a synonym for a 'target

group' identified for management" (Lupton 1995: 61). Social marketing is also subject to Lupton's censure as she states that

> "as with other strategies of health promotion, the assumptions of social marketers remain unchallenged; they seek knowledge of consumers better to influence or motivate them, not to ensure that the objectives of social marketing are considered by consumers as appropriate" (Lupton 1995: 112).

This was written in 1995, but the phrasing of certain sections of recent WHO documents (see the examples in chapter four) indicate that, in some circles, little has changed.

Bourdieu sets up this kind of approach as a power struggle between technocracy and democracy (Bourdieu 1998: 26), while Raeburn and MacFarlane raise the possibility that community led models may be threatening from a government perspective because of the power ceded to people and communities. They suggest that the follow up to initiatives such as Alma-Ata and the Ottawa Charter faltered at least in part because politicians and professionals were not prepared to partner with communities:

> "Vertical top-down, the so-called evidence-based, programmes were a means of retaining professional and political control and of maintaining accountability for donors" (Raeburn & MacFarlane 2003: 250).

2.3.7   Behaviour, choice and responsibility

There is much debate regarding the level at which responsibility for phenomena such as low levels of physical activity lies, with positions ranging from 'victim blaming' at one extreme to environmental determinism at the other. Somewhere in the middle is the idea of 'making the healthy choice the easy choice' by creating the 'right' environment.

Several authors have ascribed political motives to the rise of individualism in the domain of public health. Beaglehole and Bonita attribute a narrowed focus in public health to "the recent ideological ascendancy of neo-liberalism", with responsibility for health increasingly located at the personal level to allow national authorities to reduce their costs. They see this as an extremely negative trend given their belief that the determinants of health, and the most powerful means for its improvement, are "increasingly located at the global and regional levels" (Beaglehole & Bonita 2003: 261).

Bercovitz, in her critique of Canada's Active Living programme to increase physical activity, sees "hidden political agendas and scientific research mandates" (Bercovitz 2000: 20), and concludes that "under the guise of 'lifestyle', 'empowerment', 'emancipation ', 'the community', and 'population health', the responsibility for one's health and fitness is now returned to the individual and the community, and is less a state responsibility" (Bercovitz 2000: 33).

Bourdieu also spoke about the 'return of individualism', and its tendency to erode the notion of collective responsibility towards sickness or poverty, a responsibility which he saw as a "fundamental achievement of social (and sociological) thought". It is the return to the individual which he sees as making it possible to 'blame the victim', who is cast as entirely responsible for his or her own misfortune (Bourdieu 1998: 7).

Individualist approaches tend to rely on a rational model of behaviour, and thus the goal of health promotion activities based on such models is to change behaviour by means of changing beliefs and attitudes (Lupton 1995: 56). For Lupton, not only is all the attention here on the individual 'agent', but that agent is subject to a separation of mind and body. The mind is seen to be "separate from and transcendent over the body, ideally having the power to control the urges and emotions of the potentially recalcitrant flesh" (Lupton 1995: 7).

Lupton sees health promotion as constructing the individual as a "rational actor who is motivated by a number of different stimuli – cues, perceptions, information – to behave in a logical manner", with rationality understood as both the capacity to follow a chain of reasoning and the coherence of that chain. Departures from rationality are thus explained by a variety of internal and external obstacles, conforming to the 'deficit' model of human behaviour which explains such behaviour "in terms of the individual 'lacking' attributes such as knowledge and self-efficacy (Daykin 1993: 96)" (Lupton 1995: 57). Cognitive function of the individual, who acts "almost in a social vacuum", becomes the narrow focus of attempts to change behaviour. While the importance of social norms is sometimes recognised, Lupton sees the overwhelming concern with the individual as resulting in a failure to "account for the complexity of the socio-cultural world in which subjectivity is constructed and reconstructed." Those who possess the relevant 'knowledge' regarding the link between physical activity and NCDs, and yet persist in their 'inactivity', are "represented as requiring further assistance to help them resist temptation and change their ways" (Lupton 1995: 57).

Individualised and rational actor models of behaviour are far from ubiquitous in contemporary public health, with many voices calling for more attention to external factors. For example, Strong *et al*. seek to repudiate two myths which they see as arising from the 'victim blaming' approach – that NCDs are acquired by 'indulging' in risk factors, and thus are "problems of affluent ageing communities", and that there is nothing that can be done to prevent NCDs because they are caused by unhealthy behaviours that people *choose* to have. Against the first myth they set the claim that NCDs are a bigger problem in low income countries. Against the second myth, which they see as more insidious, they set their claim that human behaviour is "shaped by many factors, including environment and economic pressures, which with increasingly urbanized populations in low-income and middle-income countries may result in poor diet choices and limited physical activity" (Strong *et al.* 2005: 1581).

Another strategy for finding alternatives to 'victim blaming' has been to move to 'ecological approaches', both in physical activity research and in public health more generally. For example, MacDougall suggested in 2003 that the behavioural or lifestyle approach to physical activity that had "dominated professional thinking" was now changing, with the very authors who had contributed to the adoption of the former approaches now arguing for ecological approaches, and for the appreciation of socio-environmental approaches. He sees implications for practice of this move as including the "potential for new types of theory and the benefits of conducting time-consuming qualitative research" (MacDougall 2003: 392).

McMichael and Beaglehole also write of health as "an ecological characteristic of populations, reflecting the wider conditions of the social and natural environments", and lament what they see as the mainstream economistic perspective on health as a largely commodified asset at the personal and family level, "to be managed by personal behavioural choices and personal access to the formal

health care system". For them the ecological dimension is "where the health of a population also reflects the level of biological (including mental) functioning that is permitted by the environment." (McMichael & Beaglehole 2003: 4). They thus see analyses at the individual, community and whole-population levels as important in addressing "complementary, qualitatively distinct, types of questions" (McMichael & Beaglehole 2003: 3).

While this move away from victim blaming is a positive one, much work on prevention of NCDs in low and middle income countries, and physical activity's role within that, is still struggling to achieve an integrated approach to the person in his or her social context. A dichotomy between agency and structure emerges with either an excessive emphasis on the role of rational choice (agency), or on environmental-factors (structure) which leaves little space for cognition or meaning in behaviour. Where both sides are incorporated, the complexity of the interactions between the personal and the social frequently goes unexplored, with the individual often represented as distinct from the social, rather than in a symbiotic relationship (Lupton 1995: 48).

2.4   Understanding physical activity in prevention

Physical activity is presented by both academic and policy literature as a target area for interventions to prevent NCDs in low and middle income countries. However Hallal *et al*, writing about physical activity research in 2012, highlight the concern, raised in section 2.2.2, with the contexts in which the existing evidence base has been generated:

> "The gap between where research is done and where public health problems are located is striking. Studies on the health benefits of physical activity, its correlates, and strategies for effective promotion are heavily concentrated in a few countries, most of which have stable or falling rates of non-communicable diseases. The largest increases and burden of non-communicable diseases are now seen in low-income countries, where our understanding of evidence-based strategies for increasing physical activity is poor. Altering this situation must be a priority in the next decade" (Hallal *et al.* 2012)

2.4.1   Research on influences on physical activity

Studies on factors influencing levels of physical activity in adults have become increasingly common in recent years (e.g. Sherwood & Jeffery 2000; Saelens *et al.* 2003; Haase *et al.* 2004; Wendel-Vos *et al.* 2007; Vrazel *et al.* 2008) but these studies are overwhelmingly based in high income countries and it is uncertain how reliably results can be applied in a lower income country context (Frenk *et al.* 1989; Nugent 2008). Many studies in high income countries focus primarily on physical activity in the leisure domain. This is unlikely to be appropriate in lower income settings in South Africa.

While leisure physical activity is the focus of the most plentiful research, globally much human physical activity is undertaken in other domains – such as transport, food procurement, paid and domestic labour. As well as looking at a broad arena where physical activity may happen it is important to consider a broad range of motivations and disincentives for it. People who are aware of physical health benefits may undertake activity with achievement of such benefits as an explicit motive, but there are many other reasons why such activities may or may not be undertaken. A focus on health, even in its broadest sense, will not give a full picture.

MacDougall found that a common thread throughout his study of 'expert' and 'ordinary' theories of physical activity was that the rational presentation of the health-related benefits of physical activity formed only a small part of 'ordinary' theories. Instead, physical activity was linked by ordinary theorists to "increased social connections and interaction, enjoying moving through an aesthetic and supporting environment and generally feeling better" (MacDougall 2003: 392). At other times, respondents simply put all these theories about physical activity to one side – feeling that "there is more to life than considerations of health and physical activity." (MacDougall 2003: 393).

Interesting work has been done in exploring barriers to, and motivations for, physical activity (e.g.Mulvihill *et al.* 2000; Sherwood & Jeffery 2000; Haase *et al.* 2004; Dagkas & Stathi 2008; Lee & Macdonald 2009). However, the messages which come across in much published research remain comparatively narrow and medicalized, and appear to include assumptions that the main motivation for increasing physical activity is to improve physical health, and that the relationship between physical activity and wellbeing is simple, unidirectional and positive (e.g.Ferreira *et al.* 2006; Lechner *et al.* 2006; Vrazel *et al.* 2008). Many of the issues discussed in section 2.3 on public health, such as medicalization, rational actor models, professional dominance, and dichotomies of agency and structure, are in evidence. Ideas about equity and social determinants of health are less visible, and qualitative evidence is often excluded.

For example, Wendel-Vos *et al*'s review of research on potential environmental determinants of physical activity in adults was based on forty-seven studies, forty-six of which were in high income countries. Qualitative studies, occupational physical activity, and studies focusing on particular ethnic groups were excluded. The environmental was defined as "everything and anything outside of the individual" (Wendel-Vos *et al.* 2007: 426). The individual is conceptualised in the research as having their behaviour influenced by the environment, but otherwise as separable from it. The vast majority of the potential environmental determinants included in the review resulted in null associations, with the authors drawing the conclusion that "there either is no association for these attributes or they were defined in a wrong way". They thus felt it was important to "conduct future research with clear, possibly standardized definitions of environmental attributes and physical activity within the strongest study design possible" (Wendel-Vos *et al.* 2007:438). Such standardized definitions of environmental attributes would be difficult to square with the acknowledgement in WHO guidance of widespread variation in national and local contexts.

Vrazel *et al*'s review of research on social-environmental influences on the physical activity behaviour of women includes qualitative and quantitative studies, and many of the studies were conducted with women of ethnic minority populations. Geographic coverage is not explicitly discussed, but in all cases where nationalities for study populations are mentioned, they are American. The authors note that researchers have begun to recognise the "significant impact of the social environment on physical activity". As a result, such researchers have called for "the identification and development of innovative strategies that can assist in shifting social and cultural norms to influence individual behaviour" (Vrazel *et al.* 2008:2). This is reminiscent of critiques of health promotion's focus on seeking to manipulate, rather than engage more fully with, target populations. In their own discussions of the views expressed by research participants, Vrazel *et al.* strike a more respectful note, and acknowledge the potential costs to women of adhering to physical activity guidelines. Vrazel *et al.* found that most studies focused on a narrowly defined aspect of the social environment, rather than taking a more comprehensive approach.

A (rare) study considering physical activity and health in an urban South African context, in this case Johannesburg, discussed community violence as an influence on physical activity. Fear of crimes of violence was seen as a possible driver to spending more time indoors, and engaged in sedentary activities. On the other hand a lack of youth programmes and recreational or sport facilities was seen as one possible contributor to local violence (Mathee *et al.* 2009: 730).

Bauman, Reis, Sallis et al review

A major review of research on physical activity was published in July 2012, authored by a group which included several of the major contributors to the field over recent decades, such as Adrian Bauman and James Sallis (Bauman *et al.* 2012). The main component of this paper was a review of review papers, published from 1999 to April 2012 in any language, of quantitative studies of "correlates and determinants" of physical activity. This publication was of particular interest to me as I wrote up my own study, as it also included a focus on research as an evidence-base for public health intervention, and an examination of original studies in low and middle income countries.

The reviewers concluded that most research to date had focused on individual-level factors in high income countries, with age (inversely), male sex, health status, self-efficacy, and previous physical activity emerging as consistent correlates of physical activity in such research (2012: 258). Outcomes were "mostly leisure-time or recreational physical activity", although there were some reports of total physical activity, or other specific domains such as active transportation (2012: 259). The authors however noted a recent expansion of the research focus from individual behaviour to consider environmental correlates using ecological frameworks (2012: 260).

Research in low and middle income countries

The authors noted that correlates of physical activity in low and middle income countries had been less studied, and that what work there was had not previously been summarised. They found that the correlates identified were broadly similar to those in high income countries, but were more focused on transport and occupational activity domains. They separated results reported by type of physical activity, as they found that "leisure-time activity made only a small contribution to overall activity in many nations". Variables were categorised by the reviewers into the broad groupings used for high income countries, as they had "insufficient studies to undertake a detailed review of individual correlates" (2012:260)

They identified sixty-eight original investigations into correlates from low and middle income countries, half of which were from the previous two years, and nearly all of which were carried out in countries classified as upper-middle-income by the World Bank. Two-thirds of the studies came from Brazil (39 studies) and China (7 studies) (2012: 262).

Demographic/biological correlates were the category most frequently reported, followed by behavioural variables. Eleven studies reported environmental correlates, but psychological, cognitive, affective, social and cultural variables were rarely studied (2012: 264).

Differences were found between cultures – for example, while age was one of the most consistent correlates, generally displaying the same inverse relationship as in high income countries, in China and some East Asian countries, physical activity increased with age as people retired (2012: 264). Sex and socioeconomic status were the other two most consistent demographic correlates, with, again as in high-income countries, male and wealthy groups found to be more active than others

(2012: 262). Coming to behavioural determinants, the "little evidence available" showed a positive association between previous and present physical activity, and one study found inverse associations between physical activity and risk behaviour (such as drug misuse) and other risk factors (such as hypertension) (2012: 264).

The environmental correlates reported showed positive associations between physical activity and perceived access to recreation facilities (2012: 264). In contrast to the study in Johannesburg, mentioned above (Mathee *et al.* 2009), safety from crime and traffic was not found to be associated with physical activity, although one study found an inverse association in adults (Bauman *et al.* 2012: 265).

Social support showed consistent associations with activity, and, for adults, so too did family support. Only six studies addressed psychological, cognitive and affective variables, with the authors suggesting that this low figure may be explained by the lack of availability of measures adapted to different cultures and contexts. The only associations found in these six studies were an inverse relationship with depression and with perceptions of barriers to exercise (2012: 264).

'Least studied' correlates
The relationship between physical activity and obesity was one of the areas identified by reviewers as under-studied, and of interest for planning public health policy. The idea that obesity might be a driver of physical inactivity was described as "new", and "quite different to the expected causal direction" (2012: 265). The commonly held idea that long term trends in mechanisation and transport, and rural-urban migration, has produced substantial reductions in physical activity in industrialised populations since the 1980s, and that this has been a key factor in "the worldwide obesity epidemic", is in fact contested (2012: 266). The "logic of the energy-balance equation and empirical reports of cross-sectional associations between adiposity and activity" is now being challenged by longitudinal studies which did *not* find that baseline activity predicted follow-up adiposity, but did find baseline adiposity predicted follow-up activity (2012: 266). Given the prevalence of obesity in South Africa, particularly amongst women, this factor is of interest for my study, although, as discussed later, it is perhaps not as novel or surprising as is suggested in this review.

Genetics as a possible determinant of physical activity (activity behaviours as opposed to just "fitness") is another of the factors which the authors consider worthy of further study. They refer to evidence from animal studies that physical activity is "regulated by intrinsic biological processes", and that there are substantial, possibly genetically determined, individual differences in the "acute averse and rewarding effects of physical activity" (2012: 265). This biological explanatory mode is of interest to me in that it is the only place where somatic experiences, positive or negative, of physical activity are referred to:

> "Specifically, reward systems will be activated in individuals with above-average abilities, those who crave activity, and those who feel rewarded by accomplishing an activity; adverse effects will be reported in those who feel pain, fatigue, or even exertion" (Bauman *et al.* 2012: 265).

Both of these areas of focus relate to embodiment, a theme which is often neglected in physical activity research, and which I also see as a potentially fruitful avenue of investigation using qualitative methods.

Review conclusions

The reviewers see the purpose of the study of correlates as being linked to improving development of interventions, but regret that this link is infrequently made explicit. They note that relatively few consistent correlates have been identified and warn that the interventions targeting "unsupported mediators", such as knowledge or attitudes, could be ineffective (2012: 267). They have a "methodological concern" with the use of self-report, and the potential for reporting biases to differ between cultures, and also note the limitation arising from the common use of just leisure-time activity as an outcome measure (2012: 267).

While calling at one point for "creative investigations" to further understanding, their prescriptions for future research in general are focused on making things "more robust", rather than more creative. One avenue suggested is to set up intervention trials with generalizable samples to examine those consistent correlates which have been identified. These should be longitudinal studies, using improved methods such as "multilevel theories of change, tests of causal pathways of mediator variables, and more robust statistical assessment of the several levels of influence on physical activity" (2012: 268), as well as "objective physical activity measures" (2012: 267). They call for "standardised comparisons of correlates" with "similar measures in high-income and low-income countries" (2012: 267). They would also like to see studies targeting "subgroups at risk of low activity levels", and the use of "innovative frameworks for correlates research", such as the consideration of genetic, evolutionary, societal and macroeconomic factors (2012: 268).

The reviewers see the field as evolving, and the "aetiology of physical activity" as complex and varying by domain (2012: 268). They suggest an increased research emphasis in low and middle income countries, as well as in "special populations, socially disadvantaged groups, and obese individuals", although they believe achieving this may require work to build research capacity (2012: 267). However, they see the greatest challenge for the field as being the translation of research into public health action (2012:268).

While this review is wedded to quantitative and 'objective' methods, and to robustness and standardisation, it is also the most comprehensive work I have come across in terms of potential influences on physical activity, and geographical sites of research. There is support for the move from the focus at the individual level, on leisure-time physical activity, in high-income countries, to ecological, multi-level studies in varied contexts and taking account of multiple potential domains for physical activity.

On the one hand language such as "health behaviour causation" (2012: 258) is used, and the view of the relationship between physical activity and wellbeing here generally seems to fall into the 'simple, unidirectional and positive' category, but there is also acknowledgement that "physical activity is done for various reasons" (2012: 259), a particular interest in "how aetiological factors differ between physical activity domains—i.e., areas of life in which activity is done", and talk of taking "a broad view of causation" (2012: 258).

The optimism which the authors' suggestion of building research capacity in low and middle income countries might generate is balanced by the realisation that this is likely to be capacity for a particular type of standardised, quantitative research, not something which draws more substantially on local knowledge or values. While the interest in 'less studied' correlates and "creative investigations", as well as in founding studies conceptually on ideas from new areas, is

promising, the example given of a potential such area – behavioural economics – does not suggest much of an epistemological shift (2012: 267).

There is recognition that there is much room for improvement in the research field if the objective is to support the design of more effective public health policy, and there is a strong interest in better understanding the reasons "why some people are active and others are not". The authors support the "integration of ideas from several theories" into models, "including inter-relations between individuals and their social and physical environments" (2012: 258). While "behavioural theories and models" are used to "guide the selection of variables for study" in current ecological models (2012: 258), there may yet be openness to other theoretical approaches and sources of knowledge.

> "Determinants at all levels—individual, social, environmental, and policy— are contributors. A key principle is that knowledge about all types of influence can inform development of multilevel interventions to offer the best chance of success." (Bauman *et al.* 2012: 258)

2.4.2   Behind the WHO guidelines on physical activity

Many of the WHO guidelines were developed by academic researchers working in partnership with WHO, and were based largely on academic research. Some of my concerns with the evidence used to construct four key guidelines to be examined in chapter four are discussed below.

Definition and measurement problems

There is debate regarding how best to define and measure the types and levels of physical activity which can help protect against NCDs (Valanou *et al.* 2006). Self-report using a questionnaire such as the IPAQ (International Physical Activity Questionnaire, Booth 2000) is a commonly used measurement method, but it has been shown that this measures something quite different to more 'objective' methods such as an accelerometer worn by a person over a period of several days (Valanou *et al.* 2006; Cook 2007). Validity of survey instruments for measuring physical activity can also vary by age, gender, and domain of activity, as was found by Kolbe-Alexander and colleagues in their study of older South African adults (Kolbe-Alexander *et al.* 2006).

Instruments such as IPAQ appear to result in over-reporting of some types of physical activity – e.g. the types described as moderate under WHO guidelines (Valanou *et al.* 2006) - but under-reporting of others – the 'background' low level activity of everyday life (Cook 2007), the protective effect of which is currently uncertain, although attempts are being made to address this in South Africa (Cook *et al.* 2012). How different measurement tools capture physical activity and assign people to categories such as 'inactive' may also vary by factors such as gender – for example Cook suggested that much of the activity being picked up for rural South African women taking part in accelerometer-based studies was of a type likely to be missed by IPAQ (Cook 2007). Bercovitz highlighted variations in techniques used to measure physical activity as one factor contributing to the variance in activity levels reported in Canadian research. Such techniques included calorimetry, surveys, behavioural observations, electronic and mechanical monitors, and physiological markers. Furthermore, she proposed that "what is *defined* as physical activity is often based on what *can* be or is *measured"* (Bercovitz 2000: 26, emphasis original). Much thus remains to be understood about the types and levels of physical activity which people undertake, and the effects this has on their health and broader wellbeing.

As Bercovitz notes, the prevalence of the 'problem' of physical inactivity in a population fluctuates according to the definition of inactivity used, and such definitions have varied greatly[12], generating confusion when comparing surveys (Bercovitz 2000: 25). In 2004 WHO called for its member states to emphasise "standard indicators recognized by the general scientific community as valid measures of physical activity…..in order to compile comparative data at global level." (WHO 2004: 10). The *Global recommendations on physical activity for health* were published by WHO in 2010 in an attempt to provide such an international standard (WHO 2010a).

Bercovitz however criticises what she see as "positivist and reductionist assumptions and methodologies that measure physical activity patterns in terms of a set of pre-determined criteria" in physical activity research which was used in the development of Canada's 'Active Living' programme. She believes that variations and differential needs among individuals and sub-groups within inactive populations are poorly accounted for by such methods, and comments on the lack of space for such groups to define for themselves what they see as the benefits of, and barriers to, physical activity (Bercovitz 2000: 26).

Recommended physical activity for health
MacDougall traces the evolution of advice on physical activity for health as an illustration of how the authority of 'expert' recommendations in this area might not always be as strong as it presents itself as being. He describes how, until the 1950s, 'heart patients' were treated as chronic invalids who needed prolonged bed rest. By 1978 the advice for reducing the risk of heart disease was to undertake vigorous activity for a minimum of 30 minutes at a time, at least three times a week. The advice was changed again in 1996, with benefits now understood to be accrued at lower intensities of physical activity, and with the requirement for 30 minute 'blocks' also relaxed (MacDougall 2003: 394-395).

The WHO *Global recommendations on physical activity for health* were published in 2010, based on what was described as "a vast and strong body of evidence" (WHO 2010a: 42), with a view to providing a global standard for policy makers[13]. A "consensus decision" was made by the expert group assigned the task of developing the physical activity guidelines to use the evidence review already being prepared by the Centre for Disease Control (CDC) in the USA (WHO 2010a: 14). The geographic coverage of the 1598 papers included in the CDC review is not clear, but the aim was to provide evidence on which to base physical activity guidelines for Americans specifically, and the majority of the evidence appears to have been collected from "non-Hispanic white" populations in high income countries (PAGAC 2008: A-2). Evidence reviews conducted while updating Canadian physical activity guidelines, and a review of Chinese and Russian language literature (following the CDC review framework), were also considered in developing the WHO guidelines (WHO 2010a: 42).

To these sources was added the review of evidence on *The health benefits of physical activity in developing countries* (Bauman *et al.* 2005) which was carried out for WHO by the Cluster for Physical Activity and Health at the University of Sydney. According to WHO[14], the 2005 Bauman *et al.* review covered forty-seven studies on the health effects of physical activity carried out in low and middle

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[12] For example in terms of domains of physical activity included, and the duration, frequency and intensity of physical activity which 'qualifies' people as active or inactive.
[13] See chapter four for detail of the recommendations which were produced.
[14] The review itself does not appear to be publically available.

income countries (WHO 2010a: 42). Evidence from the Bauman *et al.* 2005 review was however not considered in the section of the WHO guidelines focusing on those with limited ability to carry out physical activity due to health conditions. The reason given for this was that the Bauman *et al.* review did not focus specifically on older adults. As it is clear that health conditions at any age have the potential to limit a person's ability to undertake physical activity, this reason seems unsatisfactory.

At various stages of the guideline development process the "generalizability and applicability of the recommendations in low and middle income countries" was explicitly discussed, (WHO 2010a: 44), and the finalized recommendations were considered to be applicable in low and middle income countries "after the appropriate adaptation and tailoring for implementation by national authorities" (WHO 2010a: 45).

Coming up with recommended interventions targeting physical inactivity
WHO contracted a group of academic researchers from South Africa to produce *Interventions on diet and physical activity: what works* (WHO 2009). This was intended to provide policy-makers and other stakeholders globally with a "summary of tried and tested diet and physical activity interventions that aim to reduce the risk of chronic NCDs" (WHO 2009: 1). The review accepted all designs of studies of interventions, ranging from quasi-experimental and community-controlled trials to randomized controlled trials, to process or programme evaluations.

This resulted in a final sample of 395 publications describing 261 different interventions. While the intention was for the focus to be on "disadvantaged communities and low- and middle-income countries" (WHO 2009: 5) just 13 of these studies had taken place in low and middle income countries, although 64 did take place in disadvantaged communities (WHO 2009: 6). The authors noted the gaps in knowledge revealed by their review, with much of the literature only reporting short-term outcomes, and a lack of information on interventions in low and middle income countries. In addition to this, the quality scores allocated by the reviewers to the studies were "generally modest", limiting the ability to make firm recommendations (WHO 2009: 9). They therefore considered further research in these settings to be urgent (WHO 2009: 2).

Bauman *et al*. also produced a *Review of best practice in interventions to promote physical activity in developing countries* (WHO 2008b), in collaboration with WHO. This review aimed to "address the evidence gap by describing physical activity interventions in developing countries (current practice), and compiling case studies of those interventions thought to be successful (current best practice)" (WHO 2008b: 5). Examples of what constituted "successful" included raising awareness of physical activity benefits, and increasing participation in physical activity. Increasing physical activity was taken for granted as a normative goal, and there was no discussion of unintended effects of interventions. However there was an emphasis on interventions which "work in the 'real world' setting, rather than the limited evidence from experimental intervention designs", and the sources of evidence considered were broader than usual, coming from grey literature, "expert opinions" and "personal experiences" (WHO 2008b: 6). This review, originally prepared in 2005, but not published as a WHO document until 2008, was also used alongside the views of key informants (from academic and government organisations attending a WHO workshop in China in 2005) to inform the development of the *Guide for population based approaches to increasing physical activity* (WHO 2007).

2.4.3   What is missing?

As many authors note, relatively little research on physical activity has been carried out in low and middle income countries. Other (sometimes) acknowledged limitations are that research has focused predominantly on individual-level factors, and on leisure-time physical activity. But these are not, in my view, the only gaps in approaches to physical activity research which seeks to inform policy on prevention.

One significant issue is the frequent failure to draw meaningfully on the knowledge and experiences of the people who are the targets of such intervention. While much data is gathered from and about these people, this is generally done within research frameworks which limit the possibility of their participating in the knowledge generation project at a conceptual level.

Values - those of the policy makers, researchers, and the researched - often go un-discussed. To recall section 2.3.5, the compelling normative appeal of goals such as preventing disease leaves much of what is done in their name unexamined. There is almost no critical examination of assumptions about particular visions of health as an objective, or about the relationship between physical activity and wellbeing.

Much existing research also appears to underestimate the embedded nature of so-called 'health behaviours'. The multi-level ecological approaches discussed by Bauman and colleagues (2012) above, and growing interest in social determinants, may go some way towards addressing this. Yet more could be done to understand the detail of such social determinants – both how they operate at the micro level, and what levers might exist at higher levels to neutralise them.

Finally, given that the topics of research here are physical activity and disease, surprisingly little attention is given to their embodied and somatic nature. The discussion of obesity, and genetic explanations, by Bauman and colleagues (2012) above does touch on this, although in a rather disembodied way. And yet anyone who has put on weight, has experienced illness, or has pushed their body – be it to get up a stairs or win a medal – surely has also experienced how large a part embodiment and somatic experiences, positive or negative, play in being physically active.

Crossley writes of the hazard of taking the embodiment of actions and practices for granted, and thus overlooking it (Crossley 2007: 80). Hargreaves and Vertinsky find that "embodied agency" is accompanied by meanings, and associated with desires, needs, and emotions. Participants in physical culture, such as the kinds of physical activity recommended for the prevention of NCDs, cannot engage "simply as and when they like; they are constrained by circumstances and social inequalities, by ideologies, politics, and in ways that relate directly to the physical body" (Hargreaves & Vertinsky 2007: 10).

2.5   Conclusion

The literature on prevention of NCDs in low and middle income countries is action-focused, and is closely linked with - and influential in the development of - policy at the WHO level. There is clear recognition of the hardship caused in low and middle income countries by NCDs, and a strong motivation to address this. Many of the academics driving the campaign for action on NCDs recognise the inter-relationships with broader social problems and inequity (Beaglehole & Bonita 2008; Beaglehole & Horton 2010).

There is recognition too that action to prevent NCDs must be intersectoral, and cannot be targeted simply within the health sector. However, the ways in which this is discussed present the hazard, highlighted by Lupton amongst others, of subsuming social issues under the rubric of health (Lupton 1995).

The neglect of research based in low and middle income countries is widely acknowledged, and attempts have been made to take this into account in developing WHO guidelines on physical activity in prevention of NCDs. Chapter four will look more closely at the resulting guidelines, and chapter eight will discuss them in the light of findings in Langa.

Epistemology in both public health and physical activity research in this area can tend towards "positivistic forms of inquiry based on the gathering of empirical quantifiable data" (Lupton 1995: 1), professional/expert dominance (MacDougall 2003), and limited reflexivity regarding values. The voices of the targets of intervention are largely absent.

But there is certainly room for manoeuvre – lead actors in both the public health and physical activity research fields who are focusing on global prevention of NCDs also often declare a desire for/interest in new, creative, and interdisciplinary approaches, and work that explicitly addresses concerns about social justice.

The academic actors in the global NCD and physical activity campaigns are focused on evidence, rigour, and what works. While thus far this has largely resulted in certain, limited, types of evidence being taken into account, there are also often signs that these actors are open to persuasion that other sources are worthy of consideration. There is a sense that approaches that help get to grips with social determinants, and social justice, would be particularly welcome, although the case for the 'validity' and usefulness of such approaches would need to be carefully argued. This sense comes not just from the literature, but from my interactions with these researchers at academic seminars, and in particular my interaction with researchers in South Africa, to be discussed in chapter seven.

With consultations and debates currently underway on new WHO strategic plans and UN targets, the time is right to seek to demonstrate the value of listening to voices from the township.

3 Methodology

3.1 Introduction to chapter

This chapter introduces theoretical material which was used as a framework for the research, and notes strengths and weaknesses of the various data collection and analysis methods used. The process of selecting groups for study in Cape Town is described, and the data collected is catalogued. Ethical considerations and some methodological limitations of the research are discussed.

The strong 'science' culture within several of the research groups I encountered in Cape Town did at times give me cause for anxiety, for example when faced with questions such as "have your methods been validated?" from potential collaborators seemingly concerned to protect their own scientific integrity. Given my objective of producing work which had the potential to persuade professionals in science and policy cultures to look at things differently, it was important to me to try and keep a balance between working in ways which I would be able to justify to such an audience, and avoiding becoming 'adversely incorporated'.

3.2 Theoretical framework

3.2.1 Wellbeing

One of the motivations behind the WeD work on wellbeing had been the search for completeness, which, as discussed in chapter one, was something I shared. In my own search for theoretical material which I could draw on in my research I was not looking for a prescriptive framework - wellbeing is employed here rather as a sensitising concept, serving to focus attention to issues such as the social embeddedness of health and physical activity. The concept of wellbeing can provide a discursive space, and promote reflexivity (Copestake 2008). The space provided by thinking in terms of wellbeing is broader than that commonly delineated by a focus on health, and as Beaglehole and Bonita proclaim, "breadth is exactly what public health should be about" (Beaglehole & Bonita 1998: 591).

While thus resisting adopting a detailed definition of wellbeing for the purposes of this study, it is nevertheless necessary to clarify it to some extent given its recent ubiquity in policy contexts, and the varied and often ill-defined meanings it is given (White 2009, 2011), including very restricted senses, for example, as a synonym for 'happiness'. The following definition emerged from the Wellbeing in Developing countries (WeD) group's four-country, mixed method study of wellbeing:

> "Wellbeing is a state of being with others, where human needs are met, where one can act meaningfully to pursue one's goals, and where one enjoys a satisfactory quality of life" (WeD 2007).

Wellbeing was conceptualised by WeD as unavoidably social, and based on material, subjective and relational dimensions. The relational dimension was central in that it mediated between the material and the subjective (Gough 2007; Gough & McGregor 2007).

Wellbeing allows someone to be a whole person (Watson 2011), not defined by their interests regarding a particular version of health, or any other single domain. As discussed in chapter two, there can be a tendency to medicalize risk factors for NCDs such as low levels of physical activity, and to think about them, and how to address them, in isolation from the other domains of people's

lives. This brings with it various hazards, including the risk of unintentionally undermining other aspects of people's wellbeing through intervention (Alkire 2004). There is also the risk of failed intervention due to a lack of understanding of concepts, goals and barriers which exist for the people in the targeted population, which may be invisible from a medical perspective, and contrary to the assumptions policy makers or practitioners use in planning intervention.

Wellbeing can also support a move from individual pathologisation to systemic understanding (Watson 2011; White 2011). This links to calls in public health for embracing the move beyond individualised risk factors, and for attention to social determinants of health. As discussed above, within WeD research, wellbeing was conceptualised as unavoidably social, and not something which could be captured at the individual level alone.

As a sensitising framework, wellbeing can also provide a space for consideration of values and goals – are there assumptions about what wellbeing does, or should, look like for the subjects of research/targets of intervention, and what part health and physical activity play in that? If so, are these assumptions taken for granted, or made explicit, and if the latter, how are they justified? What understanding can be built up of ideas about wellbeing held by these 'subjects'/'targets'? Do any gaps emerge between versions of how physical activity, health and wellbeing are related, and what do these mean for the research or intervention?

Particular conceptions of physical activity, health, wellbeing, and their relationship with each other, will influence what is targeted for study, and prioritised in intervention. For example, behind many existing studies lies the assumption that increasing physical activity is an appropriate goal, and that what is to be discussed is how to influence people's behaviour to achieve this goal (Cohen 2000; Sherwood & Jeffery 2000). This leads to barriers often being considered from the point of view of how they get in the way of achieving the goal of increasing physical activity rather than from that of how they impact overall wellbeing, and what tensions may exist with other goals.

A wellbeing framework was used in data analysis by searching for ways in which physical activity was linked, positively or negatively, by different people in different contexts, to dimensions of wellbeing. There are two directions to this – dimensions of wellbeing can affect, or be affected by, physical activity. Further, the framework was used to consider evidence of values and epistemology in the relevant research and policy literature in terms of what forms and distributions of wellbeing these might support, and how compatible these were with ideas about wellbeing from Langa.

3.2.2 Bourdieu

My initial intention was to also draw upon Bourdieu's concepts of habitus, practice and field in this research. As the research developed the centrality of these concepts in the analysis receded, with the data lending itself more to other approaches. One reason for this was that I felt that a more substantial engagement with the concept of habitus would have required extensive participant observation in Langa, something which, as described below, did not prove possible for me on this occasion. However, ideas from Bourdieu's work continued to serve as sensitising concepts.

For example, the concept of habitus sensitised me to consider how the social comes to be written in the corporeal, and to the ways in which this is discussed in medical descriptions of how NCDs develop. Gevers, in his introduction to the South African Medical Research Council's post-apartheid

agenda-setting review of health research priorities, described the effects of lifestyle on the physiology:

> "Following a particular lifestyle over long periods produces a physiological adaptation, a particular 'Nurture', which, as discussed earlier, will interact progressively and cumulatively with the proceeding genetic 'programme' of each individual…..The most fascinating feature of the chronic diseases of lifestyle is the question of personal choice" (Gevers 1995: 3).

Writing about the habitus, Sparkes and colleagues raise similar ideas, although with a very different emphasis: on 'the social', rather than personal lifestyle 'choices,' as an author of bodily changes:

> "The habitus is thus revealed by and constructed through the embodied ritual practices of everydayness that are learned over time and, as such, it has a history that links the flesh of individual actors into systems of social norms, understandings and patterns of behaviour. Different forms of embodiment are likely to predispose people to behave in particular ways as the body becomes a site of social memory and the social gets written in to the corporeal." (Sparkes *et al.* 2007: 300)

There is less attention in discussions of 'diseases of lifestyle' to the idea in the second part of the quote above – the ways in which forms of embodiment, 'nurtured' by 'lifestyle', come to predispose people towards particular behaviour as part of a reciprocal and on-going process. This perspective is of interest in considering, for example, how factors such as weight and health status, widely discussed in physical activity research as being influenced *by* physical activity, may also themselves influence physical activity.

The somatic dimension

Physical activity also presents fertile ground for considering work such as Wacquant's engagement with Bourdieu's social theories in his sociology "not *of* the body (as social product) but *from* the body (as social spring and vector of knowledge)…. a way of doing and writing ethnography that takes full epistemic advantage of the visceral nature of social life" (Wacquant 2005: 445, emphasis original).

This somatic approach is relevant to the experiential element of my data collection in Cape Town. While the experience of a certain type of physical activity in a certain context will vary based on many factors, including the identity and history of the person undergoing the experience, my practice of physically active transport and leisure in the city provided a wealth of information which would not have been accessible by other means. While many elements of my identity and history mediated my experiences in ways which would have made them different to those of my varied respondents in Langa, I did gain some sort of understanding of the many challenges, as well as the potential benefits, faced. This was particularly the case in the later months, when minor health and injury problems undermined one of my main advantages in dealing with those challenges – that of being very physically fit.

Over the course of my stay the somatic experiences associated with moving around Cape Town without a car included: the exhaustion of walking for transport in extreme heat; discomfort and anger at blocked, rough or non-existent footpaths and a driving culture which accords little courtesy to pedestrians; anxiety when I was going to be late for an appointment because of encountering

unexpected obstacles to pedestrians, or long waits for minibus taxis; anxiety of a different type when a vehicle came too close to me while on foot or cycling, when darkness began to fall before I got to my destination, or when someone appeared to be taking an unwelcome interest in my presence; intense frustration when I couldn't find a safe or economically viable way to get somewhere I wanted to go.

The understanding which came from these somatic experiences, and how I found myself changing my behaviour and aspirations because of them, was invaluable to the research. However, the somatic dimension as a potentially fruitful approach to understanding people's physical activity is not limited to information which can be gathered using the researcher's own experiences in the research context. Attention to physical activity as a somatic experience, something which seems almost entirely absent in the literature focused on physical activity in the prevention of NCDs in low and middle income countries, can provide another perspective to take into account in the design of research and intervention. The somatic aspects of the interaction of health factors such as injuries, illnesses and poor nutrition with physical activity are of particular relevance to this research.

A political project?

Bourdieu's political views on how 'science' and 'reason' are used to legitimise power relationships and the primacy of the interests of capital, and to throw responsibility back onto individuals for their 'lifestyle choices' (Bourdieu 1998), chime with claims in public health of the undermining of transformative public health action by neoliberal agendas (Beaglehole & Bonita 2003). In the name of freedom 'victims' of NCDs can be blamed, implying a degree of agency that arguably has been undermined by the society those individuals live in, enabling the state to retreat (Bourdieu 1998: 7; Bercovitz 2000; Beaglehole & Bonita 2003).

This political angle, although relevant, is not the core focus of the study. Yet Bourdieu's writings on the opposition between 'experts' and 'the populace' are also relevant to the themes of epistemology and ethics in public health research and practice, which are a core focus, and thus his work remains pertinent.

3.3   Key methods

3.3.1   Case study research

This research was intended to be exploratory, to be open to different forms and sources of knowledge, and to consider health and physical activity in the broader context of the person and society. A case study research design, with predominantly qualitative data collection, was thus employed. Quantitative secondary data was also collected on both Langa and individual respondents, for the purpose of triangulation and contextualisation. The rationale behind the selection of this particular case - physical activity as a focus and urban South Africa as a geographical location - was outlined in chapter one.

Yin suggests six sources of evidence in case study research – documents, archival records, interviews, direct observation, participant observation and physical artefacts (Yin 2003: 83), but also acknowledges that quantitative evidence, for example, from questionnaires, can be included (2003: 14). As described below, evidence used in this research drew on these multiple sources, and as analysis progressed the advantages of this approach became evident. My varied sources allowed me

to check findings against each other – which at times helped to contextualise things, or clarify uncertainties, and at other times highlighted tensions and contradictions between different sources of evidence. The ability to triangulate in this way gave me a lot more confidence in the conclusions I drew.

Eisenhardt argues that case studies can also be used to build theory, because "creative insight often arises from juxtaposition of contradictory or paradoxical evidence", with the process of reconciling these accounts forcing the researcher to a new 'gestalt' (Eisenhardt 1989: 546; in Fernandez 2005; cited in Berg 2007). Martsin too sees the search for struggles, conflicts and tensions in the data as a key part of case study research, and recommends triangulation, whether methodological (data collection or analysis) or theoretical (Martsin 2007). In this study such juxtapositions came both from considering different sources of data on one group of people (collaborator epidemiological questionnaires and physical measurements, local government statistics and reports, and my own interview and observation data from Langa), and from comparing data from different groups of people (residents of Langa, researchers in Cape Town, and authors of WHO policy documents) in relation to the same set of issues (concepts of physical activity and inactivity, their relationship with health and wellbeing, and how to address challenges to health and wellbeing).

3.3.2   Selection and sampling

Langa respondents
Local research groups were open to the idea of my qualitative study being set up alongside an existing study which was collecting data using more conventional public health approaches. Several studies were suggested as possible candidates for collaboration, but most of these were unsuitable for my purposes – either the sampling criteria were too limited (e.g. exclusion or inclusion based on HIV status), or the data being collected were not a good fit (e.g. a study gathering primarily metabolic measurements). The exception was the PURE[15] study being carried out by the School of Public Health at the University of the Western Cape (UWC), which was designed to collect several standard measures on health and physical activity on a group of pseudo-randomly selected adults living in a local township community, Langa. While ethnicity and socioeconomic status did not form a part of selection criteria, the geographic location dictated that the vast majority of the participants would be from the Xhosa ethnic group, and socioeconomic status would in general be low.

The opportunity to have a public health lens applied to the same individuals in Langa whose views I would seek to elicit in interview form offered interesting possibilities.

My respondents in Langa were a subsample of residents who had already enrolled in the PURE study. At the time when I selected my sample, this study had enrolled 500 adults aged between thirty and seventy, and resident in Langa. With this being the age-range in which NCDs and their precursors often emerge, and with the only exclusion being based on intention to remain in the area, the PURE study population was suited to my purposes.

While the selection of this group as a sampling frame was theoretically driven, and the case study research design meant that any generalisation of results would be to theory, rather than the population, it made sense to try to achieve a reasonably representative sample within this group.

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[15] Prospective Urban and Rural Epidemiological Study (PURE), School of Public Health, University of the Western Cape (Principal Investigator Prof Thandi Puoane)

There were two main reasons for this. Firstly, as the research was exploratory, I was interested in a range of views from men and women distributed over the relevant ages. Secondly, as the fieldwork arrangements meant that interview /observation data collection and analysis would be largely sequential, the iterative, theoretically-driven sampling of a full grounded theory approach was not feasible.

For the PURE study, households were selected on a stratified pseudo-random basis, and all eligible adults in the selected households were invited to participate. Acceptance rates were high, however, it is probable that the sample, at that time, was biased toward adults who were at home during the day on weekdays. The PURE team planned to invest time in ensuring they contacted residents who had not been at home when recruiters called, but this process had not been completed at this stage. Thus while city statistics show that unemployment and poor health are common in Langa, it is probable that people in my sample were more likely than average to be out of work, whether due to poor health or other reasons.

While this means the sample may not reflect the average population of 30-70 year old adults in Langa, this is not a significant limitation for the purposes of the research, as the views of the most vulnerable residents are of particular interest.

To select my sub-sample I obtained a list of all existing recruits, split this list into men and women, and ranked each group by age. I then selected every n^{th} person on each list to produce a sample of 20 men and 20 women. Where someone in the sample declined to participate, or could not be traced, I went back to the list and replaced them with the person immediately after them. A total of four people, all men, were replaced in this way – one who could not be traced at the address provided, one who declined, one whose health precluded participation, and one who had died since enrolling in the PURE study.

The respondents included equal numbers of men and women, with an average age of 49 years (female average = 50, range = 35 – 69 years, male average = 49, range = 34 – 68 years). 40 interviews were carried out in total but one female interview could not be transcribed due to audibility problems. Eight Langa key informants were also interviewed – these were people working in health (public health, 'western' and traditional medicine), physical activity, and policy in Langa.

Policy literature

As will be further detailed in chapter four, a subset of policy literature was selected for the purpose of comparing how key themes (which were driven by analysis of the Langa data) were discussed in different contexts. This subset was made up of WHO reports or guidance which focused on physical activity in prevention of NCDs globally, or in low and middle income countries, and which had been published between 2004, when the *Global strategy on diet, physical activity and health* was issued, and 2010, when the interviews were carried out. Five key publications were identified in this way:

- *Global strategy on diet, physical activity and health* (WHO 2004)
- *Guide for population based approaches to increasing physical activity* (WHO 2007)
- *Review of best practice in interventions to promote physical activity in developing countries* (WHO 2008b)
- *Interventions on physical activity: what works* (WHO 2009)
- *Global recommendations on physical activity for health* (WHO 2010a)

Researchers in Cape Town

After consulting widely in Cape Town to identify researchers who were working on themes of interest to my study, I spent significant time with three research groups which were carrying out work on NCDs and physical activity in South Africa. There was quite a lot of cross-over between the groups I encountered. The research groups are introduced below, and discussed further in chapter seven.

African Centre for Cities – Healthy Cities group

The African Centre for Cities (ACC) is based at the University of Cape Town (UCT), and describes itself as "an interdisciplinary research and teaching programme focussed on quality scholarship regarding the dynamics of unsustainable urbanization processes in Africa, with an eye on identifying systemic responses" (ACC 2012).

Amongst the centre's research groups was the 'Healthy cities' city lab, whose meetings I attended from November 2009 to April 2010. This group included several of the authors of a key report on NCDs from the South African Medical Research Council (MRC) which had been important for me in confirming my research plans (Lambert & Kolbe-Alexander 2006; Steyn 2006). It drew its membership from across UCT, and participation proved to be invaluable to me in several ways, providing knowledge of relevant local and global South research, links to other research groups, local research experience, a forum for discussion, insight into the research environment and an academic angle on South African and international organisation policy processes in the area of urban health.

Exercise Science and Sports Medicine research unit (ESSM)

This is an UCT / MRC joint facility. I spent time meeting various staff, attending seminars, and finding out about research which was going on within the unit. I was allocated office space at ESSM from February 2010 which helped to facilitate this.   A vibrant research environment exists at ESSM, led by Professor Tim Noakes. The focus is on both health and performance aspects of exercise, and a fascinating cross section of topics were presented at their weekly research meetings. The 'performance' aspect extends to publications, with regular awards to researchers whose publications hit citation targets, but there is also an emphasis on communicating research to a broader audience. While remaining part of the department of biology at UCT, ESSM is housed at the Sports Science Institute of South Africa. This organisation "exists to optimise the sporting performance and health of all South Africans through the execution, dissemination and application of science" (SSISA 2012) and offers a range of sports performance and health services commercially to both elite athletes and members of the public. The institute also has a number of 'social investment' programmes.

Professor Vicki Lambert was based at ESSM, and was a key researcher working on physical activity and health in South Africa. In fact, I found that when I raised physical activity as a research topic with other academic contacts or institutions in Cape Town I was almost invariably pointed in her direction. She was particularly interested in developing social science input to physical activity research at ESSM.

PURE group at the University of the Western Cape

This group was based at the School of Public Health at the University of the Western Cape. The school was established in 1992 to contribute to the development of the district health system in

post-apartheid South Africa through research, and developing the capacity of public health practitioners in the country.

The school is currently a partner in the multi-country Prospective Urban and Rural Epidemiological study (PURE) and the local principal investigator is Professor Thandi Puoane. As the local urban site was in Langa, a township area which was of interest to me for my study, I contacted the group's senior local researchers just before Christmas 2009. This led to an invitation to submit a formal proposal to collaborate with the group, and this was submitted, and accepted, at the beginning of February 2010. Collaborative work has included sharing data and respondents, advising and assisting the group with some of their data collection, for example co-leading the application of the PURE environmental profile of a community's health tool in Langa. The PURE group also have a rural study site in Mount Frere in the Eastern Cape of South Africa, and PURE funded my flight and accommodation so that I could assist them in applying the PURE environmental profile tool in that site as well at the end of March 2010. While my own study focuses on urban South Africans, the Xhosa speaking residents of Cape Town have strong connections with the Eastern Cape, thus it was helpful for me to gain some understanding of this environment.

3.3.3 Data Collection
Data collection in Cape Town took place between November 2009 and April 2010, with a three week follow up visit taking place in July 2012.

Observation and participant observation
Observation and participant observation are frequently used alongside other methods, which can be qualitative and quantitative, in case study research (May 2001). Participant observation was possible within the various research groups in Cape Town, but participation was much more limited in Langa for many reasons, including language, security, and barriers around race in a South African context.

May describes participant observation as being about "engaging in a social scene, experiencing it and seeking to understand and explain it" (May 2001: 173). This takes place through the medium of the researcher, and a researcher's identity and biography are thus implicated in the data collected. The social world so engaged with cannot be studied in its 'natural' state, undisturbed by the presence of the researcher (May 2001: 150). Rather than seeing this as a disadvantage, I consider this engagement a strength of the part of the study carried out in the Cape Town research community. It meant that I was not just viewing that research environment from the 'outside', as it might be seen by examining published papers or formal research documents. I was able to interact with the authors of these documents, and discuss the themes of the research with them. This gave me a better understanding of constraints faced by the researchers, and the impetus behind things being done in a certain way. Data collected included field-notes and a variety of the documents which are produced as part of the research process, such as proposals, protocols, meeting minutes and publications.

Data collection in Langa included observation during daytime visits to Langa, each lasting between two and seven hours, recorded using field-notes and photographs. I travelled to Langa using public transport, and moved about within the township on foot, as this was how my respondents there travelled.

Interviewing

Interviews were chosen as a data generation method for a variety of reasons, some of which were pragmatic. As this was exploratory research I wanted to use methods which were open to new ideas. Green and Thorogood describe the qualitative interview as 'opening up' responses, and making no *a priori* assumptions about the categories into which responses will fit (Green & Thorogood 2009: 95). This fitted well with the kind of data I wanted to generate. I was particularly interested in respondents' accounts of physical activity, health and wellbeing, and the relationship between them. While I was aware that people's accounts would be influenced by the context of the interview (May 2001; Green & Thorogood 2009), I took steps, as described below, to try and create a context where respondents would feel comfortable expressing themselves. In analysing the interviews I kept in mind the contextual status of the data. In chapters five and six I highlight some instances of data which illustrate how such accounts can change even within the course of a single interview, and also how the interview format can allow people to offer reasons for the views they express, providing further opportunities for insight (May 2001: 145).

I also considered focus groups as an additional method of generating data, as I felt that these might produce different kinds of insights based on the interaction between people (Green & Thorogood 2009). During fieldwork my view that focus groups could be of interest was reinforced, as it emerged that community meetings were already used as a forum for discussions in Langa, and thus it was a format which I felt respondents were likely to be comfortable with. However, it proved not to be feasible, for practical reasons such as the available time and resources, to organise focus groups on this occasion. This is thus one avenue of interest for future research.

Interviews in Langa were semi structured and sought to cover five general themes after formal consent had been obtained (see appendix one for more detail):

- Biographical – life history, identity, life satisfaction.
- Health – self rated health, any worries about health, actions to protect/improve health.
- Daily routine – what a typical day consists of, activities and types of transport involved.
- Physical activity – how define, kinds of activity done, barriers to, effects of, feelings about.
- Policy – what are the major challenges facing people in Cape Town, and in the respondent's neighbourhood specifically, and who should be responsible for addressing these? Should people be helped to be more physically active?

The interview schedule evolved to the above after pilot testing in Cape Town. The original schedule had less in the way of lead-in, and contained questions which addressed the links between physical activity, health and wellbeing more directly. This original approach tended to elicit very predictable, short responses. Starting with a biographical approach proved a much easier route into exploring the specific themes in which I was interested. It also led to interviewees telling stories about particular events or issues which were important to them, and facilitated a more open interview where respondents had better control.

The interviews were carried out in the language and location preferred by respondents. The home language of the majority of residents of Langa is Xhosa, and thus a colleague, Kholiswa Nhosi Mphiti, who was a Xhosa speaker, and a resident of a different township, accompanied me for data collection. All interviews were recorded and transcribed for analysis, with Xhosa interviews

transcribed into English by an experienced local anthropology student from a Xhosa background who was fluent in both languages, and who was able to include explanations of any unfamiliar terms used by respondents.

There may have been translation issues with the phrase 'physical activity'. Kholiswa used the English words when she asked about physical activity in interviews. This was not unusual, with other English words often being interspersed with Xhosa. Some respondents however seemed to struggle with the phrase. I was trying to avoid use of the word 'exercise', thus we agreed on 'using energy' (Kholiswa's suggestion) as an alternative phrase to add when people were not following. I had to dissuade Kholiswa from making running motions with her arms when she asked the question, although even when she stopped, some respondents still used such motions when answering!

Ideas about inactivity had not been a planned focus of the research, but rather emerged from the data as an important theme. Thus there were some limitations to how this theme was explored, and this will be discussed in chapter six.

Language issues and interview dynamics

South Africa has eleven official languages, only one of which I speak fluently. As the specific study site, and thus the local majority language, was determined during the course of fieldwork, it was not possible to carry out extensive language training in advance. A better grasp of Xhosa would have been extremely useful, but given my limited ability in the language by the time interviews began, I had to decide whether to use an interpreter, or to have a Xhosa speaking colleague carry out the Xhosa interviews. I opted for the latter, as I felt that the use of an interpreter in the Langa context would produce an extremely artificial and stilted interview.

While my colleague Kholiswa and I worked together extensively beforehand on what the interview's objectives were, and on guide questions, as well as reviewing how the process was working as we went along, and making adjustments, this approach also had disadvantages. While I was present for all Xhosa interviews and was able to track what was going on to a certain degree, on reading the transcripts I often noticed instances where a lead I would have liked to follow up on had been bypassed, or a question was phrased differently from how I would have chosen.

At first this gave me cause for concern regarding the quality of the data which we would generate – to the extent that I planned to return for a second data collection trip after carrying out more extensive language training. However, once I had access to the full transcripts for all the interviews my assessment changed. While some of Kholiswa's interviewing practices were not as prescribed in standard sociology textbooks, her style emerged as acceptable to interviewees, and appropriate to the cultural context, and produced many interesting and seemingly frank exchanges. Even had my Xhosa been fluent, I do not believe I would have elicited similar exchanges, particularly given the significance of race to identity and relationships in South Africa. Kholiswa, as a resident of another local township, shared much in terms of background with our respondents, without the intrusion of being an actual neighbour from Langa, with the concerns for privacy which this might have raised. While she probably would not describe herself as such, to me she was an engaged interviewer, in the feminist and critical traditions (May 2001).

Kholiswa and I discussed her perceptions of respondents' views of different data collection methods. She reported that people often started off interested in questionnaire-style research, but with

studies often using multiple long, sometimes repetitive, questionnaires, they got tired – "even the fieldworker is tired". With the interviews she felt that respondents were "very happy" both with its length, and also because "she is talking about herself".

3.3.4   Analysis

Analysis centred around thematic analysis guided by the constant comparison method. Ideas from discourse analysis also informed the process, particularly when it came to policy literature. These ideas included language as a site for 'doing reality', rather than a passive reflection of the external world. This facilitates consideration of what discursive space is available to a person around a particular issue, what reality is being constructed through discourse, and what resources are being used to make this construction plausible (Riley 2007).

The three week follow up visit to Cape Town in July 2012 provided an opportunity to clarify various issues, fill in gaps by talking to key informants, and to share and discuss my results with stakeholders.

Langa data

Langa respondent interviews were coded using NVivo 9 software. The strategy was to initially code almost every part of each transcript.   Themes/nodes were not predefined. Many sections of text were coded to multiple nodes when they were relevant to different themes e.g. something about work could also be relevant to mental health or sources of support. Once initial coding had been completed, the nodes which had emerged were grouped together and material in each node was rechecked. During this process any coding errors were corrected, names of nodes were refined, and some material was recoded as a result. Some nodes were merged because review of the material they contained indicated that they were different labels for a single theme.

Key informant interviews, field-notes, photos, and secondary data on respondents and on Langa were used for triangulation and providing context. Data on my respondents from PURE were in the form of scanned original questionnaires as they had been completed by fieldworkers. The variables which I considered relevant, based on both the literature and on the on-going analysis of the Langa interviews and field-notes, were extracted and tabulated in a single excel file. This provided a very easily accessible resource to refer to alongside other data, while I also had the original questionnaires to return to as necessary. Together with the detailed coding of respondent interviews in NVivo, this meant that every time I had a query to resolve, or a theme I wished to develop, I could quickly see exactly what data I had to support or falsify it, who/where that data had come from, exactly how things had been phrased and in what context.

Policy literature

While a broader review of policy related literature informed the research as a whole, a subset of WHO policy documents was also used in a more specific way. This was carried out after analysis of the Langa data, and was driven by the broad themes which had emerged from that analysis – concepts of physical activity and inactivity, and their relationship with health and wellbeing. Analysis of these documents focused on identifying sections of text which contained material on these themes. All sections so identified were coded to the relevant theme(s), and then examined to explore where ideas were repeated/reinforced, or broadened/qualified/contradicted, and in what context.

Field-notes were coded into broad themes which are presented in chapter seven with a view to reflecting the dominant concerns and constraints discussed and experienced across the three research groups.

3.4 Data collected

3.4.1 Field-notes and photographs

These were generated based on observations, interactions and other experiences within the research sites. I wrote a set of notes to go with each interview carried out. For PURE study participants this was based on my observations of the respondent, their home and neighbourhood, and notes on how the interview went, gestures, emotions etc. For key informants this varied by interview, for example details on where they worked, how access was achieved, the nature of interaction etc. As well as notes linked to each specific interview, I wrote field-notes, and took photographs, detailing my time in Langa, but also on relevant interactions and observations in Cape Town more generally.

Field-notes were also made during the time spent I spent with research groups in South Africa, covering topics such as physical locations, the people in them, organisational structures, presentations, meetings and more informal discussions and interactions.

3.4.2 Interview data

PURE study participants in Langa
We carried out 40 interviews in Xhosa with 20 male and 20 female adult participants of the PURE study. The transcriber had audibility difficulties with one female interview so this had to be excluded.

Key informants
Key informant interviews, in English, were carried out with eight people working in health, physical activity and policy in Langa. Key informants working in health were a nurse from the Langa health centre (specialises in children and HIV), a health promotion manager in main health centre serving adults from Langa for non-HIV issues, a traditional healer working in Langa, and a health sciences researcher who grew up in, and was still resident in, Langa. Key informants working in physical activity included the manager of the Langa sports centre and a sports/community centre activities organiser. Key informants on more general issues in Langa were two community advice centre workers (joint interview) and a Councillor with responsibility for part of Langa.

3.4.3 Collaborator data on Langa: The PURE study

The declared overarching aim of the international PURE study is to "examine the relationship of societal influences on human lifestyle behaviors, cardiovascular risk factors, and incidence of chronic noncommunicable diseases" (Teo *et al.* 2009: 1).

The data being collected on individuals includes medical history, "lifestyle behaviours" (physical activity and dietary profile), blood collection and storage for biochemistry and genetic analysis, electrocardiogram, and anthropometric measures. Information is also being collected on four environmental domains — the built environment, nutrition and associated food policy,

psychosocial/socioeconomic factors, and tobacco environment. A minimum follow-up of ten years is currently planned (Teo *et al.* 2009: 1).

There were a multitude of variables of possible interest to me. The physical activity questionnaire and the neighbourhood walkability scale questionnaire were the two instruments which I expected to be of most interest, along with demographic data, parts of the medical history, anthropomorphic measurements and the environmental profile of a community's health (EPOCH). Unfortunately complete datasets were not available for all respondents, and thus the proportion of respondents included is indicated when I refer to this data in chapters five and six.

Another problem concerned the physical activity questionnaire data. Having examined the data from this questionnaire for my respondents, I reluctantly decided to exclude it. This was due to a high number of questionnaires whose results appeared unreliable – for example reporting extremely high levels of physical activity in ways which were not credible. This included questionnaires where total hours reported spent in various activities exceeded the available hours in a day, several reports of cycling for elderly females (which were contrary to their interviews, observations in Langa, and confirmatory checks with key informants), or very high levels of activity for respondents who had told us that they were, and who we had observed to be, very limited in their capacity for physical activity at that time. These difficulties may have been due to problems with the training of the particular fieldworkers who carried out the questionnaires with my respondents, and I fed back my concerns to the research group managers. See chapter seven for a discussion of some of the issues which may have contributed to problems with these and other data.

3.4.4   Other secondary data

Other data sources which have been used throughout the research process – for selecting sites, preparing for fieldwork, checking representativeness of samples, comparing with reports from respondents etc. - include census data and other city statistics and reports on topics such as crime and health.

3.5   Ethical considerations

The research was reviewed and approved by ethics committees at the University of Bath in the UK, and the University of the Western Cape, South Africa.

One of options considered prior to departing for fieldwork had been to try and compare three communities of differing socio-economic status. Even before leaving Bath I had moved away from this idea for various reasons:

- A desire to focus the majority of resources on the groups who appeared most vulnerable based on the secondary data reviewed.

- The challenge of collecting quality community level information on three unfamiliar communities.

Once I arrived in Cape Town, to this was added another ethical issue: socio-economic status is highly correlated with race in South Africa, and, understandably, ethics committees locally are uncomfortable with research which categorises (or appears to categorise) individuals based on race. From what I could see, much such research (e.g. medical) is actually carried out, but selection and

data collection protocols from these studies did not fit well with what I was seeking to achieve. While cultural diversity is pronounced in Cape Town, and very relevant to my theme, I felt it was more important to focus on the lowest socio-economic level.

The PURE study protocols already demand a significant (perhaps excessive) amount of time from research respondents, and care was thus taken to try to avoid overburdening those respondents asked to participate in an additional interview. Steps to address this included:

- Clarity with regard to consent to ensure respondents understood that the interview was not a condition of their participation in the PURE study, and that they were free to choose whether to be interviewed or not with no penalty.

- Interviews did not seek to address sensitive topics (see appendix one for more detail), and were carried out in a relaxed conversational style. Nevertheless, respondents sometimes volunteered sensitive information about their lives or their health. A number of respondents also became upset at some point as they reflected on their lives. Interviews tended to end on a positive note however, and both I and Kholiswa felt that the interviews were not a negative experience for the participants.

- Interviews were arranged at times and locations most convenient to respondents – this was usually in the respondent's home.

- A small gift was offered (pack with food/drink/stationary) as acknowledgement of the opportunity cost element of taking part in the research interview.

Another important concern, both for research integrity and accountability to respondents, is to ensure the data are of good quality, and that thereafter good care is taken of the data which people have taken the time to contribute. Various steps were taken to help address this:

- Respondents were interviewed in a language in which they were comfortable in order to allow them to fully express their views.

- Data was backed up to more than one site to avoid loss, and password protected, particularly when stored on vulnerable equipment such as a laptop.

- There was careful maintenance of confidentiality – interviews were taped and transcribed, and the transcriptions were stored using respondent codes. Recordings will be erased when the research is complete. Any information within the transcription which could lead to identification of a respondent was disguised or omitted.

Researcher safety was also a relevant issue, and will be discussed below.

With regard to the study of the research environment in Cape Town, care has been to taken to ensure that data, unpublished documents and opinions generously shared with me were respectfully engaged with, that confidentiality and anonymity were maintained where this was appropriate, and that any sensitive material without explicit consent has been removed.

As this element of the study was something which evolved over the course of the research, I had concerns regarding issues of consent. I thus raised these with key participants during my follow up

visit to Cape Town in July 2012. The advice I was given was that, given the nature of the discussions, consent for the way I have ended up using the data would be considered implicit. The agreement was that I would treat the material collected as field-notes, and the respondents as key informants, maintaining individual anonymity but acknowledging the research groups involved. As collection of field-notes and material from key informants had been included in the original research proposal, which had undergone ethical review in the UK and South Africa, key participants in Cape Town were satisfied with the arrangements from an ethics perspective. I thus do not individually name the researchers who contributed the material in chapter seven, and I do not always indicate which research group material came from.

During my follow up visit I also discussed with my colleague Kholiswa whether she would prefer to remain anonymous in her capacity as interviewer and key informant, or would like to have her name included in the work and in acknowledgements, and she opted for the latter.

3.6   Other issues and limitations

3.6.1   Race, identity, and access

Race and history felt as though they were having a pervasive on-going impact on people's lives in Cape Town. Respondents did talk in racial categories at times, and there were a few mentions of the impact of apartheid structures on their personal histories. But there was almost no politics, and some even harked back a little to 'the old days', when certain respondents seemed to think that there was more order. Perhaps it was difficult to talk politics with a white person in the room. In Langa, racial difference and categories often came across as still being taken as natural, as given, and not requiring discussion.

The divisions were however striking to me as a foreigner in Cape Town. It was very difficult to cross racial boundaries, which in general closely coincided with socio-economic boundaries, language boundaries, geographical boundaries, and so much more.

My identity had various effects on the access I had to different people and places, and on how they perceived me/interacted with me. To start with, being a foreigner had several connotations and implications. One of these was that people wanted to show me the best of South Africa. On the other hand people were also keen to show me some of the problems they had to deal with, sometimes in an apparent effort to explain something they thought I might otherwise misinterpret, and at other times in the apparent hope that I could access resources to address those problems. I was told by a variety of non-white South Africans that, as a foreigner, people would see me as likely to be liberal, but also rich. Being a student helped counteract the latter expectation to some extent, but clearly this only applied when people knew I was a student, which was often not the case. Being Irish often feels useful when abroad – in many cultures the label seems to be associated with people who are likely to be friendly and approachable. There is also the way Ireland is often perceived in a historical context - not as a colonising power, but rather the opposite. These perceptions were often apparent in Cape Town, but I was nevertheless surprised by how open people from many backgrounds were to allowing me into their professional and personal lives.

My colour allowed me to fit in more easily as I moved about the southern suburbs of Cape Town, but also marked me out as unusual in other contexts. In Langa I was told on several occasions that

walking the streets as a white person was likely to make me a target for criminals, who would assume that I was rich, and thus worth robbing. I certainly felt no hostility of the type which some white South Africans I spoke to felt might be directed towards them in such a context, and I was made to feel welcome in the many homes I entered.

Being a runner and a generally active person was extremely important in terms of access – both in crossing social barriers and physical ones in getting around in Cape Town. The runner identity gave me an instant point of connection across racial boundaries, something which seems relatively rare in Cape Town.

3.6.2   Getting around in Cape Town

Langa is located closer to central Cape Town than many other 'township' areas, and this has implications for how representative it is of the kinds of challenges township residents face in getting about. Below I am referring to challenges for myself as a researcher in moving about Cape Town. Issues relevant to, and brought up by, Langa residents, are explored in chapters five and six.

As discussed in section 3.2.2, although my experiences will certainly vary from those of Langa residents for many reasons, they did provide me with some more generally relevant data at the same time as being a challenge to carrying out the research. Safety and limited transport options for those without a car loomed large as obstacles. Crime and high accident rates plague public transport systems, and most are considered by many people to be 'no go' at quiet times and after dark. Many roads do not have usable footpaths, and cycling can be terrifying in traffic – keen cyclists I spoke to chose particular roads and used them at dawn to train, and considered cycle-commuting as unacceptably hazardous. I did try cycling, but a couple of near death experiences meant I used it only as a last resort.

Climate was also relevant here – temperatures reached 40 degrees Celsius during my trip which is a strong incentive to stay still in the coolest place you can find. Personally I was reliant on a mixture of physical fitness, (fool)hardiness and favours to get to where I needed to go. When health issues sabotaged the first of these I did lose access to some groups and places. However it also forced me more into the transport systems used by my major respondent group – the mini bus taxis, and gave me some more understanding of how life was affected for people who were reliant on such transport. Personally it felt like a massive loss of independence compared to life in the UK.

3.6.3   Researcher safety

Various activities I undertook during this fieldwork were considered risky by local contacts. I consulted as widely as I could and then made choices and compromises as I felt appropriate. Much of the perceived risk related to getting around (see above). Kholiswa and I moved about on foot in Langa, and I was often carrying bags containing small gifts for research respondents. Several people expressed concern that we might be targeted for robbery. In deference to these concerns I tried to make sure that I never worked alone in Langa, did not wear or carry any expensive items, and used supermarket bags for the gifts (food and stationary).

We also avoided working on evenings or at weekends, which unfortunately meant we were more likely to miss respondents who were in regular employment. While I could have decided any increased risk to myself of working in Langa on evenings/weekends was acceptable, the impact on others would have made this an unethical choice – my colleague was clearly uncomfortable about

working in certain areas and at certain times, and other contacts in Langa and outside became distressed if they felt I was exposing myself to excessive risk.

Having intended to use the train to get to Langa, I changed my plans based on local advice and used minibus taxis, as the train, and the road leading to the station, were considered particularly unsafe. While this may have reduced the risk from crime it probably significantly increased the risk of involvement in a traffic accident! It also made timing meetings very difficult – taxis depart when they are full, so if you are one of the first to get on at the rank you may have a long wait. It did however offer an opportunity for some interesting observation, and allowed me to write up notes on whatever work I had just completed.

3.6.4   Seasonality

As mentioned above, Cape Town's weather can impact on physical activity, whether due to heat, or wind and rain. Rain has a particular impact in informal settlements as roads are often unpaved. Langa, as an older township, has predominantly paved roads, and so this is less of an issue than it would be in some of the larger informal settlements. Another important issue is light, with darkness and its association with crime another potentially significant influence on physical activity. As my study took place during the warmer, drier, brighter, months of the year, there is likely to be some seasonal bias to both responses provided by respondents, and my own experiences/observations. I tried to address this to some extent by asking people explicitly about how different times of day/year, and different weather conditions, affected things for them. A follow up visit to Cape Town, in July 2012, was during a particularly cold and wet patch of the South African winter, and I took the opportunity to once again ask people about how the season affected physical activity. When it came to Langa, the general opinion once again was that shorter daylight hours were the most significant factor, with paved roads considered to reduce the impact of rain. The possibility of seasonal bias will however remain a limitation of the research, and thus this is taken into account in the discussion of the data.

4 WHO policy discourse

4.1 Introduction

This chapter examines how physical activity in the prevention of NCDs in low and middle income countries is discussed in WHO policy documents. The current WHO campaign began in 2000 with the endorsement of a *Global strategy for the prevention and control of noncommunicable diseases* (WHO 2000), followed by the endorsement in 2004 of the *Global strategy on diet, physical activity and health* (WHO 2004). The sense of urgency built in 2005 with the launch of *Preventing chronic diseases: a vital investment* (WHO 2005a), which opened with supporting statements from the governments of Nigeria, India and China:

> "Governments have a responsibility to support their citizens in their pursuit of a healthy, long life. It is not enough to say, 'we have told them not to smoke, we have told them to eat fruit and vegetables, we have told them to take regular exercise'. We must create communities, schools, workplaces and markets that make these healthy choices possible" (President Obasanjo of Nigeria, WHO 2005a: iix-ix)

2007 saw the publication of the *Guide for population based approaches to increasing physical activity* (WHO 2007), followed in 2008 by the *2008-2013 action plan for the global strategy for the prevention and control of noncommunicable diseases* (WHO 2008a). Further guidance on physical activity specifically emerged over the following years, with the *Review of best practice in interventions to promote physical activity in developing countries* (WHO 2008b), *Interventions on physical activity: what works* (WHO 2009*)*, and *Global recommendations on physical activity for health* (WHO 2010a).

Alongside these NCD-specific documents, and relevant to the recommendations contained therein, was the final report of the Commission on Social Determinants of Health (CSDH 2008) – convened by WHO, but thereafter independent - and the *Adelaide statement on health in all policies* (WHO 2010b). WHO saw a pressing need for investment in NCD prevention as an integral part of sustainable socioeconomic development (WHO 2008a: 5), believing that prevention and control should be integrated into policies across all government departments.

This is a relatively short chapter intended to act as a point of reference for later discussion. Section 4.2 contains a general discussion of how various issues are addressed in this range of WHO documents. Having reviewed policy documentation at an early stage in the research, I returned to it at a later stage in the light of the broad themes which had emerged from analysis of the Langa data. Section 4.3 thus addresses how these themes are discussed in key WHO documents focusing on physical activity.

4.2 WHO approaches to physical activity in NCD prevention

4.2.1 The causes

WHO is clear on the causes of NCDs, with the underlying determinants identified as being the same for all countries for which data are available, and including "elevated consumption of energy dense, nutrient-poor foods that are high in fat, sugar and salt; reduced levels of physical activity at home, at school, at work and for recreation and transport; and use of tobacco." (WHO 2004: 2). More

recently the 'harmful use of alcohol' has been highlighted as a fourth major shared risk factor (WHO 2008a). Evidence on the causes of NCD epidemics is described as extensive, and as coming from "a full range of studies – laboratory, clinical and population-based – conducted in all regions of the world", with a small set of common risk factors, the same in men and women and in all regions, being responsible for most of the main NCDs (WHO 2005a: 48).

Risk factors are divided into those which are considered modifiable, and those which are non-modifiable, such as age and heredity. Prevention efforts thus focus on the modifiable risk factors such as unhealthy diet, physical inactivity, and tobacco use (see figure 4.1).

Causes of chronic diseases

UNDERLYING SOCIOECONOMIC, CULTURAL, POLITICAL AND ENVIRONMENTAL DETERMINANTS	COMMON MODIFIABLE RISK FACTORS	INTERMEDIATE RISK FACTORS	MAIN CHRONIC DISEASES
Globalization	Unhealthy diet	Raised blood pressure	Heart disease
Urbanization	Physical inactivity	Raised blood glucose	Stroke
Population ageing	Tobacco use	Abnormal blood lipids	Cancer
	NON-MODIFIABLE RISK FACTORS	Overweight/obesity	Chronic respiratory diseases
	Age		Diabetes
	Heredity		

Figure 4.1: Causes of chronic diseases.   Source: WHO 2005a: 48

The accelerating burden of NCDs in low and middle income countries is seen to be driven by population aging, and rapid social and environmental changes which are increasing the prevalence of the common risk factors in these countries (WHO 2005a: 60).

WHO sees NCDs as being locked together in a vicious cycle with poverty, with the poorest being most at risk of developing these diseases, and of dying prematurely from them, in almost all countries. The poor, and those with less education, are more likely to use tobacco products, consume energy-dense and high-fat food, be physically inactive, and be overweight or obese, and reasons given for this "risk behaviour" by WHO include "inequality of opportunities, such as general education; psychosocial stress; limited choice of consumption patterns; inadequate access to health care and health education; and vulnerability to the adverse effects of globalization" (WHO 2005a: 63).

When it comes to physical inactivity specifically as a risk factor, WHO notes that the urban poor often live in disadvantaged communities marked by sprawling development which leads to less walking, and in areas which cause them to be concerned for their safety, thereby reducing opportunities for outdoor physical activities (WHO 2005a: 64).

4.2.2   Public health action
While ideas about the social determinants of health are increasingly prominent in WHO policy documents, as is emphasis on the importance of cross-sector involvement as essential in addressing NCDs, it is the field of public health which is called on to take the lead and coordinate (WHO 2004; CSDH 2008; WHO 2008a, 2010a).

The *Global strategy on diet, physical activity and health* states that strategies to reduce NCDs should be part of "broader, comprehensive and coordinated public health efforts" (WHO 2004: 5). Such strategies should be based on the "best available scientific research and evidence" – although the types and sources of evidence considered to fall into this category are sometimes quite limited – and be consistent with the principles contained in the Ottawa Charter for Health Promotion (WHO 1986).

WHO allocates a coordination and facilitation role to health ministries for multisectoral action on physical activity and diet by government departments responsible for policies including food, agriculture, youth, recreation, sports, education, commerce and industry, finance, transportation, media and communication, social affairs and environmental and urban planning (WHO 2004: 6). Policies by central and local government in these areas are seen as shaping opportunities for people to "make healthy choices". In contrast, in an "unsupportive policy environment it is difficult for people, especially those in deprived populations, to benefit from existing knowledge on the causes and prevention of the main chronic diseases" (WHO 2005a: 52).

This position is echoed in the *Adelaide statement on health in all policies,* where good health is also framed as a fundamental enabler to meeting more general policy challenges, with poor health a barrier, and health and wellbeing as something to be 'harnessed' (WHO 2010b: 2). This is reminiscent of the way, discussed in chapter two, in which action to prevent NCDs sometimes seems to be 'marketed' in both academic and policy literature as a utilitarian input to economic development. The health sector is once again positioned as the central actor, required to:

> "engage systematically across government and with other sectors to address the health and well-being dimensions of their activities. The health sector can support other arms of government by actively assisting their policy development and goal attainment" (WHO 2010b: 2).

WHO rationale for physical activity interventions in low and middle income countries
Interventions aimed at the *prevention* of NCDs, and a focus on the risk factors associated with them, are seen as the most cost effective methods of containing the "epidemic of noncommunicable diseases" (WHO 2004: 11). The health benefits of physical activity underlie the rationale presented for interventions which seek to increase such activity - see section 4.3.2 for a discussion of these benefits as identified by WHO. The *Global strategy on diet, physical activity and health* states that unhealthy diets and physical inactivity are among the leading causes of the major NCDs (WHO 2004: 2), and proposes programmes aimed at promoting healthy diets and physical activity for the prevention of diseases as "key instruments in policies to achieve development goals" (WHO 2004: 3). The term development in this context appears to have strong economic overtones, with the paragraph containing this proposal also referring to "the disruptive effect of disease on development", "the importance for economic development of investments in health", and "the significant economic burden" NCDs impose on health systems (WHO 2004: 3).

As in the academic literature, there is striking certainty about the actions which should be taken to tackle NCDs, and what they can achieve:

> "The chronic disease threat can be overcome using existing knowledge. The solutions are effective – and highly cost-effective. Comprehensive and integrated action at country level, led by governments, is the means to achieve success." (WHO 2005a: 1)

"The causes are known. The way forward is clear. It's your turn to take action." (WHO 2005a: 32)

"If existing interventions are used together as part of a comprehensive, integrated approach, the global goal for preventing chronic diseases can be achieved. *The only question* is how governments, the private sector and civil society can work together to put such approaches into practice" (WHO 2005a: 116, emphasis added)

WHO refers to achievements in reducing heart disease death rates in Australia, Canada, Poland, the United Kingdom and the United States as encouraging, and as a basis for anticipating many more such gains in the years ahead (2005a: 26). The decrease in death rates is linked by WHO to the introduction of "effective programmes" in these countries, at a time when death rates increased or stayed the same in countries without such programmes, such as Brazil and the Russian Federation. This is cited as a demonstration of the feasibility of achieving more widespread success (2005a: 92).

But, as in the academic literature, the strength of the claims above is paralleled by references to gaps in the evidence, and the need for more research, particularly in low and middle income country contexts. The 'scientific' approach to evidence is retained however, with increased input from "behavioural scientists" seen as desirable:

"Such research (e.g., into the reasons for physical inactivity and poor diet, and on key determinants of effective intervention programmes), combined with the increased involvement of behavioural scientists, will lead to better informed policies……More information is needed, especially on the situation in developing countries" (WHO 2004: 10).

"Promote and support the multidimensional and multisectoral research that is needed in order to generate or strengthen the evidence base for cost-effective prevention and control strategies. Priority areas include the analytical, health-system, operational, economic and behavioural research that are required for programme implementation and evaluation" (WHO 2008a: 22).

4.2.3   Considering social determinants

The Commission on Social Determinants of Health was convened by WHO in 2005 and published its final report in 2008 (CSDH 2008). The Commission describes social determinants of health as follows:

"The Commission takes a holistic view of social determinants of health. The poor health of the poor, the social gradient in health within countries, and the marked health inequities between countries are caused by the unequal distribution of power, income, goods, and services, globally and nationally, the consequent unfairness in the immediate, visible circumstances of people's lives – their access to health care, schools, and education, their conditions of work and leisure, their homes, communities, towns, or cities – and their chances of leading a flourishing life. This unequal distribution of health-damaging experiences is not in any sense a 'natural' phenomenon but is the result of a toxic combination of poor social policies and programmes, unfair economic arrangements, and bad politics. Together, the structural determinants and conditions of daily life constitute the social determinants of health and are responsible for a major part of health inequities between and within countries." (CSDH 2008: 1)

This is a powerful statement which clearly rejects approaches to NCD prevention which are based on individual level or personal responsibility models. When it comes to the detail of the report there is

only limited discussion of physical activity, which is predominantly[16] contained in the chapter entitled *Healthy Places Healthy People*. The context is urbanization, with the design of cities seen to strongly influence physical activity. The Commission recommends that:

> "Local government and civil society plan and design urban areas to promote physical activity through investment in active transport……and reduce violence and crime through good environmental design and regulatory controls, including control of the number of alcohol outlets" (CSDH 2008: 66)

The Director General of WHO, Dr Margaret Chan, saw the Commission's report as challenging "conventional public health thinking on several fronts", and "showing how social factors directly shape health outcomes and explain inequities" (Chan 2010: 1). With the "true upstream drivers of health inequities" having been shown to reside in social, economic, and political environments, Chan found cause for optimism, as "these environments are shaped by policies, which makes them amenable to change" (Chan 2010: 1). What this optimistic assertion fails to draw attention to however, is that powerful interests will be challenged by any attempt to change these environments in such a way as to increase equity, and resistance is thus inevitable.

Social determinants and public health approaches
Two edited volumes - *Equity, Social Determinants and Public Health Programmes* (Blas & Sivasankara Kurup 2010), and *Social determinants approaches to public health: from concept to practice* (Blas *et al.* 2011) were published by WHO to take forward the work of the Commission on Social Determinants of Health. These volumes represent significant contributions to this field, and are reflective, constructive and action focused.

Social determinants are firmly cast as being about equity, and equity as "clearly not only about numbers that can be statistically processed and presented in tables and charts – it is about people, their values and what they want from life" (Blas & Sivasankara Kurup 2010: 5). Blas and Sivasankara Kurup describe the "general relationship" between health and social factors as being well established, yet acknowledge that "the relationship is not precisely understood in causal terms, nor are the policy imperatives necessary to reduce inequities in health easily deduced from the known data" (Blas & Sivasankara Kurup 2010: 5-6). They also note the, now familiar, problem of the available literature being based mostly on data from high income countries (Blas & Sivasankara Kurup 2010: 4).

Blas and Sivasankara Kurup see one of the primary tasks of public health programmes as being to "translate knowledge on causes into concrete action" (Blas & Sivasankara Kurup 2010: 8). The 2010 and 2011 edited volumes reflect this agenda, with *Equity, Social Determinants and Public Health Programmes* (Blas & Sivasankara Kurup 2010) using a shared five-level framework to analyse twelve "priority public health conditions" with a view to identifying the role that social determinants play in each, and identify potential entry points for intervention. In each case the aim was also to identify potential adverse side-effects of, and possible sources of resistance to, change (Blas & Sivasankara Kurup 2010: 7-10).

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[16] Physical activity was also considered amongst items costed to identify a minimum income for 'healthy living' (CSDH 2008).

While a common framework is used, given the range of authors involved, there is inevitably variation between chapters, with some significantly more nuanced and reflective than others, and different underlying assumptions emerging. Blas and Sivasankara Kurup introduce a classification of structured interventions suggested by Blankenship and colleagues (Blankenship *et al.* 2000), which highlights some of these assumptions:

> "•interventions that acknowledge health as a function of social, economic and political power and resources, and thus seek to manipulate power and resources to promote public health;
>
> • interventions based on the assumption that health problems result from deficiencies in behaviours, settings, or the availability of products and tools, and thus seek to address those deficiencies;
>
> • interventions that recognize that the health of a society and of its members is partially determined by its values, cultures and beliefs, or those of subgroups within it, and thus seek to alter those social norms that are disadvantageous to health" (Blas & Sivasankara Kurup 2010: 8).

Much of the language of the chapter on cardiovascular disease (Mendis & Banerjee 2010) – which, along with diabetes, is one of the 'priority conditions' most directly linked to physical activity – reads as that of authors who subscribe primarily to the second of the intervention categories above: that based on deficiencies. For example:

> "From a public health perspective, it is important to recognize that for people to take on board messages advocating lifestyle changes (tobacco cessation, healthy diet, weight loss, physical activity) they need at least to have primary education. It is only then that they will be in an intellectual position to receive such messages, understand them and act upon them" (Mendis & Banerjee 2010: 38).

This wording does not sit comfortably with the tone of the volume's introduction, and constructs the targets of intervention as deficient in their capacity to receive knowledge. The view of the flow of knowledge appears to be the familiar unidirectional, top-down one, and a rational-actor model of health behaviour is employed.

There is however also reference in this chapter to research which highlights the role of adverse psychosocial factors in the risk for stroke and heart disease. While this is based on studies carried out in high income countries, it showed that lower socioeconomic groups, or in some cases particular ethnic groups, experienced lack of work control, work and financial stress, racial harassment, and lived in more crowded homes, and in neighbourhoods with lower social cohesion. As will be apparent in chapters five and six, such were the conditions of life for many in Langa. These adverse conditions were linked to increased vulnerability to coronary heart disease and stroke (Mendis & Banerjee 2010: 36-38).

The chapter dealing with diabetes is more in harmony with the tone of the volume overall, and notes that there is "very little evidence to support public health interventions to improve food environments or increase physical activity" (Whiting *et al.* 2010: 88). The authors however find growing evidence, and acceptance, that approaches "that are firmly based on the principle of personal education and behaviour change are unlikely to succeed in an environment in which there

are plentiful inducements to engage in opposing behaviours" (WHO 1997 quoted in; Whiting *et al.* 2010: 90).

Blas, Sommerfeld and Sivasankara Kurup edited a further volume, *Social determinants approaches to public health: from concept to practice,* published by WHO in 2011 (Blas *et al.* 2011), which this time considered case studies of interventions which had sought to address social determinants of health. The authors believed that there are no "quick fixes" for public health challenges, and that:

> "Programmes must get out of their comfort zones and, in addition to applying traditional biomedical and programmatic tools, they have to learn to address the economic, social, cultural and political realities in which public health conditions and inequities exist" (Blas *et al.* 2011: v).

The focus was on challenges with implementation, rather than outcomes of, or concepts underlying intervention, and none of the case studies targeted physical activity. Thus there was limited overlap with my own research, but many encouraging trends were in evidence. These included the importance of community involvement and empowerment, explicit debate on values as a strategy for addressing social determinants, the use of ideas of justice rather than altruism in discussions on action to improve health, and the recognition that tackling social determinants of health involves a challenge to interests and power. Alongside this was a positive expectation that, despite the challenges, the argument can be won in the public domain through "intelligent use of evidence and partners" (Blas *et al.* 2011: 7).

As in the 2010 volume, the "behaviour modification and health education" approach, which the authors of one chapter find has been the domain of the majority of health promotion interventions, comes in for criticism (Harris *et al.* 2011). Other findings of interest include the idea that using a 'non-sectoral' mechanism can be an important way of accommodating multisectoral interests (Blas *et al.* 2011: 6), as this contrasts with the frequent calls in other WHO policy for public health to take an overt central role in coordinating other sectors.

When it comes to WHO policy on physical activity in the prevention of NCDs, the importance of social determinants is referenced in several of the key documents. For example, the *Global strategy on diet, physical activity and health* states under its 'principles for action' that strategies must recognize "the complex interactions between personal choices, social norms and economic and environmental factors" (WHO 2004: 5). *Preventing chronic disease: A vital investment* acknowledges the importance of "the major forces driving social, economic and cultural change – globalization, urbanization, population ageing, and the general policy environment" as underlying determinants of NCDs, the "causes of the causes" (WHO 2005a: 51). Part of the overall purpose of the *2008-2013 Action Plan for the Global Strategy for the Prevention and Control of Noncommunicable Diseases* is stated as being to analyse the social, economic, behavioural and political determinants of NCDs, and to use such analysis as a basis for providing guidance (WHO 2008a: 10). The issue of equity is also raised, and seen to explain inequalities in NCD occurrence and outcomes, and there is a call for global and national action to build on the findings of the Commission on the Social Determinants of Health (WHO 2008a: 13). However, this 'headline level' awareness is often not reflected in the concepts and language used when discussing the specifics of physical activity in prevention. Such concepts and language will be considered further below.

4.2.4 WHO guidance on physical activity

The *Global strategy on diet, physical activity and health* includes undertakings by WHO to provide technical support to countries to assist in its implementation, and thus further documents were produced over the following years, including a *Review of best practice in interventions to promote physical activity in developing countries* (WHO 2008b), the *Guide for population based approaches to increasing physical activity* (WHO 2007), *Interventions on physical activity: what works* (WHO 2009) and the *Global recommendations on physical activity for health* (WHO 2010a) .

Great variations in, and between, countries are acknowledged (WHO 2004), and the incorporation of global guidelines to national level policies is seen to require consideration of many factors specific to national and local contexts, such as:

- Cultural background, social norms and religious issues
- Gender issues
- Ethnic minorities
- For school/work based programmes – access and attendance to these sites, especially with regard to girls and women
- Burden of disease relevant to the country
- Security situation at national and local levels, and availability of safe spaces for physical activity
- Geographical settings, seasons and climate
- Existing transport infrastructure, sports and recreational facilities and urban design
- Resources available
- The role of municipalities, local leadership, and involvement of all concerned sectors and actors
- Patterns of participation in all domains of physical activity (leisure, transportation and occupational).
  (WHO 2007: 2; 2010a: 36)

Given the importance attributed to these many contextual factors by WHO, the limited research on influences on, and interventions to increase, physical activity which has been carried out in low and middle income countries (see section 2.4) must be a cause for concern.

WHO called on policy makers to *aim* to be "participatory and socially inclusive, particularly of the most vulnerable groups" (WHO 2010a:36). This phrasing would seem to imply that this, while a desirable requirement, is not seen as an essential one. WHO also continues to refer to strategies to reduce risk factors such as physical inactivity as being aimed at "providing and encouraging healthy *choices* for all" (WHO 2008a: 19, emphasis added).

WHO notes that, for many low and middle income countries, the leisure time domain may be less significant for levels of participation in physical activity, and that moderate to vigorous physical activity may be performed in the context of transport, occupational, or domestic activities. Policy makers are thus urged to take this into consideration in tailoring intervention. It is acknowledged that, in occupational and transportation domains, physical activity "may not be the result of efforts to improve health", but that, nevertheless, such activity can provide "major health benefits for the population". Caution is therefore urged with regard to infrastructure changes, with a view to preventing unintended outcomes such as reducing levels of physical activity (WHO 2010a: 37).

Discussions in South Africa highlighted the importance of taking a broad view of wellbeing when considering such unintended outcomes, rather than a more limited focus on whether a particular 'risk behaviour' would increase or decrease. Major transport infrastructure changes were underway in Cape Town, and a local physical activity researcher acknowledged that these changes were likely to reduce transport-based physical activity for residents of large outlying townships which are currently poorly connected to the city centre. However, she pointed out the tension between the possible negative population-health effects of this change and the potential positive impact on equity, with improved access to opportunities and services, and increased discretionary time for low-paid workers currently spending several hours each day commuting.

Current WHO recommendations on healthy levels of physical activity for adults

In 2010 WHO published its *Global recommendations on physical activity for health* (WHO 2010a). The target audience were policy-makers at the national level, and the focus was the prevention of NCDs through physical activity at the population level. The recommendations aim to address the links between the "frequency, duration, intensity, type and total amount of physical activity needed for the prevention of NCDs" (WHO 2010a: 7). WHO identified the "limited existence" of national level guidelines on physical activity for health in low and middle income countries as evidence of the need for the development of "scientifically-informed" recommendations at the global level (WHO 2010a: 11).

The recommendations vary according to age group, with physical activity domains for adults aged over 18 to include recreational or leisure-time, transportation, occupational, household chores, play, games, sports or planned exercise, in the context of daily, family, and community activities (WHO 2010a: 8).

Adults aged 18-64, and adults aged 65 and over, are recommended to undertake the following physical activity:

- Adults should do at least 150 minutes of moderate-intensity aerobic physical activity throughout the week, or do at least 75 minutes of vigorous-intensity aerobic physical activity throughout the week, or an equivalent combination of moderate- and vigorous-intensity activity.

- Aerobic activity should be performed in bouts of at least 10 minutes duration.

- For additional health benefits, adults should increase their moderate-intensity aerobic physical activity to 300 minutes per week, or engage in 150 minutes of vigorous-intensity aerobic physical activity per week, or an equivalent combination of moderate- and vigorous-intensity activity.

- Muscle-strengthening activities should be done involving major muscle groups on two or more days a week.

For those aged 65 and above, there are two additional recommendations:

- Adults of this age group with poor mobility should perform physical activity to enhance balance and prevent falls on three or more days per week.

- When adults of this age group cannot do the recommended amounts of physical activity due to health conditions, they should be as physically active as their abilities and conditions allow. (WHO 2010a: 8)

Applicability

The last of the recommendations listed above for adults aged over 65 could seem to imply that this is the only group considered likely to have limits on their physical activity due to health. However, later in the document, clarification is provided on how the recommendations are intended to be used by people with limits on their physical activity capacity for various reasons.

It is noted that intensities are relative to the capacity of the individual to perform such activities, and that, for individuals with low physical fitness, the absolute intensity and amount of activity needed to achieve many of the health and fitness benefits are actually lower than for those with higher levels of fitness. The tendency for exercise capacity to decrease as adults age is observed, and thus lower absolute intensity and amount of activity are expected to be appropriate for producing similar relative effects for older adults (WHO 2010a: 32).

Generally, the recommendations are considered to be relevant to all healthy adults, "unless specific medical conditions indicate to the contrary". Pregnant, postpartum women, and persons with cardiac events are among groups which may need to "take extra precautions and seek medical advice" before attempting to achieve the recommended levels of activity. Generally, NCDs which are not related to mobility are not seen as a barrier to achieving the guideline levels of activity. Adults with disabilities can also use the guidelines, although they may need to be adjusted on an individual basis (WHO 2010a: 24). The guidelines emphasise that some physical activity is better than none, and not being able to achieve the levels indicated in the recommendations should not discourage individuals from increasing their activity, as significant health benefits are associated with moving out of the 'no activity' category (WHO 2010a: 24).

The guidelines state that the recommendations are applicable for all adults, irrespective of gender, race, ethnicity or income level, and that they apply in low and middle income countries. However, it is acknowledged that the type of physical activity, and effective communication strategies, may differ in various population groups (WHO 2010a: 24). National authorities will need to "adapt and translate them into culturally appropriate forms", including considering the domain of physical activity which is most prevalent in that population (WHO 2010a: 27).

4.2.5 Roles and responsibilities

Roles and responsibilities for various actors are proposed and assigned within the calls for action to prevent NCDs. WHO is foremost in this assignation, formally listing actions for member states, international partners, and the organisation itself, and within its texts allocating further roles to everyone from the mass media, healthcare providers, non-governmental organisations, community leaders, businesses, educational and religious institutions, as well as to targets of intervention, embodied as employees, patients, students, community members and consumers.

WHO's own role is described on its website as a directing and coordinating authority, "responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries

and monitoring and assessing health trends" (WHO 2012a). This general role is closely echoed in the tasks it allocates to itself on NCD prevention, and on increasing physical activity (WHO 2004, 2008a).

Unsurprisingly for an organisation which is part of the United Nations system, the role assigned to national governments features strongly. When it comes to member states and NCD prevention, the responsibility is allocated to "all-government", with more gains seen to be achievable by influencing policies in non-health sectors than with health sector policies alone (WHO 2008a: 5). WHO presents "strong coordinated government action to tackle the determinants of health and well-being" as expected, and even demanded, by "communities, employers and industries" (WHO 2010b: 2).

Health in the 21st century is cast by WHO as a "shared responsibility", although who this responsibility is shared between, and how, is left unsaid here (WHO 2012a). In action plans and strategies on the prevention of NCDs, and physical activity within this, the roles of 'experts' and governments dominate, with the phrasing in the documents consigning the people who are the targets of intervention to a much more passive position.

Governments are allocated a central role in the creation of an environment that "empowers and encourages behaviour changes by individuals, families and communities, to make positive, life-enhancing decisions on healthy diets and patterns of physical activity" (WHO 2004: 3).

The role of governments is to provide "accurate and balanced information" while that of consumers is to be enabled "easily to make healthy choices" (WHO 2004: 7). Health-care providers are exhorted to make routine enquires about dietary habits and physical activity in combination with providing "simple information and skill-building to change behaviour" (WHO 2004: 9). One objective of the *2008-2013 Action plan for the global strategy for the prevention and control of noncommunicable diseases* is to reduce the level of exposure of individuals and populations to risk factors such as physical inactivity and its determinants, while within this objective the role of individuals and populations is to have their capacity strengthened "to make healthier choices and follow lifestyle patterns that foster good health" (WHO 2008a: 10).

Even where the input of the public is sought, it is not convincing that the participation will be meaningful, or the inputs used for anything other than helping the 'experts' to decide how best to change the public's behaviour.

Broad public discussion and involvement is called for, in the "framing" of policy on physical activity. But subsequent text seems to indicate that the term as it is used here does not imply input at a fundamental level. Such involvement is seen as a way to "facilitate its acceptance and effectiveness" (WHO 2004: 9). Public knowledge and understanding of the relationship between diet, physical activity and health is seen as providing "a sound basis for action", and so "government experts" should prepare and convey "consistent, coherent, simple and clear messages" alongside nongovernmental and grass-roots organisations, and industry. The reasoning behind such action being that:

> "Behaviour can be influenced especially in schools, workplaces, and educational and religious institutions, and by nongovernmental organizations, community leaders, and the mass media" (WHO 2004: 7).

Little value seems to be accorded to the various publics' own understandings and experiences of the relationship between diet, physical activity and health. The flow of knowledge is portrayed to be heavily weighted in one direction, and the influencing and changing of behaviour on the basis of this unidirectional flow is the objective.

The prioritising of the 'expert' may arise in part from the fact that the view of evidence emerges as strongly positivist, with a call for the establishment of multisectoral and multidisciplinary expert advisory boards at country level, to include technical experts and representatives of government agencies. These boards are called on to have "an independent chair to ensure that scientific evidence is interpreted without any conflict of interest" (WHO 2004: 6). This epistemological position may tend to squeeze out contributions from the 'public' as unscientific, and therefore invalid.

4.3   Key research themes applied to WHO documents

As will be detailed in the chapters which follow, the broad themes emerging from analysis of the Langa data included concepts of physical activity, its relationship with health and wellbeing, and ideas about inactivity and its consequences. I thus decided it would be of interest to explore how these same themes were discussed in key WHO documents focusing on physical activity. I present some results from this exercise here, and will refer back to them when presenting findings from the Langa data in chapters five and six.

The subset of the policy literature selected for this purpose comprised WHO reports or guidelines which focused on physical activity in prevention of NCDs globally, or in low and middle income countries, and which had been published between 2004, when the *Global strategy on diet, physical activity and health* was issued, and 2010, when the interviews were carried out. Five key publications were identified in this way:

- *Global strategy on diet, physical activity and health* (WHO 2004)
- *Guide for population based approaches to increasing physical activity* (WHO 2007)
- *Review of best practice in interventions to promote physical activity in developing countries* (WHO 2008b)
- *Interventions on physical activity: what works* (WHO 2009)
- *Global recommendations on physical activity for health* (WHO 2010a)

4.3.1   Concepts of physical activity

Within the WHO policy documents, physical activity was referred to as a "lifestyle factor" (WHO 2008b:6), a "risk factor"(WHO 2004:3) and a "health behaviour" (WHO 2004:3). Physical activity had:

- Types - aerobic, strength, flexibility, balance ;
- Domains - recreational / leisure-time, transportation, occupational, household chores, play, games, sports or planned exercise; and
- Dimensions - duration, frequency, intensity and volume.
  (WHO 2010a: 16)

The term 'exercise' often seemed to be used in place of 'physical activity' in the *Global*

recommendations on physical activity for health, for example there was discussion of "exercise exposures" and "exercise capacity". At times however it seemed to imply a subset of physical activity – that which was done intentionally as exercise. Definitions of duration, frequency and intensity of physical activity referred to "an activity *or* exercise" (WHO 2010a: 16, italics added).

4.3.2 How physical activity relates to health and wellbeing

WHO carried out a systematic review of evidence on the impact of physical activity on health in the course of developing its *Global recommendations on physical activity for health* (WHO 2010a). In that document, and in the *Global strategy on diet, physical activity and health* (WHO 2004), various health benefits of physical activity are discussed.

Physical activity is described as "a fundamental means of improving the physical and mental health of individuals", and as "providing benefits that are independent of nutrition and diet", as well as having an interactive role in relation to issues such as obesity (WHO 2004: 3). For example, physical activity has been found to reduce blood pressure, improve levels of high density lipoprotein cholesterol, and improve control of blood glucose in overweight people, even without significant weight loss. It also reduces the risk of colon cancer and breast cancer. However, different types and amounts of physical activity are required for different health outcomes (WHO 2004: 4).

The evidence of health benefits from physical activity for adults is discussed in detail in the 2010 WHO recommendations, and such benefits were observed in those with and without existing NCDs. Benefits related to NCD prevention included lower rates of "coronary heart disease, high blood pressure, stroke, type 2 diabetes, colon cancer, breast cancer, and a higher level of cardiorespiratory and muscular fitness, healthier body mass and composition, and a biomarker profile that is more favourable for the prevention of cardiovascular disease, type 2 diabetes and the enhancement of bone health" (WHO 2010a: 30-31). Other benefits were reduced risk of depression (WHO 2010a: 8), lower rates of all-cause mortality, strong evidence of higher levels of functional health, a lower risk of falling, and better cognitive function. Both mid-life and older adults who participated in regular physical activity were observed to have a reduced risk of "moderate and severe functional limitations and role limitations" (WHO 2010a: 30-31).

Health from, or for, physical activity?

Producing and protecting physical health by means of physical activity was the explicit focus of the WHO policy documents. The limitations which physical health might place on physical activity were also acknowledged in sections of the *Global recommendations on physical activity for health* (WHO 2010a), however this was a relatively minor theme:

> "The guidelines also apply to individuals in this age range [18-64] with chronic noncommunicable conditions not related to mobility such as hypertension or diabetes. Pregnant, postpartum women and persons with cardiac events may need to take extra precautions and seek medical advice before striving to achieve the recommended levels of physical activity for this age group" (WHO 2010a: 24)

The guidance was more likely to acknowledge limitations in sections relating to adults aged over 65:

"Individuals with specific health conditions, such as cardiovascular disease and diabetes, may need to take extra precautions and seek medical advice before striving to achieve the recommended levels of physical activity for older adults" (WHO 2010a: 30)

"When adults of this age group cannot do the recommended amounts of physical activity due to health conditions, they should be as physically active as their abilities and conditions allow" (WHO 2010a: 8)

Policy documents were dominated by the idea of physical activity for health, rather than health for physical activity.

Risk-benefit analysis
While policy documents referred repeatedly to the benefits of physical activity, particularly physical health benefits, they were more reticent when it came to the risks. There were however some mentions of possible hazards of physical activity. The 2010 WHO recommendations noted the possibility of "adverse events" such as musculoskeletal injuries, but were somewhat dismissive of this risk in the face of the relative benefits:

"Overall, the benefits of being physically active and implementing the above recommendations outweigh the harms. Activity-related adverse events such as musculoskeletal injuries are common but are usually mild, especially for moderate-intensity activities such as walking" (WHO 2010a: 27)

To reduce this risk in population-based approaches it was seen as appropriate to encourage a moderate start, with gradual progression to higher levels (WHO 2010a: 8). Other suggestions to reduce adverse events were "adopting prudent behaviour" and encouraging the appropriate use of protective equipment, such as helmets (WHO 2010a: 27). It was acknowledged that risks would be higher if vigorous-intensity activity was being promoted, "especially for older adults and populations with various morbidities" (WHO 2010a: 38).

Outside of the 2010 WHO recommendations, the only reference to risks of physical activity tended to be environmental – with various policy documents mentioning the need to ensure that activities such as cycling and walking were "accessible and safe" (WHO 2004: 8; 2007). There is little information on what hazards people are to be kept safe from, although traffic and crime are elsewhere implied to be two of the potential threats (WHO 2005a; CSDH 2008). The authors of the 2009 review of physical activity interventions noted that "in the literature reviewed, only minimal information was available on the unintended impact of interventions" (WHO 2009: 27).

Another aspect of physical activity which was seen as a benefit in WHO policy documents, but discussed quite differently by respondents from Langa, was the energy expenditure involved:

"Physical activity is a key determinant of energy expenditure, and thus is fundamental to energy balance and weight control" (WHO 2004: 4).

4.3.3   Inactivity and its consequences
The 2010 WHO recommendations define physical inactivity in their glossary as "an absence of physical activity or exercise" (WHO 2010a: 53). Elsewhere, for the purpose of monitoring NCD risk factors at country level, WHO has defined physical inactivity as engaging in less than 30 minutes of

moderate activity five times per week or less than 20 minutes of vigorous activity three times per week, or the equivalent (WHO 2010c, 2011).

Physical inactivity is described as a "key risk factor" (WHO 2007: 1) and a "lifestyle factor" (WHO 2008b: 6) which is important, increasingly prevalent and modifiable (WHO 2004, 2007, 2008b, 2009, 2010a). Physical inactivity is something which must be fought, with WHO assigning itself a role providing:

"leadership in combating physical inactivity" (WHO 2007: 1).

The elimination of physical inactivity, along with the elimination of unhealthy diets and tobacco use, would:

"prevent 80% of premature heart disease, 80% of premature stroke, 80% of type 2 diabetes and 40% of cancer" (WHO 2009: 3).

The means of reducing physical inactivity is:

"essential public health action and health-promoting and disease preventing measures" (WHO 2004: 3).

As for the consequences of physical inactivity:

"Physical inactivity has been identified as the fourth leading risk factor for global mortality (6% of deaths globally)" (WHO 2010a: 10).

"Physical inactivity is estimated as being the principal cause for approximately 21–25% of breast and colon cancer burden, 27% of diabetes and approximately 30% of ischaemic heart disease burden" (WHO 2010a: 10).

4.4   Conclusion

The framing of physical activity in policy documents is unsurprising given their origin and declared objective – which is to use physical activity as a means to prevent & control specific health problems. The policy discourse recognises the determinants of health as socially embedded, and yet often seems to struggle with what this means for prevention. The documents regularly slip back to discussing 'healthy choices' and educating people about how to make these, and frequently seem to rely on a rational actor model of health.

The approach to social determinants in many documents appears to maintain much of the epistemological stance of other work, with the voices of the targets of intervention regularly absent when sources of knowledge are considered. The work of Michael Marmot, Erik Blas, Anand Sivasankara Kurup and colleagues is a step forward, but does not yet appear to have been applied in the physical activity domain.

The ideas about physical activity, inactivity, and their relationship with health and wellbeing found in policy documents will be compared in the following chapters with those emerging from a very different source: the township of Langa.

5   Wellbeing and illbeing in Langa

5.1   Introduction

This chapter and chapter six present the picture of life in Langa which emerged from the data. Rather than moving straight to considering physical activity in Langa, it is important to consider the context in which that physical activity is set. But the function of this chapter is more than just to set the context. Along with chapter six, it forms part of the argument that health and physical activity are embedded in everyday lives, and in individual and wider histories. The relatively abstract way in which they are conceptualised in academic and policy literature on NCD prevention only provides part of the picture, and does not account for the varied ways in which physical activity, health and wellbeing can be related. People in Langa have different and valuable experiences and knowledge which can contribute to that picture.   The sections which follow thus seek to build an account of how people in Langa are doing, what challenges they face, how they attempt to construct wellbeing amidst these, and where health fits into this.

Both chapters five and six are primarily based on English transcriptions of 39 interviews with residents of the Langa area of Cape Town. The respondents included 20 men and 19 women, with an average age of 49 years (female average = 50, range = 35 – 69 years, male average = 49, range = 34 – 68 years)[17]. Interviews were semi structured and sought to cover five general themes[18]:

- Biographical – life history, identity, life satisfaction.
- Health – self rated health, any worries about health, actions to protect/improve health.
- Daily routine – what a typical day consists of, activities and types of transport involved.
- Physical activity – how to define, kinds of activity done, barriers to, effects of, feelings about.
- Policy – what are the major challenges facing people in Cape Town, and in the respondent's neighbourhood specifically, and who should be responsible for addressing these? Should people be helped to be more physically active?

The tenor of the conversations ranged from the mundane to insightful observations about life as it was, or should be. There was quite a lot of laughter (the most frequent subject of mirth being the idea of the respondent taking up sport), and some tears as people reflected on the difficulties they faced.

Data from eight key informant interviews, field-notes, photographs, grey literature and PURE questionnaire data on the respondents were also used in setting the context and triangulating the findings emerging from the interviews. Taking these data together, this chapter seeks to paint a broad picture, while chapter six focuses on how physical activity fits into that picture.

Both chapters are structured according to the themes which emerged from the data, rather than according to the interview themes listed above. This was because, not unexpectedly, data on the topics of interest came up throughout the interview. For example, health issues had a major impact on life history and daily activities, and so were often talked about here as well as during the section

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[17] All names etc. have been changed to preserve anonymity. None of the photos include respondents.
[18] See Appendix one for the guide questions. "I:" in interview extracts indicates the interviewer – usually Kholiswa, the 37 year old Xhosa woman I worked with. "R:" refers to the respondent.

specifically focusing on health.

When asked directly about the challenges facing people in Langa and Cape Town, three sets of issues emerged within the responses 39 people gave: Unemployment (23 people), crime/violence and drugs/alcohol (20 people), and housing (18 people). Many other things came up, but were only mentioned at this point by one or two people. The only other things which were mentioned more than twice here were community relations (4 people), and health (3 people). The low numbers of people talking about health[19] here was particularly interesting. While the other issues raised as problems for the community tended to be reflected proportionally throughout the other sections of the interviews, health's invisibility at this point of the interview contrasted sharply with its overall presence in people's accounts of the difficulties they faced. This may tell us something about the domain in which respondents were locating health, and will be discussed further in chapter nine.

5.2   Satisfaction with life as a whole

I include this section early in the chapter as the data here introduce several of the themes which are explored in more detail later. 38 respondents (19 women and 19 men) were asked about their life satisfaction based on the question 'taking all things together, how satisfied are you with your life as a whole these days?'. The responses, shown below in figure 5.1, varied between men and women, with women reporting higher levels of satisfaction.
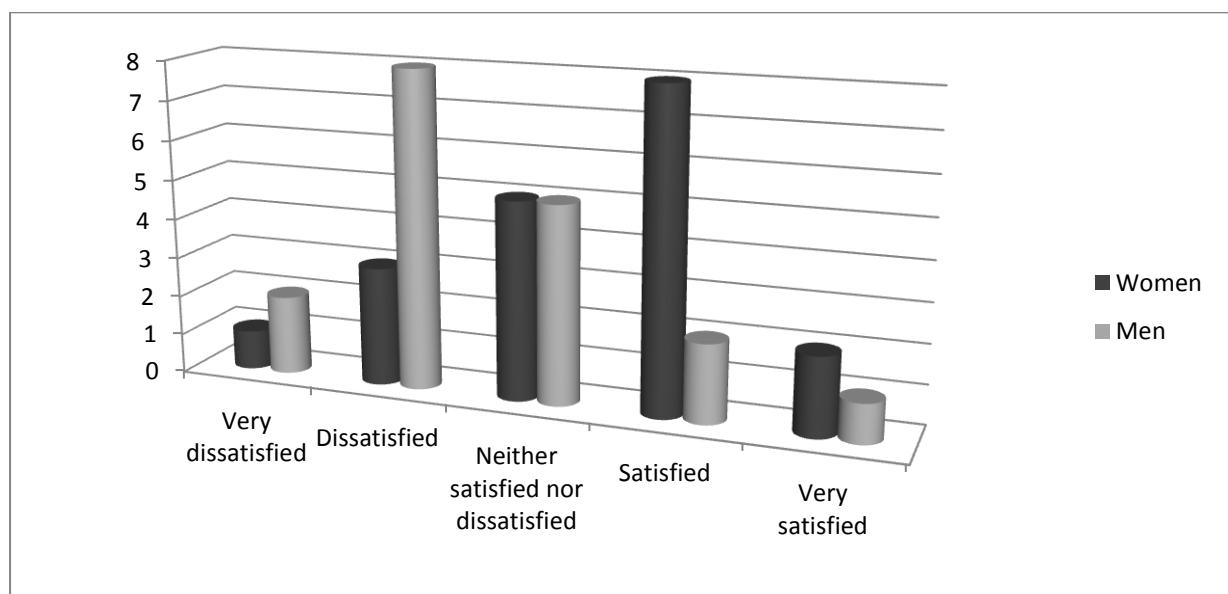
Figure 5. 1 Life satisfaction question responses

The data summarised in this section come from responses to direct questions about life satisfaction, and what contributes to that for the respondent. In other parts of their interviews the respondents often spoke in different ways about the same topics, or about different things which affected their well- or illbeing, and these are covered under the relevant theme-based sections, from 5.3 on.

It is important to interpret the option on the five point scale chosen by respondents with caution, as follow up questions regarding what contributed to this level of satisfaction revealed differences in

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[19] One person mentioned HIV, one waiting times at health facilities and one spoke of disease linked to poor sanitation.

how people were thinking about the question. For example, one fifty-five year old woman was not satisfied because:

R: I am not satisfied with life because I am still going on, getting skills.
I: You are not satisfied?
R: No I still want to further my studies and become whatever I want to be.
(Nombeko)

Nombeko's response seems to imply she associates being satisfied with being content to stay where you are; with, perhaps, giving up a little. Her dissatisfaction seems somehow positive. Others too spoke of their level of satisfaction in relation to the aspirations they had, although with less implied optimism. One of these, Sandile, sees the prospect of achieving his goals as distant for now:

R: I am not satisfied because I still have hopes in my life but when I look at my life, those dreams seem very far away. It feels like I am still very far from what I want to achieve. Most of things in this life require that you have money. So that is why I say that I do not see myself as being close to what I dream of becoming. (I: OK umm\)
R: For instance, I got out of school and became a security guard and ever since then I have been stuck. I believed that I could save up some money; that I would just get into this industry for two or three years (I: mhh) and budget so that I can go back to school. But hey\
I: You are not able to do that?
R: Things did not work out my way.
(Sandile, 36 year old male)

While Sandile felt stuck in a job which was not helping him to achieve his dreams, he was actually one of very few respondents with regular paid work, or any remaining hopes of significant career progression.

Expressions of satisfaction were sometimes about acceptance, or a reluctance to complain. This arose among older female respondents, who related this acceptance to their religious beliefs:

I am satisfied because I am a person who believes that I should be satisfied with what God has given me.
(Cebisa, 57 year old female)

I am satisfied because you cannot change where God has placed you. There is nothing that you can do, you just have to accept it because He is the one who will free you and put you in a better place. It doesn't help to walk up high... our hearts want to but we are not able to do that so we have to accept it.
(Mandisa, 69 year old female)

Other women (but no men) also drew upon religion in their answers to the question on life satisfaction, but with the emphasis more on their beliefs, or their church, as sources of satisfaction in themselves, rather than as a reason to be accepting.

Family came up to a limited extent at this point of the interviews, making more of an appearance later, when people talked about their sources of support in life. Nomsa (52), found that staying with her children was one of the things which contributed to her feeling satisfied with her life. For other

respondents family issues were linked to dissatisfaction, for example concerns about not being able to provide their children with a good education - two women and one man mentioned this.

Work, and the lack of it, was an important factor for many in their explanations of what contributed to their satisfaction/dissatisfaction with their lives. Seven respondents (two women and five men) mentioned a lack of work for themselves and/or a spouse as the major cause of dissatisfaction:

> I am not satisfied because what is very important is that I will not say that I am satisfied without having a source of income. I am not satisfied because I am not working; that is the only reason why I am not satisfied.
> (Bulelani, 40 year old male)

> I am in between (I: mhh) because most of the time I struggle to find a job. I am always here doing nothing most of the times.
> (Thobeka, 35 year old female)

Two further women linked their satisfaction with the fact that they *were* working. Kholiwe, 51, said that she was very satisfied because she was "doing something", and Zimkhitha also recently got a job:

> R: I was not satisfied; I was not satisfied before working. My first priority in life is... when I am at work I forget about everything so I become very happy.
> I: Ok, so would say that you are satisfied?
> R: Yes I am satisfied.
> I: Ok, because...?
> R: Because my life is back on track, I can afford life, you understand.
> (Zimkhitha, 37 year old female who works at Woolworths, an upmarket grocery and clothing store)

Finances and work were, predictably, closely linked, as is illustrated in some of the responses above. Various other respondents focused more directly on the money-worries aspect. Just one respondent, a 'very satisfied' female, attributed this primarily to her financial security.

Health mostly came up in response to life satisfaction questions as a negative factor. Two female respondents spoke of their satisfaction level in terms of it being 'despite' their health. In both cases poor health comes across as a significant negative factor in their lives, and the profession of satisfaction is not wholly convincing:

> R: [Pause] No I am going to say that I am satisfied regardless of the health issues I have… because I also have high blood-pressure.
> I: Ok you have high blood.
> R: And I also have arthritis (I: mhh) but I don't have the pension grant to help me survive because they say that I am not that sick, I don't know.
> (Khanyiswa, 54 year old female)

Three of the four women who were dissatisfied or very dissatisfied mentioned health as a factor in this. However only two of the ten men who were dissatisfied or very dissatisfied brought health up in direct response to these questions, and men who were 'in between' or satisfied/very satisfied did

not mention health at all at this point of their interviews. Problems with health also had indirect effects on life satisfaction. For example Nkosazana mentioned her health as having affected her life satisfaction in how it had limited her ability to provide for her children's future.

Ideas about the impact of how one thinks about things, and reacts to things, began to emerge in response to questions about life satisfaction. Malusi believed that his ability to reflect on his life had saved him from ending up in a worse situation:

> I am not satisfied with the things that I wanted for my life because downfalls have happened in my life. If I had decided not to give thought to everything that has happened I would be in jail or dead as we speak.
> (Malusi, 38 year old male)

Vuyani (60) took things in the other direction, suggesting that reflection led him to make a less positive assessment of how things were going for him. Connecting somewhat with the words of Cebisa and Mandisa above, Thandiwe spoke of the importance of acceptance. Kholiwe felt that talking about things was important for dealing with them.

> I am satisfied because when there is something that is not right, you talk about it and cough it out. When you speak about something, you let it out and you won't have that pain.
> (Kholiwe, 51 year old female, self-employed, and undergoing treatment for cancer)

The 'staying positive' theme which came up in many parts of the interviews extended to Kholiswa's response to a respondent's distress. Normally very upbeat in her written comments on the respondents, here she noted that "the guy was heartbroken". She urged him to stay positive:

> R: I am very unsatisfied because I am suffering. I am not satisfied at all...
> I: Don't cry my brother; everything is going to be alright. You must be hopeful...
> (Lubabalo, 41 year old male)

While this would be seen in some quarters as bad interview practice, her reaction was a natural and appropriate response within the local culture in a social situation where someone is distressed, and in keeping with the rapport she developed with many respondents. Staying positive was widely seen as a way to overcome difficulties, and loss of hope was seen as extremely hazardous.

5.3   Housing

Thirty (fifteen men and fifteen women) of the thirty-nine respondents had been born in Cape Town. Of these, twenty-five had been born in Langa, and eleven (seven women and four men) drew attention to the fact that they were living now in the house of their birth. This continuity in the family home came across as important for many respondents. While the majority of respondents had spent most, if not all, of their lives in Langa, there was not a strong sense of community identification - relationships in the community are discussed in section 5.7.1.

Eight of the nine respondents not originally from Cape Town had been born in the Eastern Cape, the traditional homeland of the Xhosa people, and had come to Cape Town many years ago to work or to complete their education.   There was little direct discussion of migration as a problem for residents of Langa, but some people tended to associate the crime problems with the apparent

outsiders who came and built shacks in the township. Discussions of a shortage of housing in the township also sometimes made reference to people from outside Langa getting homes ahead of locals who did not have jobs to allow them to pay for them, and there was resentment at this.

5.3.1   The housing challenge in Cape Town

A view of Table Mountain from Langa

The City of Cape Town's *Five year integrated housing plan* (2010) estimated that, along with the 386,590 households recorded as having expressed a need for a 'housing opportunity', it was conceivable that a further 273,410 households not on their database were living in overcrowded informal settlements, and should be included in their plans for future housing needs of the poor. There was no expectation of catching up with this massive housing need in the short term, particularly as the population continues to grow rapidly in size due to both births and in-migration.

According to the 2001 census 30.51% of Langa households were living in shacks/informal dwellings which were not in back yards, 18.34% were in shacks or dwellings in backyards, and 18.29% in places not considered as housing units (e.g. people sleeping in bus shelters or other places not intended as housing). As my respondents did not include those from Langa's informal settlement areas, it was the 'backyarders' who were more visible. The City describes backyard households as living in "poor, unsafe, deplorable conditions, with no or limited access to essential services such as water, sanitation and electricity" (City of Cape Town 2010: 22). It also expects most of them to wait for a very long time before they are assisted.

The difficulties apparent from such statistics, and recognised by the city in their housing plan, were clearly reflected in the respondents' discussions of their own situations:

> Here we never have days when you hear that our councillor came to see us. There is a person who deals with houses who is from Pinelands [adjoining wealthy suburb, separated from Langa by railway tracks], (I: Mhh) he comes here and we complain about houses and then he makes promises all the time. They even ask us to tell them how many children live in the yard, like you tell them that in the house we are more than ten people. (I: mhh) We have been telling them and it has been years now. (I: mhh) I mean that we don't have hope; we will die here, in these houses. (Khanyiswa, 54 year old female)

There are no houses in Langa; I have been living in a shack for 22 years. There are no houses and there is also no sufficient running water; the whole block has to use the same tap.
(Andiswa, 44 year old female)

Children grow up in Langa and then often have no means to leave the parental home:

The things that are not right are... they have to build houses for us because we are staying with children in our yards, you understand? (I: Ok) Look at these old sons that we have staying with us, they are old but there are not places.
(Mandisa, 69 year old female)

Some of the respondents were themselves these grown up 'children', and expressed their frustrations that they were still living with their parents. The shortage of housing also caused conflict within families, with adult siblings forced to share, or compete for, space.

There was clear differentiation between the kind of backyard shacks constructed with the agreement of the 'main' householder – either for family or to rent – and the ones put up on vacant land without the consent of those nearby. For example, Thandiwe (46) stayed with her partner in a shack which is next door to her sister's, and also spent time in the house in whose yard their homes were built. There was a positive sense of the occupants of the various buildings on the property keeping each other company and pooling resources.

Buelani (40) was grateful for the income from the backyard dwellings on his property, which he rented out. And housing was not always at the front of people's minds, even for the shack dwellers. For example, Zimkhitha, a 37 year old woman who lived in a very clean and tidy shack, did not mention housing as a challenge at all. Others were however upset at the shacks that they saw going up around them, complaining about noise and crime.

Two key informants mentioned health problems which they felt were associated with over-crowding and poor infrastructure in Langa:

> Other issues are like overcrowding, and I think that is something that keeps on escalating our TB positivity rate, because of the fact that you find one family staying in a one roomed house being a big family. Or one household having six or seven shacks in the same yard…..And all those people you find that they only use one toilet and they use one dustbin, and most of the time you find that the toilet is out of order. (Nurse from a health centre in Langa)

5.3.2   Inside homes

The homes we visited spanned quite a range regarding visible evidence of hardship. At one end were the outwardly prosperous residences of respondents such as Cebisa and Vuyani, and at the other were Zimkhitha and Lindela's much more basic living arrangements. In between were the trappings of most respondents' daily lives – two-burner electric hot plates sitting on side tables for cooking; bread bins; fridges; sofas; calendars on walls; framed tributes to home, motherhood and religion; photos and certificates in pride of place; children, often other people's, being cared for. Rooms held evidence of multiple functions – living, cooking, and sleeping.

Televisions were ubiquitous, even in the most basic shacks - an important form of entertainment highlighted by talk of having nothing to do and worries about going out after dark. While we were carrying out these interviews one of the fieldworkers, who lived in another township, suffered an armed raid on the home she shared with her baby daughter. Her microwave, DVD and TV were taken, but she lied at gunpoint about having a phone or cash, so these were still under her pillow when the intruders left. She told me that she missed the TV the most, because without it "it is very quiet in the evenings".

Inside homes in Langa: Zimkhitha and Vuyani

On a street to the south Zimkhitha props herself against one of her backyard shack's wooden walls as she talks to us. We are sat on her neatly made single bed and the one plastic chair. A rug is on the lino floor, and a TV faces the bed. A suitcase stands in one corner, and shiny cooking pots and handbags hang from the wall. A church calendar is pinned alongside a child's drawing with the words "I love you Mum" in bright colours. She looks younger to me than her 37 years. Slim and smartly dressed, her ears adorned with gold hoops, she gestures expressively with her hands throughout the interview. This is the smallest living space we have been shown into by any of our respondents, but it is welcoming and cared for. She is about to head to the shops for "at least one Easter egg" for her child. When we leave she calls after us – Kholiswa forgot a bag of shopping on the shack floor, and she brings it to us.

Vuyani's home is on a road parallel to Zimkitha's, and stands in a spacious walled yard where a man and boy are hanging out washing. When we ask them for our respondent a voice calls us from inside the house, so we enter. The light tiled floor gives the large living room an airy feel, and is set off by a red patterned rug. Two large square stools, which look like they came with the three piece suite, are being used as a central coffee table. A TV and radio rest on glass and aluminium stands, and against one wall a display cabinet is replete with glasses and coffee pots. Framed artwork hangs on the walls, alongside two portraits – perhaps of important family members – and a depiction of the last supper. A total of three calendars are visible – not all for the current year however. A 60 year old man sits in one of the armchairs, dressed in jeans, pool shoes and an African pattern shirt. He addresses me as "Ma'am" when I hand him my contact details, but then brings peels of laughter from Kholiswa who informs me that he has declared, in Xhosa, that he is going to marry me. There is unusually little English in this man's speech over the course of the interview. He coughs – a chesty noise which concerns me a little, but just the once, and he laughs rather more often. As we leave he makes Kholiswa laugh again, having informed her he will go to purchase my wedding outfit (a particular type of dress and a black head scarf). In her interview comments she writes that he "stays alone but the house is neat".

There were glimpses of difficulties – dry white bread and diluted orange squash for lunch, awkwardness about not having enough chairs for everyone to be seated for the interview – and pride – scrupulously maintained homes: clean, and decorated with ornaments and pictures on walls. People were very accepting of strange visitors, and there were only a few doors which needed unlocking when we knocked. Other occupants of houses facilitated us, sitting quietly while interviews went on, turning down televisions or music. Some were excessively keen to help out the interviewee when they could not remember a date, or dropped in their own ideas of what constituted physical activity or problems in Langa.

Backyard in Langa

Houses were generally not big enough for people to go elsewhere within them, and for many people there was nowhere much but home to be, so it was inevitable that we would have family members present for many interviews.

5.4   Work and unemployment

So now I am here, sitting here and I need... I am fine, I am not sick now and I am looking for a job; that is it. Even if it is part-time, I know that I am old but I need to work just part-time; whatever I can do, I don't mind. If you can hear about a job, please don't forget about my name; even if it's a day or two days, or three days. Do you understand what I am trying to say?
(Cebisa, 57 year old female)

5.4.1   Work situation of research respondents

Unemployment rates are high in Cape Town, particularly among black residents. The most recent figures broken down by suburb date from the 2001 census, when the official unemployment rate for Langa was 49.28% (City of CapeTown 2012). An average rate for black residents across the city was reported as 39.7% for 2007 (Small 2008), compared with 49.7% in 2001, thus the official unemployment rate for Langa may have similarly decreased.

However, official South African unemployment figures do not include all those without work who would like to have it. For example, those not available to start work in the next two weeks due to ill health or other responsibilities are not counted, nor are those who have not been actively seeking work in the last four weeks, sometime termed "discouraged job seekers" (Lehohla 2004). Taking as my comparison the 2001 census figures for Langa for all those aged 15 to 65, and not in full time education, the proportion of people without paid work in my sample was higher. Counting those who fit the official definition of unemployed, and adding the various categories of 'economically inactive' which were relevant to my sample, the rate works out as 58% for the 2001 census, whereas in my sample the equivalent categories formed 67% of the total[20].

The fact that my sample covered an older age range may partially explain this, with a higher number of retired people, as well as age being spoken about by respondents as a barrier to being employed.

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[20] Economically inactive categories from the 2001 census which I considered to apply to my sample were: Housewife, retired, not working due to disability/illness, seasonal worker not currently employed, does not choose to work, and could not find work.

The illness and injury rate in my sample was also higher, and some of this may have been age related. However, another factor which is likely to be significant is the recruitment process used by PURE (see chapter three), aggravated by the times at which it was possible for me and Kholiswa to carry out interviews, which tended to be during office hours.

In any case, of 39 respondents, 26 (11 women and 15 men) were not doing any kind of paid work. Three of these (one woman and two men) were doing a substantial amount of voluntary work. While South Africa does not have an official retirement age, those aged 60 years and older can apply for the 'Old persons grant'. Five (one woman and four men) of those not doing paid work were 60 or over, although the woman, aged 69, wanted to work.

Of the thirteen respondents doing paid work at the time of the interview, six had a regular paid job. Four of these were women, with two working as domestics, one working as a packer for a clothing brand, and one working as a dressmaker with a community women's project. One of the men was a security guard and the other was a barman in a hotel. The other seven people did a mixture of self-employed and casual work. This included four women, three of whom were selling items from home or door to door, while the fourth woman got occasional work as a painter/decorator. Of the three men, one ran a shebeen, one was spending his time collecting glass bottles in order to claim the recycling deposits, and one stood by the road in an area where people came to look for casual workers – getting jobs such as gardening, painting, moving furniture etc.

Unathi had studied for a diploma in nursing while working at a hospital, and later studied pre-school teaching. She then helped to set up a school for disabled children from the townships during apartheid. However:

> R: I am now a domestic worker because I am old and my eye also got injured, so I cannot see with it.
> I: What happened to the eye?
> R: Umm I was attacked in my eye, I was going to Zone 3 [in Langa] (I: mhh). A guy tried to take advantage of me, he hit me here with a brick and my nerve failed.
> (Unathi, 59 year old female).

Of course, work was not unambiguously positive all the time. Interviews included details of serious injuries which respondents had incurred at work, or conflict with colleagues or supervisors, and several respondents mentioned having left a job at some point in the past because of feeling exploited. Talk of harm from *lack* of work however took up a lot more space.

5.4.2 Barriers to fulfilling working lives

While a key informant told me that education of boys tended to be prioritised, amongst my respondents education levels were similar between men and women, and generally low. The sample contained very few people with vocational training or higher education, and many people spoke about this as what had stopped them progressing. Only eight of the respondents (four women and four men) had completed the final year of high school (grade 12/matric). One of these women then completed a diploma in public relations. Another woman, who had not matriculated, nevertheless went on to gain two diplomas – one in nursing and one in pre-school education. Three of the men had also studied after leaving school, two doing vocational training in carpentry, the other completing courses in sports management and administration.

Just two respondents, both women, mentioned the effect of apartheid on their education – Zandile, 56, was expelled after a protest at school, and Nkosazana, 39, had to change schools because of compulsory resettlement. Reasons for leaving education included the birth of children, bereavement, and the need to work to support themselves or their family. The death of a parent was an occurrence which often led to an early exit from education, for example:

> The highest grade I passed is grade 7 and that happened because of the circumstances. My mother passed away and I was left with my grandmother so I had to go and look for a job.
> (Xolile, 47 year old male)

Educational aspirations were often low. While several people spoke of their children as 'supposed to be studying', but not having the opportunity to do this for financial reasons, when asked what should be done the activities suggested were things like "sewing skills and maybe handwork skills". Malusi seems to see his educational potential as predetermined:

> And not everyone can get educated; there has to be uneducated people like us, you see.
> (Malusi, 38 year old male)

Even when people *are* educated, Luxolo tells us that there are no jobs to be had:

> There are no jobs; our children go to school and do not get employment after that. They just sit in the township after being educated with a lot of money. People have degrees but still they are not working.
> (Luxolo, 57 year old male)

Sandile put some of the blame on the community in Langa, suggesting a lack of initiative. Others, notably women, were more positive about the potential of education and community initiatives. Women were also more upbeat about themselves and the potential for finding work, such as Bukelwa (44) who spoke about self-employment, saying "there are a lot of ways to survive", and Nombeko (55) who told us that she had "many skills", from fashion design to typing, and was continuing to acquire more. Cebisa would not take no for an answer when looking for work:

> R: They needed someone to clean and make tea (I: mhh). I went to that interview; when I showed them my things, they didn't want to take me.
> I: Why?
> R: There were a lot of people and they said that I am over qualified and I had many things. (I: mhh) I told them that I am not leaving; you are going to hire me.
> (Cebisa, 57 year old female with a diploma in public relations. She got the job.)

For women, pregnancy and childcare could be factors which came between them and education or paid work:

> After giving birth to Kuhle I had to stay home. My mother was working and she was sleeping in so I stayed to raise my child. When Kuhle grew up I went to [high school in Transkei].….I came back in 1990 and then I fell pregnant with the second child and then I dropped out of school.
> (Nkosazana, 39 year old female)

As illustrated by Nkosazana above, who was able to return to school for a while when her first child

was 4, having children did not necessarily, or even usually, exclude continuing with school or work. It appeared that if a job was available it was possible to find childcare locally – with family, neighbours, or locally run crèches. All of the female respondents who were doing paid work were caring for children under the age of 16 – their own children, or those of relatives, friends or neighbours.

Alongside the scarcity of available jobs, and the low levels of education which are typical for township residents according to city statistics, poor health was presented by respondents as the biggest barrier to achieving their work ambitions. Eight (four men and four women) of the twenty-three respondents who were doing neither paid nor voluntary work spoke of health problems as the main barrier.

> They told me that I am suffering from asthma because of the chemicals; the doctor said that they must give me a light job. There is no light job in an old aged home. You make beds, wash the walls, wash the dishes and I said I could not manage because they had very big bays…...OK and then the law was against them, they could not let a person like that work. And then I stopped working.
> (Mandisa, 69 year old female)

As well as these eight, a further three men (Nyaniso, Sibabalwe and Mangaliso) had been left disabled by accidents, although it is not clear that this was the only factor which had stopped them working – Sibabalwe was retiring anyway and the others were not working at the time of their accidents.

Several respondents brought up age as a barrier to employment. Thandiwe (46) felt that people did not take those over the age of 36 on for permanent jobs, because by then "you are supposed to have your own company or whatever". Daluxolo, who had already been unemployed for eight years, felt that the situation was now becoming hopeless because of his age:

> R: I have been unemployed since 2002.
> I: And you are still unemployed?
> R: I have lost the hope now because the next thing that is going to happen is that they are going to say that I am old to be employed. I have the CV and the experience and would prove by doing the job that I am employable because they take young children of 18 and 20 years of age. People who are 45 and 46 are not getting employment. People just make promises knowing that you will not get a job because you are old. They just make promises to get you out of their way but they can see that you are serious.
> (Daluxolo, 53 year old male)

5.4.3   Effects of unemployment

When asked about what challenges people faced in Langa, or Cape Town more generally, unemployment was mentioned by 23 of the 39 respondents. Being unemployed had many consequences, from the obvious ones such as a lack of income, to boredom, low self-esteem, and getting involved in crime, or drug and alcohol abuse. Lubabalo (41 year old male), who worked seasonally as a lifeguard, found the off-season a real struggle. Even when Nyaniso did find some work he sometimes ended up relying on soup kitchens:

I have to get these piece-jobs. Even with the jobs, you get paid when you forgot that you even did the job, they don't pay now. The people tell you stories, that they are going to pay you at the end of the month but we just wait, that is why we go to the soup kitchens.
(Nyaniso, 57 year old male)

Xolile is desperate to earn a few Rand, relying on doing odd jobs locally, and struggling to find money to pay for school things for his son (who does not live with him) and to feed himself:

I: How do you spend your days during the week and on weekends?
R: I just stand here and wait for someone who might call me and ask me to do something for him.
I: You wake up and stand there?
R: Yes because it does not help to go somewhere far because you will come back with nothing and they even arrest you for trespassing in Pinelands [wealthy nearby suburb] and other places. If you walk around those areas, you get arrested. They say the reason why we are there is because we want to steal so they arrest us. So it is better for you to just stand here and look for someone who wants you to do some work for them.
I: So you do that regularly?
R: Yes I wake up and stand here or go to Athlone [nearby suburb] but even there, when you get there you are greeted by a 'no vacancy' writing so it does not help. It is a waste of time to go there in the first place because sometimes I go there and when I come back I hear that someone was looking for me. I then feel sad because I wasted time going there while I could have done the small job here so that I can get even if it is R10 [85p] so that I can eat.
(Xolile, 47 year old male)

He is not alone in suffering food insecurity linked to unemployment:

Comes a time when we are hungry and there is no bread, what are we going to do? I say: I will come back right now. I go to Jabavu and greet the people, ask the people to give me tea; that is the life that we live in the townships, there is nothing else.
(Thandiwe, 46 year old female, unemployed since an accident at work in 2005)

Another commonly referenced consequence of unemployment was the challenge of finding something to occupy oneself. Nyaniso (57) said that he and his friends would sit and read local newspapers just to keep themselves busy, whereas Mbulelo (55 year old male who uses a crutch) would walk "to far places just to make the time pass". Cebisa had had a good job in advertising in the past, and was struggling with being unemployed:

I: Ok. Umm... is there anything else that you would like to add?
R: No, what is important is that I need a job! [Both laugh] I am talking about myself now; that is very important, even if it is two days or three days. I need a job seriously.
I: So you want to keep yourself busy by working.
R: Yes I want to do something. [Laughter] Please put my name on your minds that I want to do something.
(Cebisa, 57 year old female)

Nkosazana told me that people just walked up and down the street to fill in the time. She worried about her children – two of the four had finished their education but had not found work and were

just sitting at home. The third one would finish grade 12 shortly, and she fully expected him to do exactly the same. This lack of an occupation could have very harmful effects on self-esteem:

> I see myself as useless; people say that I am useless because I am...if was HIV negative (I: Mhh) I would be a good person. A person that works; I used to work, my sister.
> (Nkosazana, 39 year old female)

Malusi (38) and Daluxolo (53) spoke of their frustration at being unemployed. Malusi was unhappy that he was forced to beg, and Daluxolo was upset that he was not able to help his wife to feed their family. Many respondents linked several of the other commonly mentioned challenges for people in Langa to the unemployment situation. In particular, drug and alcohol abuse, and the crime that went alongside, were seen to be strongly connected to unemployment. Nkosazana felt that providing young people with training, and creating jobs, was the way to reduce the level of drug abuse in Langa. Daluxolo felt that the boredom of being unemployed, and having "no activities that are helpful to them" meant that people spent their time drinking. Malusi and Sibabalwe linked unemployment to crime:

> So you end up committing a crime because you see that all your friends are working and you ask yourself why you are not working. You see my sister; you end up telling yourself that it is better to be a criminal and do wrong things.
> (Malusi, 38 year old male)

> I: What are the challenges that people in Langa face?
> R: It is unemployment; we sit with our children the whole day. They are not working so they rob old people; they take away our phones and other things. When I raise the issue, people say that no wonder they are doing that, it is because they are not working.
> (Sibabalwe, 68 year old male)

5.5   Crime, violence, drugs & alcohol

The third set of issues discussed by respondents when asked directly about challenges in Cape Town and Langa were crime/violence and drugs/alcohol. Of thirty nine responses to these questions, twenty mentioned these issues specifically.

Official statistics are only available for reported/detected crime, and as a City of Cape Town report on crime notes, some offences, such as rape, are believed to be significantly underreported (Gie 2009). The report however also notes that for murder, the rates of reported crime are close to the actual incidence of crime, and that the rate of reported murder is thus a good indicator of overall violent crime (Gie 2009). Murders in Langa in the year of these interviews occurred at a rate of 130 per 100,000 people – over four times the South African average of 31.9 (SAPS 2011). Comparing this with a global average of 6.9 for 2010 (UNODC 2011), the violent crime situation in Langa is clearly a major issue.

PURE data indicated that 31 of 35 respondents who had completed that questionnaire agreed somewhat (13) or strongly (18) with the statement "There is a high crime rate in my neighbourhood". When asked, in another questionnaire, whether they agreed with the statements "The crime rate in my area makes it unsafe to go on walks during the day" and "at night", 27 of 32 respondents agreed somewhat (10) or strongly (17) during the day, and 29 of 32 people agreed

somewhat (6) or strongly (23) that it was unsafe at night. Women were more likely to strongly agree with the statement that it was unsafe to go on walks. The interviews reinforced this picture, with experience and fear of crime having a major impact on respondents' lives.

5.5.1 Experiences of violence

Violence was a commonplace experience, with several respondents bringing it up in their interviews. Nomsa mentioned an abusive marriage (which she had now left), while Unathi had been attacked by a stranger during an attempted sexual assault, and was left blind in one eye. A great sorrow in Unathi's life had been the loss of her eldest son, who had been shot dead nine years earlier.

> My child bought me a car so that I can be a mother, he was thanking me but he got murdered with that car. We were left with nothing, we ran out of money and I would go to bed with an empty stomach.
> (Unathi, 59 year old female)

Zimkhitha had been injured during a mugging:

> I: Is it easy to walk around here in Langa, to exercise?
> R: No because two years back... I have a cut here, my phone was taken away and then I was beaten with a gun so since then, like when you are going somewhere you have to leave your phone but you need a phone all the time. You would walk and then the boys would come to you, you are not safe. You also have to make sure that your money is in your pocket and not in your handbag so that even if it gets taken away…You are not safe.
> (Zimkhitha, 37 year old female)

Thembani recalled an incident from the week before the interview:

> R: Yoh! My sister that just happened the last Friday in the bush[21] (I: mhh). We had just finished eating some meat and then a four-man gang came and started shooting. We dived (I: mhh), this part is still painful [he points at his back]. One guy cried, saying that they shot him on the waist, he was bleeding. He was not far from me, this last Friday!
> I: What were they fighting about?
> R: These people do robberies and they are coming straight from jail.
> (Thembani, 43 year old male. Zimkhitha also referred to this incident in her interview)

Mbulelo's story was of an assault many years previously, but the resulting injuries were still affecting him – he had been thrown off a train while being robbed, and had broken a leg and badly injured one arm, which was eventually amputated.

5.5.2 Fear of crime

The South African Social Attitudes Survey monitors fear of crime, and found that, compared with 1998, when 44% of respondents reported being fearful of walking alone in their residential area, the 2007 round of the survey showed a substantial increase to 74% (Gie 2009: 5). Gie also notes that stereotypes of who the fearful within South Africa are (white people, women, elderly) are challenged by the survey. Fear of crime reported by male respondents has almost matched that reported by female respondents, and there were some indications of young people reporting more fear than the elderly, although this was less conclusive. While in the early 1990s more white than black

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[21] Thembani is referring to the initiation site in Langa, an area of undeveloped land on the South West of the township for the use of the initiation school.

respondents reported being fearful, by 2005 the position had reversed (Gie 2009). Gie thus finds that the popular notions about fear of crime being a 'white fear' do a disservice to the majority whose needs are then neglected (Gie 2009: 6).

The questionnaire data discussed above show high levels of fear of crime amongst respondents in Langa, and this was also apparent in the interviews. This fear of crime was affecting people's behaviour, for example both male and female respondents spoke about not wanting to walk in Langa once it got late:

> R: Yes I walk but not late because I am scared of the children who do robbery.
> I: Ok they do that late?
> R: Yes or maybe a person would rape you or something.
> I: Is that common?
> R: Yes they do robbery here in this corner; they do it to the young people who go to St. Francis. They take their cell phones.
> (Zandile, 56 year old female)

> Crime is there. If something comes up around 8pm and you have to go to Zone 27, you cannot; you have to look for someone with a car. You cannot walk at night so there is crime and it is too much.
> (Mnyamezeli, 51 year old male who runs a shebeen)

As well as after dark, many people spoke of the need to be particularly alert at weekends, or the holiday season, as people were looking for money to fund drinking/drug taking around these times. Respondents spoke of how you had to be careful of any visible display of wealth.

> There is a lot of crime because they take away our phones. You cannot walk to the terminus with your phone and you cannot make yourself gorgeous, like wear jewellery and stuff and walk around. You wouldn't even reach the next zone wearing those things, you have to hide them all the time because they rob them off.
> (Thobeka, 35 year old female)

The only interviewee who met us away from her home told us of the precautions she had taken when walking from work to meet us in the middle of the day:

> I: It is easy to walk here in Langa?
> R: It is hard to walk around here in Langa because even now I sent my handbag with the others because they will walk as a group. I did not want my phone to be on me because it could be taken away while I am speaking on it. My area is very corrupt and I do not tell myself that nothing will happen to me because they know me. Especially when you are walking with a white person; they see money. It is not nice walking here in Langa; you have to pray before getting out of your house. You have to ask God to protect you so that you come back home alive; you cannot walk confidently.
> (Andiswa, 44 year old female)

Some respondents however felt that crime levels were not so bad. Sisipho suggested that familiarity might play a part in such perceptions:

I: So is a person safe to walk here in Langa?

R: You know when you are staying somewhere; sometimes you see the place as safe. It is another person, from somewhere else, who will say that no, Langa is not safe. But if you are staying here, you will never see that but you stay here.

(Sisipho, 40 year old female)

Several people pointed out that the crime situation was not unique to Langa. Crime sometimes seemed to have been normalised, and some of the comments may have been in that context. For example, Sibabalwe said that crime was not bad, but then went on to mention people shooting each other:

Crime here is not bad. They sell alcohol on the other side but it is not that bad here. Sometimes you see people fighting and shooting each other.

(Sibabalwe, 68 year old male)

5.5.3   Who commits crime, and who they target

Much crime was attributed to young people, or 'children'. This led to disturbing juxtapositions of labels, with 'naughty kids' also being criminals. There was sometimes a sense of exasperation, of this as something which was coming from within the community and which it was up to the adults to deal with and discipline. It also however painted a poignant picture of a community terrorised by its own young.

There is crime, these kids are very naughty.

(Thandiwe, 46 year old female)

I: Can you freely walk here in Langa?

R: Yes you can walk but these days young boys are corrupt. It is not easy to walk at night, especially if you are not from here.

I: OK so\

R: There is not safety.

(Sandile, 36 year old male)

Nomsa's phrasing is particularly striking:

I: How is crime in your community?

R: This is where it is made, it is planted here.

(Nomsa, 52 year old female)

Who you knew, and where exactly you went within the township, were important in how much of a risk you faced:

I: Is it easy to freely walk here in Langa?

R: It is easy for me; it is easy because I am well known.

I: So there isn't a lot of traffic on the streets?

R: The streets are good here in Langa, there is no problem. But when you get into the areas where there are shacks, there are problems.

(Luxolo, 57 year old male)

Several other respondents also mentioned the importance of being recognised in order to protect one from crime:

I: How is crime?

R: There is crime; there is crime because recently a man was stabbed by a boy from here. I was walking with my friend and she showed me those children and I know one of them. He greeted and I said, don't worry I know him; so there is crime.

(Unathi, 59 year old female who had previously been the victim of violent crime)

One of the ways that robbers got around the problem of not wanting to know their victims was to 'trade' with other townships, sometimes exchanging information on potential targets:

Criminals can come all the way from Nyanga-East to do crime here in Langa. They can come from Simons' Town and from Bishop Lavis and go to Gugulethu. They do that because they are not known here in Langa, we know people who live here in Langa. So if someone from here does something, you can go to where the person lives.

(Boniswa, 43 year old female)

There were indications that respondents and their family members had their own experiences of being on the wrong side of the law. The use of illegal drugs was part of this, with several of the men mentioning current or past use of these. One such man was Thembani, who also spoke of stabbing someone who was robbing him. This could be described as self-defence, and even the fact that he was carrying a knife could have been for the purposes of self-defence. Kholiswa certainly seems to react as though she sees it as such:

R: Also on the 21st of this month, I was coming from work with the train that goes via Mutual and then Langa (I: mhh). I saw two guys while I was crossing the road, these guys were following me. One punched me, the other one took out a knife and I took mine out too. It was two against one, I fought with one of them and I stabbed him. He said you are stabbing me! I fell on the ground and they were stoning me. I left my bag behind so they took it and searched it. In that bag were bananas, chicken and a butternut that the employer gave to me (I: mhh). That is what happened on the 21st of this month.

I: What are you saying now? You survived that!

R: [Sigh] My ancestors saved me from that.

(Thembani, 43 year old male)

Lubabalo mentioned having spent time in jail, but casually, in the context of talking about the important people in his life. His use of 'when' implies that this has been a repeated experience:

My family is very important because it helps me with a lot of things. When I am in jail, they are able to visit me and that is not all

(Lubabalo, 41 year old male)

No women spoke of spending time in jail themselves, but both Thandiwe and Unathi spoke of their brothers having been incarcerated.

5.5.4   Reasons for crime

You hear someone saying that a person got shot for no reason; there is a reason. Everything happens for a reason my sister.

(Thandiwe, 46 year old female)

The City of Cape Town's 2009 report discusses the context of crime and violence in the city,

contesting the frequent citation of poverty as a cause:

> "Increasing international evidence suggests that poverty *per se* has little to do with crime and
> violence levels. Rather crime and violence occur more frequently in settings where there is an
> unequal distribution of scarce resources or power (relative poverty) coupled with weak
> institutional controls. Although there is no simple or direct causal relationship between inequality
> and violence, inequality does appear to exacerbate the likelihood of violent crime, especially
> when it coincides with other factors. Individuals or groups are more likely to engage in violence if
> they perceive a gap between what they have and what they believe they deserve."
> (United Nations, 2007, cited in Gie 2009:4)

Inequality is clearly a major issue in South Africa, and Cape Town. While the continuing correlation
of socioeconomic status and race was not referred to directly in interviews as a cause of crime, in
other ways people did draw links between relative poverty and criminal behaviour, often mediated
by drugs and alcohol. As discussed in section 5.4, people talked about crime as being linked to
unemployment, suggesting the link could be down to comparing oneself with others who were
working, boredom, or the resultant material need. Kholiwe felt that better social security could help
address this:

> If a person is not working, he should be given some financial assistance so that the person can
> sustain themselves, to buy something. So that when a person is hungry, he does not think of
> taking another person's property. I mean crime can be stopped.
> (Kholiwe, 51 year old female)

Drugs and alcohol were discussed by many people as being a direct cause of crime, with people
needing to 'feed their habits'. Some people also mentioned unemployment or other difficulties
having led to the drug or alcohol problem in the first place.

> R: Difficulties in Langa? (I: Yes.)
> R: Crime is the first one, also drug and alcohol abuse. There are different reasons why those
> things happen, you understand? And then they all lead up to crime.
> (Mnyamezeli, 51 year old male who runs a shebeen)

> There is a lot of crime here. There is a lot of crime because our sons are on drugs. They say they
> are on drugs so that they can make the day go faster; that is what they say.
> (Xolile, 47 year old male)

Several people spoke about those who sold drugs, seeming to place the blame on them, or expecting
crime to go down if they could be stopped. Thembani, speaking of his own life, saw the combination
of unemployment and drug use as a sure-fire route to crime and prison. He gives this as his reason
for stopping using drugs himself – except for marijuana, which he does not seem to see as a drug:

> I: Did you just stop using drugs on your own?
> R: I stopped them on my own because I lost the job in the newspaper company. I told myself if I
> was going to continue with the drugs; that would mean spending my life in jail. I have never been
> to a prison so that is how I stopped using drugs and how I got back to marijuana. When I was
> working, I used drugs; now I am not working and it would lead me to crime.
> (Thembani, 43 year old male)

Arrested aspirations

One of my key informants was an academic with a research background in health sciences. She grew up in Langa, and, unusually for someone of her professional level, still lived there.   Asked to identify the challenges in Langa she too spoke of high unemployment and a tendency for youngsters to resort to crime. However, she went on to reflect on the reasons for this, and saw the suffocation of aspirations – encouraged by a lack of local role models, with the 'legitimately' successful moving out of the townships - as a key issue:

> Crime purely as….sometimes I think as escapism. In that, what do you do when Mum and Dad are not working? You've just passed matric……I don't think people are born without dreams. We all want to be the best we can be. We don't wake up one morning and want, and you want to be the best serial killer that is around…I mean you want to be the best doctor the best nurse. But, if you are living in a household where that is not nurtured, em in a way there is not much support, and actually there is no means…for you to…to get to where you want to. There comes a point where you feel that it's actually useless course.

The visibly 'successful' local role models for the young, she felt, were criminals:

> And, I think it's at that point where people lose hope that….the best available thing is to maybe rob – go round robbing stores or go round doing whatever because you have a lot of people in our community that have actually made it. He drives the… he drives the latest convertible and he has never been employed in his life! And then you look at [respondent's name], she, they *say* she's educated, but what does she have?

This leads her into discussing what she sees as a change of norms, with materialism replacing other aspirations, as other types of 'success' are not visible:

> And I think, it's those things, and the fact that our value systems have changed, and societal norms, in a way. And like, what I'm saying to you now is you have a lot people…a lot of people who have been educated, and who have made it, made things, and are actually on the right path – we tend to move away from townships. So, you cannot see the Emers. Emers are not visible. So who become your role models then? It's the guy who drives the BMW, who has a standard six, who purely robs and….it's the best available.

She differentiates between the 'petty' crime, which she sees, like many other respondents, as driven by drug addiction, and 'career' criminals. She notes that these latter individuals are careful to carry out their crimes away from Langa, thus the only reason people have for categorising them as criminals is visible wealth, such as luxury cars, alongside the lack of a 'legitimate' source of income.

Kholiswa pointed out such cars one day in Langa – most interviews were carried out in respondent's homes, but Andiswa arranged to meet us at a bench on a street corner. While we were waiting for her, two cars approached each other on the main road in front of us and one driver tooted his horn at the other. This second driver, a very young man in a shiny new black Mercedes, executed a U-turn in front of us to follow the other car. Kholiswa, looking on, says "he didn't buy it". She tells me that 'they' hijack cars in the Eastern Cape, bring them back and change the colour and the registration plate. As she finishes speaking a BMW convertible cruises past, another young man at the wheel, wearing a beret at a jaunty angle.

5.5.5   Alcohol and other drug use

Drug and alcohol abuse were spoken about as problems in their own right, as well as in connection with crime. Some of the assessments of the alcohol and drug situation in Langa, particularly by younger respondents, were bleak:

Shop on back-street in Langa

> I: What do people in Langa think, when you are looking at them?
> R: They think of drinking alcohol; there is nothing else
> I: So you think that they only think of drinking?
> R: Yes.
> (Zukile, 37 year old male)

> People in my age group and younger people are crazy about alcohol on weekends. I can say that our generation is lost.
> (Sandile, 36 year old male)

Nkosazana (39) spoke about drugs as "finishing" the young people in her area. When asked who was responsible for addressing problems with drugs and alcohol, respondents did not seem to have much expectation of outside intervention. Thembani mentioned trying to reason with his own children, and Mpilo of reasoning with his neighbours who sell drugs. Xolile expected nothing of the authorities, but saw drug use as a person's own responsibility in any case:

> R: They [the authorities] will not... they will not address these issues because the people who are using drugs are the same people whom they don't care about.
> I: Whose responsibility is it?
> R: It is no one's responsibility; a person got himself to that.
> (Xolile, 47 year old male)

Alcohol use was a moral issue for some respondents, notably women, with Unathi (59) seeing it as incompatible with her religious beliefs. Nomsa categorised alcohol as a 'wrong thing' which did not suit anyone, and felt that things could improve if its source could be restricted:

> If the taverns can be closed, the focus can shift to the youth and focus on human beings.
> (Nomsa, 52 year old female)

Sindiswa (55) was at one point selling alcohol from her home, but stopped because she did not feel comfortable with the situation. Of the five male respondents who were working, three were doing so in the alcohol industry. Two of these directly (as a hotel barman and a shebeen owner) and the third indirectly – recycling beer bottles he collected from the streets. None of these expressed any moral concerns associated with their work, with Kholiswa joking with Thamsanqa about the hazards of his job:

> I: What is your job at the hotel?
> R: I am a barman.
> I: Barman... so don't you get tempted there?
> R: I do but I know it is my job! [Laughter]
> (Thamsanqa, 52 year old male)

The shebeen owner, Mnyamezeli, saw drug and alcohol abuse as major problems, but did not

connect this with his own business, and reported drinking moderately himself. Bulelani equated the preoccupation with alcohol with a lack of 'seriousness':

I: How do you think people from here keep themselves, what do they think about their lives?
R: You see in the area that I am in; they are not serious about their lives. The most important thing to them is alcohol; I am not going to lie, they are not serious.
(Bulelani, 40 year old male who is a priest, and drinks himself)

Malusi spoke negatively at times about those in his community who drank, however later in the interview he displayed more understanding of the stresses which may drive people to drinking and using drugs:

There are things that are finishing people and those things have been here for a long time and we cannot stop them. I am talking about things like drugs and alcohol, when we got here, those things were already here. People get tempted; there are home situations that drive you to that. Sometimes you feel like you cannot handle the stress and decide to kill the pain with a drug or alcohol, not knowing that you are making the situation worse. I don't know if I am making sense?
(Malusi, 38 year old male)

Male respondents often made casual reference to their own drinking when talking about their daily routines. This was sometimes differentiated in their talk from the people they saw as abusing alcohol and causing problems, although some respondents did refer to their own excesses, for example mentioning getting drunk at weekends.

R: I sit with my friends and drink *umqombothi* [traditionally brewed local beer]. Do you know *umqombothi*?
I: Yes I do know *umqombothi*. [Laughter]
R: Sometimes tourists come here and buy it for us old people.
I: So is that something you do every day or you do it occasionally?
R: We do that during the week, I rarely go on weekends because then there are people in the

Drinking venue in Langa

house. I do not go there on weekends because I have a heart problem and there are usually drunk people there on weekends so I go during the week; I do not like getting hurt.
(Sibabalwe, 68 year old male)

Female respondents did not refer to drinking in this way, although the PURE questionnaire data showed that three of the female respondents reported drinking moderately (Nombeko, 55, Khanyiswa, 54, and Zimkhitha, 37) whereas two others used to drink but had stopped many years ago (Thandiwe, 46, and Zandile, 56). There also appeared to be less tobacco use by women, and a key informant from Vanguard health centre saw this as one thing which worked in Xhosa women's favour with regard to NCDs. For men there was consistency between responses on smoking in PURE questionnaires and in interviews, with 11 of 20 men currently smoking, and a further 4 having given up. Things were not so clear for women, with several 'admitting' to smoking in only one or other source, perhaps reflecting a lack of social acceptability around women's smoking. Thus up to 6

women of 19 acknowledged currently smoking, and 2 more had given up. There were also more comments from women suggesting that smoking would be an undesirable thing for them to do. Mpilo however said that he saw equal numbers of male and female young people smoking in the places where he went to smoke himself.

Thembani and Lubabalo referred in their interviews to what they seemed to consider moderate drug use, and Xolile mentioned smoking marijuana in one of his questionnaires. Kholiswa suggested to Thembani that smoking marijuana was wrong, and he disagreed:

> R: I do not drink, I do not drink; I just smoke this herb [marijuana].
> I: So isn't the smoking wrong?
> R: It depends on the way I use it; sometimes I use it because I am stressed or maybe\
> I: Does it do anything to your body?
> R: It does something because when I had not smoked, I become stressed and angry because I have been smoking it for a while. I think I have been smoking it since 1981; I also smoked drugs but I stopped that in 1990. I stopped doing drugs when I met my girlfriend
> (Thembani, 43 year old male)

5.6   Staying healthy

Health did not really come up when people were asked about challenges in Langa or in Cape Town. It was different when it came to questions about respondent's own situations. Injuries and NCDs featured strongly, and there were also some references to HIV & tuberculosis (TB). One of the sample originally selected from the PURE database (a 46 year old male, replaced by Xolile, 47) had died shortly before we visited his home to invite him to be interviewed – with Kholiswa inferring from the family's comments that this had been AIDS related. There was no doubt that poor health was having a major impact on respondents' lives. Perhaps health was not seen in Langa as a community problem, but as a personal one, and thus not raised when asked about general challenges? This will be discussed further in chapter nine.

5.6.1   Health profile – Langa respondents

The overall picture from the data was of a group of people carrying a heavy burden of poor health. This picture emerged independently from questionnaire, interview and observation data, although there were also disparities between the sources. Of 34 respondents (17 men and 17 women) with the relevant PURE questionnaire section completed, 18 had at least one of the diagnoses listed[22]. Adding diagnoses mentioned in the interviews, and injuries with ongoing effects, 27 of 39 respondents seemed to have at least one long term health issue – from high blood pressure (hypertension), to HIV, to disability caused by traumatic injury.

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[22] These were diabetes, high blood pressure, stroke, angina/heart attack/coronary artery disease, heart failure, other heart disease, hepatitis/jaundice, cancer, chronic obstructive pulmonary disorder, asthma, tuberculosis, malaria, and HIV/AIDS.

Diagnosis	Diabetes	Hyper-tension	Stroke	Heart disease	Cancer	Asthma	Tuber-culosis	HIV/AIDS	Other	Total
Women	2	9	2	1	2	3	3	2	2 epilepsy 4 arthritis 1 gout	31
Men	1	5	1	2	-	3	3	1	2 epilepsy 1 high cholesterol	19
Total	3	14[23]	3	3	2	6	6	3	10	50

Table 5. 1 Diagnoses reported by respondents in interviews and questionnaires combined[24].

For many respondents the PURE question on whether they had been diagnosed with HIV/AIDS had been left blank. A nurse at the local health centre spoke about the problem of stigma. She said that she told patients that even Mandela had had TB to help them "not see themselves as the filthy people or poor people that TB is only for them". However, she said that the stigma associated with HIV was even greater, and that patients were often not even disclosing their status to their partners, fearing that they would be deserted, and in many cases being dependent on that partner.

The interviews unearthed quite a few diagnoses not reported in the questionnaires. As can be seen in table 5.1, women reported more diagnoses than men. This could have reflected a) an actual difference in conditions existing in the female respondents, b) a different likelihood of a condition being diagnosed between men and women, and c) a different level of reporting of diagnoses. Other information collected gave some support to the first two of these:

a) Women's BMIs were much higher than men's, and high weight is associated with many of the conditions reported.

b) Key informants spoke of women being more comfortable attending health facilities due to the normalcy of this around reproductive health and child care, whereas there was more stigma associated with men attending health centres – the assumption being that they must be HIV positive.

Mobility
Seven respondents (three women and four men) reported difficulty with walking in the PURE questionnaire. Interestingly, these did not include Mbulelo, who walks with a crutch, and whose right arm has been amputated, but who is upbeat about his capacities:

> On this side my leg got broken but on the right side there was nothing wrong; it is just that I got the hip replacement. That is why I have to use the crutch; otherwise there is nothing wrong with me.
> (Mbulelo, 55 year old male, who was thrown from a train by robbers)

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[23] Blood pressure measurements taken from the respondents as part of the PURE research suggested that 7 further respondents (3 women and 4 men) who did not already have a diagnosis of hypertension might have blood pressure problems.
[24] The PURE questions were 'ever diagnosed with'. For 6 respondents the interviews were the only source of diagnosis data.

Nor did the seven who reported difficulty walking in the questionnaire include Mangaliso (61), who had a metal plate inserted in his leg to save it from amputation after an accident, and who said in his interview that he could not leave the house any more. Nkosazana, who at the time of her interview was distressed about the pains in her feet, and who mentioned that this had cost her a job the year before, is not listed in the questionnaire as having difficulty walking. Nor is Thandiwe, who walks with crutches since an accident at work in 2005 which resulted in damage to her spinal cord.

For the seven respondents who did report in the PURE questionnaire that they had difficulty walking, the interviews indicate that the causes were varied. For two of the men this was associated with an injury – poor recovery from an ankle injury incurred in a car accident for Nyaniso, and terrible burns from an accident at work for Sibabalwe. The third man, Lubabalo, who was HIV positive, spoke of his body not being good, being tired and getting cramps. Vuyani was the fourth man who was listed in PURE data as having said that

South Africa has a high rate of injuries from road traffic accidents

he had difficulty with walking, but he did not mention this in the interview, when he described his health as good and spoke about walking for transport unless the place was "very far". The three women who had reported difficultly walking to PURE spoke in their interviews about aches, pains, breathlessness and loss of capacity associated with arthritis, asthma, weight gain and stroke.

Body mass index

As part of the set of physical measurements which went along with the PURE questionnaires, respondents were weighed and measured – information which can be used to calculate a body mass index (BMI). A BMI of 18.5 to 25 kg/m^2 is considered healthy, with figures outside this range associated with a higher risk of mortality. Figures under 18.5 are considered underweight, over 25 but under 30 are deemed to be overweight, and those over 30 are considered obese (WHO 2012b).

Data from which to calculate a BMI figure were available for 31 of my respondents – 15 women and 16 men. The average female BMI was 33.1, which would be categorised as obese, while the average male BMI was 24.8 – just about in the 'healthy' range[25]. Within my sample there was not a significant relationship between BMI and age, although this did not reflect the way people talked about weight. People, particularly women, and specifically black women, were expected to get larger as they aged. This was talked about as though it was something natural, or predetermined.

Just two female respondents had a BMI which would have been considered in the 'healthy' range – Nkosazana, who was HIV positive and had reported losing weight, and Zandile, who was towards the top of the range and who had unfortunately recently been diagnosed with hypertension and diabetes. A further four women would be considered overweight, and the remaining nine would be considered obese. For the men, ten would be considered to have a BMI within the 'healthy' range, two would be considered overweight, and three would be classified as obese. The remaining man,

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[25] The gender difference in BMI was significant to the .001 level using a Mann-Whitney u test.

Xolile, who spoke extensively in his interview about his struggle for food, was classified as underweight, with a BMI of just 17.3.

This picture reflects the findings in national surveys of higher rates of obesity amongst black South African women compared with men (WHO 2012b). There was not anything within my data which went much way towards explaining this difference. Weight was not talked about overtly as aspirational for either sex[26] in the way I have heard in other contexts. Three of the four respondents (two women and two men) who spoke about weight seemed to see being overweight as negative. The fourth respondent who spoke about weight in his interview approached it from the other side of the scale, concerned that he was "draining himself" by going to the gym when he did not have healthy food, and that he might be seen as "thin" or "dry" (Malusi, 38 year old male for whom no physical measurements had been collected. I recall him as slim, but not obviously emaciated).

Self-assessed health
When asked about her health right at the start of the interview Nkosazana responded:

> I: How can you rate your health; how would say your health is now?
> R: It is very bad.
> I: How bad is it?
> R: It is very bad, I am always sick

But later in the interview, having spent some time talking about her situation, she was asked the same question[27] and said:

> I: So health-wise, how satisfied are you?
> R: It is OK.
> I: So there is nothing that is bothering you?
> R: No there is nothing that is bothering me despite the fact that I have swollen feet.
> (Nkosazana, 39 year old woman who is HIV positive)

This indicates how cautious we need to be in interpreting responses to such questions – the answer may be strongly influenced by very short term context. When we arrived, Nkosazana had started, before the interview, by telling us about the problems with her feet. She was quite bothered about this, and had not had a response from the doctor which satisfied her. Later, after sitting talking about her life for a while, and reflecting on how she had managed to deal with her illness, and the love and support she had received from her family, she seemed calmer and more resigned to things. There was a similar change in her response to the general life-satisfaction question asked at the same two points, going from "I am extremely not satisfied because of what I see in my past life" to "Sister my life is alright".

During the interview, sixteen respondents (seven women and nine men) rated their health as good or very good. Another ten (five women and five men) considered themselves 'in between', with the

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[26] With the possible exception of Buelani's comment – see section 5.6.2.
[27] This was the first interview. I had intended the health question to be asked at this, second, point. However I had confused Kholiswa with the layout of the paperwork I had given her so she moved straight to filling in demographics and Likert scales once the consent form had been completed. We clarified things after this interview, and this was thus the only interview where the question was asked twice in the same form at different points.

remaining thirteen (seven women and six men) ranging from 'not good' to 'very bad'.

There was some agreement between respondents' rating of their own health during the interview and the information collected on the PURE questionnaires, and discrepancies may in some cases have been due to the passage of time. On other occasions however it appeared either that on-going conditions (especially injuries) had not been recorded on the questionnaires when they should have been, or that a respondent's view of their own health was more positive than one might expect on reading their diagnoses. The latter appeared to be the case for Nombeko (55) and Unathi (59) who were both relatively upbeat about their health despite several serious diagnoses. Mnyamezeli however was concerned about the potential implications of his diabetes diagnosis:

> I: How would you rate your health: it is very good; good; in between; not good or not good at all?
> R: I will say that it is in between because I suffer from sugar diabetes. (I: OK) I have had it for two and a half years now. You know sugar diabetes; it can put you somewhere you never imagined in a short period of time so my health is not 100% good. I can say that my life is 50% good because you never know what will happen next.
> (Mnyamezeli, 51 year old male)

Thembani (43) saw his health as good, but he displayed the same uncertainty about the future as Mnyamezeli above, saying "you never know what tomorrow will bring". Sisipho (40) seemed to see poor health as normal, and not being on any treatment as something to be pleased about. Nomsa too seemed to be particularly pleased not to have any of the common diagnoses. Rating her health as "very good", she said:

> I don't have arthritis and I do not suffer from high-blood pressure and sugar diabetes; I do not suffer from anything.
> (Nomsa, 52 year old female)

5.6.2   Food and health

When asked what they liked to eat, common answers which people gave were rice, chicken, vegetables (cabbage, carrots, squash, and spinach mentioned), potatoes, samp[28], pap[29], oats, porridge, fruit and sometimes pork. Fish and eggs also came up, and more men than women spoke of enjoying 'meat' generally. Not many people mentioned bread, but we saw bread in most homes.

> I: OK what food do you eat?
> R: Full meal; rice, potatoes, cabbage, meat, pumpkins...
> I: Do you think that the food you eat does something to your health and being active?
> R: It does something because I am gaining weight and I am always healthy and it also keeps me energetic.
> (Buelani, slim 40 year old male)

Vegetables for sale on a Langa street

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[28] Maize kernels stamped and chopped but not as fine as mealie meal.
[29] Porridge made from ground maize.

What people think is healthy food

People also had ideas about what food was healthy or unhealthy - red meat was the main thing which people, particularly women, were keen to say that they did not eat too much of. Cebisa seemed to feel a little bit guilty about the red meat, pork and starch which she enjoyed:

A woman prepares intestines for consumption

> I: What kind of food do you like and what kinds of food do you think are good for you?
> R: Vegetables, I love vegetables. On meat's side, I love my chicken and I love my pork (I: ok). You know those...white meat is healthy, that I know. (I: Ok) And fish. (I: mhh) I do eat umm...red meat but not too much; what I eat is chicken and I love pork, I am not going to lie about that and vegetables. (I: So\) But I do eat starch because I have to have it in my body; like rice and potatoes, you know.
> (Cebisa, 57 year old female)

Healthy food was often considered to be expensive, and Unathi joked about how healthy the food from Woolworths, an upmarket supermarket, must be. Woolworths sell plenty of expensive *unhealthy* food too, as I well know because I bought lots of delicious chocolate muffins there! Lubabalo had clear ideas about the kinds of foods which would help him to stay well, but often did not have the money to buy them:

> I: OK, which kinds of food do you eat?
> R: My sister I do not eat healthy food. As a person like this, I am supposed to be eating fruit and vegetables, more especially vegetables. (I: mhh) The meat that I eat is supposed to be boiled and I am supposed to eat chicken. In the morning, I should wake up, take an egg and pour it into milk and drink it after eating. After that I take vitamin B for my system; it helps to keep my immune system strong. (I: OK.) And it helps to fight the 'dirty' cells.
> (Lubabalo, 41 year old male who is HIV positive)

In fact, not being able to access the things which they felt they should be eating was the most common theme for respondents when it came to food.

Access to food

One of the PURE questionnaires included an item on food insecurity. Asked 'How often does it happen that you do not have enough food which you and your family need?', the 32 (18 women and 14 men) of my 39 respondents who had completed this questionnaire chose from the five response options offered as shown in table 5.2.

Timeframe		All the time	Often	Sometimes	Rarely	Never
Within last 4 weeks	Women	2	1	11	4	-
	Men	1	2	7	3	1
	Total	**3**	**3**	**18**	**7**	**1**
Within last 5 years	Women	3	1	10	3	1
	Men	2	2	6	2	2
	Total	**5**	**3**	**16**	**5**	**3**

Table 5. 2: Responses to 'do not have enough food' question in PURE questionnaire

Only a quarter of the respondents who had completed the questionnaire selected 'Rarely' or 'Never', with most selecting 'Sometimes', and 6 (last 4 weeks) / 8 (last 5 years) selecting 'Often' or 'All the time'. In general there was not much difference for individuals between the shorter and longer time frames, with 24 respondents giving the same response for both, and just 3 (women) moving by more than one place along the scale between the time frames. Malusi gave 'sometimes' as his response for both timeframes, but his interview suggested that the situation had deteriorated at some point:

> We always ate good food in this house and we were always happy; you can now open that fridge, there is nothing; there isn't even sugar and there is no mealie-meal[30]. We used to put sugar in this [he shows us a plastic tub]. With the one rand that I had, I bought a sweet-aid and ate the bread that I came back with yesterday, from Pinelands. So there is no sugar now and there is no bread but a black person can hang-on.
> (Malusi, 38 year old male)

Sandile, who had had a salaried job as a security guard for the past six years, was the only respondent who replied 'never' for both timeframes. Concerns about access to food were raised by many people during their interviews. While under-nutrition in terms of long term energy intake was clearly not a problem for the vast majority of participants, short term availability of food, and quality and choice when it came to food, undoubtedly were. Several people spoke about not eating the food which they wanted to eat, or felt that they should be eating to be healthy, but instead eating whatever they could come by:

> I: What kind of food do you eat?
> R: I eat everything that is in front of me.
> ----------
> It does not matter what kind of food it is; sometimes I get left-overs from next-door. I eat everything that was left-over from what they were eating; rather than throwing it away, they give it to me and that is how I survive. I eat anything so that there can at least be something in my stomach; like now I do not know what I am going to eat since the soup kitchens are no longer running.
> (Xolile, 47 year old male who is underweight)

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[30] Ground maize.

Zakhele had been given nutritional advice after being diagnosed with high cholesterol. He was advised against eating red meat, which he did not mind as he did not like it, and cannot afford it anyway. He did like chicken and fish, which he said were cheaper, but below it sounds as though they were still a stretch for him:

> I was told that I am hyper-cholesterol. They sent to me to a dietician….. even with the diet, I cannot afford the food that I am supposed to be eating.
> (Zakhele, 56 year old male)

Several other respondents spoke of not having choice regarding food, or of not being able to afford what they thought was healthy food, and acknowledged that they were going against medical advice.

Sheep's heads for sale – known as 'Smilies' once cooked due to the grin which appears

> R: I try to also to manage my diet but I cannot keep up because of my finances.
> I: Where did you learn about managing your diet?
> R: Well... I see it on TV I am curious about such things and sometimes doctors tell you.
> I: OK.
> R: So that is why... I eat vegetables a lot but knowing that... I know that the reason why we get sick is because of the food we eat because most of the time good food is expensive so we do not eat healthy.
> (Mnyamezeli, 51 year old male who has diabetes)

Key informants felt that there was too much focus on meat in township diets. Mpilo also mentioned this, saying that he had ended up eating a lot of meat during his traditional duties, which he felt had negatively affected his health. We counted twelve outlets selling cooked meat in the central market area, half of these being roadside braai[31] stands. However, there were also vendors selling fruit and vegetables locally – we counted six centrally, and saw more as we walked to respondents' homes.

There was also much evidence of availability of foods high in fat and sugar, and of alcohol. When it came to the appearance of much of the township's commercial area, one would be forgiven for thinking that Langa was sponsored by Coke. Most of the signage was provided by Coke, leading to odd juxtapositions.

Coca Cola advertising in Langa

Restaurant menu on a wall in Langa

We counted over thirty Coke signs within 500 metres. Coke brand advertising was also used on the small shops ('Spaza') distributed around Langa, and attached to both the local primary and high school signs. Fried snacks were widely available – freshly prepared and in packets, and one of the cheapest ways to fill up on the move was Vetkoek – deep fried dough costing just 1.50 Rand.

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[31] Barbeque.

5.6.3   How to stay healthy

Key informants suggested that sources of information on how to stay healthy would be health centres, radio and television programmes, and pamphlets for specific campaigns such as immunisation. Respondents too mentioned having received health advice from doctors/nurses, seeing things on TV, or, in one case, having learned about exercise and health in school. However, the ideas which emerged in interviews about broader definitions of health, different aspects to health, and an emphasis on positive attitudes and responses, did not seem to be coming from such sources. Women in particular connected physical and mental/emotional health. Nomsa was keen to clarify what aspect of her health she was being asked about:

> I: Ok, how would you rate your health?
> R: Physically or what?
> I: Is it good or not good?
> R: You mean health, physically. What did you say the answers are?
> (Nomsa, 52 year old female)

Asked how she kept herself healthy, her first response was that she kept herself busy – something that many respondents (see chapter six) saw as a way of keeping physically active and socially connected as well as avoiding negative reflection, and thus a way to protect several aspects of their wellbeing. Nwabisa thought that a physical pain she felt might be due to emotional injuries:

> No I want to be strong because I get this pain but I sometimes think that maybe it is because I get emotionally hurt.
> (Nwabisa, 48 year old female)

Nombeko also connected changes in her physical health to emotional blows she had suffered:

> My health changed ever since my children passed on. One of them disappeared; the third one and the second one. How old was...when was he born? (Person 1: In 1973.) Yes Andile, Andile just disappeared. He was mentally disabled, that is why you see me learning these skills. He was epileptic and he was not mentally well; he just disappeared. (I: mhh) It was in 2002. The other was ill; I thought my child was recovering but it was the time that he was going to leave me.
> (Nombeko, 55 year old mother to five sons, whose 25 year old died of multi drug resistant TB a few years earlier, and another of whose sons disappeared in 2002 aged 29. She is doing a course on child protection and would like to help other children)

When asked directly about what they did to stay well, people often said that they were doing nothing, or simply that they were taking the treatment that had been prescribed for them. Nyaniso was one of nine respondents (three women and six men) who said that there was nothing that they were doing to keep themselves healthy:

> I: OK, is there anything that you are doing to protect or improve your life?
> R: No I am not doing anything, I am just sitting here. I just have fun on weekends, I drink alcohol.
> I: You are not doing anything to keep yourself healthy?
> R: No, I am not even on medication.
> (Nyaniso, 57 year old male)

Thobeka, 35, also said she did nothing, and specifically excluded going to the gym, implying that this

is one of the things she saw as being associated with people trying to keep themselves healthy. Six respondents limited their descriptions of what they did to stay healthy to complying with medical treatment which had been prescribed for them. Xolile said that he was not doing anything to stay healthy, but that this was because he was not on medication – implying that taking treatment was what one did to stay healthy. A curative rather than preventative approach:

> I: Is there maybe something that you are doing to protect or improve your health?
> R: I am not doing anything because I am not on any treatment, I do not have medication.
> (Xolile, 47 year old male)

Sibabalwe, 68, saw the fact that he had to take medication as an indicator of his poor health, and Zakhele, 56, echoed this sentiment, saying that he could not say his health was good while he was on medication. People in Langa who used a medical approach as at least part of their strategy for staying healthy spoke about western and traditional medical services which they had used, with both being available locally.

'Western' medicine

Within Langa there is a government health centre which deals with child general health, but provides adult care for HIV and TB only. More general adult care is provided at a 'day hospital', just outside Langa, often referred to by respondents as Vanguard. For care which cannot be provided at these facilities residents are referred to Groote Schuur hospital, several miles to the west, or other specialist facilities. There were also private health services advertised/operating locally.

While a nurse at the health centre within Langa mentioned that there were plans to set up a unit so that adults with multiple diagnoses, including HIV/TB, could be managed at Vanguard, this had not yet happened at the time of the interviews. Given the discussions above of stigma around HIV/TB the current system is unfortunate – it is obvious that any adult entering the Langa health centre without a child is there for HIV/TB care. As well as this, anybody with multiple diagnoses currently needs to go to both centres, which are on opposite sides of the township. The nurse said that they found that local people would often prefer to go and be treated for HIV/TB far from Langa to avoid the stigma of being seen going for treatment by the "people with whom they are staying".

The health centre nurse appeared to have very little knowledge about NCDs or their prevalence in Langa – she had not noticed much of a problem amongst the patients she was caring for, and thought that the only NCD patients would be those who had started out at Vanguard with a diagnosis of diabetes or hypertension, and then been referred for the HIV/TB elements of their care. Given other data on the prevalence of NCDs and their precursors in adults in Langa, it seems unlikely that they would be unusual amongst HIV/TB patients. NCDs were explicitly not an area of focus at the centre.

The day hospital[32] on Vanguard drive, reached by leaving Langa

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[32] Officially called Vanguard community health centre.

Bridge over the freeway between Langa and Vanguard health centre

and crossing a footbridge over this busy motorway, was another matter. Here, a member of staff told me that the majority of patients were "chronic patients". The five diseases that they were most commonly dealing with were hypertension, diabetes, chronic obstructive airway disease, asthma and epilepsy, with the first two diagnoses predominating.

Poster in health centre waiting room

A health promotion poster relating to NCDs was displayed on one of the walls in the large crowded waiting area, and a member of staff told me about the 'club system' that the centre operated - "on certain days certain chronic diseases come through the facility" – although unfortunate phrasing makes it sound as though the people were walking diseases. Two days each were allocated to diabetes and hypertension, while epilepsy, asthma and chronic obstructive airway disease all shared the fifth day. Observations were done in one room, and then the person went to another room for health education and advice on nutrition etc. The clinics were run by a multidisciplinary team, driven by clinical nurse practitioners.   Staff told me that the centre's statistics showed very low mortality rates, which they felt was evidence of good diagnosis and treatment.

Other informants raised some issues which they saw regarding Vanguard. The first of these related to access, and was brought up by Zimkhitha, and by two men who ran a citizen's advice service in Langa:

> They struggle, the oldies, to go there because it is thirty minutes' walk from here - too far for the oldies.
> (Advice centre volunteer, who also saw the need to cross the freeway bridge as a barrier)

The health sciences academic from Langa who was a key informant was not sure how much of the health education people took in, and referred to her own mother, who had diabetes:

> I discovered that she is not so knowledgeable about her condition. Em, and not much education goes….it's either if they do give it at the clinic she's just too preoccupied to finish and get out of here, that she cannot…she doesn't….people don't listen when they're in clinics! They're listening for their numbers to be called, their names to be called, and for them to go to the dispensary and to get out…...they used to wait so long that by the time you do get the service you're fed up, you just want to, as quick and as painless as possible and you get out. It's not because you have something else to do. It's not one of those places where you really want to spend time.

Respondents' experiences of 'western' medicine were varied. Some respondents were discouraged by long waiting times or bad experiences interacting with healthcare staff, and others did not comply with treatment which had been prescribed for them, or did not follow up on potentially serious symptoms. Lindela (34) did not manage to interact with health and social services without family support, and complained he was shouted at for not going on the right day. He was getting a disability grant but had not managed to access this for three years now. Lubabalo (41) was avoiding

the clinic after bad experiences – he said the staff were "very rude" – which meant that he was not monitoring/ receiving treatment for his HIV, which may have serious consequences for him and his family.

Three of the women who had been diagnosed with hypertension were not following treatment instructions. Nwabisa reported having been diagnosed with hypertension in her PURE questionnaire, but on the medication section the fieldworker noted that she was 'defaulting on treatment'. In the physical measurements section a blood pressure reading of 197/122mmHg[33] was recorded. Nwabisa mentioned that she had already had a stroke, which is one of the possible complications of uncontrolled hypertension. She also had not followed up on other potentially serious symptoms:

> R: I also have a problem with this breast. It sometimes feels like there is a lump.
> I: Did you go for a check-up?
> R: No I never went for a check-up; this is where I get the sharp pain.
> (Nwabisa, 48 year old female)

However several other respondents spoke of following healthcare instructions/treatment as their way of trying to stay healthy, or implied satisfactory experiences of the healthcare they had received.

Traditional medicine

Respondents also made reference to traditional African medicine. Walking around the market area of Langa we counted four vendors selling traditional medicines, while the nearest pharmacy with a comprehensive supply of western medicines was in a shopping centre a couple of miles outside Langa. A volunteer at the advice centre noted that one downside to traditional medicine was that it was private, so that you had to pay for yourself. Unathi buys the herbs which are used in traditional medicine. The cost was clearly an issue for her, but she wanted to do all she could:

> I: Ok. Are you doing anything to protect your life or maybe to improve your health?
> R: My health... yes I wake up in the morning and go to work. Yes... and I buy myself herbs, they are very expensive but I am trying but my health is... I can say that God is alive and He is the one who protects me from everything.
> (Unathi, 59 year old female)

Malusi said that he had a calling to be a traditional healer, but that his family, and practitioners of western medicine, did not recognise this – mistaking his condition for a nervous ailment. It was only when he went to the Eastern Cape that a different opinion on the source of his illness was offered:

> I got sick traditionally [he had a calling to be a traditional healer] but my family did not follow that up. They just thought that I had a problem with my nervous system. I was taken to... Frederik and he gave me medication for nerves only to realise that I had a calling.
> (Malusi, 48 year old male)

The nurse at Langa health centre had noticed an improvement in recent years when it came to what

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[33] WHO guidelines on hypertension suggest a threshold for treatment of 140/90mmHg (either figure exceeded) for all patients (WHO & ISH 2003). Nwabisa's reading would be considered grade 3 – the highest category.

she saw as inappropriate use of traditional medicine, and she attributed this to child health promotion activities. Rather than being taken to a Sangoma[34], sick children would now be brought to the clinic much earlier. She reported that this meant that they had stopped having child deaths which were due to children being brought to the health centre very late in the course of their illness.

I interviewed a local Sangoma in order to find out more about the traditional medicine available in Langa. She spoke about times when, like the nurse, she would consider it important that a patient go straight to a practitioner of western medicine, and gave TB as an example of such a circumstance. When people come to her she chooses those who she feels she can help, and this is not everyone – for example she does not try to treat people who are "too much" sick.

She said that some people try western medicine first, and when they do not get better they come to her. There were many circumstances where she felt that she was well placed to help people, or when she would work alongside western medical treatments. She told me that even when it came to cancer there was a drink she could offer to help people, and she also had treatments for hypertension which she felt were effective. Other ailments she mentioned offering treatments for were syphilis, skin sores, and her personal specialty – "running stomach".

She did not deal solely with physical ailments, but also addressed mental and spiritual health. For example she could help people who had "got a stress", or those who suspected witchcraft was being used against them. When I asked her where she learned her craft she told me that her knowledge comes from the ancestors. A lot of the information comes to her as she sleeps. She emphasised that the ancestors were involved in diagnosis and treatment – it was not just a case of taking pills. When someone comes to her it is the ancestors who guide her as to whether this is someone who needs to "do something with a ghost, and then make it alright", or whether the person would be better off going to a doctor:

> "The other one is sick, you know, sometimes is sick with nerves too much and everything, and they don't stay nice in the home and everything, you know, so that one is for a doctor[35]"

She was keen to show me the variety of materials she used, bringing me to her store room and pointing out dried plants, barks, 'African potato' and 'African pickled toad' amongst the provisions arranged there. There were also many ways of using the materials – some are chewed, some grated, some taken like snuff, made into a drink or rubbed onto the skin. 'Impepho' is burned to help with communicating with the ancestors. She collects her medicines from her home in Transkei, and had been treating people for 30 years.

Food and exercise
Eating well and exercising are two of the routes to preventing NCDs promoted by WHO. While in the discussion of food and health above responses were mostly to questions about food specifically, some respondents had also brought up food earlier in the interview, in response to the general 'how to stay healthy' question. Mnyamezeli (51) and Mpilo (37) both said that they were trying to stay

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[34] Sangoma is a Zulu term for a traditional healer but is used colloquially in South Africa to refer to traditional healers from other backgrounds as well.

[35] The Sangoma spoke to me in English, which was not her first language, with Kholiswa occasionally helping out with a particular word. I got the sense that it was difficult to translate some words and concepts, as they did not have an English equivalent.

healthy by managing their diet. Food was also mentioned by Lindela as a kind of 'treatment' when feeling unwell:

> I am not feeling well now. When I am feeling sick I just sit down in the house. I would buy myself bread or chips and fish and just eat.
> (Lindela, 34 year old male)

Kholiswa suggested food as a remedy when a respondent, Thandiwe, got upset:

> I: Ok... [Long pause] Are you ok? Don't you want to have some water with a teaspoon of sugar so that you can calm down?

Four men brought up exercise in response to the question on what they did to stay healthy, which came before questions about physical activity in the interview. Thandiwe also mentioned exercise, but not in direct response to the 'staying healthy' question:

> R: I just do little exercises so that I can keep myself healthy.
> I: For how long?
> R: I don't do it all the time, I do it sometimes, like when I think of it or I am feeling... this thing has a sign and then I know that it has been long since I have exercised and then I do it.
> (Thandiwe, 46 year old female)

Malusi's main motivation for exercise was his enjoyment of it, but he was also aware of health benefits:

> I: OK, is there something that you do to protect your health?
> R: Like my sister the only thing that is helping my health is that I like exercising; the only thing that is keeping me from doing that is what I was telling you about, that we do not have food
> (Malusi, 38 year old male)

The other three men spoke about where they heard that exercise could be good for their health:

> I: So as you are suffering from what you have just described: is there something that you do to protect your health, to make sure that your health does not deteriorate?
> R: No I am just on medication and I also exercise; I like walking for long distances.
> I: OK you walk?
> R: Yes that is what the dietician told me, I was told to try and exercise even if it is just cleaning the yard.
> (Zakhele, 56 year old male who has been diagnosed with high cholesterol)

Avoid hazards, staying positive and busy

Several respondents spoke about staying healthy in terms of avoiding hazards and generally staying out of trouble. Sexually transmitted diseases were amongst the hazards referred to here. Smoking, drugs and alcohol once again put in an appearance. Thembani (43) spoke about trying to live longer by keeping to his own home or those of his family and friends in order to avoid trouble generally. Daluxolo, 53, said he gave up smoking so that he would not get asthma, and Malusi seemed to see the people around him as trying to derail him from his healthy behaviour:

> Other people don't like keeping their bodies in a good condition; they like being down, smoking

and drinking and as a result, they get old before their time. It is like people do not like the fact that I exercise; they want me to smoke or work for a shebeen. They don't want me to eat healthy food and all of that, you see my sister?

(Malusi, 38 year old male)

Alongside the hazards alluded to above, stress and negative feelings were seen as threats to health and wellbeing by respondents, particularly women, and one of the best ways of staying healthy was to stay positive, busy, and avoid stress:

I: OK, is there something that you are doing to improve your health?
R: I do not stress myself about silly things and things which I know I will not be able to change. That is what stresses people out the most; you find out that you are focusing on something which you know that you cannot change or fix. So I can say that I can avoid stress by not taking stupid things seriously.
(Sandile, 36 year old male)

Keeping busy with work, and her Christian faith, were amongst the strategies Unathi (59) relied on to stay well, alongside both western and traditional medicine. Thandiwe (46) spoke of combining medical treatments with staying busy, while Nomsa and Zandile also included keeping busy in their ways of staying well:

I: Is there anything that you do to protect your life?
R: I just keep myself busy; that is all.
I: How do you keep yourself busy; what do you do?
R: And also eating healthy food and going to church and by staying positive about myself.
(Nomsa, 52 year old female)

Nkosazana drew on positive thinking to recover from a health crisis:

I stayed in hospital the whole year, the whole year! And stayed in Somerset for 6 months and then I went to Jooste memorial hospital for another 6 months. But I told myself when I was in hospital that I will never die, my children are very young. I will never, never! I got well.
(Nkosazana, 37 year old female who is HIV positive)

5.7   Sources of support

People sought support in dealing with the challenges of life from a range of sources, with varying degrees of success.

5.7.1   Personal relationships

Community and friends

A question about community attitudes did not work at all, with both male and female respondents consistently saying that people are different and that they could not know what others were thinking. While they were not asked explicitly about how people locally got on, several respondents spoke in a very negative way about relationships in the community. The majority of negative comments came from men, and contributions from Malusi and Xolile, both of whom were particularly unhappy with their lives at the time of the interview, dominated. But comments from

two of the women about how they felt they had been treated, by those who they had previously thought of as friends, when their health failed, were particularly bitter:

> You know what? When you are sick, people laugh at you (I: mhh), people laugh at you when you are sick. In my street\ (I: was there no one there for you?) My family was there, my family was next to me but that day I remember I had friends but from that day I never had friends again.
> (Nkosazana, 39 year old female who is HIV positive)

> I will not lie to you, I don't have friends, and I learnt a lot about friends since I became sick. My only friend is my boyfriend and the other people that are next to me.
> (Thandiwe, 46 year old female who was left with a spinal injury after an accident at work)

Xolile and Thandiwe felt that people were "shy for their own stomachs", and avoided those who were struggling, seeing them as a potential burden:

> For instance, if someone is employed, they only befriend with someone who is also working; they do not want someone who does not have anything, someone who will become a burden to them. They are that cruel; you cannot cry out to them. For instance if I go to the house next-door and tell them that I am R5 short, I am going to pay them back; they will never give it to me. I would finish the entire street without getting it because they know that I am not working.
> (Xolile, 47 year old male)

Malusi seemed to have isolated himself from the community, something which Thandiwe thinks is risky:

> I know for a fact that I am not going to get anything if I stick alone, you understand!? (I: Mhh) I have to share what I have and if I don't have it, where am I going to get it? I don't complicate my situation with people, *andiyo nkom'edla yodwa* ['I am not a cow that eats alone' - a Xhosa idiom used to refer to someone who isolates themself from other people], you understand.
> (Thandiwe, 46 year old female)

Xolile, on the other hand, seems to find himself involuntarily isolated, and feels desperate because of this:

> I am not satisfied at all because I am struggling too much now that I do not have people. It is worse than before, everything has to... if I do not have something, there is nowhere else to turn to (I: mhh). People in the township do not help each other; even if you cry out to someone, the person will tell you to go and fend for yourself.
> (Xolile, 47 year old male)

Others, all men, spoke about people not caring about their neighbours, or not aspiring to change things in the community more generally. There were also suggestions of cronyism when it came to job opportunities. Malusi's pride prevented him from asking his neighbours for help - he said elsewhere in his interview that he just does not like begging - but he felt better about doing it in a nearby 'white' community:

> I have to go to Pinelands around 4pm to try and get the sugar; I am definitely sure that I will get it from the whites. If you ask someone from here for some sugar, he will give it to you but after that

he will make fun of your situation. You know our situation, how we are living.
(Malusi, 38 year old male)

But there *is* mutual support to be found within the Langa community, with even some of those who spoke of bad feelings above mentioning help they had received or given to those around them:

Like when someone needs help with something, they call me. My name is easy so they call me and I go there; they call me because they know that I am poor. Sometimes I get food from next-door because they know that I don't have anyone and I am struggling.
(Xolile, 47 year old male)

It is not only me that eats the food [from her church group]; I do it for other people. Like if I bring something home, I prepare it for the ones that are coming from school. I share with them because no one is working in this house; my mother gets the old-age grant, my sister helps the woman opposite that is on a wheelchair. (I: OK) She helps her here and there and there are also these children……I can say that they are my sister's foster children.
(Thandiwe, 46 year old female)

Kholiwe and Andiswa each got together with other women for income generation activities:

There are no jobs so a person has to realise that she has a certain talent so that you can help one another. Maybe tell you that there is something that you are lacking, you understand, maybe while sewing, you realise that you don't know how to do a certain thing and then another one says she can and tells you how to do it.
(Kholiwe, 51 year old female)

Several of the men spoke of time spent with friendship groups within the township. One man (Thamsanqa, 52) and one woman (Nandipha, 62), even spoke about their neighbours as the people who were most important to them. People in Langa did seem to know each other, and could often direct us to a respondent's home if we asked in the local area when there was a problem with the address we had. Also, as mentioned above, being local and known gave a degree of protection against crime.

Family
In the context of poor community relationships for some respondents, family was particularly important. The majority of respondents, particularly male respondents, identified their relatives as the group they were closest to, and relied on for support. Sisipho felt that her family were the ones who she could rely on to be straight with her:

I am who I am, and I am where I am because of my family (I: Mhh). They are the ones who tell me this is wrong, otherwise an outsider will not be honest enough to tell you that you are doing something wrong. Friends, or maybe people from church; but they never become honest enough to tell you that you are wrong but your family will always guide you and tell you when you do something wrong.
(Sisipho, 40 year old female)

Nkosazana brought her family together to tell them about the results of her HIV test, and found them supportive:

R: They are looking after me and they don't want me to struggle for anything. They are doing everything for me.

I: Ok, so you say the only group you associate yourself with is your family?

R: Yes my family is on my side; they love me and they show me love. They help me with everything that I need.

(Nkosazana, 39 year old female)

Families also provided financial support, a place to stay or used contacts to help relatives get work. For example, Nandipha, Bulelani and Sonwabile were cared for by relatives when their parents passed away or could not look after them, and Thandiwe, Khanyiswa and Zakhele mentioned having found work through a relative. Sandile had been supported by his mother when he had not been working, and Xolile often turned to his aunt for food. He was conscious however of being a burden, as she had her own problems, and he was ashamed sometimes to ask for her help:

Otherwise I am looking for a place where I can find a job or a grant so that I can survive. Some days I go for two days without eating because there is nowhere else to go to. Where can I go? I am ashamed because maybe my aunt gave me four bread slices and I ate that, I am ashamed to go and ask her again. I would rather to go to sleep with an empty stomach.

(Xolile, 47 year old male)

But there was discord within families too. Sibabalwe was distressed by how his grown up children behaved, and Lindela complained that his surviving relatives did not help him. Unathi had fought with her brother over rights to the family home, and had been 'chased away' by him and his wife. Thembani also experienced conflict with siblings over family assets. Families were an important resource, and when they were eroded people often ended up in difficulties.

Few people spoke about partners as a source of support. Just four of nineteen women and seven of twenty men were married at the time of the interview, although six further people (three women and three men) mentioned a current partner. Eight (three women and five men) respondents had divorced/separated, and one man had been widowed. Zimkhitha, a 37 year old single mother, did not see any prospect of marrying now, but her child's father was providing financial support for their daughter:

I: ok, are you married?

R: No, there is no chance of me ever getting married now. [Laughter]

(Zimkhitha, 37 year old female)

But four respondents did mention support provided by partners. Mbulelo spoke of his wife's financial support as what was keeping him going, and was perfectly happy with this situation. Daluxolo on the other hand was extremely frustrated that he had been unemployed for eight years, and that his wife was "working alone" to support the family financially. Thandiwe and Thembani seemed to draw support from the relationships they were in for their own sakes, although Thandiwe also mentioned that her boyfriend was supporting her financially. Thembani had given up using drugs when he met his girlfriend, who was the mother of his four children. He hoped that they could afford to get married someday. Two women spoke about the difficulties of being a single mother, and not having a partner to support them:

You know when you are a single mother, there is nothing more painful than being a single mother. You realise that if it was the two of us, we would be working together to raise the child. But just because I am a single mother, I cannot help my child, you understand.
(Nkosazana, 39 year old female with four children aged 13 to 25)

Thirty two of the thirty nine respondents were parents, with just three women and three men not having children of their own. The three women without children were nevertheless involved in caring for other's children. Sisipho felt a new sense of responsibility to take care of her own health when she became a mother. Five mothers and two fathers mentioned having lost at least one of their children. Several respondents spoke of worries about how to provide for their children:

Sometimes you get to maybe clean a garden; I sometimes ask the people to please let me clean their gardens. I ask the people because it is hard, to add to that my son needs a tracksuit for school; like now I am stressing about that, I need to get the tracksuit. I have to try and get money for that because the only thing that is helping him out is the grant and it is too little. I am really struggling;
(Xolile, 47 year old male)

Childcare was often shared amongst family members and friends. Thandiwe's sister had fostered children. Nkosazana, whose own children were now almost grown up, looked after her nephew and her sister's grandchild, and also helped her elderly mother. Many of the other women (e.g. Unathi, Mandisa, Nwabisa, Andiswa, Bukelwa and Khanyiswa) also had caring responsibilities for grandchildren, great grandchildren, or the children of other relatives/friends, and this was what filled much of their time. Grandfathers also sometimes were involved – such as Mangaliso, 61, who could not work since an injury incurred in an accident at the beach where he was playing with his grandchildren. Now he helps care for the children, and does housework, while the other adults are out at work.

5.7.2   State & civil society

State support

Many respondents' main household source of income was some form of state benefit – usually an old age grant (means tested eligibility at 60 years of age) or disability grant. Both grants were worth 1010 Rand per month at the time of the research, or approximately £88 sterling. While we did not routinely ask about benefits, five respondents (two women and three men) mentioned receiving, or having received, a disability grant, two male respondents said that a parent's old age grant was the main household source of income, and four respondents (two men and two women) were receiving an old age grant themselves. Some respondents not in receipt of a grant, such as Lubabalo (41) and Khanyiswa, seemed to feel hard done by:

I: Ok you have high blood.
R: And I also have arthritis (I: mhh) but I don't have the pension grant to help me survive because they say that I am not that sick, I don't know. (I: Ok.) Otherwise I am not getting any support.
(Khanyiswa, 54 year old female)

Xolile (47) too was desperate for a grant, but did not qualify for one. In contrast, Luxolo (57) did not complain, but he did seem to have grounds to as his doctor told him to stop working due to his

health problems without arranging for a disability grant. Those on disability grants often still faced income insecurity. Lindela had lost his grant altogether due to struggling to interact with the system without family support, and others faced uncertainty linked to having to renew it, such as Nyaniso and Thandiwe. Nyaniso was struggling to survive on his grant in any case, as he had debts:

> I am not working, the grant is not enough; it goes to my debts and all of that. The grant is very small and we also go to soup kitchens during the day; that is what is also helping us during the day.
> (Nyaniso, 57 year old male)

Civil society

One of the PURE questionnaires contained the question 'In a difficult situation, whose help can you count on?', with the response options 'civic organisations' and 'religious organisations', and the levels of help 'none', 'little', 'moderate/average' and 'a great deal'. For civic organisations just three people (one woman and two men) had put anything other than 'none' as the level of help they could expect – with one man saying 'a great deal' of help would be available from his burial society, and the others saying a moderate amount of help would be available from civic organisations. This fits with the low levels of non-religious civil society support which were mentioned in the interviews. Expectations of help from religious organisations were slightly higher, as discussed below.

Several respondents mentioned relying on 'soup kitchens', although it was not clear who organised these. The only one where the organiser was mentioned was church-run. Other respondents, men and women, were involved in community work themselves. The men included Mpilo, 37, who volunteered on sports programmes for young people, Sibabalwe, 68, and Thamsanqa, 52, who each founded and coached a soccer club but struggled to find sponsorship to help them with this, Zukile, 37, who worked at a community vegetable garden (and benefited from a share of the produce), and Zakhele, 56, who was part of a community safety project, and worked at the train station.

Nomsa, 52, provided counselling for HIV positive people, and Nombeko, 55, was also involved in a scheme which included HIV support, run by a religious group. Thus what charitable support there was in the area was largely provided by religious organisations. This was something I also noticed in Cape Town more generally when looking for organisations I might be able to get involved with – there was a religious (mostly Christian, but not exclusively so) background to almost all the NGO programmes I found. While many seemed to be doing useful work, in several cases there were strong proselytizing elements.

5.7.3 Religion

Christianity

After family, Christian church groups were the ones most frequently named by respondents as the group they were closest to and relied on for support. Fourteen of the nineteen women interviewed brought up faith or religious organisations as a source of some kind of support, compared to just five of twenty men. This support took various forms, coming from fellow members, pastors, or from faith/beliefs themselves. Furthermore, as discussed above, there was practical support, such as food and health assistance, available from religious organisations and religious charities. People also believed that God had helped them directly in practical ways, such as Unathi with her recovery from cancer, Andiswa with staying safe in Langa, and Nandipha when it came to things she was trying to

achieve at home. Buelani was sceptical about the people who lived in his area, seeing them as turning to the church just when it suited them:

> Even now that we have church nearby, in our house, they are not coming, but when someone passes away, they remember that there is a priest here. They are not serious.
> (Buelani, 40 year old male)

The words "The Lord is our shepherd" were framed on the wall of Nkosazana's living room, but, in her only reference to religion in her interview, she seemed to imply that God helped her by causing the friends, who had 'run away' or laughed at her when she was diagnosed with HIV, to fall sick too – but the wording is ambiguous:

> My friends ran away but God helped me and they also fell sick (I: mhh). I am telling you, now there isn't a friend of mine that I grew up with that does not have HIV and they all passed away.
> (Nkosazana, 39 year old female who was told of her HIV positive status when she was 28)

Women often drew comfort in difficult times from their faith, using it as a source of both hope and acceptance.

> The child used to tell me that there is nothing that I am crying for because God knows what He is going to do. He said it doesn't matter what the situation is, I have to accept it. (I: Mhh) And I ended up accepting the situation and I stopped stressing myself.
> (Mandisa, 69 year old female who had lost her job due to health problems)

> Like yesterday as we attended the prayer, the pastor said: you know what, be proud; you should be proud of yourself. Even if you wear rags or you are starving (I: Mhh); the One above is looking after all of us. But there is a day when he will give you answers. He will take you out of starving and put you where...? (I: in riches) Yes so wipe those tears, continue praying, kneel down and talk to God when you wake up or you are going to sleep, He is listening. [R cries]
> (Thandiwe, 46 year old female)

Unathi was the respondent who spoke most fervently about her faith. Yet there were hesitations, a reluctance to complain because she had put her faith in God. But this seemed to be bumping up against the on-going experience of the problems she had. Religion seemed to give her solace, and she believed that her cancer was healed by God, but yet....

> So I am converted and I gave myself to God with the situation that I am in. And I am living that life of believing in God and then I lost my son and no one is looking after me at my age because I am now almost 60 years old. I must look after these children because their mother is young, she had to go with other boyfriends and then I am responsible for the children. So that is my story.
> ----------
> What cannot make me happy in life when I have God my child? You understand? I am not going to complain and say that I am starving and what... if you've got God, Jesus inside our hearts, I have got everything. You see I survived, I don't know despite my child.
> (Unathi, 59 year old female, who grew up within a traditional belief system)

This tension between faith and suffering was also apparent in other women's references to religion, such as those by Cebisa and Mandisa quoted in section 5.2.

Social support came across as an important part of what people gained from their involvement in religious activities. Thobeka, Andiswa and Thandiwe all brought up the fact that they could confide in fellow church members about problems, and Nomsa's church became central for her since she lost her job. Unathi, a convert to Christianity after growing up with traditional beliefs, seemed on the other hand to have cut herself off from her old friends due to her religious beliefs:

> So I associate myself with women who believe in God. As you see me here, there are no friends, I believe 100%; I am a woman of God. (I: mhh) And I don't want to lie; I don't allow anyone to come here and smoke or to come with alcohol. Even if that person used to be my friend, she knows I am in that group; I associate myself with women like that.
> (Unathi, 59 year old female)

Church activities also provided a way of keeping occupied, with many respondents, including some men, mentioning these as what filled their weekends. Buelani, 40, was trying to set up his own congregation, and was keen that it was a place of healing and nourishment, with no financial demands attached. This meant he had to find funding elsewhere, which was proving difficult.

Three respondents (one woman and two men) explicitly distanced themselves from organised religion, with the two men seeming to feel that this was something which might draw condemnation:

> OK, no I do not go to church; I am not going to lie.
> (Vuyani, 60 year old male)

Compared to the presence of religion as a source of support in the interviews, the PURE questionnaire items produced a moderate response. Fourteen (eight women and six men) of thirty-five (seventeen women and eighteen men) respondents reported that they attended church. The question 'In a difficult situation, whose help can you count on?', mentioned above, drew the following responses: Twenty-four respondents selected 'none' as the level of support they would expect to receive from religious organisations, nine (five men and four women) selected 'moderate/average' and two women selected 'a great deal'.

Traditional beliefs

As discussed above, people sometimes drew on traditional beliefs and resources in dealing with illness, but they also played a role in other aspects of their lives. For example, Thembani, 43, credited his ancestors with protecting him during a recent attack. Christian beliefs often existed alongside African religious traditions. For Unathi, it appeared that her Christian faith had largely replaced her traditional beliefs, although she still used traditional herbal medicine. Malusi maintained his Christian and traditional beliefs alongside each other. He thought that people had to take personal responsibility for their lives, but also that divine sources were the ones with the power to bring about real change:

> There is only one person who can change a person's life and a person's condition; it is the person with power, the one who is up there. When you want to change your life, you ask the ancestors and also ask God.
> (Malusi, 48 year old male)

But he was worried that the ancestors were angry with his household, and that this was why things

were not now going well for them. This concern was triggered by the fact that the house had been colonised by African bees. This was the first thing he mentioned when we arrived, as an explanation of why we could not go into the rest of the house. We ended up sitting on the side of his elderly relative's bed, in the room into which the fridge had also been moved. Kholiswa tried to reassure him:

> I: Oh they are here?
> R: Yes they are in the house.
> I: Oh there are bees in the house….. So you have done the ritual?
> R: Yes.
> I: Maybe they will go away.
> Relative: They have not gone away.
> I: They will go away.
> R: We did the ritual last week.
> I: You did it last week?
> R: Yes.
> I: Your ancestors love you; they have come to visit you. Ok we can now start talking.
> (Malusi)

Initiation was a particularly important traditional male rite of passage, and was mentioned on many occasions. Bulelani, 40, who now leads a Christian congregation, described it as when he "became a man". Some saw traditions as being eroded in modern times. Nombeko, 55, was married under Xhosa customary law, but she described this as "how old people got married", whereas Zimkhitha was not impressed with how local young men treat initiation rituals:

> R: A week passes and you hear that... we never heard of someone getting shot in the bush [in initiation school] but last week someone got shot. You never hear of that happening in Gugulethu or Khayelitsha [other townships], you never hear of an initiate who got shot in the bush, there is no respect here.
> I: What was the person doing with a gun in the bush?
> R: It is that and it is happening for the second time, last year it also happened.
> I: Here in Langa?
> R: Here! They go to the bush with coolers and armchairs. How do you do that in the bush, people in the bush are supposed to sit on the floor! [Laughter]
> (Zimkhitha, 37 year old female)

But traditions could be expensive – for example several people mentioned the cost of traditional medicine (compared to the free healthcare provided by the government), and Daluxolo (53) was worried about where he would find the money to send his sons to initiation school.

5.7.4   Attitudes

As already indicated, for example in sections 5.2 and 5.6, people's attitudes, and their sense of achievement in the activities they got involved in, came across as an important part of what got them through sometimes very challenging circumstances. I was not in a position to judge how much difference these attitudes, and sense of achievement, made to their objectively measured situation, but they seemed to be crucial to self-esteem, and to avoiding feeling so down that you just gave up. There were some indications of more tangible benefits too – contacts, skills, income or health

benefits. Such ideas came across predominantly from female respondents.

Work – paid and voluntary - was an activity which was a source of positive feelings for people for a variety of reasons.

> I was not satisfied; I was not satisfied before working. My first priority in life is... when I am at work I forget about everything so I become very happy.
> (Zimkhitha, 37 year old female)

Nombeko radiated pride at the (unpaid) activities she was involved in, which she earlier linked to wanting to do something to help others after losing two of her grown up children:

> R: Wait, wait I have a report back that I came with. [Footsteps] I am sorry for wasting your time (I: ok); I have to look for these things. These are the people that I feed. (I: ok) [Paper noise] I have to show you what I have.
> I: Ok you feed these people?
> R: All of those people are being fed by me; I just came back from feeding them now. I am coming from this duty; I don't mind doing it; as long as the community will be helped. You see what I am doing; can you see that? (I: Ok you are running this project?) Yes.
> I: You work very hard hey!
> (Nombeko, 55 year old female)

Unathi often came across as negative in her interview, with her faith her main source of solace, but below she also sounds proud of herself for her achievements in her work as a domestic:

> You see I am turning 60 years now, I am not supposed to be working but I thank God for the physical strength He is giving me so that I can work and the employer says, well done Unathi because I am very good at things like those.
> (Unathi, 59 year old female, who previously worked in nursing and pre-school education)

Xolile also presented a very negative picture of his current circumstances in his interview. Below he displays his confidence in his abilities at work, but unfortunately he has not been able to find work recently.

> I did everything that was done there; I was a general labourer. (I: OK) But I was a good packer and that is what they liked about me the most.
> ----------
> I can do everything, there is nothing that I cannot do. The only things that I cannot do are technician stuff but I can fix televisions sometimes.
> (Xolile, 47 year old male)

In the same objective circumstances, people suggested that they were doing better or worse based on their attitudes, and how they faced things:

> So this is my life, this is the life that I am living but I have told myself that yes everyone is struggling but also we conduct ourselves in different ways.
> ----------
> Point number one, you have to believe in who you are…. I have to be open because there is no

use of me wanting to be helped but I do not want to help others (I: mhh). I shouldn't put myself in a dark place because nothing is going to be ok that way.
(Thandiwe, 46 year old female)

If I had decided not to give thought to everything that has happened, I would be in jail or dead as we speak.
(Malusi, 38 year old male)

Sometimes acceptance was seen as the best option, such as by Sandile, who believed that there was no point in worrying about things you could not change, or Thandiwe:

Since I became sick, it really hurt me but I had to accept the situation because nothing will change. I have accepted the position where God has placed me on earth; that is what I tell myself. I use what I can get but if something is beyond my ability then I let it go. It is like surviving.
(Thandiwe, 46 year old female)

On other occasions it was important to fight back. Zimkhitha and Cebisa refused to take no for an answer when faced with unemployment, and both ended up with the jobs they sought, and Nkosazana drew on her mental strength to beat a HIV-related health crisis.

Men and women also talked in different ways about their lives. Women spoke much more about religion as a source of support, and seemed to talk more about the importance of staying positive. Not only did they talk about the importance of staying positive, but they were putting this advice into practice – in general speaking more positively than men about topics such as the potential of community action and self-improvement. While it may have been a vagary of my sample, several of the men tended to speak in very dependent terms, looking to families or state benefits for financial support. Men in their forties and older were talking about their difficulties being due to not having parents, and thus having to make their own way. Women of a similar age did not bring this up.

5.8   Responsibility for addressing challenges

Respondents were asked who was responsible for addressing the challenges they had identified in Langa and Cape Town. Thirty-six people (seventeen women and nineteen men) provided answers to these questions. They were also asked what, if anything, should be done when it came to physical activity, and those responses are discussed in chapter six. In the light of how roles and responsibilities were discussed in policy literature, these questions were asked with a view to trying to understand how people in Langa saw the roles and responsibilities in relation to challenges which existed, and whether they believed things could or should change.

5.8.1   Government

By far the most common response was that the government needed to solve the problems, with 31 people (15 women and 16 men) mentioning the government, or a specific government service, in their answer. There are various levels of government in South Africa: the national level, provincial (Western Cape) level, and local level – the Cape Town metropolitan municipality, with a mayor and elected Council. People mostly just used the term 'government' in their responses, but sometimes were more specific. Many people implied that the government was not currently doing enough:

There is a lot of poverty and we are asking the government to do something, you understand. (I: Mhh) What the government said initially, they said that they are going to make life better for unemployed people (I: mhh). I think that was a good idea but after that they just became silent. (Kholiwe, 51 year old female)

Several women suggested that the community needed to work alongside the government to improve matters. Others mentioned specific services such as social workers, the Safety and Security department, and the police. There was however a lot of cynicism about politicians and government officials. People, particularly men, spoke of corruption and bias, and had low expectations of being helped or treated fairly:

I: OK, whose responsibility is it to make that happen?
R: It is the government, the people whom we voted for, the ministers and the councillors. We do not see what they are doing; they put the money into their own pockets, they drive expensive cars.
I: OK so they are not working together with the people?
R: No they are not doing that; here I am, I am not working. It has been 8 years of unemployment for me.
(Daluxolo, 53 year old male)

Xolile was discouraged, and scathing about bureaucratic barriers as well as corruption, and called the government "just a waste of time". Zimkhitha spoke about how corruption at high levels was affecting aspirations further down:

The people who they are supposed to fight for get nothing. As a result when we have elections, you don't even know who to vote for. You see these politicians on TV, our children do not even dream of becoming politicians because we don't know what to tell them about them. Are you always going to tell your child about the wrongs that politicians are doing?
(Zimkhitha, 37 year old female)

One of my key informants was a councillor with responsibility for a portion of Langa, but who also had responsibilities in other, much more affluent, areas of Cape Town. His focus seemed to be at a very functional level – issues such as sanitation, and lack of funding due to a large percentage of the people in the area being unemployed and thus not adding to the rates base. He laughed when I asked about private or NGO investment in Langa, saying he saw little.

He was however interested in providing facilities for physical activity in Langa (see chapter six), and also had an interest in using research and data to drive policy decisions. He attended ward forums in Langa, with representatives from each area of his ward attending, but he said that he did not find them useful as new issues did not seem to emerge. I asked him about problems in Langa:

The normal day to day stuff…I have the problems that any poor area has…which is…sometimes the condition of the houses, shebeens opening that shouldn't be opening, that sort of thing.

While he did mention 'backyarders' as a big problem, he did not seem to have any role in addressing this. He also saw many of the issues which came up in respondent interviews as "not the province of local government". He did not see crime as 'massive' in Langa, although he did acknowledge variation within the township. When it came to health his focus seemed to be completely on

sanitation, which he kept coming back to. When I asked if he had a feel for NCDs as an issue in Langa his reply was "none whatsoever". I mentioned the concerns raised by respondents about drugs and young people drinking alcohol and he replied:

> It's not an issue that's raised with me…the big difference is that I don't live there….so I tend to deal with the actual issues that come up, not the community issues of unemployment, of crime.

I found his wording here, with the categorisations of a*ctual* issues versus *community* issues, interesting. How was unemployment not an actual issue? Did he mean to say practical issues? Perhaps his focus was driven by powerlessness of local government structures in relation to these major problems, and it was other levels of government which were responsible for addressing them? I thus asked him who, from a government perspective, would be responsible for dealing with such issues, and he did acknowledge that there should be central government input, but:

> Because we don't have constituencies for central government or province….people get allocated but I don't see them operating….so it's left to councillors, but I mean I'm not a social worker, I'm a councillor, so I tend *not* to get involved in private issues….neighbourly fights, whether it's in [other suburb] or in Langa.

Thus, while he acknowledged initially that the challenges which were raised by respondents should be addressed by government, left without support from higher levels, he returned to placing them in the private domain.

5.8.2   Community responsibility

As well as those mentioned above who felt that the community needed to work alongside the government to address issues in Langa, there were others who spoke about the community as needing to take the lead. While both men and women seemed to see the community as holding some responsibility for taking action, they did not generally believe that such action would be forthcoming, or successful:

> R: All the townships have progressed and there are good things happening in other townships but not in Langa. Langa is a very old township but there is no progress at all.
> I: Who can make sure that there is progress here?
> R: What can lead to progress is... it is supposed to be the people who are staying here. Like as we are staying here in Langa, we are the ones who are supposed to stand up for something we believe in. We should be able to say we want this and not that but that can happen; but it will not be a success.
> (Vuyani, 60 year old male)

Zimkhitha claimed that "Langa people, they like talking but there is no action". Sonwabile and Thamsanqa were more positive about community aspirations regarding addressing crime, but they still did not talk about actual community action or successes.

5.8.3   Parental and individual responsibility

People also discussed the responsibilities of parents towards their children, and the responsibilities of individuals in avoiding problems, and finding their own solutions to them. For example, Nkosazana spoke about children ending up in trouble because their parents did not have the money to support them to continue their education, and Unathi and Thembani spoke about parental

responsibilities in addressing criminal behaviour by the young. Sisipho and Sibabalwe were of the opinion that the government was already playing its part when it came to issues such as crime and HIV prevention, but that individuals were not playing theirs. Xolile seemed to see people as responsible for their own problems, but this was at least partly driven by his having no expectation of help from the authorities:

> I: Whose responsibility is it?
> R: People lookout for themselves.
> I: Whose responsibility is it to fight crime and the other things which you mentioned?
> R: They [the authorities] will not... they will not address these issues because the people who are using drugs are the same people whom they don't care about.
> I: Whose responsibility is it?
> R: It is no one's responsibility; a person got himself to that.
> (Xolile, 47 year old male)

Zukile, 37, phrased things in terms of rights rather than responsibilities, saying anyone had the right to deal with such issues. Mpilo thought that the government needed to work on creating more jobs, but that part of the problem was also that people were not willing to take the initiative to create jobs for themselves. Mangaliso saw finding a job as an individual's responsibility, but the types of jobs he seems to expect them to find are not inspiring:

> I: OK. Whose responsibility is it to create jobs and all of that?
> R: A person has to search for a job himself. It is ones responsibility to know that a certain place is hiring so that he can also go there and look for a job. There are jobs, like sometimes there are jobs where people clean the streets and they tell people that they have to go to the office. They hire them so that they can sweep the streets.
> (Mangaliso, 61 year old male)

Finally, Mnyamezeli, while desiring more accountability from government, believed that it would take coordinated action from all parties to make progress:

> I: So whose responsibility is it to deal with these problems?
> R: It is everyone's responsibility; we should come together. The government should come together with the people because there is nothing either party can do without the other. But the government should be held more accountable.
> (Mnyamezeli, 51 year old male)

5.9   Conclusions

This chapter illustrates some of the landscape which initiatives seeking to address NCDs in low income communities must navigate. The priorities, hazards and coping strategies articulated by local people may also start to point the way towards an approach to intervention which is better aligned with *both* local people's, and global public health, priorities. While NCDs are clearly a major problem within Langa, and for the research respondents in particular, they are set amidst, and contribute to, other challenges and priorities. Physical activity will be explored in more detail in chapter six, but it is apparent here that the other three major shared 'modifiable' risk factors identified by WHO were tied into other issues in Langa. Smoking, and especially alcohol misuse and

poor diets, were spoken about by people as driven by a lack of work, opportunities and money. People often spoke about not having choice in what they ate, and not being able to afford the kind of food which they thought they should be eating – or sometimes not being able to afford food at all. Eating was rarely a 'health behaviour' – it could be about comfort and pleasure, but often was about staving off hunger from day to day, and surviving.

Misuse of alcohol was seen as widespread amongst both men and women, and as something which people often fell into because they had nothing else in their lives – no work, no prospect of further education, no hope. Staying positive was thus one crucial way of avoiding situations and activities which would be likely to undermine your wellbeing, and, as one component of this, your physical health. NCDs were clearly not the only physical health burden, with many respondents having to deal with TB, HIV, and injuries suffered in accidents or as a result of violence.

In the absence of dependable employment or social security, material wellbeing was tied up in various relationships – particularly families as a safety net and as allies in a sometimes hostile environment, but also church groups. While not often depending on the wider community for support, respondents were very exposed to the effects of poor wellbeing in their community. Unlike wealthier residents of Cape Town, they could not retreat behind security fences or move about in private vehicles.

Relationships, beliefs and attitudes were drawn on to mitigate some of the sources of illbeing in people's lives. While people felt that the nature of challenges such as widespread unemployment, poor quality and overcrowded housing, and crime, required a solution at the level of government, few had observed, or expected, an effective response from this quarter. The absence of health from the list of community challenges was striking, particularly when the people who created that list laboured under such a burden of ill health. Health appeared to reside in the personal domain as a challenge, and yet ways of staying healthy were often social – with a positive attitude as a key priority for holding everything else together.

Respondents' physical health was almost inevitably compromised by their circumstances in Langa: it was hard to see what choices they could have made which would have effectively protected them. Material deprivation reduced their room for manoeuvre, and the effort required to get by often overwhelmed people, pushing them towards alcohol and drugs. People did not talk in terms of 'healthification' of these social issues, but rather the reverse – social issues pervaded the sphere of health. Respondents illustrated how social issues had compromised their health, and articulated concepts of health which encompassed social integration and functioning.

Achieving wellbeing required a combination of acceptance and action. In challenging 'objective' circumstances, too much realism could be dangerous: it was good to reflect, but not too much. Life in Langa was difficult, but many respondents came across as believing that there was a choice in how you responded, and who you were revealed to be by that.

> I am in between; I am trying my best you know.
> (Sindiswa, 55 year old female)

6   Langa: Where does physical activity fit in?

6.1   Introduction

This chapter is based on the same data sources[36] as chapter five, but focuses on how physical activity fits into life in Langa. Like chapter five, it is structured according to the themes which emerged from the data. Chapter four explored how several of these themes are discussed in WHO policy documents – definitions of physical activity; the relationship between physical activity, health and wellbeing; and inactivity and its consequences - and I highlight similarities and differences here. The kinds of physical activity which people said that they were already doing, and their ideas about if physical activity should be increased, and if so how, are also presented.

6.2   The physical environment in Langa

Figure 6.1 Map showing basic outline of Langa and surrounds© OpenStreetMap contributors, CC BY-SA

Langa measures approximately 1.2 miles (East to West) by 0.7 miles (North to South), and is ringed by freeways and railway tracks, limiting non-vehicular movements beyond its borders. Within, roads are tarred (except in informal settlement areas), and there are pavements – but these are sometimes poorly maintained, overgrown, sandy, or blocked, and people often walk in the road:

Even the pavements are supposed to be tar pavements but you find out that pavements are

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[36] Respondent and key informant interviews, field-notes and photographs, PURE questionnaires and grey literature.

still... in Gugulethu [another township] the councillors are doing their job because if you go there, you walk on tarred pavements, these ones are not working.
(Zimkhitha, 37 year old female)

Rubbish seemed to pile up in empty spaces, but most homes and yards were neat in contrast. Two men who ran an advice centre in Langa talked about people just being "used to" being surrounded by freeways, and to using taxis, trains and buses to get around. A local councillor felt that there was a tension between keeping places accessible to pedestrians by means of laneways, and crime: "closing the lanes means that people have to walk further, keeping the lanes open means that people immediately adjacent to them are ripe for crime". I started to get the impression that he meant the laneways leading out of poorer areas of the city.

Empty lot in central market area

They [people from Langa, presumably] can easily get across to Epping where there's...where there *are* job opportunities and, at the moment it's a bit difficult, but they can get to Ndabeni. But they can't get directly through Pinelands [wealthy adjoining suburb], to where they work, but there aren't many working there, they tend to be all over the place.
(Councillor)

Langa (right) from the footbridge over Vanguard drive (left)

The men from the advice centre agreed that those who worked in the nearby Epping industrial area were able to walk there by going under a railway bridge, but that some still "risk, they cross the rail line, cross the freeway". They also said that those who wanted to walk or run for exercise could go around the outskirts of Langa – out onto the N2 freeway where there was a cycle path. Mnyamezeli echoes this below:

I: OK. Is it easy to walk here in Langa? Like it is easy to take walks?
R: It is easy to walk because we grew up here; so we are used to this place. I do not take my walks here in the township because there is not space. So I risk and walk on the freeway because there is space there; you cannot walk here because there is no space. When you walk in the morning you meet a lot of people going to work and they interrupt you. There is really no space.
(Mnyamezeli, 51 year old male)

Walking around during the day, Kholiswa and I did not find traffic a problem in the majority of Langa. Zukile felt that you could not run on the roads in Langa though, and Bukelwa and Andiswa thought that there were a lot of cars. Zimkhitha's concerns about traffic were regarding her 8 year old daughter, who she would not allow to go to the park or the swimming pool unless she was with older children.
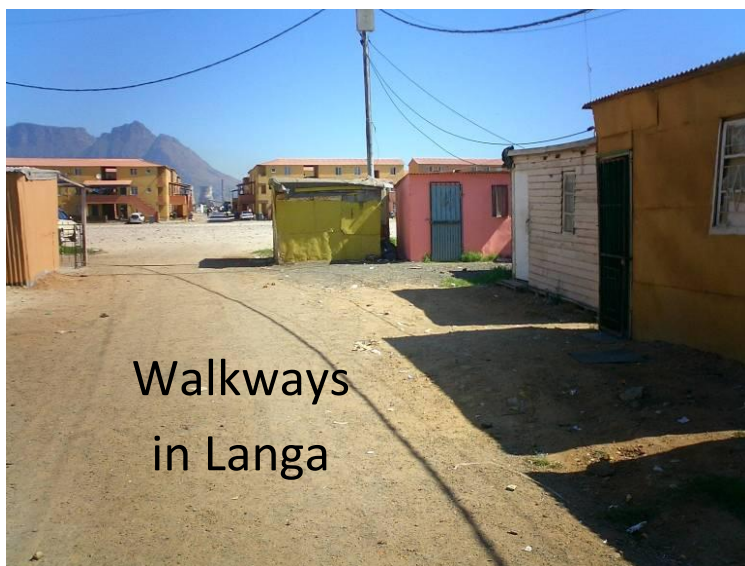
Walkways in Langa

Interviews were held in early autumn, and this may have affected responses, as issues relating to physical activity could be different in winter. The weather was hot, with rain rare, and the streets and pathways were thus dry and sometimes dusty. Talking to local people during a follow up visit to Cape Town in mid-winter, the general opinion was that winter weather did not cause major problems for the older, formal areas of the township, where all my respondents lived. The shorter hours of daylight were considered significant however. Five respondents did talk about how seasons or weather affected them – for Nombeko, Kholiwe and Zandile it was winter weather and rain which they found problematic, bringing on pains and symptoms, whereas Sindiswa and Mangaliso were negatively affected by heat.

Facilities for sport and recreation

While facilities for sport and recreation are far from being the only environmental features relevant to physical activity in Langa, many people did bring these up, particularly in discussions about how to increase physical activity. The facilities which were discussed are thus included here. A mixed picture emerged - by some accounts it seemed that there were several centres with sports facilities, but by others it seemed that some of these were not open, not maintained, or were perceived by respondents as not being accessible to them because of costs, distance, age or gender.

Key informants presented the indoor sports complex, the stadium, the swimming pool and the Love Life centre as the main sports facilities in Langa. The indoor sports complex was built for an Olympic bid, and opened in 2000. There were also outdoor facilities at this sports centre, and the manager told me that three rugby teams, a soccer team and a netball team trained there. The centre houses a gym, and a sports hall which unfortunately was out of use when we visited, with the manager telling us that part of a wall had collapsed, and so it was dangerous.   She showed me the statistics for the previous month – March – and there were 2180 gym visits in total. There were no coaching staff/instructors, so members or teams using the facilities needed to make their own arrangements.

The councillor told me that "the big thing is the shortage….apparently there are 30 soccer clubs, and most of them operate outside my area but there's a shortage of land for them to operate from". Because of the shortage of official space for soccer he said that you found people playing wherever they could. I had noticed teams playing on an island of grass between crash barriers on the N2 freeway when I was on my way home from Langa in a minibus taxi. One of the schools had some playing fields which the councillor

Children playing on a school sports field in Langa

said were not used much, but "bureaucracy gets in the way", as that was controlled by a different department, and was under the provincial government.

A key informant told me that that aerobics classes and netball practice for adults were offered for free at the Love Life centre in the evenings. However it seemed from the respondent interviews that activities at Love Life were perceived to be just for children. When we visited the Love Life centre I spoke to a 'play leader', employed by the City of Cape Town, who was working there. The majority

of her work was with youth, and for them she focused on sport and indigenous games. For older people (who she described as being about 50) she had done exercise and dance activities, and said that this had mostly been with women's clubs.

Twenty-nine of thirty-two respondents, when asked whether there were places in Langa for play and sport said that there were, and mentioned places such as the swimming pool, the stadium, the gym, sports fields, a netball ground, a tennis court, community halls, the Love Life centre, parks and playgrounds. Nandipha and Sibabalwe also mentioned organised exercise for older people at 'Roma', the local Catholic Church. Nkosazana spoke about the sport her children played, but said that there were no sports clubs for older people.   Unathi said that there were no places to exercise in Langa, but it was possible that this was about how accessible the places which did exist were to her, an older woman:

> I: Ok, how far are you from places where you can exercise?
> R: There are not such places here.
> I: You don't have such place.
> R: We don't have them; actually I wish that I could... there are no places like those here.
> (Unathi, 59 year old female)

Playground in Langa

Alongside barriers based on what was considered appropriate for people of a particular age or gender, more practical reasons why the many facilities mentioned might not be accessible to respondents came up. Sometimes this was simply because something was not actually open, or needed maintenance. Distance from facilities was another issue, with Xolile, Zimkhitha and Sibabalwe feeling that they were too far away from them. A key informant said that you did find local 'pockets' of sports participation close to the major exercise facilities.

Sometimes people just did not seem to know about facilities that were available, or were unsure how to access them. For example, Thembani said that "there is no football here in Langa and there is no centre where you can go and lift weights". Neither of these things were strictly the case – many respondents mentioned both, and I saw the gym where the weights were myself.   It may be that there was no football which a 43 year old could easily join in with, or that he could not afford to pay the gym fees. He and Daluxolo also lamented the lack of karate and boxing, which Thembani said used to be available "in the old days".

6.3   Defining physical activity

I felt that it was important to ask respondents what they understood by the phrase 'physical activity'. As well as providing interesting data in its own right, understanding how people defined physical activity was important in interpreting responses to questions about whether they considered themselves to be physically active, what sort of physical activity they did, what effects they thought it had, and what could or should be done to get people in Langa to be more physically

active.

As discussed in chapter four, within the WHO policy documents physical activity was referred to as a "lifestyle factor" (WHO 2008b:6), a "risk factor"(WHO 2004:3) and a "health behaviour" (WHO 2004:3). The term 'exercise' often seemed to be used in place of 'physical activity', which had types (aerobic, strength, flexibility, balance), domains (leisure, transport, occupational, household chores, play, games, sports), and dimensions (frequency, intensity, volume) (WHO 2010a).

6.3.1 Physical activity as exercise

When asked to define what physical activity meant to them, the majority of respondents in Langa did explicitly include the idea of exercise. Five respondents (one woman and four men), gave an initial response which was just about sport – mentioning things like running or going to the gym. Two of those five respondents, on questioning, explicitly excluded activities in other domains from their definitions of physical activity.

A further eighteen respondents (seven women and eleven men) gave initial responses which involved (but often were not limited to) exercise, but included things like walking, and paid and domestic work, as part of what exercise was:

> Going to the gym or whatever but I don't do that because I am active in my own house; I clean my house and I do that so... that is my training.
> (Cebisa, 57 year old female)

The most common examples these respondents gave of physical activity were based on domestic or paid work, although many also mentioned walking. There was some discussion which would fit with the WHO 'intensity' dimension - Nwabisa (48) differentiated between chores like cooking, which she did not consider energetic, and ones like fixing walls and floors which were "hard to do". Thembani (43) spoke about work where you "are not using your brain but your energy", such as mixing cement and moving sand.

When it came to physical activity as exercise, the domains mentioned by respondents matched well with those listed by WHO. Some respondents felt the domain of physical activity was important – for example the two respondents who excluded non-sporting activities from their definitions, or Thandiwe, who seemed to feel that there were positive and negative types of physical activity:

> As they say that you must not just sit, doing chores is not exercise because you are draining yourself.
> (Thandiwe, 46 year old female)

Andiswa saw herself as active:

> I: So do you think that you are active?
> R: Yes I think of myself as such a person because I hate it when my body refuses to do something […..] I: OK, can you please give me an example of what an active person does?
> R: We have big machines there and sometimes they are stored in high places. I am the youngest there; I have to take those machines down and it is the same when we put them back. Also when we have to go and buy material, they send me because they know I am quick.
> (Andiswa, 44 year old female, speaking about her sewing group)

But when asked about exercise:

> I: So do you exercise?
> R: No.
> (Andiswa)

6.3.2 'Activities'

People often volunteered other types of activities that they were involved in when asked about physical activity. This could have been an indication of an emphasis in their understanding on the 'active' part of the phrase. However in some interviews it seemed to be more about activities which were grouped together e.g. talking about taking part in sport at school being followed by mentioning other extracurricular activities such as choir (four female respondents). Church involvement came up on several occasions, also being mentioned by respondents straight after they had talked about sports that they had been involved in:

> I played soccer and karate; there is nothing else. I also go to church.
> (Luxolo, 57 year old male)

Although singing can of course be energetic, local key informants told me that church and choir activities in Langa did not usually involve physical activity of the type defined by WHO. Sewing was another activity which was brought up. This might have benefits such as maintaining manual dexterity, but also would not fit comfortably within the definition of physical activity for health from WHO (WHO 2010a), and yet two of the older women did seem to place it explicitly in the category of exercise.

> R: For them to be active, music can also help them because you move around.
> I: Music and what else?
> R: Sewing and knitting also uses energy because you use your hands.
> (Mandisa, 69 year old female)

6.3.3 Being involved, being busy

Many respondents, when talking about physical activity, included an element of being involved or being busy. This aspect was sometimes alongside a more conventional, exercise-based, definition of physical activity:

> I: Let us now talk about being physically active. What does physical activity mean to you?
> R: Physically active?
> I: Yes.
> R: I can say that it is being busy all the time; doing anything to help keep your blood circulating. I can say that it is exercising.
> (Mnyamezeli, 51 year old male)

> Physical activity refers to people who train, people who are involved in a club, you see. (I: mhh)
> Or maybe a person who is busy with a project, I am going to put it that way.
> (Sindiswa, 55 year old female)

Beyond general busyness, there was a meaning of being involved, or committed to things:

R: Being physically active means that I am committed, it means that.

I: Can you maybe give me an example?

R: When I say I am active, it means that I am committed to what I am doing [.....]

I: Can you give an example, what is it that you do which makes you see yourself as active?

R: I keep myself busy by working with people. If they say that they want people in the meetings, I always avail myself and volunteer. If there needs to be people for a task, I am always part of that.

(Thobeka, 35 year old female)

6.3.4   Being holistically healthy

Other definitions of physical activity focused on health - on the state of the body, or of the mind, or both. Unathi, 59, said that being physically active meant you were physically healthy, whereas Sonwabile, 61, said it meant you were "energetic and fresh", "in a good state" and "not feeling any physical pain". Some women spoke of physical activity as being about using or feeling the body, or keeping it in a 'right way':

It refers to things which you do with your body (I: mhh); like maybe you are a runner or you take walks, you are busy, you are working; it is just using your body.

(Nomsa, 52 year old female)

I think it is keeping your body in a right way.

(Bukelwa, 44 year old female)

It means that the person is not lazy, like all time the person feels her body and you are coping, the mood that you are in.

(Zimkhitha, 37 year old female)

Zimkhitha, above, extends her definition to include 'coping' and mood, and others also defined being physically active as something which goes beyond physical health:

I: OK what does physical activity mean to you? How is an active person?

R: It is someone who is full of life; someone who is always energetic. It is someone who never gets slow and moody.

(Andiswa, 44 year old female)

OK, it is someone who is physically fit and someone who has a fast mind.

(Malusi, 38 year old male)

6.3.5   Being capable and independent

Many respondents included elements of capability and independence in the meanings given for being physically active. For eight people (six women and two men) these ideas seemed to be central to the definition. For example, people spoke about being able to do things for, or by, themselves, or about their capabilities in relation to paid work:

It means that she is able to do stuff. Maybe I am going to put it wrongly, being active means that there is nothing that she needs help with. She does everything on her own, whatever she is doing.

(Nandipha, 62 year old female)

Half of those who placed a particular emphasis on capability and independence in their definitions of being physically active did so in the context of facing personal health-based challenges. This may have contributed to their valuing such characteristics highly:

> R: Being physically active means that you can do things on your own (I: mhh) without being assisted by anyone.
> I: What kind of things?
> R: Like for example if in the house, I want to take that tub or I want a bucket of water, I do it myself. I lift the bucket of water inside the house, I don't need any help. That means I am still physically active.
> (Unathi, 59 year old female who has recovered from breast cancer but who is blind in one eye after an assault)

> I: OK. What does physical activity mean to you?
> R: It means that I can bath myself, I can feed myself and I can walk to Vanguard. A bus stopped for me the other day, I was not expecting it to stop for me because I can walk on my own.
> I: So do you see yourself as someone who is active?
> R: I am active because I can do a lot of things on my own.
> (Mbulelo, 55 year old male who walks with a crutch due to a hip replacement and who had his right arm amputated after being thrown from a train when being robbed)

Such ideas offer a link to the references to functional health, and role limitations, in WHO policy documents (WHO 2010a). However, there was more emphasis on function and capacity amongst Langa respondents than was evident in policy documents, and respondents also used capacity as a way of *defining* what it meant to be physically active, rather than just a *consequence* of being so.

6.4 The relationship between physical activity, health and wellbeing

Coming next to the relationship between physical activity, health, and wellbeing - policy documents sometimes painted a picture of this as being simple, unidirectional and positive. This straightforward relationship was not reflected in interview data.

6.4.1 Health from, or for, physical activity?

Policy documents were dominated by the idea of physical activity as necessary for health - particularly physical health, although functional and mental health were occasionally mentioned. While policy documents also acknowledged health as a possible barrier to physical activity, it was a much more minor theme.

As described in chapter five, respondents reported many diagnoses, injuries and symptoms which compromised their physical health. Protecting physical health was sometimes a motive for being physically active, but the way in which a *lack* of physical health acted as a barrier to/limit on physical activity was more striking.

Physical health from physical activity

Two men, Nyaniso, 57, and Sibabalwe, 68, came across as unsure if the physical activity they were doing was having any effect on their health. Asked directly they each said no, but then Nyaniso said "but at the same time it is exercising", with Sibabalwe saying "but it is not the same as not trying". If Sibabalwe just sits down for too long he struggles to stand up again, so he is doing some exercises at

home. Thirteen other respondents (six women and seven men) did talk explicitly about physical activity as being good for physical health in a variety of ways. Three of the men talked about physical activity to stay fit, flexible and in good condition:

People should exercise to keep their bodies in a good condition.
(Thamsanqa, 52 year old male who coaches football)

I currently take walks five days a week just to keep fit.
(Mnyamezeli, 51 year old male)

Elsewhere there was a more explicit link to protection from illness – for example from Malusi and Zukile who were both currently in good health and involved in sport:

Like my sister the only thing that is helping my health is that I like exercising;

 So exercising helps me with that, and it also protects my body.
(Malusi, 38 year old male)

Nombeko, 55, has already had a stroke, and she says that this is one motivation for the walking she enjoys. Boniswa says that "always sitting at one place" will make you sick, but she sees the mind as the mechanism through which this occurs, rather than effects which physical activity might have on, for example, the circulatory system. Four women and one man also spoke of their physical activity as having shorter term effects on them, perhaps treating a condition they had been diagnosed with, or relieving symptoms:

I: How do you think keeping yourself active impacts on your life?
R: Like I also have asthma and I also had TB (I: Ok) so my muscles have to be opened, I have to do that for my lungs.
(Nombeko, 55 year old female)

I: So do you think being active makes a difference to your health?
R: At least I get relieved from the pain that I might be having at that time. It helps.
(Nandipha, 62 year old female, talking about stretching exercises she does on her bed)

Several people referred to messages that they had heard about physical activity and health – from school, a dietician, TV or just 'people':

Sometimes I hear people saying that you have to exercise. You must do that; stretch your arms to keep yourself fit or whatever.
(Nandipha, 62 year old female)

R: I try to exercise because if I do not exercise it will get worse; I have to keep myself fit by going to the gym.
I: Did someone advise you to go to the gym; a doctor or...
R: I see on TV that in order to be healthy, you have to exercise.
(Thamsanqa, 52 year old male who has been diagnosed with high blood pressure)

Health for physical activity

While many of the respondents subscribed in some way to the idea that physical activity was good for physical health, what came across more strongly in the data was that physical health was an important resource which facilitated physical activity. Khanyiswa is not satisfied with her health, suffering from high blood pressure and arthritis, but she talks about being well enough to run around after an active toddler, and Kholiswa reads her physical activity as an indicator of her health:

> R: Sometimes even the ones from next-door get naughty and I would run! (I: Ok) And I don't have breathing problems.
> I: Ok, you are still well!
> R: Yes at least in other things.
> (Khanyiswa, 54 year old female)

For nineteen other respondents (nine women and ten men), health problems were raised as a barrier to physical activity, and in many cases, a limitation on daily activities.

> My health is pulling me back.
> (Nkosazana, 39 year old female)

Nkosazana, had been a keen netball player. After feeling unwell for some time she found out on Valentine's day 1999 that she was HIV positive. Health problems which she felt were related to this diagnosis, or to the ARVs she was taking, had stopped her playing netball, and one of these health problems – pains in her feet – had meant she had to leave a job she had found, something which had a very negative effect on her self-esteem. At one point in the interview she called herself "useless" because her health left her physically unable to work.

Mnyamezeli (51) gave up sport (football and rugby) because of a sports injury, but was still able to keep fit by walking. Bulelani mentioned an injury as part of the reason why he stopped playing rugby and running, but he too was still able to take long walks, and play ball with children. He said that he was offered an operation to fix the problem, but that scared him so he did not go ahead with it. Mbulelo (55) used to enjoy soccer, but after a serious injury during an assault, and then a hip replacement, he could no longer manage this, and was using crutches. He was happy with how he managed to get around with these however. Thandiwe and Bukelwa also mentioned using crutches. Thandiwe did not want to get used to hers, so often tried to do without them, but her breathing also troubled her:

> R: If I walk a long distance I suffer from short breath.
> I: Ok you have a short breath.
> R: And I also get tired. If I continue walking then I lack and then a side of my body starts becoming painful so I have to relax. It is the same as when I climb up the stairs, I have crutches. (I: Ok you have those). Yes here they are [footsteps]... (I: Ok) But I don't want to get used to them.
> I: Ok you want to get used to walking on your own feet.
> R: Ja when I use them, it is when I go to the train station and maybe I do not have money for a taxi. When I am using public transport, I have to use them for balance.
> (Thandiwe, 46 year old female who was injured at work five years earlier, and who also has a diagnosis of hypertension)

Bukelwa's mobility was severely limited by her arthritis, which had been causing her pain for the last two years. She did not go out much anymore:

> Since I am not even used to going to places, there are meetings in the hall but I am not able to go because I cannot walk. So I do not know what the agendas are because I am not present.
> (Bukelwa, 44 year old female)

Mangaliso also felt trapped in his house by his injury – a metal plate was used to try and repair his leg after a complex break which affected his knee:

> I cannot go outside the house. If I go outside the house, the sun burns this metal and that is not good. I do not go out of the house; I have to stay inside the house.
> (Mangaliso, 61 year old male)

The after-effects of Sibabalwe's (68) accident at work, when much of his body was burnt by liquid aluminium, had left him struggling to do many things. He tries to walk, but struggles to go far. Fortunately he has an old car that "reaches some places". He also managed to swap to ground floor accommodation, as his injured leg was causing him problems on the stairs. Once a keen soccer coach – he founded a local club – he still watches matches on TV, but the soccer pitches are too far for him to walk to now. He said that he loved soccer but that he could not manage to coach anymore because his eyesight had also deteriorated.

Zandile liked walking, but would not go alone as she worried about her epilepsy, especially when it was hot. Sindiswa also found that heat caused her problems with walking:

> I: So why do you say that you struggle to walk?
> R: It because of my legs, I have a problem with my legs; they get swollen. You see when it is hot, they just swell and then I am not able to walk.
> (Sindiswa, 55 year old female, who mentions having gout and high blood pressure)

Respondents brought up limitations they faced with regard to work – whether it be paid work, or of the domestic variety – due to their health. Lubabalo was HIV positive and complained of pains, cramps and fatigue doing a physically active job:

> Now I am recycling empty bottles but I am struggling with that because I have to lift up the bottles and my body is not good.
> (Lubabalo, 41 year old male)

Nwabisa, who had very high blood pressure, and also mentioned arthritis and having had a stroke, had been struggling with her breathing, and having pains in her legs. When we arrived she had just been trying to do her washing but said she had not been able to finish because of her arthritis. The pain after such a task would often keep her awake at night.

Mandisa and Nyaniso found that their health interfered with opportunities for paid work. Nyaniso's (57) ankle did not heal properly after a car accident, and now he cannot do any job which would require him to go up or down stairs. Mandisa (69) had been devastated years earlier when she was diagnosed with asthma and had to give up her job at an old aged home. She gets out of breath just doing her own household chores now, but pushes herself because she hates "sitting around".

6.4.2 Cost/benefit analysis

As discussed in chapter four, policy documents referred repeatedly to the benefits of physical activity, particularly physical health benefits. They were more reticent when it came to the costs, but there were some mentions of possible hazards of physical activity, such as the safety of environments for cycling and walking, and the risk of musculoskeletal injuries. Respondents spoke in broader terms about both the potential benefits and costs of physical activity to themselves.

Cost: Unpleasant feelings

In the policy documents one benefit of physical activity was the energy expenditure involved:

> **Benefit:** Physical activity is a key determinant of energy expenditure, and thus is fundamental to energy balance and weight control. (WHO 2004: 4)

This was often not seen as a benefit by respondents – experiences of hunger, pain and fatigue are difficult to account for in such mathematical expressions. Many of the respondents experienced food insecurity, including those who would be categorised by WHO as overweight. Xolile however was underweight:

> **Cost:** The only thing you do there is to play and at the end of the day you go to sleep hungry. Playing is just a waste of time because you have to have something to eat; how can you play with an empty stomach?
> (Xolile, 47 year old male)

As well as having its own fuel demands, 'playing' was not going to bring Xolile food. Mpilo worked as a volunteer on sports programmes, and said that one of the barriers to participation for local children might be that they had not had anything for breakfast. The organisers thus tried to arrange for "small snacks" for the children before and after playing, so that "at least they are feeling comfortable, to come, and then to play". Lubabalo, 41, felt that one of the reasons why he struggled with his physically active job was that he did not have food which was healthy. Malusi came back to this theme repeatedly, seeing the right kind of food as essential for fuelling and building the body for sport:

> OK, I like eating porridge in the morning and also have bread and egg. Later in the day I make mashed potatoes, after that I have fruits and then in the evening I eat rice, cabbages and chicken; that is when there is some money. When there is no money, the body also gets slow because the immune system is not getting the nutrition. It takes time to build your body when you eat dry bread and tea, especially when you eat that late in the evening. That is what is happening here in this house, my uncle also knows that. When I am eating those foods, my body gets built and I exercise more but it is a different situation when I do not have money. I get lazy because what is the use of exercising when there is nothing to eat. Do you understand my sister? I really love sports. I was telling my uncle that it becomes hard when there is no sugar and no mealie-meal in the house because in the mornings I have to go and run and then come back, take a shower and make some porridge. It becomes hard because I am draining myself by going to the gym, while not eating healthy food.
> (Malusi, 38 year old male)

Respondents also spoke about other negative bodily feelings brought about by physical activity, such

as fatigue or pain:

> I: OK, does being active have an impact in your health?
> R: [Pause] Yes my sister, I get very tired.
> I: You get tired.
> R: Yes.
> I: OK so does it disrupt you from doing a lot of things?
> R: Yes, I get cramps. The pain starts from the bottom and gets very painful when it gets here.
> [Sigh]
> (Lubabalo, 41 year old male, who collects bottles for recycling to make some money)

> I do not have much energy left now. Sometimes I move the chairs just to use the energy, I also
> move around the house and lift up some chairs but it becomes hard so I stop. My hands and arms
> become sore.
> (Sibabalwe, 68 year old male)

Andiswa talked about overcoming feelings of fatigue to make herself do things. Thandiwe described the fatigue brought on by work which "strained your energy" as what had caused her to fall and incur a serious injury:

> While I was doing that, my muscles cramped and I fell. So that is how I got injured, I got injured
> on my spinal cord.
> (Thandiwe, 46 year old female)

People also spoke about laziness as a barrier to physical activity. Three key informants, two female respondents and three male respondents all used the term 'lazy' in talking about why people were not physically active. Laziness of the body was associated with being tired or not having the right food, but there was also laziness which was associated with mood or lack of aspirations.

Benefit: Feeling good

Among the many motivations for being physically active was the intrinsic one of just doing it for its own sake. This was often alongside other motivations, such as avoiding something negative, but the sense of intrinsic pleasure in physical activity came across. For Luxolo and Nombeko, it was their walking which gave them this pleasure:

> I walk, I love walking so that I do not sit down for a long time. I walk alone.
> (Luxolo, 57 year old male)

> R: Even now you saw me sweating, walking very fast; I cannot walk slowly, I have to walk fast.
> I: Really; so do you see yourself as an active person?
> R: Yes because I love exercising; I am able to walk from here, Langa, and go to Bellville.
> I: You walk to Bellville!? [Approximately 8 miles]
> (Nombeko, 55 year old female)

Asked how being physically active makes her feel, Nomsa uses the words "happy", "enjoy" and "satisfied", Zukile says he feels good, whereas Mpilo talks about being tired but happy. Nandipha found that the exercises she did provided pain relief. Malusi, who expressed negative opinions about many things in his interview, told us "I really love sports".

'Fresh' was a positive term that I often heard used in Cape Town to describe how people looked or felt, and which seemed to be associated with health and energy.

> I: So how does being physically active make you feel?
> R: I feel... I feel young because I am always fresh.
> (Thamsanqa, 52 year old male)

> I: How does being active make you feel about yourself?
> R: When you are active, you feel fresh.
> (Kholiwe, 51 year old female)

Sometimes physical activity was hard work, or hard to motivate oneself to do when tired, but could still generate positive feelings once done:

> I: Does it sometimes become hard for you to exercise?
> R: Yes there are times, like when I am busy and maybe when I went to bed late. I become lazy to exercise because I am tired.
> I: Does it have an impact in your health?
> R: What?
> I: Being physically active?
> R: I think so because I become dull when I did not exercise for a long time. I feel fresh when I have exercised; I feel light.
> (Mnyamezeli, 51 year old male)

And, as Mnyamezeli suggests above, bodies could also protest about being *deprived* of physical activity. Malusi is feeling the effects of interrupting his routine:

> I like exercising, I grew up doing that; when I do not go to the gym I can feel that there is something that I did not do. My body is used to that and when I do not do it I feel pains in my body. I asked another gentleman and he told me that it is because I am used to exercising.
> (Malusi, 38 year old male)

Many respondents did not seem to feel that they were in a position to take pleasure in physical activity for its own sake these days however – they had other priorities, or their bodies placed limits on them.

Cost: Risk from crime and violence

Safety, mentioned in passing in policy documents, was a widespread concern for respondents – both men and women brought up the risk of crime while walking in Langa. Several respondents told us about their personal experiences of crime and violence, or about how fear of such experiences made them limit certain activities.

A key informant who organised sports activities in Langa said that crime put people off attending activities in the evening: "they will say 'it's not safe to come late' because these kids will just rob them". However, other comments implied that crime was not seen as barrier to physical activity. These may have been about crime as a barrier to sport/intentional exercise, rather than physical activity such as walking. For example, Zukile's view of how crime might affect physical activity is quite limited:

I: OK. So crime does not keep people away from exercising?
R: No there is no crime in the sports fields.
(Zukile, 37 year old male)

Cebisa pointed out that if you were actually out for a run, people were likely to assume that you did not have valuables with you. Going about your daily business was another matter:

No, people who want to be active do it because when you are active and they see that you are exercising, they know that you don't have money and a cell phone on you; so what are they going to take? But the minute you are carrying a handbag or whatever, obviously they think that there is money in the bag, you know what I am trying to say.
(Cebisa, 57 year old female)

Khanyiswa, Andiswa, Zandile, Zakhele, Mnyamezeli, Lubabalo and Sindiswa mentioned crime, such as robbery or assault, as a barrier to walking:

We struggle with crime, I get hot at night and I cannot sleep so I want to get outside and get some fresh air but I am not able to do that because of crime. If the environment was safe, I would take a walk and walk around.
(Sindiswa, 55 year old female)

The health sciences academic used to run in Langa - but not on her own. She says that while men run on their own, females always ran in a group: "It's about safety. You just don't want to be a target". She also would not feel comfortable walking in Langa at nine o'clock in the evening:

One – visibility – you're not going to see the person coming towards you and, that's when….most of your pick-pocketers and everything happens. That's the best time for most of those crimes to happen, so you just don't want to be…a victim.

Time - of day, of the week, and of the year - were important when it came to crime and being out and about on foot in Langa. Kholiswa described the criminals as being "happy in winter" - it gets bright late, and then dark early, so they "get people on the way to work, and the way home". Many respondents felt that walking at night was a real problem, with both Mnyamezeli and Nyaniso saying that by eight o'clock you had to be indoors or in a car. But Zimkhitha points out that even in "broad day light" it is not safe to go to an ATM in Langa. Even the day of the week can be relevant, with weekends and holiday seasons particularly risky:

There is crime, like on Fridays; on weekends you have be careful.
(Vuyani, 60 year old male)

Benefit: Preventing crime and violence

However, several respondents also spoke about physical activity, and sport in particular, as one way of keeping people away from crime, and Sandile speaks of his personal experience of this:

I can say that it has an effect because it helps me to stay away from the wrong things which are done here in the township. Sometimes you are in the house and you are broke, someone comes and tells you that you can do this and that... but if you are not in the house at the time the person comes, you will not be part of that. So I can say that it helps me that way.
(Sandile, 36 year old male, talking about benefits of his running and going to the gym)

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Cost: Time and money

The play leader who was employed by the City to organise activities in Langa said that these activities did not target people in their 20s, 30s or 40s. This was because the old/young had clubs which met during the day, and which she could thus work with, but that adults in their middle years would be working during the day. Interview data and City statistics indicate that many people in this age group are not in fact doing paid work, but they may be looking for work, or doing unpaid work. In any case, it did not seem that there were clubs targeting these age groups. Two respondents who did have paid work, Nandipha, 62, and Sandile, brought this up as something which got in the way of carrying out intentional exercise:

> Regarding sports, I lifted weights but I stopped because I cannot wake up early in the morning because I work in the evenings. I have to get home and sleep.
> (Sandile, 36 year old male who works as a security guard)

Nomsa thinks that there are places she can go in Langa to exercise but she does not feel she has the time to take part in such activities:

> I: Ok umm... how far are you from places where you can exercise?
> R: It is not far, there it is; you can just walk but I don't have the time.
> I: So there are places.
> R: Yes but I don't have time.
> (Nomsa, 52 year old female)

The health sciences academic from Langa also thought that concerns about time would be a barrier for some people, although she did not accept that time could not be found:

> There's that perception of 'I don't have time'. Perceived! Purely I think because we don't manage our time very well so it's perceived that I don't have time to do it.

When I asked staff from an advice centre in Langa how much of a priority they thought exercise was for people in Langa, one of them told me that the "older ladies are busy looking for jobs", and that in any case:

> The only physical exercise is to walk, because I cannot say….to go to the gym. You don't have time to go to the gym, you don't have money to go to the gym. You cannot gym on an empty stomach.

Others also brought up the financial cost of exercise facilities. Nombeko, 55, mentioned that some people could buy exercise machines to use at home, but as she does not have the money for that she walks for exercise. Sindiswa, 55, joked about not having "money for Virgin Active" - a luxury health club chain. Zandile, 56, and Mnyamezeli, who saw themselves as beyond other sports due to their age, seemed open to the idea of going to a gym. Unfortunately this was also the facility that many people spoke about as unaffordable:

> I: Do you think that you can still play soccer?
> R: At this age?
> I: Yes.
> R: [Laughter] I can try, otherwise I would not be good in it.

I: So you take walks now?
R: Yes, otherwise if I had money I would join a gym.
(Mnyamezeli, 51 year old male)

Membership of the gym at Langa sports centre cost 90 Rand (about £7.80) for six months at the time of the interviews. The sports centre manager told me that the fee was heavily subsidised, and set by the City at this level in acknowledgement of the area's 'disadvantaged' status. She said that it was there for the purpose of control – to ensure there was enough space, showers etc. for members. She acknowledged that it was probably for this reason that the gym was mainly used by working people. She felt however that if people did not pay for things, they did not care about them. Several respondents (Xolile, Malusi, Daluxolo, Khanyiswa) brought up the fact that there was a fee to use the gym, and that you had to register, and seemed to present this as a barrier to using it. For Thamsanqa the financial barriers were related to the soccer teams he coached:

I have been struggling with the team and we are still struggling even now. I have been helping with my own money so that we can have what the team needs. We are trying to get sponsors but we do not have any yet.
(Thamsanqa, 52 year old male)

Xolile felt that poorer children started being excluded from organised sport at a young age by officials who knew that they would not be able to afford the kit:

I: So is there something that can be done to help people keep themselves active?
R: I do not think so because people from here... even the people who are in charge of sports only consider children whose parents are working because they know that those children will get everything that they need for the sport, like tracksuits and stuff. If they know that a certain child will not afford that, they exclude such a child. They compare the ones who have something with the one who do not have a thing.
(Xolile, 47 year old male, who is struggling to find the money to buy his son a tracksuit for school)

Benefit: Earning or saving money
But money could also be a motive for physical activity. Daluxolo said that one of the ways he is physically active is by collecting firewood – for use at home, but also to sell if he can find enough. Kholiwe walks door to door carrying the clothing she sells. If Lubabalo and Xolile can find work at all, it is physical work:

Oh my sister it is hard, it becomes really hard. It is just that I think of a lot of things and that is why I collect those bottles; there is no food in the house and my baby does not have food and my girlfriend has to eat and all of that.
(Lubabalo, 41 year old male)

Four men mentioned the cost of transport as a reason for walking, but said that they would rather use a minibus taxi if they had the money:

I: OK, when you are going around the community and travelling to other places, what do you use?
R: I walk, what else can I use? I don't even have a car!
I: OK so you walk most of the times.
R: Yes, even when I go to Rylands [3 to 4 miles away], I walk.

I: OK.

R: Unless I have some money, then I take the taxi but if I only have R10 or R20 I walk. I know the shortcuts to use when going there.

(Nyaniso, 57 year old male)

Cost: Sport as dangerous

Many respondents found the idea of taking up the sports of their childhood again hilarious, and referred to themselves as 'old crocks'. Sport was seen as potentially dangerous for respondents, perhaps due to a mixture of age and health. This 'cost' is one of those which does get some acknowledgement in the WHO recommendations (WHO 2010a):

I: Can you still play soccer now?

R: I wouldn't dare, I would die.

(Vuyani, 60 year old male)

R: I like playing because even at school I played netball, I was a shooter and I was a runner who also played tennis.

I: Ok, so why are you not playing now, can't you play now?

R: Am I not an old crock; I am an old crock. [Laughter]

I: But there is a say that you can never get old for sport.

R: No I am an old crock. I would like to play but I am sick, and would get sick playing.

(Zandile, 56 year old female)

Cost? Behaving appropriately

Categories of age, gender, race and size were used in explanations of possible, or appropriate, behaviours relating to being physically active. As mentioned above, 'old' bodies in particular were presented as being unsuited to physical activity, especially sport. As well as being seen as potentially dangerous for older respondents, it could be considered inappropriate – sport was 'play' and for children.

R: Now if you want boxing, you have to go to Khayelitsha.

I: So why don't you go to Khayelitsha to play that?

R: No sister I am growing up so I am no longer doing such things.

(Thembani, 43 year old male)

It would be undignified for Bulelani to play with 'rude' youth – it sounds as though he has had some experience of trying this:

I: OK so you say you played rugby and the long jump. So do you think you will play in the future?

R: No. [Laughter]

I: Why?

R: I am lazy, the other things is that playing with the youth can be problematic because they are rude. Sometimes you would be playing with them and they call you by your name and tell you that you are playing rubbish.

I: Oh you play with the kids!

(Bulelani, 40 year old male)

Gender, and the sort of clothing associated with sport, also played a role:

> It's so weird – my Mum in a tracksuit, running, people would think 'what is she taking? Is she ok?'
> [Laughs] It's so bizarre. It's just one of those things. You don't actually see it in our community.
> (Health sciences academic from Langa)

The Langa sports centre manager felt that the local mind-set was that the gym was for men, and that women did not want to "get muscly". Key informants spoke about married women having to wear dresses, with trousers being seen as inappropriate. Unathi spoke about her friend's daughter who was an air hostess and doing well. She found the woman's dress while exercising at home worth remarking on, and seemed to imply that she would not have been able to be seen like that at the sports facilities which were available in Langa:

> The other time I went there in the morning and she was exercising. She wore a pant and other things because we don't have places where we can exercise here.
> (Unathi, 59 year old female)

Benefit: Forgetting troubles

> At the same time, keeping myself active helps me to forget the things that happened to me.
> When I am not exercising, everything becomes too much for my brain but when I am exercising, it becomes easier.
> (Malusi, 38 year old male)

Benefits to functional and mental health were mentioned at times in the policy documents, but were a much more important part of the meaning and benefits of physical activity in interviews. Stress and negative thoughts were seen as threats to general health and wellbeing by respondents, particularly women. Being physically active, in the broad sense in which it was defined by respondents, was an important way of protecting health and wellbeing. It was a way of warding off negative thoughts, and reducing stress. The 'keeping busy and involved' and the 'capability and independence' aspects of respondents' definitions of physical activity were the ones most strongly linked to staying well, particularly by female respondents.

> Yes, exercising is very good and you should not stress yourself by thinking too much. You see now I am concentrating on this because I know that I must do this work. I forget about other things, you see.
> (Nombeko, 55 year old female)

Benefit: Pride in achievements

Pride was another outcome of physical activity achievements. Nomsa spoke about having thrown the shot put in school, while Nkosazana and Nyaniso recalled their sporting prowess:

> I: Ok they come to you for advice.
> R: Yes and when they are competing against well-known teams, they usually play with tourists...
> (I: Ok), so they come to me and ask. This is my award.
> I: Oh!
> R: Ja so I am good in netball.
> (Nkosazana, 39 year old female)

> I: How about in school, while you were growing up?
> R: I was very good in soccer.
> I: You played soccer?
> R: Yes I was a scoring machine. (I: Really?!) Yes.
> (Nyaniso, 57 year old male)

Unathi was proud of how she managed, by herself, to make sure her grandchildren were well cared for:

> I: What do you do that make you think that you are physically active?
> R: Because I do my own laundry, I iron, umm I bath my grandchildren because more especially the reason why I am saying that is because I can look after my grandchildren. I wash their clothes, iron them and they look neat every day. I don't need to go and ask for help from another person; I do those things on my own.
> I: Ok so that does not disrupt your health?
> R: It is actually helping me in my life, it does not disrupt anything. I see myself as healthy.
> (Unathi, 59 year old female, who has had cancer, and is blind in one eye after an assault)

Nombeko, 55, and Zakhele, 56, were proud of how they did not have to depend on transport, but could make their own way to the places they wanted to go, "walking with my own feet". Nomsa would consider calling herself 'not physically active' to be putting herself down:

> I: Do you think that you are physically active?
> R: I am physically active and I am never going to put myself down.
> (Nomsa, 52 year old female)

For Luxolo, being active helped allay some of the negative effects of unemployment:

> I: Does being active have an effect in your life?
> R: It helps me because it makes me feel strong as I am not working.
> (Luxolo, 57 year old male)

6.5   Inactivity and its consequences

As discussed in chapter four, inactivity was conceptualised in WHO policy documents as something negative. It was seen as a leading risk factor for global mortality, which needed to 'combatted' and 'eliminated'. The type of inactivity spoken about in Langa did share some of these characteristics, but its nature, and mechanism of harm, extended well beyond the physical.

Ideas linked to inactivity emerged as important on analysing the interview data, rather than being something which I had set out to investigate. Thus respondents in Langa were not asked directly about inactivity, but many spoke about something which seemed to be very much about inactivity – a concept labelled by respondents as 'sitting'. This concept was raised by respondents in half of the interviews (nine men and eleven women). It was a kind of opposite for being active, and was about much more than just physically being in a seated position – although the Xhosa word used, 'uhleli', did have that as one of its meanings. In the interviews it was largely about passivity. On a couple of occasions there was a slightly more positive note, an element of rest or retirement, for example:

My child said I have to sit down so that he can work for me.
(Unathi, 59 year old female)

However, mostly sitting was about not having anything to do, being unemployed, unengaged or inactive in a broad sense. It was spoken of as a negative state, as regression, and as hazardous to physical and mental health. Sitting was talked about as the reverse of being active – what you did if you were not being active:

I: Do they exercise; are they keeping themselves active and healthy?
R: No they do not that; the ones that I know are just sitting. They are not doing anything.
(Vuyani, 60 year old male, speaking about people in Langa)

6.5.1   Unemployment

Sitting was something which often happened as a result of unemployment, with both men and women who referred to themselves as 'just sitting' often linking this to not having work, or being retrenched[37]:

After I stopped working there, I sat down and would get casual jobs now and then and that was the end.
(Vuyani, 60 year old male, speaking about his last stable job, which ended in the 1980s)

I am not working, I am just sitting here.
(Xolile, 47 year old male)

As discussed in chapter five, unemployment was a terrible burden for many of the respondents. Its connection to sitting, and the undesirability of that state, came up repeatedly:

It is just that I am not educated so I did not go into those halls where they train and coach people. You know the township my sister; it all depends on your family: if my family was rich, I would also be in that hall every day at 1.30pm and at the end of the month I would get paid. So we are sitting here, doing nothing.
(Malusi, 38 year old male)

And then I stopped working, I didn't want to sit around and I was wondering why I got asthma at such an age, my children were young, what was I going to do? My son said that aunty... they were sleeping on the floor, the house is small and there was no fresh air, I would sit outside and weep.
(Mandisa, 69 year old female)

6.5.2   Norms about sitting

Sitting was something to be avoided. People spoke of their sitting to illustrate the negative state of their lives, or were at pains to point out how they were keeping themselves busy and *not* 'just sitting'. For example, while Khanyiswa spoke about herself as "sitting around" after she was retrenched, she was later keen to point out that this was not all she was doing:

R: Yes I walk around with the baby.
I: You put him on your back?
R: Yes and he can also walk now. (I: ok) I mean, I don't just sit here.

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[37] 'Retrenched' is the local term for being 'made redundant'.

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I: OK, so how do you keep yourself active?
R: Like exercises?
I: Yes exercises; do you think that you are an active person?
R: [Pause] I don't know but I can say that it is walking; I don't like sitting here.
(Khanyiswa, 54 year old female who takes care of a neighbour's child)

One may be judged negatively for sitting:

There is no use in being cheeky, at the end of the day I am the one who will lock, you see. The people will be here and they will say that I was just sitting around and not taking responsibility.
(Thandiwe, 46 year old female, talking about why she tries to exercise)

There was nothing I did not do; even in the house I was busy. We were being shown how to live life. If a person does not want school, then she should know that a person has to have something that they do. You should not just sit around in the house.
(Bukelwa, 44 year old female)

Sitting was used by respondents to indicate the emptiness of their days or lives:

No my sister I am not doing anything now, I am not playing any sports. The only time I go out of the house is when I go job-hunting and when I return, I just sit in the house. Sometimes I go to my mother's home, from there to my friends and then after that I come straight home; that is the life that I am living.
(Thembani, 43 year old male)

We sit in the house and stare at each other.
(Thandiwe, 46 year old female, unemployed after an accident at work and talking about how she spends her day with her sister.)

6.5.3   Consequences of sitting

Sitting does not lead to anything good. People must be proactive to improve things for themselves. This view arose many times, although, as was discussed in chapter five, there was also the idea of 'acceptance' as sometimes being good – for example in circumstances where there was little an individual could do about their situation.

If you just sit here in the township, you will not get anything.
(Malusi, 38 year old male)

If you sit at one place you end up being fat and dull. You must do something for yourself and keep yourself active.
(Cebisa, 57 year old female)

R: What can you become if you are always sitting around? You cannot sit around; it has something that it does.
I: OK.
R: Yes it does something, you have to be strong.
(Mandisa, 69 year old female with asthma)

Some of the women explicitly linked sitting with 'thinking a lot' – something which they saw as

negative, and which being busy could help them avoid:

> Being physically active is also good for your health (I: ok) because if you are always sitting at one
> place, you get sick. But if you keep yourself busy, you don't sit around and think. It also helps with
> stress because when you are doing nothing you think a lot and that adds to your stress.
> (Boniswa, 43 year old female who is HIV positive)

> I: You work very hard hey!
> R: I start there and then I go to feed these people. (I: mhh) So this is what is keeping me busy so
> that I don't sit around and think about a lot of things.
> (Nombeko, 55 year old female, who has lost two of her five children since 2002)

The antidote to sitting was action – involvement, skills, activities, jobs:

> Look at school children; they are not able to do anything. You know if in Guga S'thebe
> [community hall] there can be bricklayers, carpenters, plumbers and all of that, like people who
> can train the youth, also ballet dance just like in Roma. Things like those can take them out of the
> townships, just like us, the people who do not have any skills. If I can do plumbing, I think I can do
> something. We need things to keep people away from just sitting at home or in the shebeen and
> standing in corners, you see.
> (Thembani, 43 year old male)

6.6 Getting people more active?

6.6.1 Current physical activity

Thirty-two respondents had completed the PURE physical activity questionnaire. Unfortunately this
data appeared to be unreliable (see chapter three), and could not be used. Tables 6.1 and 6.2 are
thus based on the interview data. The levels reflect my overall impressions, and are not rigorous.
They relate only to whether the respondent's reported physical activity seemed high, low or medium
relative to other respondents. The respondents are arranged by gender and age, as both categories
have been shown elsewhere to be associated with physical activity levels – with men, and younger
people, reporting higher levels (Bauman *et al.* 2012). The tables also indicate if any of the activity
reported was 'intentional', as all respondents were doing some incidental physical activity. By
intentional I mean something that they were doing deliberately at least partly to get exercise, as
opposed to incidental physical activity which is an unintended side effect of, for example, transport
or work.

Almost all respondents, when asked if they would consider themselves physically active, responded
that they would. It is however necessary to bear in mind how people were defining physical activity
(see section 6.3), and the norms associated with being active versus 'just sitting'. Zakhele said at
first that he was not physically active – he had started off defining physical activity as sport. He then
said that he walked long distances for exercise, and decided that perhaps he was active after all.
Sindiswa also said that she was not physically active, linking this to problems she had with her
health.

Women			
Name/age	Physical activity	Intentional	Level
Thobeka, 35	Walks to nearby places as transport. Is a painter-decorator when she can get work. Only person who says she did not do sport in school.		Low
Zimkhitha, 37	Walks within local community as transport, otherwise takes bus/taxi. Works as a packer. Likes sleeping when not working.		Med
Nkosazana, 39	Played netball competitively when younger. Walks a lot to stay active despite painful feet – talks of regular 2 hour walks.	Yes	High
Sisipho, 40	Does housework. Used to go to the gym in summer. Has not done much since her child was born. Mentions sitting in her house most days	In past	Low
Boniswa, 43	Does housework, sometimes walks as far as local shop or friends.		Low
Bukelwa, 44	Walks for transport, but not long distance. Does housework.		Med
Andiswa, 44	Does housework. Moves heavy sewing machines at her work, does the errands for work as she is 'quick'. Says that she does not exercise.		Med
Thandiwe, 46	Difficulty walking due to injury, but does walk – very slowly. Also does occasional exercises at home to stay mobile/strong.	Yes	Low
Nwabisa, 48	Does housework but has to stop due to arthritis sometimes. Rarely walks for transport.		Low
Kholiwe, 51	Housework, walking door to door selling clothes.		Med
Nomsa, 52	Does housework – says this is not just about washing dishes and clothes, as you need to move furniture to clean properly. She also does some physical activity at church, and walks.	Yes	Med
Khanyiswa, 54	Does housework, plays with toddler including running after him, walks for half an hour to friend's house carrying child.	Yes	Med
Nombeko, 55	Spends lots of time doing housework at weekends, including moving heavy furniture and scrubbing clothes. Enjoys brisk walking, and goes on very long walks. Also does voluntary work and walks to venues and sometimes door to door for that.	Yes	High
Sindiswa, 55	Has a car which she uses within Langa – says she gets tired walking, and does not see herself as physically active. Carries the bags of second hand clothes which she sells (but only to car?), and moves furniture for cleaning at home.		Low
Zandile, 56	Cleans the house. Sometimes does stretches and walks for exercise.	Yes	Med
Cebisa, 57	Says she keeps active doing her housework, and sometimes will go for a walk for an hour for exercise.	Yes	Med
Unathi, 59	Works as a domestic, does her own housework, walks within Langa.		Med
Nandipha, 62	Works as a domestic, walks locally for transport, uses taxis and trains to go to shops/work. Does some stretches on her bed.	Yes	Med
Mandisa, 69	Does housework but has to stop for regular rests due to asthma		Low

Table 6.1: Physical activity reported by female respondents

Men			
Name/age	Physical activity	Intentional	Level
Lindela, 34	Walks in local area and to fetch water. Sometimes does some cleaning/gardening work for other people.		Med
Sandile, 36	Walks for transport within Langa. Used to exercise a lot – gym and running, but now only occasionally. Works as a security guard	Yes	Med
Zukile, 37	Does housework, runs in the evenings, plays soccer.	Yes	High
Mpilo, 37	15 minute walk to sports centre where he works. Organises physical activities for children but not clear how much physical activity this involves for himself. Sits in house/watches TV/cooks when not working.	Yes?	Med
Malusi, 38	Housework and as much sport as he can (if he has food). Walks to nearby suburbs to look for food/park or wash cars. Sits in house otherwise.	Yes	High
Bulelani, 40	Helps wife with housework. Only walks if no money for a taxi.		Low
Lubabalo, 41	Pushes a trolley around collecting empty bottles for recycling. Has worked as a lifeguard.		High
Thembani, 43	Helps mother/girlfriend with housework. Walks to look for casual work, which is usually physically active such as mixing cement or moving sand. Enjoyed several sports in the past, after school, but not doing any now.		High
Xolile, 47	Walks long distances, gets physical jobs in Langa whenever he can. Says he is 'unfit' for sport though.		High
Mnyamezeli, 51	Used to play soccer and rugby but stopped due to injury. Goes for brisk walks 5 days a week to keep fit.	Yes	High
Thamsanqa, 52	Goes to the gym every morning before going to work as a barman. Manages a local soccer team and also plays with the veterans.	Yes	High
Daluxolo, 53	Cleans house and does gardening. Walks 45 minutes to where he does laundry. Collects and chops firewood. Had a physically active job in the past but now unemployed.		Med
Mbulelo, 55	Cuts grass every 2 weeks. Walks sometimes 'just to pass the time'. But spends most of his days at his nearby friend's house.		Low
Zakhele, 56	Walks long distances for exercise, but wavers on whether this means he is physically active. Does housework, & voluntary work at train station.	Yes	High
Luxolo, 57	Took part in soccer and karate until his early 30s. Loves walking for exercise. Does not 'use energy' often – just when does gardening.	Yes	Med
Nyaniso, 57	Walks for transport unless he has money. Sits in house a lot.		Low
Vuyani, 60	Does housework and yard work – partly for exercise. Walks for transport "unless the place is very far".	Yes	Med
Mangaliso, 61	Cleans his own house and then goes to help his neighbour with his house and garden. Walks within Langa.		Med
Sonwabile,61	Cleans yard and does laundry, walks for transport locally.		Med
Sibabalwe, 68	Played soccer – founded club – until was injured 10 years ago. Tries to walk but struggles to go far. Moves chairs to "use energy". Took part in exercise class at church group recently.	Yes	Low

Table 6.2: Physical activity reported by male respondents

The physical activity which people were doing consisted of walking, doing house/yard work, paid physical work, sport, and strength/flexibility exercises at home. People spoke of cleaning the house as taking "at least a couple of hours". Laundry could be strenuous and time consuming, with many people doing it by hand. People were keen to point out that cleaning included moving furniture around.

Eight of nineteen women, and ten of twenty men, mentioned some form of intentional physical exercise. Older women were more likely to mention doing intentional exercise than younger women (2 reports in first half of table by age, 6 in second half), but this was not the case for the men (5 reports in each half of the table). It was difficult to estimate levels of exercise, but as far as I could tell older women were reporting similar levels of activity to younger women. This was not the case with the men, with younger men appearing to report higher levels of activity. Men also reported more physical activity than women. Only men reported currently taking part in sport, and the men tended to do more physically active work, when they could find work.

Six of the eight women who said that they did intentional exercise did this by walking, while the other two did occasional strength/flexibility exercises at home. Most of the women were doing housework, and spoke about this as physical activity, but usually not as intentional exercise. The intentional exercise done by men was quite different. Just four of the ten male intentional exercisers including walking as part of this, and these were mainly the older ones. Five of the six youngest male intentional exercisers were doing some form sport as their exercise. Vuyani mentioned house/yard work as his intentional exercise, and Sibabalwe, as well as walking, did some exercises at home and at a local church group.

This fitted with the health sciences academic's expectation that men in Langa would be more likely to have strenuous jobs such as bricklaying, whereas women would have lighter work as domestics. She said that she had noticed older people in particular walking a lot, but, contrary to what I found in the interviews, she did not think that they would see this as exercise:

> They don't probably see that kind of walking as a form of physical activity, because it's me moving from one place to another. And because Langa is so small we do not have a taxi who takes you from one end to the other…you wouldn't want to pay 2 or 3 Rand for a ten minute walk. So people go back and forth and across without really...because it is one of those things that you have to do.
> (Health sciences academic from Langa)

6.6.2   Increasing physical activity?

During the interviews, people were asked their views on whether something could or should be done to get people in Langa more active, and if so what. The responses to these questions are presented below, but a theme which came up in the interviews more generally was relevant to how much room for manoeuvre there was seen to be for intervening to change people's physical activity – that of natural or bodily limits.

Biological determinism?

There was talk of certain types of bodies as being intrinsically suited – or, more commonly, not suited – to being physically active. Nyaniso thought that both age and size contributed to determining physical activity, and phrased this in a way that suggested a link between age and size:

I: OK so what do you think can be done to keep people physically active?
R: That depends on your age; some people are the right size to exercise and others are just not.
(Nyaniso, 57 year old male)

Andiswa, Zimkhitha and Sindiswa all linked weight gain with capacity to exercise:

I stopped playing sports in primary school because I got fat, I was an athlete. (I: Ok) So I got fat and then I didn't have the energy to run but with most of my sisters, we loved athletics.
(Zimkhitha, 37 year old female)

R: I played netball, shot put and javelin and I was in the school choir.
I: And now do you think that you can do those things?
R: [Laughter] I don't think so; I don't think so because I have a heavy weight, because I was not like this; I was a size 32 and now I am size 44.
(Sindiswa, 55 year old female)

These viewpoints support the suggestion that further research into obesity as an influence on physical activity (Bauman *et al.* 2012), as discussed in chapter two, would be worthwhile. The health sciences academic from Langa felt that size could be a motive for exercise for some women who were "overweight", but that people sometimes saw weight loss as the only benefit of exercise, thus would not bother if they thought they were "the right size" already:

And maybe also understanding the dynamics thereof [of physical activity]. Somebody who's your size….does not see it as a need. But somebody who's overweight – it's constantly lingering on their minds that 'I need to exercise, I need to do something'. Especially when they're pressured about losing weight. So I think amongst females there's this…..they also marry the two - weight loss and exercise. So if I look good and I'm the right size then …

Age was often considered to interact with gender (and sometimes race) to determine size. Kholiswa talked about using weight as an indicator of age, particularly for women, although "sometimes you see someone big but she is 29, or when you have problems you can look older". She also said that "Africans have bigger bodies", and thought that Africans, especially women, 'naturally' gained weight as they aged. But the expectation was not confined to African women – many Xhosa people were very surprised at my age, and told me that they had expected me to be younger because I was thin/athletic looking. The health sciences academic described a friend of hers in Langa, who was in her 40s, and who had been jogging because she was concerned about weight gain, as unusual:

You do not get so many of people like her. People reach their 50s like 'I'm old, I'm content, I was slim in my youth, I don't expect to look the same now'.

As discussed in section 6.4, 'old' bodies were also the ones most frequently presented as unsuited to physical activity, particularly sport[38]. Zimkhitha spoke of her child's young body 'allowing' her to do things which older bodies would not manage. Xolile thought he was well past the age at which it would be sensible to play soccer, but other types of physical activity were okay:

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[38] This was not something subscribed to across all groups in Cape Town, with running races in the city awarding prizes in over 70 categories as standard, and even over 80 categories, something which would be limited to specialist 'veteran' competitions in the UK.

R: Soccer... now?! No I cannot do that; the age limit for soccer is 25 years.

I: You can just play to keep yourself active.

R: No I cannot.

I: So how do you keep yourself active?

R: I keep myself active by doing all the hard work in the township like when someone wants their grass to be cut short; that is how I use my energy. I like that, I like working.

(Xolile, 47 year old male)

The play leader who we met at the Love Life worked mostly with children, and had previously shared the general expectations that older people would find physical activity difficult:

To tell you the honest truth I was *very* surprised, because… late October last year, we organised a 'fun walk'. We said it's fun walk, for old people. So, and my manager even asked also 'don't you think this is big [too far]?' and I told her 'no they *used* to walk this, this is not big'. So when we were at the station we were looking at them coming – they were *running*, they were not walking. Like they were enjoying it, even though they know that…there's nothing…that they're going to get, or winning, but there's only medals….and they, they enjoyed it. And we said 'no, this was little!' I even told my manager 'that was little'. And I almost couldn't believe it. So they enjoyed….with the soccer also, we were watching them, refereeing, and they were enjoying it. So, at first before I worked with them I thought, ah, this is going to be hard, but it's not.

People also spoke of a lack of opportunities for older people to participate in sport. But not everyone ruled out sport, with several claiming they could give it a try if activities were arranged:

I: Can you play netball now?

R: I don't know but I would try if there can be some activities.

(Nandipha, 62 year old female)

I: So you say you played soccer before?

R: Yes.

I: Do you think that you can still play?

R: I can play if I have to play or maybe if there was a way for an old person to play soccer.

(Luxolo, 57 year old male)

Gender-based barriers to physical activity were also discussed in section 6.4, however gender was not brought up explicitly by respondents as determining physical activity. For example, no respondent stated that they did something, or did not do something, because they were male or female. Gendered roles did appear however, and physical activities talked about by men and women did vary markedly, as was discussed in section 6.6.1. Men, but no women, spoke about doing outdoor work such as gardening. While both men and women mentioned housework, it seemed that women in general did more of this.

Both men and women had been runners in school, but while most of the women mentioned playing netball, for men it was soccer, rugby and cricket which came up. Women were not involved in sport any more, although Sisipho mentioned that she used to go to the gym at one point. Men on the other hand did mention involvement in sport as adults – several ran in Langa, went to the gym, swam or played soccer. Three men were involved in sports coaching, but no women were.

Key informants discussed this gender difference in sports participation. While women did not tend to use the local gym, they were now coming to the sports centre - for an aerobics class which had been started two years earlier. A female play leader working at a local community centre told me that she had been a keen basketball player, but had run into problems finding other women to play with. She said it was difficult to recruit women for local sports teams, but "we didn't have a problem with the guys". Asked why this was, she said she was not sure.

The health sciences academic from Langa had more to say, and brought up the interaction between gender and age when it came to physical activity. While there were differences in sports cultures for boys and girls, this was exacerbated as they grew up. Boys could continue with sport into adulthood, whereas girls would stop in high school. Even at school age, she saw a difference in provision for girls and boys – there were well publicised clubs available after school for boys to play cricket, soccer and hockey, but the same was not true for girls:

> Girls I know that there's netball….but it's small drops. And it's not like your, take your cricket that every single person knows that now you can go, your child can actually play cricket and that you can take him to such and such a place on such and such a day.

Should, and can, physical activity be increased?

Those who were asked directly whether something should be done to increase physical activity in Langa said yes, and people generally seemed to think that more physical activity (however they were defining that) would be a good thing. But it is difficult to get a sense of how much of a priority this would be, and many of the suggestions which people made came across as being focused on objectives other than prevention of NCDs. While many people were happy to suggest ways for physical activity to be increased, ten interviewees (six men and four women) responded in a way that suggested that they did not think that interventions would be successful. Their pessimism seemed to be based on the attitudes they perceived people in Langa to have, or on other challenges acting as too great a barrier.

> From the way that they are conducting themselves and they are old so there is nothing that can be done.
> (Buelani, 40 year old male)

Lubabalo thinks you would be wasting your time:

> I: OK, what do you think can be done to help people keep themselves active? What would your advice be?
> R: I don't know how to answer that question.
> I: So you don't know what can be done to help people keep themselves active?
> R: No I don't know. [Laughter] Even if you were to think about that, you would just be wasting your time.
> I: Really? So you say that nothing can be done, they should just be let be?
> R: No, they should just go to school.
> (Lubabalo, 41 year old male)

Sandile said "I don't see that happening in this township", and Cebisa and Malusi thought that some people just could not be helped to be physically active:

That depends on the person, not everyone can be active; that is not the way it is.
(Malusi, 38 year old male)

Cebisa felt that opportunities were already there, but that many people were just not interested, and the play leader agreed that this was sometimes the case:

Others will just say 'no I'm not interested, this is not mine' even if….that person didn't even try, just say 'this is not mine, this is not mine', or sometimes it's a peer pressure.
(Play leader who works in Langa)

General challenges in Langa such as crime, drugs and alcohol were also talked about as barriers to increasing physical activity. Sisipho was asked what could be done to help people stay physically active:

In this area, let me not say…there is something now, there are drugs, you see. (I: Mhh) So even with the young children that are growing up now, the important things are drugs. It is even worse for them, it is worse than it used to be with us older people. I don't see any physically activity; I just see alcohol and they are on drugs full-time.
(Sisipho, 40 year old female)

Asked about increasing women's participation in sport in Langa, the elder of the two men from the advice centre judged local women harshly:

The ladies here in Langa they are lazy. They don't want to. They don't care for sports…and one other thing that they like now - I'm very sorry to say it, but it is a true fact - but you find that those who were good in their days, their early days, they've resorted to liquor.

Mpilo, who helped run sports programmes for young people, thought that drugs and alcohol were a "huge problem in our township". He said that children get drawn in even while they are still at school, and certainly once they finish. The play leader from Love Life also brought up drugs and alcohol when asked about what affected people being physically active in Langa. Nkosazana, herself a keen netball player before her health deteriorated, saw alcohol as a barrier to participation for her peers:

Most of my friends drink, most of my peers here drink. They do not have the chance to play sports.
(Nkosazana, 39 year old female)

Nomsa saw "the taverns" as a major barrier to getting people involved in activities, whereas Daluxolo approaches it from the other direction - presenting a lack of activities as a factor in people's drinking:

People are unemployed so they are bored; they spend their time drinking. They have no activities that are helpful to them. They have no places where they can have fun, like play football, do some music and have gym sessions and other things like dancing classes. There are no such activities; white people have them but not black people.
(Daluxolo, 53 year old male)

Xolile on the other hand focused on more tangible barriers such as a lack of sports kit, but thought

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intervention would not work because officials, including those in charge of sport, were just not interested in the poor. Like Lubabalo, he says "it would just be a waste of time".

How should physical activity be increased?

Many people did however provide suggestions on how to increase physical activity. It was not always clear how important an objective they thought this was, or how successful they thought intervention would be, and as mentioned above, varied motivations came across. As with the definitions in section 6.3, some of the suggestions related to things which would not fit within the definition of physical activity used by WHO. For example, Thandiwe suggested general skills development, and Sindiswa suggested book or sewing clubs. However, both had been asked about keeping people 'active' rather than 'physically active'.

Fixing and building things

The physical environment, and facilities to support physical activity, was one area of suggested intervention. Zimkhitha thought that the pavements in Langa did not encourage people to walk, and that they should be upgraded. Unathi suggested building a gym – either unaware that there was one already, or finding it unsuitable/ inadequate in some way. Zukile wanted the sports fields 'fixed', but did not tell us what was currently wrong with them. The play leader found that the location of sports facilities was an issue for her, and would like another facility, and equipment, on the other side of

Cycle lane leading out of Langa – which I never saw anyone cycle on

Langa. The hall where she was based was on the North of Langa, slightly West of centre. The sports complex is on the South side, but further West. With the pool lying in between these two, the East of Langa does seem to lack facilities on a relative basis. While Langa is not large, walking distance is a relative concept - when children need to make the journey alone, and when safety walking is an issue, in a community where hardly anybody has a car, and many people have health problems which limit their mobility, it is not quite so simple.

Organising venues, training and activities

The next level of suggested interventions focused not on building things, but on designating places where people could go, providing training, and organising activities. Kholiwe and Nandipha (62) would both like 'a place' where older people can exercise:

> R: There should be a place where people can train and for older people to exercise.
> I: Ok, why do you say so?
> R: At least for people to have... how can I say it? ... For the people to become more active and alive.
> (Kholiwe, 51 year old female)

Sports activities were suggested explicitly by nine respondents, with four others' suggestions using the terms 'gym' or 'exercise'. Daluxolo did not seem to see the sports complex as accessible, even though his friend goes there, and would like boxing and karate organised in the community hall as well. Nombeko would like the tennis courts reopened, and a community centre used for netball. She thought that people who are "sick like me can become active", and she would volunteer to help

with training. Mnyamezeli, who also focused on sport, had detailed ideas on how to actually go about increasing sports participation:

> People should be given… how am I going to put it? People should be introduced to sport and it should be promoted. I am going to speak about this area because this is where soccer players used to live. People should be given a chance to play sports; they should be given forms to fill in so that we can see which sport each person likes or which sport a person used to play. After that people should be taken back to their sporting codes; there should be tennis and all of those things. They should be given responsibilities to go to schools and around the community to teach the sports they used to play. They will have to be given something so that they can keep doing the work; something to encourage them.
> (Mnyamezeli, 51 year old male)

While the above suggestions related to adult sport, the 'sport is for the young' theme also resurfaced. Nkosazana thought that "nothing helps more than sport", but her suggestions focused on young people, and she did not seem to think that there was much chance of getting adults in Langa involved in sport. Zimkhitha also wished that there were more activities – sport and dance – for her daughter to get involved in, but did not see much chance of adults in Langa getting organised. Thembani wanted venues for sport as well as skills training, but once again his emphasis was on young people. Rather than just being about physical capacity, or appropriateness of sport for older people, this emphasis on activities for young people seemed to be about deflecting their journey into unemployment, alcohol, drugs and crime.

Motivating people

You can have facilities, and activities going on in them, but you still need people to come and take part. Mangaliso thought that people follow each other, so that if you could get some people within the relevant social groups involved in activities, participation could snowball:

> If one person sees another one going, he will go too and their friends will see them going and also want to join. People follow other people.
> (Mangaliso, 61 year old male)

Thamsanqa was a firm believer in the benefits of physical activity, and said that he would be willing to join in persuading people to keep active. Nwabisa thought that physical activity should be approached like any community project, with the street committees calling people to a meeting. As well as motivating participation, the play leader saw a need to find more local people willing to assist with organising activities on a voluntary basis, and said they must be "doing it out of passion", not for money. Vuyani however thought that people would need a push to get involved, and that there should be some form of compulsion:

> I: Do you think that something can be done to help people keep themselves active?
> R: People can take part if you come up and say that this should be done. Like if there could be a pushing factor like a regulation; they won't just do it without that.
> I: OK you are saying that without being pushed, they cannot do it?
> R: No
> (Vuyani, 60 year old male)

Tackling other issues

Asked about getting people physically active, Sonwabile said that there was a lot that can be done. However the two examples he gave were getting children who have dropped out back into school, and creating jobs. Unathi too moved quickly on from suggesting that a gym should be built, to saying that what she would really like to be involved in would be helping vulnerable children. She saw facilitating education as key. Nomsa thought that 'the taverns' were a barrier which needed addressing first:

> I: Do you think that something should be done to help people keep themselves physically active?
> R: Yes.
> I: What could be done and why should it be done?
> R: [Pause] If they can close these taverns (I: mhh) and open centres. First of all they must have rehabilitation centres and they must be taught dance, music and handwork, (I: Mhh) you understand. They should also be trained on how to work for the community; for instance to have people checking up on sick people, there are people like that but it is a few. If the taverns can be closed, the focus can shift to the youth and focus on human beings.
> (Nomsa, 52 year old female)

Thembani (43) focused on a shortage of skills as what was holding people, particularly the young, back, and suggested training for people at the community hall. The play leader mentioned that the sports activities she organised for young people had "social targets" such as reducing drug abuse and teen pregnancy, whereas the activities for 'old' people were just about exercise. Andiswa proposed a local government funded sports programme, but she suggested children as the participants, and the objective would be primarily to keep them out of trouble:

> I: Is there something that can be done to help keep people in Langa physically active?
> R: There should be funding for people in Langa. They should start by keeping children busy with games and that will help them so that they stay out of the streets. For example if a child knows that at 3.30pm he is going to the gym or going to play soccer, he will not have a chance for other things.
> (Andiswa, 44 year old female)

Who is responsible for increasing people's physical activity?

There was a marked difference in responses when people were asked who should be responsible for addressing general challenges in Langa (see section 5.8), and who should be responsible for increasing people's physical activity. Whereas thirty-one of thirty-six responses regarding addressing challenges such as crime and unemployment mentioned government responsibility, just four of fifteen respondents who answered the question on who should be responsible for getting people

Sign in sports centre car park in Langa

more physically active mentioned the government. The emphasis was much more on personal responsibility, or on the community as needing to work together to organise something. Cebisa saw

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physical activity as an individual responsibility, one that others could not help with:

> My belief is...even if you can say to me, for an example (I: mhh), Cebisa why don't you run? If I don't want to, I cannot, even if you are trying to do many things. (I: Mhh) There are so many centres here for people to train in if they want to keep themselves active but most of the people...we are not saying that they mustn't drink but they must gym and do all those things. But people don't listen; the onus is on a person; that is my belief.
> (Cebisa, 57 year old female)

Thandiwe, 46, expressed similar views. In contrast, Luxolo did not think that this was something people could do by themselves, and that a suitable person should provide advice:

> I think that someone should be delegated. The person should call a meeting and advise people on what to do because I do not think that they can do something on their own.
> (Luxolo, 57 year old male)

It was often the same people who came forward – with Thamsanqa, who already organised a soccer club in Langa, suggesting that he could talk to people about keeping themselves active. Nombeko, already involved in lots of voluntary work, was all set to work with us to get tennis organised. Four other women also said that the community must work together to organise and promote physical activity themselves, and three further women did suggest that the government should also be involved. Mnyamezeli's answer reflected that which he gave for other challenges in Langa:

> I: So whose responsibility is it to do that?
> R: It everyone's responsibility; from myself to the government. All of us should play a role; we cannot put all the responsibility on the government, we also have a role to play.
> (Mnyamezeli, 51 year old male)

6.7   Conclusions

Barriers to, and motivations for, physical activity in Langa were tied up with the major issues of unemployment, crime, drugs, alcohol, and health, which were discussed in chapter five. Housing was the only major challenge arising in chapter five which was not spoken about extensively in relation to physical activity. The link between unemployment and 'sitting' was striking. Unemployment was also linked with alcohol, drugs and crime, with these latter ills talked about both as a barrier to physical activity, and as something which physical activity might help prevent.

Prevention of NCDs *was* a motivation for physical activity, with one third of respondents making some reference to physical activity being good for physical health. The holistic ideas which came up in the section on how to stay healthy in chapter five were reflected in broad ideas about what being physically active meant, and what it could do for you. Hazards other than NCDs might be avoided by being physically active as defined by respondents.

However, one of the strongest connections between physical activity and health to emerge from the interviews was the extent to which existing poor health limited physical activity. While there were plenty people 'trying' to stay active, there was also sometimes a sense of powerlessness in the face of challenges, and a sense of inevitability of decline in physical capacity with age. Sport was 'play', and grown-ups, especially women, had more appropriate priorities to devote their energies to.

While respondents did talk of pleasure and utility in physical activity, in the sense of exercise, increasing this for the purpose of preventing NCDs, did not come across as a priority. However, increasing physical activity as defined by respondents – as activities, involvement, busyness, capacity and function, along with exercise – for the purposes of avoiding 'just sitting', maintaining a positive attitude, and deflecting people from crime, alcohol and drugs, was seen as important. In fact, there was much evidence that an approach to physical activity which takes accounts of Langa respondents' accounts and values could have much to offer in supporting wellbeing in Langa, and this is discussed further in chapters eight and nine.

7 Researchers in Cape Town: negotiating the in-between

7.1 Introduction

With chapters two and four having examined academic and policy discourse on physical activity in the prevention of NCDs in low and middle income countries, and chapters five and six having explored the embedded nature of health and physical activity in a specific middle income country context, this chapter begins to consider how to reconcile such different perspectives. It is largely based on discussions with, and participation in, research groups in Cape Town who were working to do just that[39]. Researchers in this field in Cape Town were involved in work which generally adhered to global public health discourse on physical activity and NCD prevention – indeed they had contributed to producing some of the WHO documents - but they also expressed frustrations with their experiences of doing this, and were interested in finding new ways of working. This chapter is structured according to key themes and issues which came up in discussions, or which I observed, during the time which I spent with research groups in Cape Town. These themes and issues related to the challenges of carrying out research in this particular space, and to the ideas which came up about ways to address these challenges.

7.2 Southern Theory?

The challenge of how to reconcile narrow, technocratic, 'professional' concerns with the knowledge that the issues being investigated are much broader is encountered in many fields. However, researchers in Cape Town felt that the difficulties of such a reconciliation locally were exacerbated by the fact that many of the available tools and concepts for thinking about physical activity and health had originated in very different contexts. Researchers acknowledged that a 'Northern dominance' model breaks down in many circumstances, but wanted to get beyond the 'Africa is different' argument which they felt was much rehearsed but not very helpful. A text which one of the researchers felt had managed to do this was Raewyn Connell's *Southern Theory*[40]:

> The dominant powers reshaping our world seek to close down, rather than open up, the self-knowledge of society. In such a world, social science has a vital democratic role to play. But social science is, at best, ambiguously democratic. Its dominant genres picture the world as it is seen by men, by capitalists, by the educated and affluent. Most important, they picture the world as seen from the rich capital-exporting countries of Europe and North America – the global metropole. To ground knowledge of society in other experiences remains a fragile project (Connell 2007: vii).

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[39] Details of the three main groups I worked with are given in chapter three. I will refer to the Healthy Cities group from the African Centre for cities as ACC, the Exercise Science and Sports Medicine group as ESSM, and the School of Public Health group as PURE. For the purposes of this chapter the researchers I talked to are treated as key informants, and are not individually identified. For further discussion of why this approach was taken see chapter three.

[40] While I find Raewyn Connell's work interesting and useful, I think the emphasis the title places on geography obscures the fact that there are marginalised voices and sources of knowledge within every society – not just between the global North and South.

Connell argues that modern social science presents itself as a universal knowledge, while embedding the perspectives and problems of metropolitan society (Connell 2007: vii-viii). The term 'Southern' is used by Connell not to delineate a sharply bounded group of states, but to "emphasise relations – authority, exclusion and inclusion, hegemony, partnership, sponsorship, appropriation – between intellectuals and institutions in the metropole and those in the world periphery" (Connell 2007: viii). This 'metropole/periphery' theme emerged as an important one within this study, with researchers in Cape Town occupying an interesting position therein.

At each research institution I visited there were discussions about the need for a global South voice, and locally contextualised input to policy and intervention decisions. Frustration at what was seen as global North dominance emerged regularly, but at the same time as desiring stronger locally, or global South, grounded input to theory and methods, individual researchers were tied in to the status quo through the norms of their academic disciplines, and the need to 'measure up' to expectations when it came to proposals and publications.

For example, one discussion at ACC focused on the requirement for certain types of data in publications, the assumptions that were made about the robustness of such data, and the difficulty in obtaining this data in Cape Town. The group questioned whether their challenge should be to get the standard data, or to change the research questions. There were concerns regarding how well the 'Northern' concepts and methods translated to the local context in Cape Town, and whether data collected using these tools would make sense.

A researcher from this group talked about the 'Northern construct' of 'walkability'. She was interested in exploring the meaning of walkability in South Africa, rather than just unquestioningly collecting the data on land use mix, street connectivity and residential density which she said were required for standard 'Northern' versions. Her intuition was that, locally, safety would be a major issue, and time of day would become important in relation to this. She also talked about temperature, shade, walking up hills, and feeling hot and sweaty. Concepts such as 'neighbourhood' were linked with walkability, and it was felt that this too needed exploration. The group was interested in defining what a neighbourhood was in Cape Town, and whether there were differences in scale to Northern neighbourhoods. They felt that South Africa's socio-political history, and competing layers of governance (e.g. provincial and municipal) in defining boundaries would be relevant here, as would the apartheid history of forced relocations of people to new areas. Another researcher at ACC noted that there would be nuances around issues of access, and it would not just be physical locations which would be important. Such discussions resonated with my own experiences of walking for transport in Cape Town.

Alongside these concerns, various researchers had experienced problems when actually using tools as part of international studies. An example from a researcher at ESSM concerned a North American designed tool for assessing facilities for physical activity. The research team visited some playing fields in Cape Town to assess them using this tool as part of an international study. Using the tool's criteria, the playing fields were categorised as 'not functioning', as they were poorly maintained, with damaged surfaces and equipment. However, the researchers estimated that about 200 people were in the area at the time, using these facilities. In Cape Town the facilities *were* functioning, whereas the researcher felt that the assessment tool reflected the fact that in North America the risk of litigation would be likely to result in official prohibition of the use of fields in such a condition.

Another researcher at ESSM talked about a fitness test which had been supplied as part of a set of data collection instruments for a multi-country physical activity study. The local researchers felt that a measure of fitness would be useful within the context of the study, and were used to carrying out fitness testing with trained individuals and those familiar with gyms and westernised exercise classes. However the step test protocol supplied was seen as likely to be unreliable, as well as risky and stressful, for participants from a local township. Expected issues included lack of familiarity with equipment, hazards such as losing balance, and stress at being pushed to continue when bored or uncomfortable. There would also be logistical barriers such as having to organise extra familiarisation sessions and transport equipment to township clinics. With 'learning effects' known to affect data in step testing, and the team's feeling that they were unlikely in any case to achieve the 'maximal' performance required of participants, the test was dropped.

A researcher from the PURE group reflected on her use of a North American designed nutrition tool in her local community, as part of a multi-country study. While she recognised the tool (a food frequency questionnaire) as the "tool of choice" within her discipline, and that it was possible to apply it in a setting such as Langa, she also had some concerns:

> Because….any method where you depend really on memory tends to be tricky, and I know that in my population people are not so aware about their dietary intake as maybe people who live in other cultures.......We still need to look for methods that are appropriate for such settings.

There was also an example which connected somewhat with Raewyn Connell's suggestion that 'Southern' intellectual contributions are often marginalised (Connell 2007). A researcher from ESSM described problems which her group had encountered when reporting some of their results to collaborators. These results came from a nutrition module which had been added locally to a larger, internationally driven and funded study which was primarily using laboratory methods. The North American collaborators did not accept the results of the Cape Town nutrition module, saying that they did not find it credible that the food intakes reported were real. The Cape Town group responded by explaining the results in terms of food insecurity, saying "this person is food insecure, and on this day this is what they eat". Met with continuing disbelief, the Cape Town team adjusted their instruments – changing the length of the recall period for food questionnaires, and collecting the food diary for a different day of the week, and returned to the field. There was no substantial change in the results, and the local group were convinced that there was no problem with the data. However, she told me that their collaborators still would not accept these data, and she put this down to the Cape Town results being too far outside the realm of their experience.

In order to address problems such as these, the University of Cape Town had set up a funding scheme with the explicit objective of generating innovative 'Southern' theory and methods. This was the Programme for Enhancement of Research Capacity (PERC), which aimed to promote "locally-grown knowledge paradigms that will ultimately shift scholarship from Eurocentric to African models, while recognising that African experiences are multiple in different parts of the continent and the Diaspora". The University's deputy vice-chancellor for research, Professor Danie Visser, felt that researchers at the University were tied "to the theoretical and cultural voice of the north", and that this led many of these researchers to doubt the value of what they did. He saw this self-induced censorship as the greatest block to the "production of appropriate, cutting-edge research" on the African continent (UCT 2009).

A proposal for research on the urban environment and health was being drafted by ACC for submission to the 'African Knowledge Production' stream of PERC during my first visit. The terms of the funding call observably created an incentive to think outside of the usual frameworks - an initially quite conventional proposal, which had been rejected, underwent a profound transformation over the course of several months, and was successful at the second attempt. I was fortunate enough to take part in the discussions surrounding this proposal, and to contribute to re-writing it, although the irony of a 'northern' visitor doing so was not lost on me.

7.3   Epistemological and disciplinary considerations

Within each of the three research groups the majority of members had a strong quantitative emphasis in their own research, which explored the fields of epidemiology, human biology and physiology, endocrinology, exercise science, nutrition, psychology, architecture and planning, geomatics, civil engineering and geography. Having at times had ambivalent responses from professionals in such fields during the course of planning my research, I opted, when I first arrived in Cape Town, to emphasise the 'clinical scientist' aspect of my background. This was based on my assumptions about what was likely to facilitate engagement with local research groups – assumptions which proved to be incorrect. With so many clinical scientists in the room, one more was not terribly exciting. A *social* scientist, however, was of interest.

In certain quarters of ESSM and ACC in particular there were concerns that 'natural science/biomedical science' approaches alone would not suffice to deliver real change in local contexts. Sociological and anthropological approaches were seen as potentially having some of the answers, there was openness to the value a qualitative approach could add, and a perceived need to strengthen the groups' skills in these areas. While both ESSM and the ACC Healthy Cities group included one researcher with extensive qualitative research experience – one from a psychology background, the other sociology - they were very much in the minority.

In all three groups there was a refreshing enthusiasm for collaboration. Several of the researchers were also extremely interested in interdisciplinary research, and in finding ways to use their work to drive change in local contexts where they were keenly aware of extreme hardship.

Acting amidst uncertainty

At the same time as wanting to embark on mixed method and interdisciplinary research, when discussing specific proposals and plans some of the researchers struggled with what this would entail. One difficulty was the idea of carrying out research which would not result in the identification and quantification of a causal link between a specific variable and health. During one discussion a researcher expressed her desire to limit/bound planned research looking at the physical environment and NCDs. She voiced her discomfort with bringing in a broad range of themes, seeing it as "adding variables", "overextending" and making things too complicated. While she was not against the idea of looking at context, she was concerned that they would not be able to distinguish cause and effect, which was what she was used to trying to do. She could see that there would be interactions beyond the control of the research, mentioning the impact of other environmental factors, and other diseases, such as infectious diseases. Another member of the group countered that given that single households in Cape Town regularly had multiple health burdens it would be "foolish *not* to look at interactions". She felt that their group had the potential to be cutting edge, and to lead the discussion on complexity, rather than shying away from it.

Other examples of struggles were talk about how to "separate" the socio-economic environment from the physical environment – something which many in the social sciences would see as impossible – or indications of a lack of familiarity with qualitative approaches, such as one draft of a proposal which added in-depth interviews to other measures, but suggested that they be carried out with all 500 participants. But other researchers were much more aware of the issues which would be involved in the kind of interdisciplinary work they aspired to, and had invested considerable time in thinking about how to bring disparate data together.

One researcher commented that the influences on health were "so complicated that you can't generalise, and so you go back to the individual". But while they could not know everything, decisions on how to address challenges such as NCDs would not wait. Decisions, such as public policy decisions, *were* being made, and so she believed that even uncertain generalisations which could improve those decisions merited consideration.

The task ahead of them was seen as being "if you are going to investigate, what would you investigate? What do you need to know in order to investigate? Methodologically, what does that entail, given bad data". A draft proposal evolved to include a reflective methodological component, and an advocacy component. Within these sections it was planned to consider the strengths, weaknesses and implications for equity of the methods used, and to explore what the results of the research meant for health, for theory, for dealing with data in Cape Town, and for public policy decisions, including those in planning.

Institutional challenges to mixed methods work

Researchers also brought up institutional challenges to mixed methods work. One researcher, with a strongly quantitative biomedical background, and who had been working on proposals for mixed methods research, reported that funders liked measurements, and were not so keen on qualitative research. She felt that quantitative approaches were seen as sitting above qualitative ones, but that it should not be so, and that both were needed in many situations. She saw the approaches as equal but different, but felt that the attitudes of funders could have a strong shaping effect when it came to what actually got done. She was working on ways to bring together the data from her proposed mixed methods study in a model. She commented that this might not be a quantitative model, and she had concerns as to how she would convince colleagues with quantitative backgrounds of its utility and validity if it was not.

Another discussion concerned the academic structure, and how its format did not easily support people with interdisciplinary skills. A member of staff with a psychology background, who was the main qualitative methods resource for one research group, was used as an example. As the staff member was based in the department of human biology, there was "not much she can teach – just some methods courses". This meant that her position was difficult to support, and that research funding was the only route to keeping her in the department. A senior staff member lamented that "there is no home for people who are mixed methods". Building consortiums was thus seen as one route to supporting mixed methods work.

The qualitative researcher herself also spoke to me about her position in a very quantitative departmental environment. Much of the work that came her way concerned evaluation of interventions – outcomes tended to be evaluated using quantitative methods, but qualitative methods were often valued when it came to evaluating processes. They were justified with funders

as a way of understanding *why* something had worked, or not worked. She adapted to the local research culture with steps such as carrying out six to eight focus groups per site or time frame, as this helped to reassure collaborators of the rigor of her methods. She also felt that it was important in the context to always explain why qualitative methods were being used – what they were, and what they were not. She was passionate about the power of qualitative methods, and how they could create a story, and draw people in.

Making sense of data in Cape Town

One of the barriers to using existing tools and methods for investigating environmental influences on NCDs in Cape Town was seen to be the lack of local disaggregated data on topics such as health, socio-economic factors, and service provision. The researchers felt that this was a problem which they would share with many other low and middle income country contexts. Research was more expensive and time consuming when they needed to generate all of their own data, rather than being able to rely on some secondary sources.

One proposed piece of work for the group was to survey the relevant datasets which existed in the city. They wanted to know what data were held, in what format, and whether they were available for use by researchers. They expected that there would be spatial problems with the data, that some datasets would require a lot of cleaning, and that access might be complicated, with custodians of datasets not always their owners.

Discussions of datasets brought the group back to questions of epistemology. With much existing data generated by government agencies, one researcher talked about needing to understand "how the state sees". When it came to generating data in the context of widespread informality, there were questions as to how to even reach and then re-find people. There were concerns that even if all the 'standard' datasets which researchers in their fields in high-income contexts were more accustomed to having available were obtained, that they might not add up to anything which made sense in Cape Town.

Some of the researchers present felt that they would struggle to define what the issues would be, as they had little experience or literature to work from. In a university meeting room on the eastern slopes of Table Mountain, the gap between the world of these academics, and world of those who were the 'subjects' of much of their research, loomed large. In an environment that remains as polarised as that in Cape Town, how much understanding might senior academics in what were often laboratory–based sciences have of what that world is like? It can be hard to cross over here – even as a newcomer I had to work hard to make small inroads, and this is not necessarily something which comes easily to more long-term residents of Cape Town.

As discussed below, those most likely to be dealing with the actual data collection, particularly when that takes place outside of a laboratory or clinical setting, are fieldworkers - often people from the studied communities. The decisions, compromises and innovations used to get around the challenges faced are not necessarily documented, and researchers further up the hierarchy may be looking at data without a thorough understanding of how it was generated, or its limitations.

I provided an anecdotal example for the group (see boxed text) of some of the issues with data collection in a local township based on my observations during my first month in Cape Town, and

was told that even this was more information than they felt they had, and there was interest in documenting these kinds of experiences.

I joined a local doctoral researcher on a data collection trip to Khayelitsha, one of the biggest townships in South Africa. He was seeking to visit a selection of his research participants in order to carry out 'objective' physical activity measurements by asking them to wear an accelerometer on a belt for a week. The actual time spent discussing the research with the person and fitting them with the accelerometer was small. The huge majority of the effort was expended in finding each person, despite the existence of an address for every one of them.

The layout of homes in the area does not correspond to what can be observed on available maps. The addresses provided included a named locality, a letter code indicating the area within this locality, and a two part number indicating a sub area and then the actual house. Maps do not use the same system, and so it is necessary to drive around looking for numbers on houses to try and move closer to the person you seek. But numbers often do not follow a predictable pattern – sudden changes may occur as you turn a corner – just when you think you are within 20 houses of your target and it must be on the next street you find the subarea code has changed, or the numbers seem to skip several hundred and start again.

Not only do the maps not use the same system – local people do not either. Stopping to ask where an address is produces long conversations and few directions – local people clearly do not use the number codes to orient themselves, which is hardly surprising, as they are not the most human-friendly of systems. You may be told that the next sequential sub-area code is several blocks away, and given a landmark such as a school or shop to navigate by, but when you get there you start to again find intermittent sequencing.

When you finally find the house you seek, you may or may not find the individual. People may give an address where they do not live for many reasons – for example, in order to qualify for something/avoid something which is determined by address, because transience is high in informal settlements and they have moved on, or in order to use a more reliable address of a friend/relative for contact purposes if they live in an informal settlement.

This was the case with one woman we sought – once we had found the house address given on her form, the only way to find her was to take somebody from that house with us to guide us to the woman's location in a nearby informal settlement. Once there we ended up bringing the lady back again to her sister's house – her address as written on her form. Where she actually lived there was no power to set up the accelerometer. Another lady we located eventually by persuading her to walk to a nearby local landmark to meet us, as we, despite speaking with her on the phone, and having a Khayelitsha-local fieldworker with us, just could not find her house. She walked, bringing her 3 young children with her, and we squeezed them all into the car to be guided back to her home.

Such uncertainty provides an obvious challenge to the process of data collection, but it also provides a challenge to the meaning of the data as it is analysed later. Measurements of physical activity so collected may be considered alongside measurements of local environments from a central geographic information systems (GIS) database in order to try and establish a relationship between environmental characteristics and physical activity behaviour. If addresses do not reflect where a person lives, or the address system does not map onto the environmental database system, the establishment of the relationship becomes meaningless.

The solution for the doctoral researcher in the example provided was to use the human memory of the local fieldworker when returning one week later to collect the accelerometer. This data is not

easily translatable into something which can be added to a database! Technologies such as global positioning system (GPS) data collection devices which can capture GPS coordinates for the location where the individual is resident and then link these to other data sets are being explored as one possible solution to this kind of uncertainty. It is not just physical activity research which is so affected – any research which uses addresses may suffer, with addresses collected in certain environments (e.g. in A&E after violent assault, data which formed part of a study that one of the group was involved in) arguably even more likely to prove unreliable.

7.4   Research hierarchies

Raewyn Connell felt that the world of global social science was such as to make it necessary to state that 'the South' produces "texts to learn *from* and not just *about*" (Connell 2007: viii, orginal emphasis). She focused on "intellectuals and institutions in the metropole and those in the world periphery", and of relations between them as encompassing "authority, exclusion and inclusion, hegemony, partnership, sponsorship, appropriation" (Connell 2007: viii). Such statements could very well be applied to the relative positions, as discussed in chapters two and four, of researchers/policy makers in global public health, and the people who are the targets of such research/policy. To take this further – intentionally or not, did we, as academic researchers in Cape Town, represent the 'metropole' to the townships' 'periphery'? Certainly, many of the studies researching health and physical activity in the city's townships, often forming parts of international studies, were set up in such a way as to learn about, but not so much from, those townships' residents.

Alongside the issues, such as epistemology, discussed in chapters two and four, there were local factors which were contributing to this. South Africa remains, to many South Africans' regret, a deeply unequal society. The 'rainbow nation' comprises many ethnic groups, cultures and languages, and socioeconomic status, as well as area of residence within the city, remain highly correlated with race. As in many other societies, those most vulnerable to the ill effects of NCDs, the urban poor, are often also those most distant from the institutions which carry out the research. In Cape Town this distance often includes language and culture, a separation based on geography and accessibility (for example transport links, security, and perceptions about who 'belongs' where[41]) and race – in a place, and amongst a generation, where race has been of great significance[42].

The estimated racial distribution of the population of Cape Town[43] was not reflected amongst the researchers who were involved in designing, directing and analysing research into health and

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[41] A male respondent from Langa suggested that people who looked like him could be arrested for walking in 'white' suburbs, and several white contacts – some academics, although not from the three research groups mentioned – expressed fears about what would happen to them if they went to a township. I also observed people reacting with surprise, interest, and often concern, towards those who did not 'fit' racially or socioeconomically in a particular situation or place.

[42] "Despite hopes for the development of a non-racial citizenry in post-apartheid South Africa, identities remain entangled by race. Tensions remain between ideals of nonracialism and multiracialism: race remains central to everyday life (Soudien 2006; Alexander 2007). The aspiration to a post-apartheid nation free from racial identities has given way to a re-inscribing 'of race and ethnicity as central to discourses on socioeconomic rights and cultural diversity' (Battersby 2005, p. 85)" (Hammett 2010: 247).

[43] "Black African" = 34.9%, "Coloured" = 44.0%, "Asian" = 1.8%, "White" = 19.3% (Small 2008: 6)

physical activity. With few exceptions, staff from a Xhosa ethnic background were involved in research only as fieldworkers, and had relatively few academic qualifications. While these fieldworkers often came from the researched community, or a very similar local community, my experience indicated that the added value that such a background might provide in bridging gaps between researchers and researched was often not taken up due to the ways in which the research was designed.

Those at the coalface

Fieldworkers tended to be responsible for recruitment, and for much of the data collection, using instruments such as surveys, questionnaires and physical measurements. This work was facilitated by their ability to speak the local language, and to 'fit in' in the townships. I was told that fieldworkers were usually educated to 'Matric' level, and would receive training in whatever data collection tools they were expected to apply.

I asked a Xhosa woman who was coordinating data collection for the Cape Town site of one international study if she felt that she and her colleagues were able to bring their knowledge of the local context into their work. She responded that they "had not been given a chance...If they could be flexible...allow us to restructure the questionnaire".   She said that she understood that it was an international comparative study, but felt that "maybe the people who designed the questionnaires were overly influenced by their own environment". She said that the design of the questionnaires did not allow them to "explore much information". She gave the example of questions with yes/no response options, and situations often arising when a respondent did not fit into either the yes or the no category. If someone was not a 'yes', fieldworkers would put them down as a 'no', even if this was not quite accurate either. They then ran into problems with follow-up questions intended by the questionnaire designers to be answered only by the 'yes' respondents. The fieldworkers however often found that these questions were relevant to the person they had just ticked a 'no' box for, but "their answers are excluded". Faced with this situation the fieldworkers sometimes completed the follow-up questions anyway, and when the data were sent to the central study team the message would come back that "there are inconsistencies in the data".

The coordinator told me that her team made notes on problems they encountered and passed this information on to the central team when they reported back, but "nothing has been done" as far as she knew. I was told by senior staff from the local research group that there had been a consultation stage with international partners during the design of the data collection instruments, but it was not clear what kind of feedback was provided from Cape Town during that phase, or how much account had been taken of it.

Senior staff in one of the research groups in particular were extremely overworked, and this meant that they were not in a position to be closely involved with data collection, or early checking and analysis of data to identify potential problems and adjust accordingly. The time that they had available to contribute to the training provided to fieldworkers may also have suffered. Some of the raw data indicated that, alongside problems integral to the instruments such as those described by the coordinator above, fieldworkers at times might not adequately understand the data collection instruments which they were applying, or be in a position to explain a question to a respondent.

A large gap existed between the people collecting data and those analysing it, which I saw as potentially harmful to both groups. Weaknesses in the data might not be apparent to those doing

the analysis, nor did they benefit fully from the knowledge of their colleagues. The fieldworkers on the other hand had their potential contribution to the research limited by the arrangements, and did not benefit from the personal and career development opportunities which more integrated arrangements/other types of study design might allow them. A senior member of staff in one group told me that data collection costs in South Africa were considered high compared to many places, but she agreed that fieldworkers should still be better paid. She also acknowledged that there was limited time available for capacity development, but she did feel that she was able to recognise and employ the existing strengths of a fieldworker she employed. She stated that many of the major international studies which research institutions in Cape Town were taking part in were underfunded in comparison to the expectations they included regarding quantity and quality of data collected, and that this could contribute to pressures on local research groups.

Talking to those who had been fieldworkers on various research projects, particularly those who worked on a casual basis, revealed some of the difficulties that they faced. They did not seem to be accustomed to being, nor expect to be, asked to contribute to the research beyond tasks such as recruiting participants and filling in data collection instruments as instructed. Fieldworkers I spoke to greatly valued the employment that studies in the townships provided for them, but did express dissatisfaction with issues such as the insecurity and uncertainty of casual work, lower rates of pay for casual workers doing the same job as longer term staff, and experiences such as receiving very short notice requests to attend a research institution, and then being left waiting for hours when they complied with such requests. While there was clearly variation across the employers of research fieldworkers in Cape Town, there was ample evidence that some more senior research and administrative staff undervalued these individuals' time and potential contribution.

My own experiences of trying to bridge the gap between researchers and researched, as discussed in chapter three, illustrated to me many of the challenges inherent in doing so, and yet, as discussed in the chapters that follow, they are not challenges which I consider insurmountable.

7.5   Moving forward

In the time between my initial visit to Cape Town for this study, and my follow-up visit over two years later, things had moved on within some of the research groups I visited. A researcher who had questioned the validity of the methods I used during my first visit told me during my second visit, with a laugh, that he was now looking into including qualitative data in his own work. A major collaborative proposal for interdisciplinary, mixed methods research into social and environmental determinants of NCDs, and health equity, had been drafted and submitted to funders. An award from a successful smaller proposal, which I had helped draft during my earlier visit, had been used to help fund some innovative research with residents of various low income areas using a technique called 'bodymapping', and these data were awaiting analysis.

A review of the strategic direction of the School of Public Health at the University of the Western Cape, where the PURE group were based, had identified an 'ample need' but little practice in the area of collaboration with the social sciences (Lehmann 2010: 5). The review called for health policy research to urgently expand the focus from *what* works to *how and why* things work, focusing on obstacles and enablers of systems functioning, including the political nature of the field and the role of values and relationships (Lehmann 2010).

During my second visit I had the opportunity to present and discuss findings from my research with academic audiences in sociology, exercise science and public health, as well as with township residents and key informants. Those findings resonated with many of the people I spoke to, and some of the responses, and ideas for taking such work forward, will be discussed in chapter nine.

8   Discussion

8.1   Introduction

This chapter brings together and discusses my findings. Chapter nine will build on this discussion and return to my original research questions. Here, the discussion is structured according to three themes: epistemology, goals and values, and abstraction of health and physical activity. Each theme is considered critically within current approaches to prevention of NCDs in low and middle income countries, followed by considering what could be done differently. I use my data, together with other literature, to help illustrate what might change if things were done differently.

As discussed in chapter one, this study was motivated by my belief that the debate on prevention of NCDs in low and middle income countries, while drawing on much robust scientific research, would benefit by also engaging with other sources of knowledge. The type of knowledge which I felt would contribute to a more complete understanding of the issues around prevention was captured well by Bourdieu when he wrote of "a knowledge more respectful of human beings and of the realities that confront them" (Bourdieu 1998: 27-28). Such knowledge would help to address the socially embedded nature of the determinants of health, and provide more space for the perspectives of those who were the targets of intervention to be taken into account.

8.2   Epistemology

While there is little explicit discussion of epistemology, as chapters two and four have shown, the campaign to prevent NCDs in low and middle income countries is built on an 'expert'-driven, 'evidence-based' discourse. However, the definitions of expertise and evidence emerge as relatively limited. They are highly professionalised, often technocratic and positivistic, and almost exclusively quantitative. This approach excludes many other types of knowledge, and it also often excludes people – particularly the most important stakeholders: the 'public' who are the targets of intervention.   Such exclusion undermines both the expressed specific goal of preventing NCDs, and the broader, though less frequently and more problematically expressed, goal of increasing equity.

One of the objectives of my research in Langa was to develop an improved understanding of the detail of some of the influences on physical activity in this context. The way that this knowledge was generated – observation and semi-structured interviews with a small sample of people – could be one barrier, within the current discourse on prevention, to it being considered a 'valid' contribution to the evidence-base for policy.

A second potential issue with how this knowledge might be used is who it came from: residents of a low income community, whose expertise on physical activity, health and wellbeing has a very different basis to that of the scientific research community and policy makers – that of lived experience in the township, and a different mix of cultural influences. Knowledge which had come from 'scientific' culture was evident within people's accounts in Langa, but it was not the only, or even the dominant, source. A tendency which was often apparent within the broader literature on physical activity, as well as WHO policy documents, was that to use knowledge from or about the people who are the targets of intervention simply to inform attempts to manipulate their behaviour. I argue that such knowledge should instead be engaged with as an essential form of expertise contributed by rightful stakeholders.

For example, below is an extract from the WHO *Global strategy on diet and physical activity* which illustrates a uni-directional view of the flow of knowledge, with the objective of changing people's behaviour:

> "Consistent, coherent, simple and clear messages should be prepared and conveyed by government experts, nongovernmental and grass-roots organizations, and the appropriate industries. They should be communicated through several channels and in forms appropriate to local culture, age and gender. Behaviour can be influenced especially in schools, workplaces, and educational and religious institutions" (WHO 2004: 7)

Public health can be particularly prone to this type of approach, but obviously it does not have a monopoly on it – Bourdieu was speaking about the World Bank rather than the World Health Organisation when he said:

> "We must put an end to the reign of 'experts'….who do not seek to negotiate but to 'explain'" (Bourdieu 1998: 26).

This tendency has at least two major drawbacks. One is how this epistemological stance results in the loss of valuable knowledge. The other is more explicitly an equity issue, and relates to the comments by Bunton, already discussed in chapter two, on the nature of inclusion of the 'public' in public health. Bunton believed that public involvement was seen as a routine part of public health to the extent that it was rarely reflected upon, but that a critical stance should focus on "who is around the table and who is not, what rights of discourse they have, etc.", and that this raised issues of equity and power (Bunton 2008: 133).

What then can my findings offer towards the construction of Bourdieu's "more respectful" (Bourdieu 1998: 27-28) knowledge, and how can this contribute to the objectives of preventing NCDs, increasing equity, or showing where it might be appropriate to rethink the agenda? This is explored within this and the next chapter, beginning with some examples below.

The necessity of inconsistency

Whereas researchers in Cape Town found that some of their attempts to capture the realities that confront township residents were met with incredulity internationally, or with messages that there were "inconsistencies in the data", qualitative methodologies are often more comfortable when dealing with apparent inconsistency. While in some cases such inconsistencies may be down to errors or inappropriate methods, as described in chapter seven, in other cases they may serve to illustrate the tensions and trade-offs which are part of strategies to achieve broader wellbeing, as opposed to a focus on optimising one aspect thereof, such as a particular type of health or economic outcome. They may also indicate strategies to cope with, or adapt to, circumstances beyond an individual's control.

For example, data from PURE questionnaires for my respondents showed that 31 of 35 respondents agreed somewhat or strongly with the statement "There is a high crime rate in my neighbourhood". In a second questionnaire, when asked whether they agreed with the statements "The crime rate in my area makes it unsafe to go on walks during the day" and "at night", 27 of 32 respondents agreed during the day, and 29 of 32 respondents agreed that it was unsafe at night. However, in this second questionnaire 19 of 32 people also said that they were somewhat (6) or strongly (13) satisfied with

the safety from the threat of crime in their neighbourhood. 11 of the 13 people who were strongly satisfied had been amongst those who had agreed with all three of the statements about high crime rates and it being unsafe to go on walks.

This apparent contradiction could be taken as an indication of a positive response bias, or of some other problem with the data, or it could indicate something which needs further investigation. The below extract from Nyaniso's interview suggests one way of understanding these responses:

> I: Do you feel safe here?
> R: A lot.
> I: How is crime here?
> R: Crime is too much! I feel safe because after 8pm you have to be indoors. (I: Really) Yes. We take the risk sometimes. You see today is month end; these kids want money and your cell phones. If they see you drunk, they think that you have money, even if they know that you are not working. They rob you!
> I: That happens around 8pm?
> R: From 8pm upwards.
> I: So there is no problem during the day?
> R: Also during the day, if they see you speaking on your cell phone, they will come to you and rob you at gun point or knife point. They want your handbag, crime is too much.
> (Nyaniso, 57 year old male)

Nyaniso says that he feels safe in Langa, but then goes on speak in a way which implies that this is because he knows how to behave to reduce his risk. Whereas in the interviews it is possible to look at the thread of the conversation, and the context, and to try to come to an understanding of the apparent contradictions, with the questionnaires this is not an option. Thus instead of being an inconsistency, this data might be interpreted as showing how people have to adapt to the crime situation, and develop strategies to manage it. From Nyaniso's, and many other respondents', responses, it seemed that limitation of movement in Langa was often part of a strategy to stay safe. Other strategies were careful consideration of what you carried with you, and how you carried it, what times you moved at, where to, and who with. Another strategy was to be known by perpetrators of crime, as this made it less likely that you would be chosen as a target. Several respondents suggested that it was important that perpetrators of crime did not come into possession of knowledge which led them to believe that you might have things worth taking. Examples of situations which people said might draw this unwelcome attention included wearing valuable items, being seen with a white person, being drunk (because you must have had money to buy the drink), being seen unloading goods at your house, or word getting out that you had had good fortune or had found well paid work.

Thus, ironically, doing well in one important aspect of achieving wellbeing in Langa – finding paid work – could undermine another aspect of wellbeing – safety from crime. This contributed to the incentive for those who were doing well to move away from the township, something which key informants felt had a negative impact on the community left behind.

Another example of seemingly inconsistent data arose when it came to life satisfaction. While a box ticked on a Likert scale in response to a global life satisfaction question was one part of the data I collected from each respondent, it was illuminating to consider this alongside the rest of that

respondent's interview, and while keeping in mind more general ideas and norms which had emerged from across the interviews as a whole. Respondents sometimes made strongly contrasting statements about how they felt things were going for them during the course of their interviews[44]. Sometimes these were at different points in the interview, and appeared to be linked to whether what they had just been talking about was positive or negative for them, but at other times they seemed to illustrate the tension between striving to improve their situation on the one hand and 'acceptance' as a coping mechanism on the other. Statements of satisfaction in the face of seemingly very unsatisfactory circumstances were sometimes explicitly presented as a way of 'not complaining', or alternatively as due to the necessity to 'stay positive' to avoid making things worse.

As discussed in chapter three, the attempt to reconcile apparently contradictory or paradoxical evidence can be a creative process, bringing new insights (Eisenhardt 1989). Such contradictions or tensions can arise within a single data source, such as an interview or questionnaire, but they can also be generated through a deliberate strategy of theoretical or methodological triangulation (Martsin 2007), in interdisciplinary work, and through engaging with people who bring different sets of experiences and knowledge to the table.

A fresh wellspring of knowledge

The head of the African Centre for Cities, Edgar Pieterse, argued, during his inaugural lecture, for a research agenda which conceptualised urban Africa as a source of innovative knowledge. He discussed Harrison's proposition that:

> "Through careful excavation, subjugated knowledges and subjectivities can be retrieved and revealed. There is ample opportunity for such excavations because the failures of the western modernist adventure in much of the global South provide the cracks through which other practices, rationalities and world views can be glimpsed" (Pieterse 2009: 11).

Rather than attempting to 'fix' things to create cities in line with Western visions of modernity, Harrison envisages a different way of engaging with the conditions of life in urban Africa:

> "Rather than seeing Africa as an incomplete or deteriorated example of modernity, we might focus on how Africa, and its many different parts, is—through the resourceful responses of its residents to conditions of vulnerability—in the process of becoming something new that is both part of and separate from Western modernity. This new imaginary may provide a conceptual opening that would allow us to think about Africa in ways that are more hopeful and positive; that acknowledge the success of Africans in constructing productive lives at a micro-scale, and economies and societies at a macro-scale, that work despite major structural constraints" (Harrison 2006: 323).

While Pieterse thought that, in the context of widespread extreme hardship in African cities, Harrison "tries to leap too quickly to a discourse of hope", an assessment I would agree with, he also felt that this philosophical project "provides a passageway to a different kind of urban scholarship" (Pieterse 2009: 12). Ideas such as these were echoed by researchers in other groups in Cape Town, who spoke of wanting to seek out new knowledge by way of studying paradoxical successes in the

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[44] These were most evident amongst female respondents. See for example interview extracts for Cebisa, Mandisa and Khanyiswa in section 5.2, Nkosazana in section 5.6.1, or Thandiwe in section 5.7.4

city – things which were working despite conditions which conventional knowledge suggested should render this impossible.

Dealing with people who have a very different world view can be challenging, but it can also be an opportunity to learn – to look at things in a way you have never considered before. Different sources of knowledge and experience generate different innovations. Nigel Crisp, former chief executive of the National Health Service in England, discovered this while visiting health services in Ethiopia:

> "Unconstrained by our history, conventions and institutions, they were training people differently, creating new types of organisations, involving families and communities, and concentrating much more on promoting health and independence than on just tackling disease" (Crisp 2010: vii).

Perhaps some of the more holistic concepts of physical activity, health, and wellbeing which emerged from Langa could do so in part because people there did not have to work around the boundaries of what was public health, or NCD prevention, territory and what was not. Respondents in Langa were however working within a different set of constraints in producing both their accounts, and experiences, of physical activity, health and wellbeing – the makeup of which is in itself useful information.

Accounts from policy-oriented literature and from Langa presented different causal chains of risk factors which could undermine wellbeing. In Langa there was an emphasis on broader wellbeing as necessary for achieving health, compared with the emphasis in policy-oriented literature on physical health as a very dominant component of what wellbeing was.

When it came to health and physical activity, respondents in Langa placed poor health both before and after physical activity in the causal chain, and provided broader concepts of both health and physical activity within this chain. The kind of physical activity envisaged by respondents in Langa was a route not only to preventing NCDs, but to steering clear of many of the other hazards in the township

Unemployment, and a lack of "activities that are helpful to them" (Daluxolo), were placed close to the start of many people's causal chains of deterioration in wellbeing. Unemployment was preceded in respondents' chains by factors such as the national economic situation, generally low levels of education locally, inadequate government action, and their own (often racially determined) position within South African society. Following on in the chain from unemployment came material hardship, stress, boredom and frustration, which could lead to unhealthy diets, loss of hope, smoking, alcohol and other drug abuse, involvement in crime, and to 'just sitting', doing nothing.   The lack of a positive attitude was a major risk factor in Langa, and one which could compromise your prognosis in the face of every challenge you were faced with. Physical activity, as it was conceptualised in Langa, could contribute to maintaining a positive attitude.

The data also produced a concept which was strongly associated with both a lack of activity and a lack of wellbeing – 'just sitting'. There were echoes of emptiness and despair around the ways in which many respondents spoke of this. Activities, involvement and purpose – even acceptance: attempts to deal constructively with the circumstances in which you found yourself – were the ways

to avoid this negative state. Negative ideas about 'sitting' have been found in research in other cultures, such as Locke and Te Lintelo's study with adults between the ages of 22 and 30 in Zambia, where they found that 'just sitting' meant being passively dependent on others or getting involved in immoral activities, and was distinguished from the more positive 'just waiting' for a chance or opportunity (Locke & Te Lintelo 2012: 788). Locke and Te Lintelo found that even their most economically excluded participants explicitly positioned themselves as not 'just sitting' (Locke & Te Lintelo 2012: 792), whereas in Langa several respondents did allocate themselves to the ranks of the 'just sitting', along with their peers.

Both the Zambian study and that in Langa produced references to negative stereotypes of youth, linking youth unemployment to idleness, crime, drinking and drugs, and Locke and Te Lintelo found that their respondents differentiated themselves discursively from such behaviours, and that none admitted to violence or drug taking (Locke & Te Lintelo 2012: 782). They spoke of respondents highlighting their own 'self-control' in avoiding such paths. In Langa, self-control, or a choice in how you respond to difficult circumstances, and who you are revealed to be by that, was also an important theme. This was particularly the case for women, although men such as Sandile, Malusi and Thembani also highlighted their decisions to reflect, or purposively engage in more constructive activities, in order to avoid 'falling' into crime – a possibility which they saw as very real and close. While respondents in Langa did often differentiate themselves from those who were 'lost' to alcohol, drugs, crime or despair, there were also admissions to having succumbed to these things at times.

The narrative of positive attitudes and constructive choices as a way to maintain wellbeing in Langa shared little with the 'healthy choices' or lifestyle discourse in policy-oriented literature. The hazards being avoided through such choices in Langa were more profound, more moral, and much more of an imminent threat to survival in the talk of respondents than risk factors for NCDs. Alcohol was an overlapping theme, but alcoholism, immorality, crime and violence were its hazards in Langa, rather than an increased risk of liver or heart disease. Inactivity was another overlapping risk factor, but also with a very different emphasis in terms of aetiology and consequences. Other ethnographic work highlighted by Locke and Te Lintelo, such as Mains' study of young men in Ethiopia, whose inactivity "derail[s them] from progressive narratives" (Mains 2007: 666 in; Locke & Te Lintelo 2012: 788), had much more in common with the findings in Langa.

Finally, while evidence can help win arguments on what should be done to prevent NCDs, and a broader view of what constitutes evidence can transform the nature of those arguments, evidence alone is not enough. Other important factors are the goals and values of the many stakeholders, and we cannot assume that these are shared.

8.3   Goals and values

While many specific goals and objectives are laid out within the policy documents and literature on NCD prevention, the values and visions of wellbeing which underlie these goals are rarely discussed. 'Health' as a dominant normative goal, and as a central component of wellbeing, often appears to be taken for granted. Such a positioning makes way for 'healthification' as a strategy to produce wellbeing. There is some talk of social determinants of health, and in this context ideas about justice and equity are raised, but they are not developed beyond this point nor noticeably embedded within the detail of policy recommendations. In fact, with health often appearing to stand in for wellbeing,

the acknowledgement of social determinants beyond the health sector is sometimes used as a justification for the colonisation of the social sphere by health.

This is in contrast with claims that the 'new public health' should be about health "as a resource for everyday life, not the objective of living" (WHO 1986: 1). This latter view of health is also sometimes harnessed problematically however – with attempts to justify arguments for action on NCDs by presenting health as a utilitarian input to economic growth (McMichael & Beaglehole 2003: 5).

Health for economic development
The impact of poor health on economic activity is presented as an economic argument at the national level for investment in NCD prevention, and as a more general poverty-reduction strategy, given how health inequalities related to NCDs can produce poverty at the individual level (WHO 2004: 3; 2005a: 66; Suhrcke *et al.* 2006; Beaglehole *et al.* 2007; Beaglehole & Horton 2010). While the accounts of respondents in Langa did illustrate how poor health had been one barrier to economic opportunities, for those who subscribe to the view that health inequalities are *produced by* social and economic inequity, an approach which seeks to justify action to prevent NCDs by using the threat of harm to a neoliberal economic system as a motive is surely counterproductive. If social determinants, and thus inequity, are acknowledged as the 'causes of the causes' of NCDs, there must also be acknowledgement that tackling such inequity is not compatible with a 'business as usual' approach to economic development (Green 2010).

Beaglehole and Horton wrote that "our collective failure to address the chronic disease pandemic is a political failure rather than a technical failure", but this was "given that proven cost-effective interventions are available". Thus, while the authors also suggested that development discussions should be re-framed to "emphasise the underlying societal determinants of disease and the inter-relationships between chronic disease, poverty, and development" (Beaglehole & Horton 2010: 1620), the types of interventions which they hope such re-framing will help mobilise funding for – "tobacco control and salt reduction, together with combined drug treatment for people at high absolute risk of cardiovascular disease"(Beaglehole & Horton 2010: 1619) – remain down- or midstream. Such interventions are necessary, but they should not be the ultimate goal (Green 2010).

The data from Langa adds to the, already abundant, evidence that health is heavily socially determined. The 'health behaviours' targeted in NCD prevention were all influenced by the major social problems afflicting the township. For example, choice regarding diet was limited by low and uncertain incomes, and tobacco and alcohol use were often a response to boredom or hopelessness linked to long term unemployment. Opportunities for physical activity (as defined by WHO) were limited by concerns about crime, or undermined by alcohol or drug dependence. For many respondents physical activity was substantially limited by existing health problems, which themselves could be attributed to overcrowded housing and poor sanitation (e.g. TB), hazardous work and transport conditions (e.g. injuries), or exposure to poor diets, stress, smoking and alcohol (NCDs).

Healthification
The theme of healthification within the discourse on NCD prevention is built on the positioning of health as a central normative goal, but also health as being affected by social issues. This leads to the 'healthification' of social issues as a strategy to protect health. The (often implicit) assumption

within much public health literature that health is the central goal leaves little space for exploring the visions of wellbeing, and thus the priorities, of other stakeholders. The data from Langa produced other ideas about goals, health and wellbeing.

Firstly, health was a component of wellbeing, not a proxy for it. Wellbeing also required a decent place to live, financial security, involvement in interesting and productive activities, good family relationships, and safety from crime and violence. With many of these things difficult to achieve in Langa, strategies to construct wellbeing, despite the context, included knowing how to avoid hazards, knowing when acceptance was your best option, and being able to maintain a positive, hopeful attitude, while looking out for opportunities to improve your situation.   Prioritising physical health might mean walking more. Prioritising wellbeing could include walking more – for exercise or pleasure, but sometimes meant staying inside to stay safe, or to avoid pain or fatigue due to existing health problems, or could mean taking advantage of motorised transport which might increase your access to economic opportunities. Prioritising physical health might mean being physically active in accordance with WHO's definition. Prioritising wellbeing could include physical activity in the sense of exercise, but also required being physically active in the varied senses defined by respondents – being involved, being busy, being capable.

Other research has also highlighted different or broader sets of priorities articulated by communities where research focusing on health has been carried out. For example, Simon and colleagues discussed the perspectives which they had encountered on appropriate research priorities while investigating cervical cancer in a low-income South African community:

> "Our community engagement process also drew our attention to an important community perception, namely that our focus on cervical cancer was too narrow and limited. Stakeholders openly recommended that we focus instead on ''cervical health.'' They explained that the concept of cervical health respected the fact that South African women faced many different health issues and challenges and not just one disease of the cervix." (Simon *et al.* 2007: 1964-1965)

Secondly, health in Langa *required* wellbeing, and could not be produced without it. You could not be healthy if you could not afford to eat well, or to live in a home with adequate space and sanitation, or if your life situation led you to feel so downcast that you succumbed to alcohol abuse or 'just sitting'.

Thirdly, there were types or versions of health, and the version of health aspired to by many respondents in Langa was not identical to that incorporated in NCD prevention discourse. While people spoke about physical health, medical diagnoses, and medical approaches to treatment, they also brought up strategies such as staying busy, and avoiding stress, emotional hurt or 'thinking too much' as contributing to health. Health could be about not having medical diagnoses or not having to take medication, but it could also be *despite* diagnoses, and about good function and a positive attitude. Other research into 'lay' definitions of health has produced definitions which overlap with those of respondents in Langa (e.g. Blaxter 2001).

During my follow-up visit to South Africa in July 2012, I presented my findings from Langa to a group of public health staff. One of the group spoke about people trying to "intervene in areas without understanding the context, and then we wonder why we fail". She gave the example of a weight

loss programme in a local township, where retention was low, and the implementer did not understand why. She said that people had been defined as overweight, and included in the programme, based on medical criteria, but "did you actually ask them if they had a weight problem?" The group discussed how they were not surprised that retention had been low – if someone does not identify as having a problem, or if those around them do not think that they have, why would they stay on the programme? The implementer had simply assumed that the participants shared the definition of 'overweight', and the goal of weight loss.

Alternatives?

Even if efforts are made to understand the goals and values of the people who are the targets of intervention, this does not resolve the issue of whose goals and values take precedence when it comes to what policies are actually implemented. We might have evidence that a particular intervention will improve health or wellbeing for township residents. The question is, what else will it do, and whose interests could be challenged by this? Might the intervention reduce power, or interfere with economic opportunities, for other stakeholders? Blas and colleagues suggested open and public discussion of values, and intelligent use of evidence, alliances and timing, as political strategies to advance interventions which address social determinants of health, and thus equity (Blas *et al.* 2011).

Health is negatively affected by inequitable social and economic systems. These systems should be challenged firstly because they are unfair, not because they affect health. The impact on health is one, albeit important, downstream effect of these unfair arrangements. The evidence that they affect health can be used strategically in challenging the arrangements, rather than to change the agenda to one which makes heath the central goal.

Finally, if we reject healthification, how do we go about taking account of the social context for health? One strategy may be to try to reduce abstraction of health by taking a whole person approach.

8.4   Abstraction of health and physical activity

The framing of physical activity in policy documents is unsurprising given their origin and declared objective – which is to use physical activity as a means to prevent and control specific physical health problems. In order to target this specific agenda, physical activity, and health, are almost inevitably abstracted from their broader contexts of the person, and of society. But physical activity and health are not abstracted in this way in the 'real world' of Langa. My own research focus on NCDs also presented a risk of abstracting, or instrumentalising, physical activity, and thus I used various strategies to try to avoid this.

The sources and types of knowledge used in creating accounts of health and physical activity can influence the degree of abstraction in what is produced. With academic and policy documents relying predominantly on quantitative evidence, professionalised, and technical sources, the degree of abstraction is relatively high. The epistemological changes which were argued for in section 8.2 could contribute to reducing this, for example by bringing accounts based on lived experiences into the evidence-base employed, greater use of qualitative methods, and crossing disciplinary boundaries.

For example, amongst the things I was struck by in Langa were the holistic concepts of health and physical activity, and the relationship between them, which people often presented. They highlighted the multiple directionality of influences between physical activity, health and wellbeing, and spoke in terms of costs, as well as benefits. Abstraction can make it easier to overlook unintended outcomes – whether these are in the form of costs or unexpected benefits. Lived experience often renders them rather hard to miss. These themes also arose in MacDougall's study of 'ordinary theories' of physical activity and NCDs in South Australia:

> "Ordinary theories qualify or challenge expert theories, explore what is reasonable as well as rational, and maintain (rather than reduce) complexity and uncertainty. They deal with unhelpful expert advice. They construct normal stories about chronic conditions. Ordinary theories build from expert theories to suggest new approaches". (MacDougall 2003: 381)

Whole-person approaches

Another way to try to reduce abstraction in research or intervention on physical activity and health is to look to organising frameworks which encourage a holistic, 'whole person', approach. Wellbeing is not the only framework which can serve this function, but it was the one which I found most suitable for my purposes. Wellbeing as a concept has itself been criticised for being abstract – and it can be, for example in comparison to measures which use something simple and 'objective' as an indicator of how people are doing, such as income, or, in the field of health, BMI or blood pressure. However, the sense in which wellbeing can be used to reduce abstraction is the way in which it can help to re-locate health and physical activity in the context of the person as a whole, and the society in which that person lives.

Using a wellbeing framework helped me to keep in mind that there were different aspects and dimensions to 'doing well', and that there might be tensions between them. Further, the fact that what 'wellbeing' is, is not clear cut, forces attention to how it is being conceptualised by different stakeholders, and what this leads to them prioritising. The concept of wellbeing used by WeD also emphasised the relational aspect, which can serve as a reminder that the construction of wellbeing depends on relationships – not just intimate or familial ones, but with the local community and beyond, to the macro level (Gough 2007; Gough & McGregor 2007). The location of many respondents in Langa in relation to the broader political-economy was certainly pertinent to their health and wellbeing. People in Langa did not, and could not, construct their wellbeing in isolation from each other or those outside the township – and as Pieterse notes, it is important not to overlook this:

> "Developmentalist obsessions tend to focus on the poor and allow the rich and wealthy classes to go about their routine reproduction of urban space outside the analytical attention of scholars, or when they do come into the frame, they are caricatured as rational market actors or exploitative class agents…..this tradition or genre of urban scholarship has obscured more than it uncovers" (Pieterse 2009: 5)

Embodiment

Taking account of the embodied nature of health and physical activity is another approach to challenging abstraction. Shilling wrote about "the marginal status of the body in sociology", seeing this partly as a reaction against biological reductionism. While he saw ethnographic approaches as bringing the active individual back to the centre of focus, he felt that they too seemed wary of

charges of biological determinism, and that "the corporeal agent tended to disappear in a nexus of 'intentions', 'perspectives', and 'coping strategies'" (Shilling 1991: 653). More recently, Connell wrote of "contemporary social science" recognising bodies and social processes as deeply enmeshed, and that "bodily needs, bodily pleasures and bodily limitations are at work in social relationships, and are at stake in social change" (Connell 2012: 1677). Bourdieu's concept of habitus draws attention to the body as the site where social determinants are reified:

> "The habitus – embodied history, internalized as a second nature and so forgotten as history – is the active present of the whole past of which it is a product" (Bourdieu 1990a: 56).

While there is some connection here with the 'healthy lifestyle' discourse in policy-oriented literature, the emphasis there tends to be much more on the role of personal choice. Social categories such as race, class and gender contribute to the construction of bodily history, but Williams suggests that epidemiological approaches to physical activity consider such categories as individualised inputs, and in the process the interplay of these factors from a historical perspective remains unexamined (Williams 2003 in; Lee & Macdonald 2009: 361).

Diouf writes that "in most African societies, distress as well as success adhere to the body"(Diouf 2003: 9; in Pieterse 2009), and this was frequently apparent in the data from Langa. Many respondents' bodies were marked by the scars of injuries and disease, although these were sometimes worn alongside fashionable hairstyles, shiny hooped earrings, and well cared-for clothes. People spoke of bodily pleasures, but perhaps more often described bodily pain, fatigue or lack of function. Uncooperative bodies – old, heavy, injured or sick - were talked about as limiting physical activities. Bauman et al stated that obesity as a driver of physical inactivity was "a new idea" (Bauman *et al.* 2012: 265), but it is not new to respondents in Langa, who spoke of weight as one of the bodily factors which affected their capacity to be active. We need go no further than our own experiences of health and physical activity to conclude that embodiment, and somatic experiences, are essential to our understanding of them.

8.5   Conclusions

This was a small, explorative study, using simple methods, but the above examples illustrate how even such a study can start to add to the knowledge which we can draw on in thinking about physical activity, NCDs and wellbeing in low and middle income countries. To me it is surprising that much more work of this nature has not already been done, particularly as the very positive reaction to the preliminary findings which I presented in South Africa indicates that many in physical activity and public health circles would welcome the new ideas it could generate. In the next chapter I return to my original research questions, and as part of this consider what this study can suggest for future research and policy.

9 Conclusions

9.1 Introduction

Within six months of completing their interviews for this research two of my respondents had died. Sonwabile, aged 61, died of a stroke, and 56 year old Zakhele's cause of death was listed as tuberculosis. Such premature deaths will continue, in their millions, in low income communities around the world unless and until there are fundamental changes which address social and economic inequality from the global to the local level. Unless and until a way is found to achieve these changes, the necessity for downstream measures to try to mitigate the health consequences of inequality will remain.

This chapter considers the implications of my research for work in this area. I return to my original research questions, and summarise what my findings have to say in response to them. Some limitations of the research are discussed, and ideas for future work are explored.

9.2 How is physical activity in the prevention of noncommunicable diseases in low and middle income countries conceptualised in global academic and policy oriented literature?

This question has been addressed in chapters two and four, where it was found that physical activity was often referred to as a (modifiable) 'risk factor', 'lifestyle factor' and a 'health behaviour'. The term 'exercise' was sometimes used interchangeably with 'physical activity', but at other times was used to refer to physical activity which was done intentionally as exercise. Physical activity was conceptualised as having different types, domains and dimensions, which affected what effects it would have on preventing NCDs, and what policies would be best suited to influencing it. Large-scale, carefully controlled, quantitative studies were seen as the best way to learn more about physical activity and how to increase it.

Both academic and policy literature portrayed the relationship between physical activity and wellbeing as overwhelmingly positive and uni-directional, with a strong emphasis on benefits to physical health, and NCD prevention, within this. This led at times to very medicalized and instrumentalized concepts of physical activity. Other potential benefits, and some risks, of physical activity were discussed, but in a relatively limited way. The reverse direction – barriers to physical activity based on problems with health or other dimensions of wellbeing such as security – was also acknowledged, but again in a very limited way compared to the emphasis on physical activity as a contributor to wellbeing. There was minimal engagement with the people who were the targets of intervention, or embodied experience, as sources of knowledge about physical activity. These factors contributed to abstracting physical activity from its context within both the person and society.

Compared with other 'health behaviours', academic literature on NCD prevention placed less emphasis on physical activity as a target for intervention, and this appeared to be due to there being less confidence in the strength of the evidence that interventions would be effective. There was also acknowledgement, in both academic and policy sources, that not enough research on physical activity had taken place in low and middle income countries. Policy literature nevertheless

recommended and suggested many interventions aimed both at changing the environment to increase physical activity, and persuading people to choose to be more physically active.

Social determinants of health, and of NCDs specifically, are referred to regularly in both academic NCD prevention literature and policy documents, but there appeared to be much uncertainty regarding how to take account of these. Within specific physical activity research there has been much less attention to social determinants, and more general social determinants of health literature thus far has had little to say about physical activity.

9.3 How does physical activity fit into the lives of adult residents of a low-income community in Cape Town?

Chapters five and six have addressed this question by first seeking to build a broad picture of the lives and concerns of adult residents of Langa, and then examining how physical activity fits into that picture.

While NCDs are clearly a major problem within Langa, they are set amidst, and contribute to, other challenges and priorities. Physical activity and the other major shared 'modifiable' risk factors for NCDs identified by WHO were linked with each other, and with the major challenges identified explicitly by respondents: unemployment, poor housing, crime, and alcohol/drug abuse. People were experiencing the results of these challenges as financial, food and physical insecurity, compromised health, a lack of opportunities to engage in productive activities, and a lack of hope.

Maintaining wellbeing was seen as requiring positive attitudes and responses to the often difficult 'objective' circumstances in which people found themselves. Positive responses involved a combination of acceptance – when changing something was beyond your means - and action when this might achieve something. Being physically active could be one positive response, contributing to both acceptance and action. Physical activity, in the 'exercise' sense defined by WHO, could help with acceptance by providing an alternative to 'thinking too much', and could also help as action - by earning (work) or saving (e.g. transport) money; producing a well-maintained home; supporting physical health; and by generating positive feelings and a sense of achievement. However, your health, or the size of your body, could limit you in doing this kind of physical activity. This kind of physical activity could also have costs – pain, fatigue and hunger; harm to health from overdoing it, especially if you were old or ill; financial costs of participation, or loss of time which would be better spent looking for work; exposure to risk from crime while out and about; and harm from behaving inappropriately for your age or gender.

However, respondents' definitions of physical activity did not stop at exercise, but included broader activities, involvement, busyness, capacity and function. These aspects of physical activity were important in maintaining a positive attitude, and in deflecting people from crime, alcohol and drugs. Being physically active, as defined by respondents, was an antidote to 'just sitting', a negative state associated with being unemployed and having nothing to do. People in Langa generally considered themselves to be physically active, and saw this as a good thing.

9.4 How are researchers in this field in Cape Town seeking to reconcile demands from global public health and the local context?

As discussed in chapter seven, researchers in this field in Cape Town were involved in work which generally adhered to global public health discourse on physical activity and NCD prevention, but they expressed some frustrations with their experiences of doing this, and were interested in finding new ways of working. Locally grounded concepts and methods were seen as one way of doing this, and there was also a sense of solidarity with other 'global South' researchers, who they felt were likely to be grappling with similar issues. There was tension between a perceived need to produce certain types of data to secure funding and publication, and the local challenging, often informal, contexts which they felt created difficulties with collecting such data, as well as undermining its validity.

Overall there seemed to be acceptance that the methods used in the 'global North' were appropriate there, but not necessarily elsewhere, and the goal of increasing physical activity in order to prevent NCDs was generally endorsed.

Researchers in Cape Town had experienced problems with applying tools which had been developed in Europe and North America for international comparative studies, and believed that the range of issues which needed to be understood in order to increase physical activity in low income communities in South Africa might be very different. They were aware of extreme hardship and multiple health burdens in many 'global South' communities, and were very motivated to contribute to addressing these. Exploratory, interdisciplinary and mixed methods research was seen as a way forward, particularly at ACC, and progress was made with this kind of work over the time of my study. There were however some struggles with the epistemological and methodological implications of undertaking such research. There was interest in engaging with policy makers locally, and in building international 'global South' research networks.

Existing research and funding structures presented some challenges to achieving their aims, with mixed methods researchers, and often qualitative research, seen as not well supported by current structures. Researchers at ACC and ESSM also occasionally raised the challenges presented by the gap between the academic research world and that of the subjects of much research – residents of local townships. It was my perception that this gap also existed within some research groups, with fieldworkers from local communities often not well integrated into knowledge generation projects.

9.5 How do these three perspectives relate to each other, and what does this suggest for future research and policy?

Within this thesis I have highlighted differences between perspectives, but there were also many instances of alignment and complementarity. I do not believe that any one source of knowledge is the 'right' one, but rather that each perspective warrants consideration, and that the perspectives of township residents have often been either excluded, or treated as ill-informed. Township residents were much more prepared to take account of the perspectives of researchers and policy makers, but encountered gaps between such perspectives and the possibilities of their own lives.

The expertise of the various academic and policy fields involved in the campaign to prevent NCDs is valuable, but without the perspectives of those who are the eventual targets of intervention, it is a partial expertise, and this is often not recognised. The acknowledgement of social determinants of

health brings some of the gaps in expertise to the fore, as traditionally 'scientific' fields struggle to deal with social and political issues of justice and equity. While the gravity of the NCD situation, and the existence of technical measures which may help to alleviate it, contribute to the calls to push ahead with intervention, there is also recognition that different types of knowledge and skills are still needed.

While some authors in the field of public health seem to see the discipline as needing to take much of the task of finding ways to deal with social determinants of health on its own shoulders, I suggest that other disciplines, particularly the social sciences, have knowledge, skills, and experience which can complement those already embodied within the global NCD prevention movement. Technical and scientific knowledge and skills are required in understanding the pathological impact of smoking, drinking alcohol, eating food high in fat, sugar and salt, and not exercising, on our bodies, and the potential impact of particular solutions. However, decisions on if or how such solutions should or can fit into our lives and societies, or if the emphasis should be elsewhere, require more democratic input. Political knowledge and skills are required to implement those decisions.

Respondents in Langa illustrated how engagement with the people who are the targets of intervention can challenge, contextualise or elaborate on the detail of how physical activity should or could fit into NCD prevention. But their experiences also illustrate the importance of focusing on macro factors affecting the opportunities available to them in education, housing and employment, as well as health.

Health in Langa requires wellbeing. Wellbeing in Langa requires greater equity in South Africa and beyond. This conclusion is aligned with those reached by the Commission on Social Determinants of Health (CSDH), and others working in this field, with reference to broader populations, with the CSDH connecting "the poor health of the poor" with:

> "unfairness in the immediate, visible circumstances of people's lives – their access to health care, schools, and education, their conditions of work and leisure, their homes, communities, towns, or cities – and their chances of leading a flourishing life." (CSDH 2008: 1)

However, how to go about achieving equity at the macro scale is a challenge which many have wrestled with. There are questions regarding what role an organisation such as WHO is capable of playing in championing the equity agenda. WHO's leadership position on many technical matters is not seen as being matched by WHO's financial resources or political power – even within the health field, and certainly not in broader arenas alongside the World Trade Organisation, World Bank and international Monetary Fund (Green 2010; Lee 2010: 13).

Discussing the focus on evidence as a strategy to drive change, Lee asks "to what extent is the [CSDH] Report seeking to find a technical path through a politically laden minefield?"(Lee 2010: 12), but acknowledges that engaging in open debate about the "elephant in the room" – differing views about social justice – risks "alienating those whose power is needed to enact real change" (Lee 2010: 10). Green finds it unsurprising that the CDSH report, while acknowledging the role of power disparities in generating health inequity, "shies away from radical calls for social action to redistribute power, or any direct critique of neo-liberal economic systems", with the weight of the report feeling "firmly at the level of mechanisms which will mitigate the corrosive effects of these determinants" (Green 2010: 2).

Blas and colleagues believe that careful mapping of perspectives and vested interests of key actors, and a change in the incentives and the attitudes of staff across multiple sectors and multiple levels, are needed in order to influence social determinants, but that "in the long haul, the final battle for equity takes place in the public space" (Blas *et al.* 2011: 200). They argue for "choosing the right moment of opportunity, providing the evidence, and taking control of public perception through leadership and skilful media work" as strategies which can be employed in this battle (Blas *et al.* 2011: 195). Lee draws on past achievements in social change as inspiration:

> "While a daunting task, historical examples of major social changes (e.g. universal franchise, civil rights movement) show what collective action can achieve" (Lee 2010: 5-6).

Writing people in to research and policy

When it comes to equity, the first place to look to see how things can change for the better is within our own work. As discussed below, there were limitations on the nature of participation in my research, and I plan to approach this differently in the future. Researchers exercise power in their choice of what to research, where and how to carry out that research, who is involved and in what way, and what to do with results. While researchers are often working in the context of disciplinary, institutional and funding constraints, ways can be found to work around these, or to challenge them with a view to transforming the research environment. During the course of this research I encountered, personally and in the literature, many indications that there is an appetite for changing approaches to who is involved in research, and how. But this will not necessarily be comfortable.

When it comes to research I have thus far highlighted two areas where I think there can be problems with the nature of engagement – within research groups, and between research groups and research 'subjects'. As Blas et al. note, there is a "double burden" facing those who are socially excluded: "the exclusion itself, and being excluded from dealing with the exclusion" (Blas *et al.* 2011: 5). Breaking down these distances and hierarchies can itself be a small step towards achieving the equity agenda. As well as whatever direct benefits of empowerment or skills development may result (for each group) from improved engagement, human nature tends to dictate that it becomes more difficult for those higher up in the current hierarchy to maintain inequitable positions when they have to engage with the people who are undermined by the consequences of those positions face to face. Engaging with people can change how we think about them, and help to build a different relationship. Having a divergent range of perspectives in the room can also force more explicit consideration of goals and values, and how they are being justified. The issue of unequal power does not disappear, but research designs and structures should seek to build in mechanisms to help address it, by writing in the role of different stakeholders, and considering factors such as at what stages and on whose 'territory' engagement takes place. Inviting township residents to a University meeting room for discussions after a detailed, perhaps restrictive, proposal has already been approved, offers very different possibilities to those provided when researchers attend a community meeting at a much earlier stage in the process – when there are still substantive decisions which can be negotiated.

Researchers however need to acknowledge their limitations openly – if they do not have the skills, the resources, or the will, to address the priorities expressed by other stakeholders this should be discussed explicitly, and a decision made as to whether a compromise can be reached, or whether people should go their separate ways.

Simon *et al.* (2007) described some of the issues encountered when they sought to engage with a low income South African community while researching cervical cancer. The community advisory board which they set up problematized both the topic of research and the methods (surveys – due to low levels of literacy, and interviews – seen as too individualistic and potentially uncomfortable) which were being proposed. When it came to methods a compromise which was acceptable to both the researchers and the community was found – focus groups, which resonated with local people's preferences for group-based activities (Simon *et al.* 2007).

The topic of research – cervical cancer – was considered too limited in the context of multiple and interconnected sources of suffering. The resources for the research were however tied into funding earmarked for cervical cancer and cancer prevention studies, and thus there was limited room for manoeuvre. The community proposed that the researchers adopt the concept of 'cervical health' instead, to respect the fact that local women faced many different health issues and challenges. They pointed to the social, economic, and environmental determinants of suffering, rather than just the physical and behavioural determinants which the original research model had prioritised (Simon *et al.* 2007: 1966). The researchers felt that using the concept of cervical health would allow them to explore the link between cervical cancer and other health and social issues, such as sexual abuse and violence, which were major concerns among focus group participants. This was seen as a way to increase the local relevance of the research at the same time as maintaining their accountability to their funders and other stakeholders (Simon *et al.* 2007: 1966-1967). The researchers acknowledged that their reshaped agenda still did not address the community's immediate need for resources and services, thus they disseminated their key focus group findings to other stakeholders with the formal capacity to alleviate some of those resource problems - local government, regional NGOs, and South Africa's Minister of Health (Simon *et al.* 2007: 1967). This highlights a third area of engagement which researchers need to consider – that between researchers and those who have the power to make more substantive changes.

Simon's research group also demonstrated a different approach to the role of project staff drawn from local communities to that which I had observed in physical activity/public health research in Cape Town. Community-based project staff helped to script focus group questions, advising on what kinds of questions to ask and how to ask them. Community members were hired and trained as focus group moderators, and both community members and local project staff stayed involved during the data analysis stage, contributing local interpretations of the data (Simon *et al.* 2007: 1963-1964). Simon *et al.* saw addressing these kinds of differences or disconnections as an ethical responsibility of researchers, but this process can also serve to improve the quality of the data and the analysis, and increase the policy-relevance of findings.

WHO's *Prioritized Research Agenda for Prevention and Control of Noncommunicable Diseases* (Mendis & Alwan 2011) places "research on ways to mobilize community resources (e.g. develop mechanisms for community participation in the design, delivery and priority setting of NCD policies)"(Mendis & Alwan 2011: 45) within the overall top twenty priorities for NCD research. The mandate, within WHO, for finding ways to transform public engagement on NCDs thus already exists. With the *Prioritized Research Agenda* also emphasising the necessity for research capacity development in low and middle income countries (Mendis & Alwan 2011: 47-48), there is a mandate which could be used to support funding structures which permit both public engagement, and investment in the fieldworkers who are the current interface between township communities and

research groups. This is in contrast to the present situation which researchers in Cape Town spoke about as a research agenda often driven by funders who were sat outside the country, and international studies which did not provide sufficient resources to allow a participative agenda locally.

A different kind of role for 'the public' also needs to be written more explicitly into policy documents. For example, WHO recently invited comments on its discussion paper on the development of a 2013-2020 action plan on NCDs (WHO 2012c). While the target audience of the WHO action plan is not the general public, they *are* the eventual targets of intervention, and the role which they can play in addressing the challenge of NCDs must therefore be clearly articulated within the action plan. The 'public' do already appear within the discussion paper, but both the level, and nature, of their presence requires revisiting.

An equity approach requires engagement with the public, particularly vulnerable communities, in their capacity as key stakeholders in the fight against NCDs – not as relatively passive recipients of health education and behaviour change programmes, which unfortunately has often been the case in public health programmes to date. The discussion paper acknowledges, under its review of constraints for the implementation of the previous NCD action plan (WHO 2008a) at country level, that "a top-down prescriptive approach to health education has not led to the required behaviour change in the population" (WHO 2012c: 23). We cannot afford to flounder again on this front, and a different model of public engagement can be a way forward.

Alignment and contestation
There were areas of potential alignment and complementarity between concepts and goals expressed in Langa and in academic and policy literature. There is potential to build on such alignment, and while doing so, to assess the equity implications of each proposed research proposal, policy and intervention. This is necessary because, as Green points out, "there can be uncomfortable trade-offs between what is good for health and what is good for equity" (Green 2010: 2). Assessing research plans, policies and interventions in this way can help ensure that even 'downstream' measures contribute in some way to the equity agenda, rather than contributing to reinforcing the status quo while offering some form of mitigation as compensation. Using holistic frameworks for assessment, such as wellbeing, can help bring to light unintended consequences, tensions and trade-offs. As Blas and Sivasankara Kurup point out, researchers and policy makers working to address social determinants of health need to be prepared to deal with resistance and opposition (Blas & Sivasankara Kurup 2010: 9)

Engaging seriously and respectfully with other stakeholders' views does not mean engaging naively or uncritically. It also means seeking to understand why people might have come to certain conclusions, bearing in mind what you know about their circumstances. While the knowledge of residents of low income communities such as Langa is a valuable resource, that knowledge is built in part on experiences of harsh and unjust circumstances in their lives. Coping strategies which people have developed in response to these circumstances should not distract from the necessity to change them.

One example of alignment between views expressed in Langa and those in the literature I have critiqued, was with regard to the domain of health. Such literature at times conceptualised health as socially determined, but at other times seemed to place it within the realm of personal control. As

noted in earlier chapters, health did not come up in Langa as a community or general challenge in the way that unemployment, housing or crime did, but was spoken about only in the context of personal life histories. While health was thus something which was confined to the personal domain for many respondents, this is not where I think it should remain. Macro factors were clearly affecting health in Langa, but the resulting poor health was experienced at the micro level as a very personal problem. Interventions which place excessive emphasis on the role of personal behaviours and choices in determining health can reinforce this feeling of personal responsibility, and direct the attention away from the role of social circumstances, and the need to address these.

Findings which point towards work which is better aligned with both policymakers' and township respondents' interests are the importance of positive attitudes, activities, and involvement, to wellbeing in Langa. These findings indicate that engaged and participative approaches to research, policy and intervention would be likely to contribute directly to supporting wellbeing in Langa, as well as furthering an equity agenda and improving the quality of research, policy and intervention outcomes.

When asked about what should be done to increase physical activity, respondents frequently quickly moved from talking about quite narrow solutions, such as building sports facilities, to expressing interest in interventions focused on social issues such as unemployment, education and crime. This reflected work by Harris *et al.*, who found, in their study of an intervention using a social determinants approach to target alcohol misuse, that "informants indicated that they believed the determinant-oriented activities of the scheme acted as an entry point for youth into the project, rather than the issue of NCD prevention itself" (Harris *et al.* 2011: 179). Thus research and intervention which focus directly on social determinants, where downstream benefits to health could be a side-effect, rather than the other way around, are likely to be better aligned with both the long term and expressed interests of township residents, and to generate improved local engagement.

9.6   Limitations

I have tried to highlight limitations of this research as I go along, but further attention to several issues is warranted here. This was a small, exploratory study, and language and other barriers affected the level of my participation in Langa. Translation also raises issues with the definitions of physical activity and 'just sitting' which were generated, and these concepts and definitions are worthy of further study.

While the collaboration with research groups in South Africa was invaluable to my work, and also provided a direct route to disseminating research findings to an important target audience, I did not manage to exploit the PURE data to the degree I had originally hoped to, or to produce truly mixed-methods work. The interview data dominated, but this was driven by the fact that, to me, this was by far the richest source of data which was available to me.

While I argue in this chapter for participatory approaches to research design in this field, I did not achieve this in my own research when it came to Langa respondents. I spent much of my energy in Cape Town trying to find ways to engage with people from the poorest communities, but, as discussed in chapter three, this was quite a challenge. The input from township residents thus came at a late stage of the research. I have however sought to engage fully with this input, and have used

it to drive my research agenda from that point onwards. I also did what I could to address issues of equity within my own small research 'team', but nonetheless, the benefits to me of my colleague's work dwarf the benefits she gained from our collaboration.

While I consider embodiment an important theme and avenue for exploration in this field, I did not find a satisfactory method of generating further data here. My own experiences were one source, answers to explicit interview questions about feelings another, and general attention to how embodied barriers arose in people's talk about health and physical activity was a third strategy. However, I need to give further thought to what else can be done.

I also feel that the themes of gender and sexuality are underdeveloped in this work. While there was much talk of bodies there was little discussion of what made bodies attractive and how this affected things. Women often used the phrase "got a baby", but rarely talked about the relationships around this. While people were often very open about other personal issues, there may have been norms which discouraged the discussion of such topics in the relatively 'public' context of an interview, or in the context of what was likely to have been seen as health research.

I have highlighted some marked differences in the way men and women talked about things in interviews, but it must be borne in mind that respondents, in their interviews, were talking to two women, one of whom was a white foreigner, and this is likely to have had an impact on what they said. Key informants indicated that health was also likely to be a more sensitive topic for men in Langa, with women often accustomed to discussing health issues in the context of reproductive and child health, whereas for men health questions were considered to be more associated with the possibility of stigmatisation related to HIV/AIDS.

Finally, debates regarding issues of constrained aspirations (Appadurai 2004) and 'adaptive preferences' (Bruckner 2009) underline the importance of engaging critically with viewpoints emerging from Langa, rather than taking them at face value. These issues are relevant to all stakeholders, but may be particularly salient in low income communities.

9.7   Further work

There is a lot going on in the field of NCD prevention policy at the moment, and it is thus important to disseminate findings from this work, and to seek to influence future research and policy in line with those findings. My first steps towards doing this have included participating in, and writing a commentary on (Brangan 2012), a symposium aimed at moving 'from research to action' on global NCDs[45], which included several of the key authors of the academic literature in this field. I have also submitted comments, under the auspices of the Centre for Development Studies at the University of Bath, to the WHO consultation on its new action plan on NCDs (WHO 2012c), and I will follow the plan's continued development with interest.

It may be of interest to replicate the Langa study in other communities in South Africa and further afield, with a view to exploring to what extent findings are replicated or diverge. However I would favour using the findings of this study to inform a research design which takes the work further than this. A follow-up visit to South Africa in July 2012 gave me the opportunity to discuss my findings

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[45] Held on April 25th 2012 to launch the Centre for Global NCDs at the London School of Hygiene & Tropical Medicine.

with various stakeholders, and to reinforce relationships developed during my first visit. Responses from academic groups to my presentation of the views of Langa respondents were enthusiastic, and there was much interest in taking work such as this forward. I thus plan to work on proposals to do so in collaboration with key contacts in Cape Town.

There is much current interest in interdisciplinary work, and in the social determinants of health. WHO has listed 'developing mechanisms for community participation' and investment in low and middle income country research capacity, as priorities for NCD research. These are factors which can be used strategically to help secure support for work which capitalises, in an equitable manner, on the enthusiasm and skills of the many people I met in Cape Town who have a passionate desire for change in their city. One option to explore is combining i) work focusing on research methods, structures and governance which support engaged and equitable partnerships between communities, researchers and policymakers, and ii) 'action research' to set up such partnerships, and to apply and evaluate ideas the ideas they produce. A strong desire for a link between research and intervention was noted by Simon *et al.* in their study of cancer in a South African community (Simon *et al.* 2007), and it was also something which came up in Langa. Maybe next time we will have a different answer for Nombeko:

> R: So do you think that what I am saying can be done; that maybe sometime we can... we can meet so you can organize the sports that I like. Do you promise?
> I: I am not promising anything! [Both laugh]
> (Nombeko, 55 year old female)

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Appendix 1   Langa interview guidelines

A.   Introduction and consent

Date: Location**:**   Code number: LA /   /

I am carrying out academic research in Cape Town because I am interested in learning about people's lives here, and how they go about achieving wellbeing. One of the things I am interested in is how being physically active fits in with this. I am carrying out this research because I think it is important that what local people think and feel is considered when policies that might affect these people are being designed. As part of this research I am interviewing people from Cape Town.

All information gathered is confidential and will be used only for research. Your identity will not be revealed in any reports produced as a result of this research.

- You do not have to take part in this research. You can decide if you would like to take part or not. If you decide not to take part this will not affect how you are treated by any other research or healthcare groups you are involved in.

- If you decide to take part you can change your mind at any time and withdraw from the research with no penalty.

- If you decide to take part but there are some questions you do not wish to answer this is also ok. You only need to answer the questions you wish to answer.

I would like to record the interview so that I can make sure I have accurately captured what you tell me. Later these recordings will be transcribed (typed on a computer) and after this I will delete them. Please let me know if you would like the recorder to be turned off at any time. During this interview I will also write down some of your answers.

This research will be conducted in accordance with the ethical guidelines of the South African Human Sciences Research Council, and the British Sociological Association Statement of Ethical Practice. If you would like to see a copy of these guidelines please tell the interviewer and one will be provided.

Please feel free to ask any questions you wish to about the research.

Do you agree to take part in this research?   Yes ☐   No ☐

Signature:

I will give you a card with my contact details on it so that you can contact me if you have questions after the interview is over, or if you wish to find out about the results of this research.

Researcher's contact details provided   ☐

During the interview please tell me if any of the questions I ask are not clear, or if there is anything you would like me to explain. There are no right or wrong answers – I am interested in what you think**.**

B. Biography and goals

These questions are a general guide for the interviewer and do not have to be followed strictly. Ideas and stories raised by the respondent should be followed up. The objective is to find out about the respondent's life and priorities, and how physical activity fits into this.

1. Are you from Cape Town originally? (Area born/grew up. What places spent time in and why. When came to current location. Why came and what was it like to come here)

2. Depending on answers to above ask about family/work/study and what influenced these.

3. Do you feel that you are part of a bigger group and what kind of group would you most strongly identify with? E.g. family, local community, nationality or ethnic background, church group, occupational group, club etc. How important is this to you? **DO NOT LEAD**

4. **OFFER OPTIONS to respondent. Do not fill in based on your own assessment.** Xa uthatha nje izinto zizonke, Woneliseka kangakanani bubomi bakho buphelele kulemihla?

Woneliseka kakhulu / Uyoneliseka / Waneliseka unganeliseki / Awoneliseki / woneliseki kakhulu

☐ ☐ ☐ ☐ ☐

5. What contributes to you having this level of satisfaction with your life?

C. Health

1. **OFFER OPTIONS**. Ungalibeka kowuphi umlingani selo inqanaba lempilo yakho?

ilungile kakhulu / Noko ilungile / ilunge ingalunganga / Ayilunganga / Ayilunganga Kwapela

☐ ☐ ☐ ☐ ☐

2. Is there anything you worry about affecting your health, now or in the future?

3. **a)** Do you do anything to protect/improve your health? (What and why, what gets in way, how much of a priority is it etc.). **b)** Where did/do you learn about how to stay healthy?

D. Daily routine

1. How does a typical day go for you? (Do you have a typical routine? Is it different on different days, for example at weekends?). **Follow all the way through day please.**
Follow up any activities mentioned with a view to getting a feel for when and where this person is physically active e.g. if say 'go to shops in the morning' find out how they go there. If working away from home find out what kind of work this is. If working at home/looking after somebody find out what this involves for them etc.

2. How do you get around to the places you need to go as part of your regular routine? Why do you use this way of getting around? Has this changed with time or did you always use this way?

E.   Physical Activity
Do not need to ask all these questions – e.g. if one has been covered in a response to an earlier question. Let the respondent talk and take the lead.

1. What does 'physical activity' mean to you? **DO NOT LEAD towards 'exercise'. If need another word maybe try 'using energy'.**
If e.g. only one type such as sport/exercise mentioned ask about whether respondent would consider walking to get somewhere, doing work at home, in yard, or work away from home to be physical activity. If not why not?

2. Do you consider yourself a physically active person? (and do you want to be?).

3. What kinds of physical activity do you do? (Explore all. **Different in summer and winter**?)

4. Is it ever difficult for you to do …… (ask for each kind of physical activity mentioned)

5. How does…… affect you? (ask for each kind of physical activity mentioned including work etc.)
*Probe: **especially difference between activity for work, getting around compared to leisure***

6. Do you think …… has any effect on your health? What kind of effect?

7. How about the other way around – does your health affect your ability/wish to do …?

8. Were you more or less active in the past? Why?

9. Do you expect to be more or less active in the future? Why?

10. What kind of food do you like to eat? Is it easy for you to get this? How does the food you eat affect your physical activity? *E.g. gives you enough energy to do ……? Makes you feel strong? Doesn't make you feel like being active?*

11. How do you think where you live affects your physical activity?
        Follow up if nothing volunteered:
        How close are the places you need to go to for your daily activities?
        Are there pleasant places to walk/play with children/exercise/play sport?
        Do you feel safe/comfortable doing …. where you live – why? E.g.
        Crime/pollution/traffic/rubbish/uneven surfaces/culture?
        What do people around here think about…..?

12. How does your physical activity make you feel about yourself? (Work? Getting around? Leisure?)

F.   Policy

1.   **a)** Do you think anything should be done to help people be more physically active? **b)** What and why? **c)** Who should be responsible and why?

2.   **a)** What do you think are the biggest difficulties which people in your local community face?
         b) What about difficulties which affect the wellbeing of people in Cape Town more generally?

Note – this is overall difficulties, not necessarily difficulties being physically active. Make this clear.

        c) Who should be responsible for taking action on these problems?

G. Demographics (for completion by interviewee) *Code: LA / _ / _ _*

<u>Age</u> _____ Years

<u>Gender</u> M ☐ F ☐

<u>Language</u> What is the main language you use at home? _____

<u>Smoking</u> Do you smoke, or have you smoked in the past?

Currently smoke ☐ Smoked in past ☐ Never smoked ☐

<u>Education</u> What education have you had?

☐ No schooling
☐ Grade 1- 6
☐ Grade 7
☐ Grade 8 - 11
☐ Grade 12

☐ Certificate with less than grade 12
☐ Cert/diploma with grade 12
☐ Bachelor's degree
☐ Bachelor's degree and diploma
☐ Honour's degree
☐ Higher degree (master's or doctorate)

(Categories from South African census)

<u>Occupation</u> What is your main occupation? _____

If you also have another occupation what is this? _____

<u>Marital status</u> Currently Married ☐ Separated ☐ Divorced ☐ Widowed ☐

Never married ☐ Common Law/living with partner ☐

<u>Children</u> Number of children: ____

Age of 1st child ___ 2nd ___ 3rd ___ 4th ___ 5th ___ 6th ___ 7th ___ 8th ___ 9th ___ 10th ___

H. Interviewer notes/observations

Comments on interview:

Observations: