Talking about sugar in South Africa: A grounded policy reflection in the context of NCDs and HIV

HANNAH M. GRAFF

Thesis submitted in accordance with the requirements for the degree of Doctor of Public Health of the University of London

FEBRUARY 2021

Department of Global Health and Development

Faculty of Public Health and Policy

LONDON SCHOOL OF HYGIENE & TROPICAL MEDICINE

Funded by the UK Health Forum and the London School of Hygiene and Tropical Medicine

Declaration of Own Work

I, Hannah Graff, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Hannah Graff

Abstract

Introduction: On 1 April 2018 the South African Sugary Beverages Levy (RSA levy) came into effect, with the goal of lowering the consumption of sugar-sweetened beverages (SSBs) across the population. The aim of this study was to explore grassroots understandings and perceptions of food choices, food access, and national policy within the context of a country with a double burden of non-communicable diseases (NCDs) and HIV, using individual and community experience as a metric for critical reflection.

Methods: Focus group discussions were used to examine RSA's levy as an example of people's experience of a national policy aimed at improving health. I explored the lived context, food environments, and knowledge of and impact from the RSA levy among young adults (18-35) in an urban township outside of Cape Town (Ulutsha Town). Using a critical theory approach, I focused on two elements of the taxation policy mechanism: price influence over purchasing and consumption, and public awareness of the impact of sugary beverages on health. This policy reflection used a semi-iterative process of thematic development based on descriptive coding of the focus group discussion transcripts to identify key themes.

Results: The primary themes from the focus group discussions were used to critically reflect on the RSA levy day-to-day. These themes are unemployment, anxiety, the cost of food and sugary drinks, and the role of the government in shaping and giving health. This reflection of the RSA levy sits in contrast to many of the other assessments and evaluations conducted prior to and following the RSA levy implementation. Wider, socio-economic barriers and structures within Ulutsha Town are currently preventing the RSA levy from having its intended impact within this community.

Conclusions: As a policy designed to shape health, the RSA levy sits on top of entrenched structural barriers already in place for the young people of Ulutsha Town. Furthermore, young people in Ulutsha Town are navigating the shifting intersect between "old" HIV and "new" NCDs within their community. A combination of analytic approaches is necessary to evaluating policy and developing better and healthier public policies in the future.

Acknowledgments

I wish to thank my supervisor Professor Janet Seeley for her immense support and guidance throughout my studies. Her calm, straightforward and encouraging manner has without a doubt enabled me to navigate this degree. I must also thank my co-supervisor Dr Benjamin Hawkins for his sound advice and quick responses. Both of my supervisors have been extremely flexible and accommodating to my often-limited time and short deadlines.

At the University of Cape Town, I would like to thank my committee member Dr Alison Swartz; without her my study would not have been possible. Furthermore, a huge thank you to my Research Assistant Namhla Sicwebu for her patience, insights and calming nature – it was a pleasure to work with you. Additionally, at UCT I need to thank Dr Chris Colvin, the administrative team, Ntuthu Mvana (translation checking), and everyone at the UCT School of Public Health and Family Medicine for their welcoming support with logistics, UCT ethics approval, and assistance during my time in Cape Town. Finally, I must acknowledge my local gatekeeper and host in Ulutsha Town for opening his doors to me and making our focus group discussions possible.

Further mentoring, proof-reading, and general cheerleading support over the course of this degree came from committee member and former colleague Dr Modi Mwatsama; Professor Karen Lock for her early encouragement to start the DrPH and assistance in managing the early years and elements of the degree; and classmates and friends Gillian and Guy Harling, and Nuri Ahmed for their sound advice, helpful comments and positive attitudes.

This achievement would not have been possible without the financial and practical support from the UK Health Forum. I was fortunate to work at an organisation and amongst colleagues who valued my pursuit of this degree and provided me with the time to make it work. I would also like to thank my colleagues at HealthLumen whose understanding and flexibility in the last year of this degree made the completion of my study and this thesis possible.

My travel to and time in Cape Town was made possible by the LSHTM Research Degree Travelling Scholarship, which provided me with the financial support necessary to conduct my fieldwork and data collection.

A thank you is not enough to my parents, for their unwavering support to continue my academic studies over the years and reminder to always “take a deep breath and try my best”. They along with my siblings, family and close friends have been incredibly supportive of this pursuit over the years.

Finally, my biggest thanks go to my husband Nick and our daughter Emily for their continual support and flexibility as I have managed my degree the last five plus years. They have served as motivators, technical support and travel companions – it has truly been a team effort to get this far.

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Abbreviations

AIDS – Acquired immunodeficiency syndrome

BMI – Body mass index

COVID-19 – Novel coronavirus (2019-nCoV)

DoH – Republic of South Africa Department of Health

HIC – High income country

HIV – Human immunodeficiency virus

LMIC – Low and middle income country

LSHTM – London School of Hygiene and Tropical Medicine

MIC – Middle income country

NCD – Non-communicable disease

PLWHIV – People living with HIV

RSA – Republic of South Africa

SASSA – South African Social Security Agency

SES – Socio-economic status

SSB – Sugar sweetened beverage

T2DM – Type 2 diabetes mellitus

TB – Tuberculosis

UCT – University of Cape Town

UKHF – UK Health Forum

UNAIDS – Joint United Nations Programme on HIV/AIDS

WHO – World Health Organization

1. Introduction

The Republic of South Africa (RSA) has one of the highest prevalence of obesity in sub-Saharan Africa, with rates continuing to increase (Tugendhaft et al., 2016, Bosire et al., 2020a). Countries in economic and epidemiological transition, such as RSA, have been particularly affected by the rising global burden of non-communicable diseases (NCDs) and in particular have seen rapidly increasing rates of obesity and linked metabolic conditions (Kruger et al., 2005, Pisa and Pisa, 2017).

Globally, there has been an increase in the implementation of national policies to address NCDs, and chronic diseases more broadly. This is in part due to the increased political support for the global NCD agenda as evident by the third United Nations high-level meeting on NCDs in September 2018, and by their on-going promotion for example in the World Health Organization's (WHO) "Best Buys" for prevention of NCDs (World Health Organization, 2017, Bridge et al., 2020). Furthermore, the global HIV response saw renewed impetus from governments and the public health community with a call to action by the UNAIDS-Lancet Commission in July 2018, which stressed the need for greater coordination in research and policy across silos, including with NCDs (Bekker et al., 2018).

In 2016, two thirds of women and one third of men in RSA were considered overweight or obese and in 2017, diabetes mellitus (diabetes) was the second leading cause of death for adults. Cardiovascular and hypertensive diseases also contribute to the top five causes of death (Statistics South Africa, 2020a, Statistics South Africa, 2017). NCDs are defined here to be conditions which can be linked with the often-considered modifiable risk factors (e.g., behavioural rather than genetic) of poor diet, physical inactivity, alcohol misuse and tobacco use. I will discuss my use of the term NCDs later in this chapter.

In addition to the rising burden of NCDs in RSA, as of July 2020 13% of the population of RSA was HIV positive and it is the second leading cause of death among working age men (Statistics South Africa, 2020b, Statistics South Africa, 2020a). This double burden of disease, of NCDs and HIV, has already and will continue to impact the RSA health system, economy, and communities for many years to come (Mayosi et al., 2009).

On 1 April 2018 the South African *Health Promotion Levy on Sugary Beverages* (RSA levy) came into effect with the stated goal by government of lowering the consumption of sugar-sweetened beverages across the population in RSA (South Africa Revenue Service, 2018). South Africa was the first African country to introduce a tax on sugar sweetened beverages (SSBs). The RSA levy is part of a larger set of goals and measures set-out by the RSA government intended to improve the health and wellbeing across the population including the *National Development Plan 2030* and the *Strategic Plan for the Prevention and Control of NCDs 2013-2017* (Department of Health, 2013, Republic of South Africa National Planning Commission, 2012). Sugary drinks contribute about a third of the sugar in many South Africans' diets and are a primary dietary risk factor for overweight and obesity, which in high income countries and countries in economic transition can be a leading risk factor for NCDs (University of the Witwatersrand, 2018, Tugendhaft et al., 2016).

In addition to these developments within RSA, there have been calls to more precisely carry out research and clearly demonstrate how "multisectoral efforts to prevent NCDs at the population level would bring distinctive long-term health benefits to people living with HIV" (p.S8) and to the wider context of countries with a high burden of HIV, particularly with regards to sub-Saharan Africa (Geneau and Hallen, 2012). The academic and civil society

sectors have in recent years called to urgently make common cause between the HIV response and the rising health toll of NCDs, including in the development of public policies (Bekker et al., 2018).

The aim of this study was to explore grassroots understandings and perceptions of food choices, food access, and national policy within the context of a country with a double burden of NCDs and HIV. In this grounded policy reflection – using qualitative data to look at a policy in practice – I use the example of the RSA levy to examine what (if any) knowledge exists about the policy and what (if any) impact there has been and why on the day-to-day lives of young adults living in one neighbourhood in Khayelitsha, Cape Town. One of the largest urban townships in RSA. In the context of a country facing a double burden from NCDs and HIV, high unemployment, and a continued legacy from Apartheid, I will critically reflect on the local experience against other assessments and evaluations of the RSA levy to-date.

As defined above, NCDs are a useful way to categorise chronic diseases, particularly from a policy context. However, this definition does not allow for a more nuanced and complex understanding of causality and risk. For example, relying on people sharing understandings across cultures and settings on what healthy food is or what a lack of physical activity may be; or how the role of insulin resistance is experienced in different populations (Goedecke et al., 2010). Examples of this variation in experience and perception will be seen in the results of this study. This wider categorisation of chronic diseases is particularly the case in settings such as RSA where the epidemiological transition[1] is on-going and chronic diseases

[1] The concept of an "epidemiological transition" is the idea that as countries transition from developing economies to developed economies, their major health indicators and causes of death also shift. For example, chronic diseases replace infectious diseases as the leading cause of death (Corruccini and Kaul, 2010).

can still also be attributable to infection or genetics, as well as modifiable risk factors (i.e., Type 1 diabetes vs. Type 2 diabetes). For the purposes of this study *NCDs* will be used when specifically talking about the conditions, context and policies explicitly linked with diet, physical activity, alcohol and tobacco, and *chronic diseases* will be used more generally to incorporate any condition someone lives with for an extended period of time.

1.1 Research aim and objectives

The aim of this study is to explore grassroots understandings and perceptions of food choices, food access, and national policy within the context of a country with a double burden of NCDs and HIV.

The objectives of this study were to:

- Investigate with young adults in Ulutsha Town[2], Khayelitsha, Cape Town their food choices and access to food, including the role of sugar in their diet.

- Examine what knowledge, if any, exists of the *South African Sugary Beverages Levy* (RSA levy) 18 months after it came into effect and explore what, if any, bearing the RSA levy has had on young people's day-to-day lives and why.

- Examine the introduction of the RSA levy within a wider health environment and policy discourse, in particular food choices and their impact on health.

- Critically reflect on the grassroots level experience of the RSA levy against other assessments and evaluations in the same time period.

[2] The name of the specific neighbourhood in Khayelitsha has been changed to protect the participants of this study. This is a pseudonym. "Ulutsha" means "youth" in Xhosa, the primary language spoken in the community.

This study will build on the call for greater research between the wider HIV and NCD responses and healthy public policies, which provides the rationale for a micro-level examination of a policy within a broader context. It will focus on the role of price in influencing food choices, and public awareness of health and health messaging which are intended to come from policies such as the RSA levy. For example, has there been any increase in awareness, and/or change in behaviour as a result of the tax since it was implemented and why; how does this compare with other evaluations of the RSA levy; how might my study contribute to future research and policy development?

To critically reflect on the RSA levy in its broader context, I utilised focus group discussions with 18-34 year olds living in Ulutsha Town. In the course of those sessions, we discussed what if any knowledge there is of the RSA levy; what if any change in purchasing there has been since the RSA levy was introduced and why; and in turn changes in consumption and why. This age group has been chosen given their position at the nexus of economic independence and decision-making; high levels of SSB consumption; NCD risk factor development; and HIV risk. Further rationale for focusing on this age group specifically is outlined in the literature review and methods chapters.

1.2 Overview of thesis

Following this introduction, I present the methods for my literature review process including the search strategy, followed by a contextual literature review. This review outlines the current RSA nutrition and epidemiological context, including the legacy of Apartheid; SSB taxes and fiscal policies for public health and an introduction to the RSA levy; the HIV-NCD intersect; and an overview of the critical theoretical approach I have taken in my analysis.

Following the literature review I present the methods for this study including the further rationale for my study population and use of focus group discussions for my primary data collection. I will then present the results from my focus group discussions, exploring life in Ulutsha Town; health in Ulutsha Town; what people choose to eat; what people have access to; and the scope for policy change in Ulutsha Town.

Finally, I place my results within a critical reflection of the RSA levy grounded in the concept of having the ability to improve people's lives by "shaping social structures" (Ozanne and Murray, 1995). The discussion will critically assess my findings in two main ways. The first will be a reflection of the policy itself – its design and intention – placing my results alongside other assessments and evaluations of the RSA levy to date. The second section will look at how my observations and policy reflection sit within the context of life in Ulutsha Town. I conclude this thesis by outlining some of the ways this study can contribute to research and policy development in the future.

2. Literature review

In this literature review I provide an overview of the South African epidemiological, nutritional and historical context; the rationale behind and evidence to support sugary drinks taxes and fiscal measures in public health, as well as an introduction to the RSA levy; a summary of the HIV-NCD intersect; and an introduction to my theoretical base, critical theory. There is a strong evidence base that supports cost-effective and cost-saving interventions for the four modifiable risk factors for NCDs. However, there remains significantly less evidence specifically on the national adoption of such interventions in low and middle-income countries (Jones and Geneau, 2012). The adoption of such policies by countries such as Mexico, Chile and RSA in recent years lends itself to sustained research and evaluation, particularly on the socio-cultural, political and economic dynamics of such policies and their impact. This contextual literature review builds on these advancements up the research and political agendas and provides the background in which my study sits. I begin the chapter with an overview of the methods for this literature review.

2.1 Literature review methods

This contextual literature review was undertaken using a systematised approach described by Grant and Booth (2009), to provide the background and wider contextual setting for my study. Given the practical reasons of being a single reviewer, having limited time and a wide range of topics to cover, it endeavoured to be systematic in its approach but does not constitute a formal systematic review (Grant and Booth, 2009). This included developing inclusion and exclusion criteria as well as keywords based on my research question and the use of quality assessment guidance for the literature selected for this narrative review, both of which are discussed further later in this section. Also included in this process was setting-up and using search algorithms to automatically retrieve new articles and literature. These

elements of my search methods align with Grant and Booth's (2009) systematised approach in that it includes one or more element of a systematic review process (i.e. inclusion and exclusion criteria; quality assessment), however because of the reasons listed above it cannot claim to be a systematic review.

The literature review objective was to review and synthesise the available literature on the current nutritional, epidemiological and specific historical context of RSA; the structure and purpose of sugar-sweetened beverage taxes and an introduction to the RSA levy; the intersect of HIV and NCDs; and an overview of critical theory. Additionally, the literature review helped in the initial identification of assessments and evaluations of the RSA levy to-date to contribute to my analysis and policy reflection. This review served as a means of understanding the background and context of my study; the basis for my descriptive coding and data analysis; and provides the setting for which to place my critical reflection of the grassroots experience of policy.

2.1.1 Search strategy

As the objective of this review covers a range of questions and topics, my search parameters allowed for significant flexibility in available material. My search criteria for database searches were limited to English articles from the last 20 years, however this range was extended as needed to capture older material especially given the lifespan of policy development, implementation and evaluation, and the history of critical theory. The review took a wide view to capture as much evidence as possible, therefore I included both peer-reviewed published studies as well as grey literature including reports, documents, conference proceedings, blog posts, editorials, news articles, etc. as appropriate.

The search strategy consisted of identifying keywords and searching a variety of databases for peer-reviewed publications, as well as reference lists of relevant articles. Keywords were identified based on my research question; study aim and objectives; and broad topic areas included in my literature review. For example, keywords used included – either individually or combined:

- South Africa; the Republic of South Africa; RSA; Southern Africa
- Sugar-sweetened beverage tax/levy; SSB tax/levy; sugary drinks tax/levy; fizzy drinks tax/levy
- Young people; youth; young adults; adolescents
- HIV; AIDS; people living with HIV; PLWHIV; human immunodeficiency virus; acquired immunodeficiency syndrome
- NCD(s); non-communicable disease(s); chronic disease(s)
- Policy
- Lived experience; grass-roots; "on the ground"

Databases identified and utilised include PubMed, Social Policy and Practice, Web of Science, Global Health – Ovid, and Africa Portal. For grey literature I searched using Google and Google Scholar, as well as a snowball approach for websites and resources identified through the general course of research. Furthermore, automatic pulls for literature (using keyword based algorithms) were established on Google Scholar and Web of Science to continually search of new, topic relevant literature throughout the entirety of the study period (2017-2020). All publications were screened by title and abstract in EndNote, and full articles were then retrieved, and data extracted as relevant following quality assessment. For research articles, a quality assessment exercise was undertaken using a CASP checklist

and for grey literature, if possible, quality was assessed based on a set of specific appraisal points adapted from CASP (Critical Appraisal Skills Programme, 2014). These assessments included for example a review of study design, methodology (data collection and analysis), and relevance.

2.1.2 Additional resources

Building on the broader literature review, as part of my critical reflection of the RSA levy on the ground, I used published studies that assessed and evaluated the RSA levy to-date at the time of analysis.[3] Initially, I assumed I would be looking for evaluations of purchasing with possible correlations to consumption (Teng et al., 2019). However, to-date and to the best of my knowledge studies within these parameters have not been published and therefore I expanded my definition of evaluation and assessment to include any studies that examined the RSA levy's impact or potential impact in some way. For example, the evaluations conducted by the PRICELESS unit at the University of the Witwatersrand both before and after implementation of the RSA levy; many of which are highlighted in the literature review. These studies are both quantitative and qualitative in their approaches and are important for comparing my reflection of the micro-level experience against evaluations of different populations in the country or at the national level.

Furthermore, the following additional data was captured through the literature review and research process and was utilised in developing the contextual setting for this study:

- Demographic and statistical data for RSA and Ulutsha Town as available (disease burden, dietary shift, sugary drinks consumption and spend, etc.).

[3] My data analysis and results write-up occurred winter 2019 to early autumn 2020.

- Documents identified from the literature review and through informants and study participants such as from the RSA government, NGOs and civil society, academia and the food industry.

- Any identified public-facing commentary from the media, civil society and academia on the *Sugary Beverages Levy* both prior to and since the implementation of the RSA levy. This fell within the scope of the literature review and was useful for examining in particular the public messaging and awareness of the RSA levy.

2.2 South African context – nutrition, epidemiology and history

This section provides a contextual overview to the nutrition transition of RSA since the end of Apartheid; a general overview of RSA's NCD and HIV context; and the legacy of Apartheid. The rise of NCDs in regions with an existing burden of HIV, such as RSA, can be attributed to multifaceted factors including increasing life expectancy, changes in 'lifestyle' behaviours and practices, poverty and widening socio-economic gaps, urbanisation and globalisation (de-Graft Aikins et al., 2010, Barnett and Whiteside, 2002). RSA has a current estimated population of 59.6 million people and as of July 2020, 13% of the total population in RSA was HIV positive and at least half of the adult population were considered overweight or obese (Statistics South Africa, 2017, Statistics South Africa, 2020b). The following section expands on this current epidemiological picture.

2.2.1 Nutrition transition

The growing rates of obesity in RSA have been attributed to globalisation and greater freedom of movement for black populations following the end of Apartheid (Kruger et al., 2005, Pisa and Pisa, 2017). This movement along with RSA's broader economic transition led to a nutrition transition away from lower fat diets high in fibre, towards ones high in

saturated fats and refined sugars (Myers et al., 2017, Kruger et al., 2005, Nnyepi et al., 2015, Popkin and Gordon-Larsen, 2004). Diets high in fibre, and largely plant-based diets more generally, have been shown to prevent and reduce NCDs, including obesity (Kendall et al., 2010).

The RSA's nutrition transition included increased consumption of food away from the home as well as increased consumption of convenience foods – such as pre-packaged meals – both of which favour the consumption of foods high in saturated and trans fats, salt, sugar, animal sourced and processed food, including an increase in sugary drink consumption (Nnyepi et al., 2015) . RSA has seen a steady rise in the consumption of these types of foods over the last several decades. For example, in data available from 2010 and 2012 South Africans consumed on average 254 and 260 Coca-Cola (Coke) products per person per year respectively, this is compared to the global average of 89 and 94 in those same years (Igumbor et al., 2012, The Coca-Cola Company, 2013).

While the consumption of sugary drinks is not the only cause of obesity, evidence does link the consumption of these drinks to weight gain across populations, including in RSA (Swinburn et al., 2011, Tugendhaft et al., 2016). For example, Okop and colleagues (2018) conducted a longitudinal study of SSB intake and relative weight gain over a 4-5 year period among adults in RSA living in resource-poor communities and found that on average adults in these communities were consuming 9.9 servings of SSBs a week and nearly a third of the participants reported relative weight gain over the study period. Of particular note from this study given my study population, was their finding that consumption of SSBs was highest among the most food insecure (Okop et al., 2019).

2.2.2 NCDs & HIV in South Africa

The most recent estimates indicate 39% of men and up to 70% of women in RSA are overweight or obese (Tugendhaft et al., 2016, Statistics South Africa, 2017, Healthy Living Alliance, 2020). One in five women have a body mass index (BMI) equal to or greater than 35 which the RSA government categorises as severely obese (Statistics South Africa, 2017). There is evidence which indicates that levels of overweight and obesity are especially high in townships, despite higher than average levels of daily physical activity especially among women (Malhotra et al., 2008). Current rates of overweight and obesity in children and adolescents are comparable to those in high income countries 10-15 years ago (Rossouw et al., 2012). Some of the highest rates are found in young children in rural communities, with girls having higher prevalence across the population than boys (Rossouw et al., 2012).

There is evidence to suggest that there are beliefs in some South African communities regarding the cultural acceptability of larger body size linked with experiences of hunger and the nutrition transition (Hunter-Adams, 2019). And for example that “fat babies are healthy babies”, which may be a factor in the high rates of overweight and obesity in young children (Rossouw et al., 2012, Bosire et al., 2020a). Bosire and colleagues (2020) conducted a study using qualitative methods based on focus group discussions among adults living in Soweto and found that being overweight was the norm, in part because of the location of easily accessible unhealthy food and beverages and the acceptable social norms regarding body size. They concluded that there are strong socio-cultural norms of accepting larger bodies amongst many South Africans, making it potentially difficult to address overweight and obesity within the obesogenic environments which have become so prevalent in urban and suburban areas of the country (Bosire et al., 2020a).

Moreover, it has been suggested that current definitions of obesity, such as abdominal fatness or BMI may not be appropriate for African populations at large. Or those populations with other established disease burdens, such as HIV, in part because of differences in abdominal adiposity in African populations as opposed to European populations which have been used to establish these definitions. Thus, making the assessment of the current burdens more complex (Murphy et al., 2014, Weiser et al., 2011, Crowther and Norris, 2012).

Linked to these rates of overweight and obesity across the population at large is the paradox of malnutrition and stunting in early life, followed by overweight and obesity in adolescents in RSA as well as other low and middle income countries (LMICs) (Tzioumis and Adair, 2014, Thow et al., 2017, Zungu et al., 2019). For example, Kimani-Murage and colleagues (2010) analysed a 2007 cross-sectional growth survey of 4,000 children and adolescents in RSA, which found both malnutrition and stunting at an early age with adolescent obesity, particularly among girls, in rural areas of the country. HIV status and household income were identified as independent modifiable risk factors for overweight and obesity (Kimani-Murage et al., 2010, Kimani-Murage, 2013). However, there is evidence that food insecurity is a risk factor for HIV and vice versa, including micronutrient and macronutrient deficiencies (Weiser et al., 2011). Furthermore, stunting and obesity into adulthood are risk factors for metabolic disease such as type 2 diabetes. The various links between type 2 diabetes and HIV is already well documented, making this trend in obesity rates of particular concern to the RSA context given its current HIV rates (Mendenhall and Norris, 2015, Petersen et al., 2014, Naidoo et al., 2010).

Overweight and obesity is a primary risk factor for a range of NCDs, many of which have been rising in RSA in the preceding decades. Type 2 diabetes, cerebrovascular diseases and other forms of heart disease all sit in the top five causes of death for men and women in RSA, with type 2 diabetes being the leading cause and hypertensive disease being the third leading cause of death among women (Statistics South Africa, 2020a). It is estimated that up to 11% of adults 60-69 years old in RSA have diabetes and those with diabetes are twice as likely to have a co-existing chronic condition as those without (Werfalli et al., 2018). Furthermore, in the last year there has been a documented association of diabetes as a co-morbidity in COVID-19 deaths in RSA (Boulle et al., 2020).[4]

In addition to its growing NCD burden, RSA has a declining but continued high burden of HIV. As of mid-2020 13% of the population in RSA is HIV positive, with approximately one fifth of women 15-49 years olds (22.3%) being HIV positive (Statistics South Africa, 2018, Statistics South Africa, 2020b). The overall HIV prevalence in young people aged 15-24 is approximately 5.5% and has remained stable in recent years (Statistics South Africa, 2018, Statistics South Africa, 2020b). However, among women in this age group it is estimated to be the highest of any age or sex cohort in RSA (South African National AIDS Council, 2017). This rate of infection has been linked with both age-disparate relationships with sexual partners (i.e. younger women with older men) and food insecurity (Maughan-Brown et al., 2014, Dellar et al., 2015).

The current prevalence of HIV, and the high and rising rate of obesity across the population, especially coupled with continued malnutrition and type 2 diabetes, create a unique and

[4] The impact of the COVID-19 pandemic in RSA is discussed later in this literature review and in the discussion.

serious double burden threat to the RSA population, health system and economy (Kruger et al., 2005, Igumbor et al., 2012, Myers et al., 2017, Zungu et al., 2019). This includes the multi-morbidities burden that will come from an increasing number of individuals living with both NCDs and HIV, highlighting an element of the complexity of the HIV-NCD intersect in RSA; discussed further later in this chapter.

2.2.3 Legacy of Apartheid

Apartheid was a system of institutionalised racial segregation that existed in RSA and what is now Namibia from 1948 until the early 1990s (SAHO, 2016). It was characterised by an authoritarian political culture based on *baasskap* or white supremacy. This system was meant to ensure that RSA was dominated politically, socially, and economically by the nation's minority white population (SAHO, 2016). According to this system of social stratification, white citizens had the highest status, followed by Asians and Coloureds (mixed-race), then Black Africans. Nearly 30 years after it ended with the abolishment of the *Population Registration Act* in 1991, Apartheid has left a lasting legacy across all aspects of life in RSA including racialised income poverty and inequalities; food insecurity; and the particular geography, health, and cultural life of townships.

RSA has one of the highest rates of unemployment as well as largest income gaps in the world, with inequality increasing since the end of Apartheid (The World Bank, 2018). As of the second quarter of 2020, RSA has an unemployment rate of 23.3% (4.3 million people) out of a labour force of 18.4 million (Statistics South Africa, 2020c). There are a total of 39 million people in RSA of working age (15-64 years old), which means 20.6 million people are categorised as “not economically active” and therefore not included in the unemployment

rate (Statistics South Africa, 2020c).[5] Following the end of Apartheid, Black South Africans have consistently had the lowest average income across the major racial-ethnic groups within the country (Leibbrandt et al., 2010).[6]

Linked with on-going income inequality and high levels of unemployment is food access and insecurity. Around 11% of the RSA population is living in hunger with many more being food insecure (Statistics South Africa, 2019). Of interest to the context of my study, Hunter-Adams and colleagues (2019) conducted a study on the implications of food insecurity in relation to diet-related NCDs in a peri-urban community outside of Cape Town. They found that the majority of their participants – women – were food insecure. In particular they lacked access to food at specific times of the month; were unable to consume the foods they preferred; and felt that their diets were neither nutritious nor enabled an active and healthy life (Hunter-Adams et al., 2019).

A further element to food access following Apartheid, is the evidence of strong brand association with regards to food choices and personal identity particularly among lower-income communities in RSA. During the economic and nutrition transitions previously highlighted following the end of Apartheid, Coca-Cola Co., PepsiCo Inc. and the Danone Groupe have come to hold over two thirds of the total soft drinks sales market in RSA (Igumbor et al., 2012). This is evident in the large numbers of Coke products consumed by

[5] Note: This unemployment figure reflects the impact of COVID-19 control measures, including a near total shut down of the South African economy during Quarter 2 of 2020. Many countries experienced increased unemployment rates during 2020 because of the COVID-19 pandemic.
[6] Here "Black South Africans" refer to what would have been "Africans" under the Apartheid classifications. Under that system "Black" referred to all groups that were classified as "non-White". Black was further broken down into the groups African, Coloured and Asian/Indian (Leibbrandt et al., 2010).

South Africans each year, but also by the sheer physical presence of Coke within communities; a point I return to in the discussion.

The final aspect of the on-going legacy of Apartheid, of particular relevance to my study, is life in townships and the geography of Apartheid. Across RSA, racial segregation remains with regards to where people live. This is particularly the case for Black South Africans – although seen as the most willing to integrate – in large part due to the racialised income inequality and levels of poverty already mentioned (Christopher, 2016). Townships themselves are a very clear physical reminder of Apartheid policies – including the forced migration of Black populations out of city centres to townships – with even the label of "township" having very strong connotations (Jürgens and Donaldson, 2012). There is a range of literature on the evolution of townships and their impact on South African cities and life (Jürgens and Donaldson, 2012, Jürgens et al., 2013).

While townships have transformed significantly since the end of Apartheid, shifting from settlements to communities, the legacy of their establishment and history remain a determinant in the lives of the people who live there (Jürgens and Donaldson, 2012). Take for example Khayelitsha in Cape Town where my study took place and is described in greater detail in the following chapter. In metropolitan Cape Town, a large proportion of the labour force lives in Khayelitsha or one of the other formalised townships in the city, however the majority of jobs are not found in townships (Turok, 2011). It should also be noted that Khayelitsha has the highest level of population density within Cape Town (Turok, 2011). There is a documented social cost to the physical distance established by townships and an argument that, while not the only factor, the on-going challenges of townships are an effect of and legacy from wider inequalities across RSA (Turok, 2011). The former point

on the physical distance of townships from jobs appears later in the results and discussion. In the next section I introduce the RSA sugary beverages levy (RSA levy) and the rationale behind and evidence for supporting the use of sugary drinks taxes for public health.

2.3 The RSA levy and sugar sweetened beverage taxes

The South African *Health Promotion Levy on Sugary Beverages* is an excise fixed rate tax[7] on sugar content (South Africa Revenue Service, 2018). In the RSA Department of Health's (DoH) *Strategic Plan for the Prevention and Control of NCDs 2013-2017,* taxes on foods high in sugar are listed as potentially cost-effective strategies for addressing poor diets and obesity, and the DoH had previously exhibited a willingness to use fiscal policy tools for improving health as evident from existing tobacco and alcohol taxes (Manyema et al., 2014, Department of Health, 2013, Republic of South Africa National Planning Commission, 2012). The intention for the RSA levy was announced by the South African government in 2016, with subsequent legislative approval and implementation in April 2018. South Africa was the first African country to introduce a tax on SSBs.

At the time, the tax received mixed reception within RSA:

> *South Africa became the first African country to impose an excise tax on sugary drinks, a move that has been welcomed by health experts but condemned as "nanny-ish" by free marketeers (Cullinan, 2018)* – 2 April 2018, Daily Maverick

[7] An excise fixed rate tax is a static tax placed on a product based on the amount of added sugar per 100ml (Sinclair and Sing, 2018).

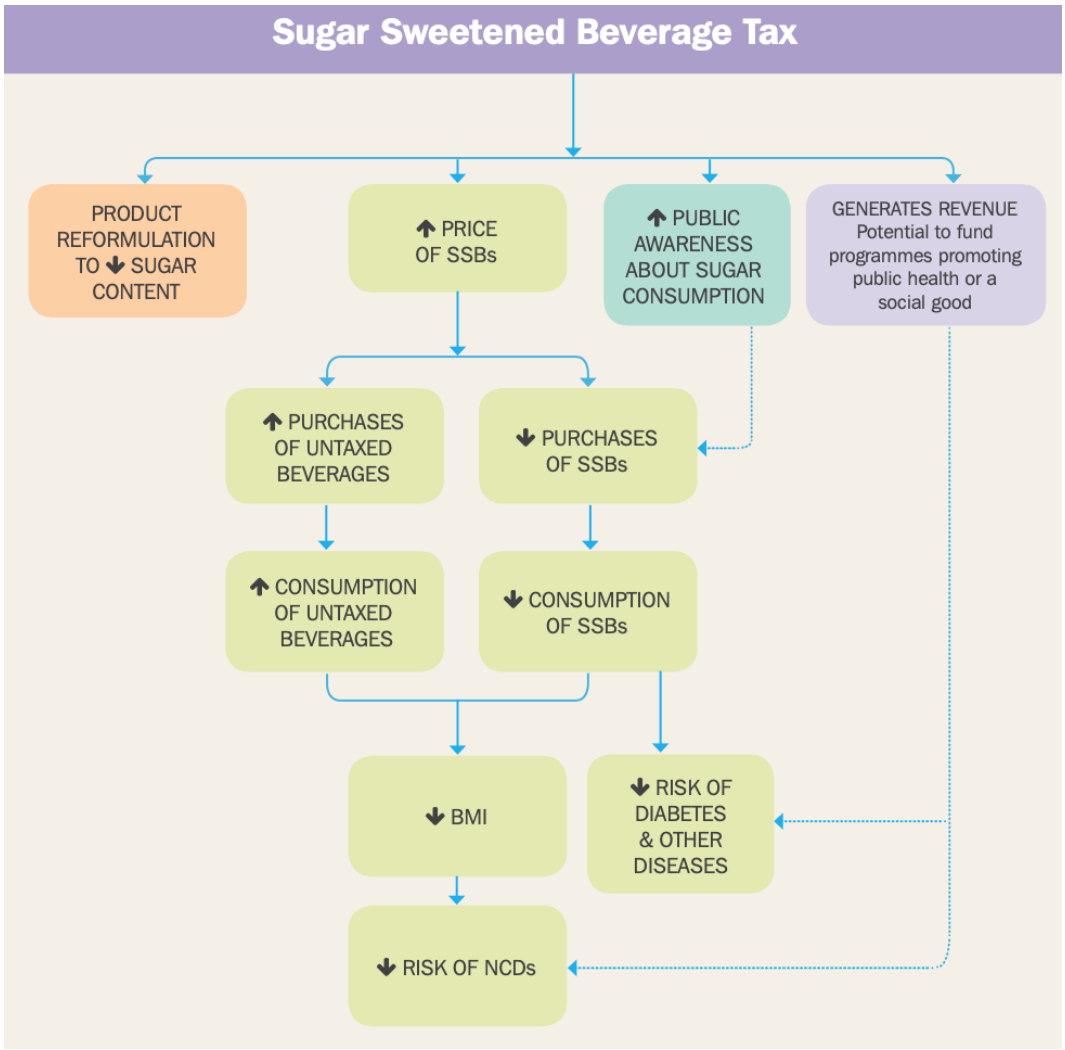
Coke drinkers on new sugar tax: 'Leave our sugar alone!': Many consumers understand that South Africa's high burden of disease is caused by excessive sugar consumption (Sehoai, 2018) – 3 April 2018, health24

As stated above, the RSA levy is an excise fixed rate tax on beverage products that exceed 4 grams of added sugar per 100ml (South Africa Revenue Service, 2018). At the time of implementation, this was the equivalent of an 11% levy on sugary beverages or 2.1 cents per gram.[8] For price to impact population diets there is the rationale to use measures that will influence food supplies dominated by cheap, processed, energy-dense products. A primary purpose for taxing SSBs is to decrease consumption across a population, and thereby reduce diet-related risk factors for NCDs (Sinclair and Sing, 2018, South Africa Department of Health, 2018).

The mechanism, or pathways of effect, in which SSB taxes are intended to work is four-fold (please see *Figure 1*). One, the tax on a product forces or encourages companies to reformulate their products so there is less added sugar. Two, the rise in price that is passed on to consumers leads to a drop in purchasing and in turn a drop in the rate of consumption of these products. Three, these policies raise public awareness about the amount of sugar in the diet and its effect on health. Four, the revenue from sugary beverage taxes can be earmarked to serve as a revenue raising mechanism for governments – often identified to help pay for other health promotion measures (Sinclair and Sing, 2018).

[8] In 2019 the RSA levy increased to 2.21 cents in line with inflation. This amount was unchanged in the 2020/2021 financial year.

Figure 1. Sugar sweetened beverage tax mechanism



Source: Sinclair and Sing, 2018, p.7

As of October 2020, there are at least 48 SSB taxes or levies in place globally across city, state and provincial jurisdictions, and nationally. The first was implemented in Norway in 1981 and some of the most recent have been in the UK, Ireland, Peru and Bermuda (Sinclair and Sing, 2018, World Cancer Research Fund International, 2020). Mexico's introduction of a SSB tax in January of 2014 marked a global tipping point with 35 new measures being introduced between then and mid-2018 (Sinclair and Sing, 2018). The evaluations of Mexico's tax on SSBs and unhealthy snacks shows the initial intended decrease in sales of

sugary drinks and a sustained consumer response at two years after implementation (Barquera et al., 2013, Colchero et al., 2017). Evidence also points to Mexico's tax being cost-effective at both its current rate and if the rate was increased (Basto-Abreu et al., 2019). Mexico was a useful natural experiment for the development of, and argument for the RSA levy as the two countries are in similar positions of economic transition and growth, however with notably different demographic and population health profiles and historical context.

Ahead of RSA implementing *the Sugary Beverages Levy*, a number of mathematical simulations and modelling studies were conducted to estimate the potential changes in consumption and related health outcomes. Manyema and colleagues (2014) estimated the impact a 20% tax on sugary drinks might have on obesity rates in RSA, constructed on estimated consumption changes based on price elasticities and thus calories consumed based on those estimated changes in consumption. This study concluded that a predicted 20% sugary drinks tax would reduce obesity by 3.8% in adult males and 2.4% in adult females, with the average reduction in energy intake estimated to be 30.0 kJ per person per day (Manyema et al., 2014). The authors also concluded that younger age groups, who are the biggest consumers of sugary drinks in RSA, may benefit most from a sugary drinks tax (Manyema et al., 2014).

Stacey and colleagues (2018) took this a step further and used one consistent modelling approach to test the impact of multiple tax interventions across products on comparable population health outcome measures. The study looked at taxes on tobacco and alcohol as well as on SSBs. As with Manyema and colleagues (2014), the study concluded that with a 20% tax rate there would be a gain of 700,000 life years over a 30 year period (Stacey et al.,

2018). Furthermore, Tugendhaft and colleagues (2015) concluded that without the immediate implementation of cost-effective interventions, such as a SSB tax, the target made by the RSA Government of a 10% reduction in obesity by 2020 would likely be difficult to achieve (noting it is now 2020).

However, Dahms (2017) conducted an evaluation of the potential effectiveness of the proposed RSA levy against similarly designed taxes at the time including Finland, Hungary and the United Kingdom. This exploratory research study found that the proposed RSA levy did not meet the four maxims of good tax policy which are equity, certainty, economy and convenience. Furthermore, the study concluded that even with the high rate of tax for the proposed RSA levy, it might not be enough to combat excessive SSB consumption in the country (Dahms, 2017).

There are limitations to modelling and other exploratory studies as a source of evidence. Including assumptions about price and changes in prices; and consumer and market behaviours. However, in the absence of real-world data models are a useful tool for predicting the impact of a policy and have become a common source of evidence for promoting and advocating for the introduction of such measures (Stacey et al., 2017, Tugendhaft et al., 2016).

In addition to modelling studies conducted prior its implementation, there were also studies using qualitative methods which examined other elements of the potential levy. Murukutla and colleagues' (2020) study looked at the mass media campaign *"Are you drinking yourself sick?"* which ran in RSA from October 2016 to June 2017. The authors note that mass media campaigns have traditionally been used by public health to promote social and behaviour

change, and media “narratives” have had a significant impact on the support for SSB taxes globally (Murukutla et al., 2020). The campaign was run by the Healthy Living Alliance (HEALA) – a coalition of civil society organisations in RSA – and supported by Vital Strategies a global health NGO based in the USA.[9] The campaign was targeted at adults 18-45 to build the public support for obesity prevention in RSA and ran in English, Zulu, and Xhosa. Outdoor advertisements which were part of the campaign were placed primarily in urban areas in three politically strategic provinces, including Cape Town and the Western Cape (Murukutla et al., 2020). The study found that 55% of survey respondents, and 78% of campaign-aware respondents, said that the campaign's main message was "drinking sugary drinks can make you sick." (Murukutla et al., 2020). There was a change from the pre- to the post-campaign period in knowledge about how sugary drink consumption can lead to obesity and related health problems and an increase in knowledge about the harms of sugary drinks and the proposed tax on sugary drinks (Murukutla et al., 2020).

Bosire and colleagues (2020b), investigated “perceptions and attitudes among urban South Africans living in Soweto on factors that contribute to their SSB intake and on South Africa's use of a tax to reduce SSB consumption” (p.1) in the three months prior to the implementation of the RSA levy in 2018. This study asked participants in their focus groups to talk about: the context of where they live; understandings about ‘healthy living’; understandings about obesity and diabetes and their causes; the influence of advertising on their lives; and the knowledge of the RSA sugary beverages levy, among other things (Bosire et al., 2020b). Participants in this study reported frequent SSB consumption and attributed this to habit, addiction, advertising and the wide accessibility of SSBs. Regarding the RSA

[9] Murukutla and five co-authors worked for Vital Strategies at the time of this study.

levy itself, most participants were not aware of the proposed SSB tax and participants indicated cynicism with regards to the government's stated motivation in introducing the tax for health rather than revenue reasons. Based on their finding, the authors suggest a need to complement the RSA levy with a "multipronged behaviour change strategy" (p.5-7) (Bosire et al., 2020b).

Since the implementation of the RSA levy in April 2018, there have been a limited number of assessments and evaluations on the RSA levy to-date and to the best of my knowledge these have been quantitative analyses on various aspects of the RSA levy. For example, Saxena and colleagues' 2019 study assessed the potential impact – across socio economic groups – of the RSA levy on type 2 diabetes mellitus (T2DM) incidence specifically and associated mortality, increased government tax revenue, and the potential financial burden on households (Saxena et al., 2019). The authors found, using an extended cost-effectiveness analysis, that 8000 deaths from T2DM could be averted over 20 years from the implementation of the RSA levy (Saxena et al., 2019). Overall, their study asserts that 12,000 cases of poverty would be averted over the study period because of the population effects of the RSA levy (Saxena et al., 2019). Given the timing of my study in relation to the implementation of the RSA levy, it is potentially too early to expect evaluations utilising sales data to predict consumption levels since implementation.

Another study conducted since implementation of the RSA levy is that of Stacey and colleagues (2019) which examined the changes in beverage prices in RSA from 2013-2019. Remembering the RSA levy is a tax on sugar content and not on the volume of a beverage as some measures are elsewhere, Stacey and colleagues (2019) focused on the first two pillars of the tax mechanism introduced earlier: forcing or encouraging companies to reformulate

their products; and the rise in price of products leading to a change in purchasing and consumption patterns amongst the population. While this study did not go so far as to examine any initial changes in purchasing following the RSA levy's implementation, it did find a significant price increase in carbonates – drinks with the highest share of the market which includes Coke and Twizza (Stacey et al., 2019). [10,11]

SSB taxes are inherently economically regressive in that lower income households pay a larger proportion of their income with any additional tax added, such as the RSA levy, than do higher income households (Sinclair and Sing, 2018). This is an argument often made by the drinks industry and other stakeholders against the implementation of such policies: that they will negatively impact poorer portions of a population and are therefore unfair (Sinclair and Sing, 2018). These arguments were made before the introduction of the RSA levy. The counter argument to this, however, is that obesity and diet-related ill health are also regressive and disproportionately effect lower-income populations. These populations are generally more likely to suffer from obesity and diet-related ill health and therefore would be positively impacted by such taxation mechanisms and the projected changes in consumption over the long-term (Freedman and Brownell, 2012, University of North Carolina Global Food Research Program, 2017).

There is some evidence of the potential economic regressivity of SSB taxation over time. A systematic review of the impact of SSB taxation according to economic position published in 2016 by Backholer and colleagues, for example, acknowledged that the studies which

[10] Twizza is a South African soda/fizzy drink brand. It is discussed further in later sections.
[11] NOTE: The majority of studies – across methods – both prior to and since the implementation of the RSA levy, have come out of or had contributions from the PRICELESS group based at Wits University.

examined the impact on household income reported that SSB taxes would be regressive, and more so on lower income households. And a modelling study by Lal and colleagues in 2017 estimated that lower income groups in Australia would pay more in tax than other groups, even though their long-term health outcomes and cost savings might be greater. It is important to note here that the Lal study and the Backholer systematic review only included high income countries (Backholer et al., 2016, Lal et al., 2017).

Some research has been done on the individual economic impact of SSBs in LMICs. However, for example, Nakhimovsky and colleagues (2016) in their systematic review of whether or not SSB taxes would reduce overweight and obesity in middle income countries (MICs), asserted that while their findings indicated that lower income households would spend more and continue to purchase SSBs, further research was needed to determine if SSB taxes would be regressive for poorer populations in MICs long-term (Nakhimovsky et al., 2016, Stacey et al., 2018).

Sugar is not the only commodity in which taxes have been used to shift population consumption, and taxes are not the only fiscal measure used by public health. Fiscal policies can include a range of different mechanisms including taxes and duties as well as cash incentives (Pimpin et al., 2018). Besides sugar, alcohol and tobacco are two other commodities that many governments have chosen to tax in some way in an effort to shift population consumption rates.

Finally, the role and challenge of corporate and other vested interests with regards to fiscal measures designed to impact health is important to acknowledge when thinking about the policy development, implementation and introduction process and the role the industry

plays in the reception of policies. A number of sales taxes or excise duties for example in France, Hungary and Mexico exist despite strong resistance and lobbying from the industries involved (Manyema et al., 2014, Sinclair and Sing, 2018). In RSA, there was resistance from the likes of Coca-Cola and PepsiCo, which some credit with the level of tax being reduced by nearly half from the originally proposed rate of 20% to 11% (Kruger et al., 2005, Igumbor et al., 2012, Myers et al., 2017). The role of the industry as a key stakeholder in SSB tax policy is not part of this study, however, as highlighted earlier when discussing the legacy of Apartheid, it is impossible to ignore the influence large brand names have on national policy, popular culture and social standing, and food choices.

2.4 The HIV-NCD intersect

The intersect between HIV and NCDs, and chronic diseases more broadly, is multi-faceted and complex. Understanding this intersect and the co-working between these two areas of public health has been cited as being crucial to the global response to both (Bekker et al., 2018). There is both a literature base discussing the definitions and understandings of NCDs, for example obesity, in various settings and populations, as well as a collection of literature on living with and within the context of HIV, across populations. The HIV-NCD intersect, however, is a developing topic in public health research, policy and practice and the literature base regarding this intersect, especially that focused on primary prevention and policy, is still relatively small (Remais et al., 2013).

For NCDs alone there is an abundance of information and evidence regarding burden, prevention and control in high income countries (HICs), with a growing literature base for LMICs, but little on shared learning from one to the other (Ebrahim et al., 2013, Asiki et al., 2013). There has been research conducted on a variety of aspects of NCDs and risk factors

among people living with HIV and within the setting of an already present HIV burden, across public health and biomedical disciplines. For example, there is evidence that HIV physiologically damages the cells of blood vessels, which can contribute to the hardening of the arteries in turn increasing the risk of myocardial infarction and stroke (Brangan, 2012). Or, examining the potential long-term workforce impacts of people living with HIV and NCDs and how NCD screening and care should be integrated into HIV programmes (Zungu et al., 2019).

Furthermore, there has been research into the circumstances and experiences of people living with HIV with regards to the consumption of fruits and vegetables and levels of physical activity; poor diet and physical inactivity being some of the primary modifiable risk factors for NCDs (Kagaruki et al., 2014, Saraf et al., 2015, Aira et al., 2013). This has included trying to understand the links between food insecurity and HIV (Weiser et al., 2011). Kagaruki and colleagues (2014) discovered that risk factors for NCDs – for example those linked with diet – are higher among those on antiretroviral therapy in part because of their ability to live into advanced age. In RSA, Hurley and colleagues (2011) documented rates of overweight and obesity among people living with HIV (PLWHIV) and the perceptions of individuals weight and desires to gain weight. They found that – linked with the wasting seen in the early days of the HIV pandemic – many PLWHIV actively try to avoid being seen as too skinny (Hurley et al., 2011).

Beyond PLWHIV and NCDs, there is the wider influence and context HIV has on a community. A good example of this is Mendenhall and Norris' (2015) work among urban RSA populations which have been disproportionally impacted by HIV. Their study in Soweto examined how NCDs are increasingly becoming part of the social and biomedical discourses

of RSA townships. One example from their discussions with women living with diabetes in Soweto, was on women who found themselves caring for grandchildren whose parents had died from AIDS and the impact that had on what they themselves ate and how they managed their diabetes (Mendenhall and Norris, 2015). This last element of the HIV-NCD intersect, the broader "context of HIV" in RSA is the most relevant to this study.

There has been a growing recognition that there should be links between research, advocacy, policy and programming on HIV and NCDs. This is in part due to the recognition that people living with HIV, NCDs and other chronic diseases are living longer and are already, or have the potential to, incur greater infrastructure and financial burdens on health systems, the economy, and communities (Bekker et al., 2018). There is also the recognition that health systems will need to simultaneously manage a double burden from NCDs and HIV, not just as co-morbidities, but as high prevalence diseases in their own right.

2.5 Critical theory

In this final section, I provide an overview of the theoretical base for my analysis. Critical theory is broadly used in the social sciences for reflective assessment and critique of society and culture. A sub-theory of this, critical medical anthropology, is especially useful for assessing the perceptions and impact of a specific public health policy on one population in RSA (Horkheimer, 1982).

Critical theory broadly examines the link between individuals and society and has been used to critique society as a means of envisioning new forms of social organisation since the first half of the 20th century (Ozanne and Murray, 1995). Originally the theory was based on the philosophies of several prominent early 20th century sociological thinkers. Notably for my

use of the theory in this study, was Karl Marx and the Frankfurt School which emphasised the use of analytic categories; critiques of capitalism; and the goal of "emancipation" in social change (Antonio, 1981, Kincheloe and McLaren, 2011). The theory allows for broad critical social qualitative research and the examination of consumers – in the broadest sense – within cultural spaces (Ozanne and Murray, 1995, Scambler, 2013). Today, there are many "critical" theories and it is a tradition that is constantly changing and evolving (Kincheloe and McLaren, 2011).

I have utilised critical theory's arm of critical social research, in particular the interplay between consumerism and public policy which built off of Habermas' work on consumer education as outlined by Ozanne and Murray (1995), as a means of critically reflecting on public policy and the idea of improving people's lives by "shaping social structures". Critical theory has been used to envision new forms of social organisation and the interplay between theory and practice (Ozanne and Murray, 1995). Furthermore, there is a tradition of using a critical theory of analysis to examine and reflect on the impact of policy and social structures on health, both in sociology and anthropology (Scambler, 2013, Singer, 1986). This theoretical basis of shaping lives through social structures allies with the tax mechanisms I have identified for my critical assessment: price influences over purchasing and consumption; and public awareness (Sinclair and Sing, 2018).

Furthermore, as mentioned, a more specific sub-theory of critical theory is that of *critical medical anthropology*, which combines critical theory with ethnographic methodological approaches to examine the political economy of health, in particular the impact of social inequality on health (Singer and Baer, 2018). This targeted perspective allowed me to go beyond consumerism and take into account in my analysis poverty and the widening socio-

economic gaps which come with economic transition; the links between food, food access and social justice; the political economy of both NCDs and HIV as part of RSA's story and the legacy of Apartheid; and the wider impact of policy on health (Singer and Baer, 2018).

This theoretical lens looks at the broader social and political forces that shape individual health (McElroy and Townsend, 2004). Within medical anthropology specifically, there are several classic examples of ethnographies placed within this framework. Singer and colleagues (1992) examined problem drinking among Puerto Rican men living in the United States by looking at the micro-level individual experience within the macro-level context. In this case, the global economic system shaped the development of sugar plantations in Puerto Rico and established patterns of working men's drinking that were passed between generations and followed migrants to the US after economic depression in Puerto Rico. Their conclusion was that an approach to individual drinking medicalised as a disease (alcoholism), would be inadequate if it ignored broader social factors (Singer et al., 1992, McElroy and Townsend, 2004).

Another example from the same era is Scheper-Hughes' (1993) ethnography of poor mothers in Northeast Brazil. Over several decades Schepher-Hughes watched as mothers nurtured some children and neglected others; the ones who seemed frail and doomed to die. With an emphasis on individuals' experiences over quantitative metrics such as household income, she concludes that Brazil's rapid industrialisation and economic growth was transferring wealth away from the poorest families, increasing infant mortality (Scheper-Hughes, 1993).

Critical medical anthropology, and critical theory more generally, do have limitations and

criticism. The critical theories have been criticised as being "imprecise critiques of philosophical traditions" (Antonio, 1981). They are often cited as being heavy on social critique yet short on real historical and ethnographic analysis, especially given their origins in Marxist thinking which can now be seen by some as dated (McElroy and Townsend, 2004, Kincheloe and McLaren, 2011). However, it is accepted that critical theory has contributed significantly to our understanding of the role of social class, poverty, economic policy, and power as determinants of health (McElroy and Townsend, 2004). Furthermore, social theories more broadly have been cited as playing an essential role in qualitative public health research for their ability to both provide descriptive insights into specific social experiences, while then allowing for findings to be extrapolated into broader settings (Willis et al., 2007).

My aim with this study was to explore the impact of a policy designed for the primary prevention of NCDs within the context of a country facing a double burden from NCDs and HIV, using individual and community experience as the metric for critical reflection against other evaluations of the RSA levy, and within the wider context of RSA. Critical theory allowed me to do this – micro-level experience examined within a macro-level perspective – and address questions such as the inherently regressive nature of consumption taxes; the economic and social legacy of Apartheid; and the historical, central response to HIV in RSA and its influence on health today.

3. Methods

In this chapter I outline the methods used for my study including the primary data collection; data analysis including data storage and protection and theoretical framing; and plans for dissemination. I used a quasi-iterative approach to qualitative data collection and analysis for this study. This approach was chosen because of its rigor yet flexibility for inferring how actors interpret reality; allowance for self-reflection regarding bias and assumptions, and the ability to address potential limitations; and it does not impose a specific or rigid pre-conceived theoretical framework on the data prior to analysis (Strauss and Corbin, 1994, Charmaz, 2008, Suddaby, 2006, Leavy, 2014). The iterative process provided an appropriate foundation as it offers several open-ended strategies for conducting "emergent inquiry" allowing the data to drive the direction of the investigation (Charmaz, 2008). As discussed later in this chapter, my use of focus groups and limited data capacity inhibited this study's ability to utilise a purely iterative approach.

3.1 Primary data collection

To examine how the RSA levy has been experienced in real life, I employed focus group discussions for my primary data collection. Focus groups with community members from Ulutsha Town, Khayelitsha, Cape Town were organised through a partnership with the School of Public Health and Family Medicine, University of Cape Town (UCT). Open-ended, semi-structured questions were informed by the literature on focus group methodology; the literature review and existing data; and contextual knowledge regarding participants and the community (Carey and Asbury, 2016, Liamputtong, 2011) (Please see *Appendix 2 – Example focus group topic guide*).

The study population was 18-34 year olds living in the Ulutsha Town neighbourhood of Khayelitsha, Cape Town. Khayelitsha is an urban township located in the Cape Flats to the east of Cape Town city centre. It is densely populated and has one of the highest prevalence of HIV in the Western Cape. However, HIV status of the participants was not a control in this study as I was interested in speaking to individuals within the broad context of the country at large and not specifically about PLWHIV. If HIV status was revealed through the course of inquiry this was noted but kept anonymised for analysis.[12] There is a growing middle class population in Khayelitsha, however 89% of households are considered moderately or severely food insecure and there are high rates of unemployment (Battersby, 2016).

A study population focussing on 18-34 year olds was chosen for a number of reasons. Broadly speaking, 18-34 year olds are positioned at the nexus of economic independence and decision-making; have high levels of SSB consumption; are at the cusp of NCD risk factor development; and have varying levels of HIV risk. More specifically, first, 18 is the age at which individuals are considered to be adults in RSA and by starting at this age my participants were in the early years of making their own decisions regarding purchasing and budgeting for food, and some had begun to transition away from their family homes. Second, in the years leading up to the introduction of the RSA levy, 15-24 and 25-34 years olds had the two highest levels of SSB consumption in RSA (Manyema et al., 2014). Third, this age range is when the early determinants for many NCDs begin to develop, particularly those of the metabolic system such as excess weight gain. Finally, although overall prevalence of HIV infection among young people is going down, young women account for approximately 30% of new infections and, as noted in the literature review, in RSA women

[12] There were no explicit cases of HIV among any of the focus group participants.

15-24 have the highest rate of new infections of any age or sex cohort (Dellar et al., 2015, South African National AIDS Council, 2017).

Xhosa is the primary language spoken in Ulutsha Town and therefore a translator and research assistant from UCT who is a native Xhosa speaker was employed to assist with conducting the focus group discussions and any conversations directly linked to the research. Focus group discussions were conducted in a mix of English and Xhosa. My research assistant translated and transcribed the focus group discussion recordings. The translations were then checked for accuracy against the original recordings by a third-party native Xhosa speaker also recruited through UCT. Having a local research assistant and translator for both conducting the focus groups and for the transcription process was important to help capture, as much as possible, local dialogue, the use of slang, and other subtlety of language which would be difficult for a non-native Xhosa speaker such as myself to capture through simple translation. Working partly or wholly in translation presents a number of challenges, in particular the risk of missing meanings in individual responses, which are critical for qualitative, ethnographic methods.

The recruitment of participants took place through an established UCT field site and a local community leader. These relationships between UCT and the local community were first established 20 years ago and continue to be fostered through on-going research partnerships and community engagement. The local community leader who assisted in recruitment is well known and respected within the community and was a crucial part of the recruitment process. The focus group discussions were all held at his church in Ulutsha Town.

3.1.1 Young people in Ulutsha Town

The data for this study was collected over the course of seven focus group discussions in Ulutsha Town in September 2019. A total of 71 people participated across the seven focus group discussions. Each group was capped at 10 participants (with the exception of one where there were 11). This number of participants is higher than the recommended ideal of five to eight participants per focus group, however recruitment was driven by our local community leader's networks and proved to be very popular (Carey and Asbury, 2016, Liamputtong, 2011). Unfortunately, we did have to turn some people away. It should be noted that lunch was provided to all participants following each discussion as well as a monetary renumeration of 100 ZAR per participant.

The young people were split almost in half between women (37) and men (34) and ranged in age from 18-35. The largest age groups represented were those 31-35 (24) and 21-25 (22) – please see *Appendix 1 – Demographic overview of focus group participants* for full demographic breakdown of the participants. Two of the focus groups were women only and one was men only. The other four groups were mixed gender. All of the participants were Black South Africans.

Two thirds (44) of the young people in the discussions classified themselves as unemployed. Thirteen said they were students and 14 stated they were employed (either part- or full-time). All of the discussions were held on weekdays. However, one group was held on Heritage Day (24 September) a national bank holiday in RSA and was explicitly done on that day to try and engage with more individuals who were employed. Every participant in that group was employed at the time and it was one of the all-female groups. Several of the discussions included small children and babies accompanying either their mothers, older

sisters or cousins who were caring for them – all women. Thirty-one of the participants said they were parents.

Bosire and colleagues' (2020) study presented in the literature review is a useful comparison not only topically, but methodologically as well. Their study also utilised focus groups in an urban township setting, exemplifying the usefulness of this method as a means of qualitative data collection when one-on-one interviews might not be feasible (Bosire et al., 2020b). Focus group discussions proved to be a very efficient means for me to speak to a large number of young people in Ulutsha Town in a relatively short period of time. This limitation on the overall time I could be in Cape Town to conduct the focus groups did impact the total number of focus group discussion we conducted. However, my research assistant and I both felt that a satisfactory level of data saturation was obtained by the seventh focus group; no new themes were raised in the sixth or seventh discussions (Hancock et al., 2016).

In addition to the focus group discussions themselves, I was able to take several guided walks around Ulutsha Town, led by my local host and my research assistant. These walks allowed me to see first-hand the tuck and informal shops that were mentioned so often by my participants, as will be evident in my results, as well as the overall geography of Ulutsha Town.

3.2 Data analysis

As first defined in the introduction, this study is a policy reflection, in which I use my qualitative data to look at a policy in practice, on the ground – and in this case will reflect on the policy against other assessments and evaluations of the RSA levy to-date. This is as

opposed to a more systematic “policy analysis” which might undertake a stakeholder analysis (e.g. Varvasovszky and Brugha); or use a specific theoretical structure for policy development and agenda setting (e.g. Kingdon); or critique the political dynamics of a specific public policy within a set framework (Walt et al., 2008, Varvasovszky and Brugha, 2000, Kingdon and Thurber, 1984). My focus group discussions allowed for a fluid, semi-organic, collation of understandings, perceptions and experiences from the young people we spoke to.

The focus group recordings, translations, transcriptions, and notes have been kept confidential and stored in a password-protected file on the London School of Hygiene and Tropical Medicine (LSHTM) server, in accordance with the data protection measures agreed through my ethics approvals. Identifiers for each participant in a focus group were assigned and kept separate from names. Noting that names were only present on consent forms and did not appear on the demographic surveys used. All focus group discussions were transcribed from the recordings taken during each session and then coded anonymously. I will keep the anonymised transcripts from the focus groups and interviews, as well as my fieldnotes for a period of 10 years on the secure LSHTM server. Audio recordings will be destroyed upon completion of the study. A systematic organising approach for all coding and analysis was employed using NVivo for storage and organisation. Thematic analysis was conducted by hand.

Initial coding of the qualitative data began at the time of the first focus group and continued in parallel with data collection. The very initial codes were identified based on my study aims and objectives, as well as initial literature review findings, however the code identification process then became iterative based on the data presented (Thornberg and

Charmaz, 2014). This allowed the coding and analysis process to remain open to what was being discussed and what was happening with data (Thornberg and Charmaz, 2014). Descriptive, 'essence-capturing', single-word codes were given to quotes and specific portions of the data (Saldaña, 2014). Descriptive coding was used as opposed to an "in vivo" method, for example, to allow for the codes application across and within all of the case data (Saldaña, 2014).

A full list of codes was developed during the focus groups and full analysis process following data collection, with new codes added when none of the existing codes fit the data point in question. The descriptive codes were then clustered into categories to detect patterns of frequency and interrelationship (Saldaña, 2014). Please see *Appendix 3 – Data analysis codebook* for the full set of thematic codes developed through the course of analysis. During the data analysis process following data collection, translation and full transcription, the taxonomy of themes was developed according to the clustering of codes described above (Thornberg and Charmaz, 2014, Saldaña, 2014). The overarching "parent" themes (life in Ulutsha Town; health; access to and choice of food(s); and policy) were established based on this coding in-line with my research question and literature review, in particular the keywords used in that process. A systematic process of organising and analysing the data through the thematic codes was developed, with guidance from my supervisors and committee, appropriate to the research question and supported by the literature. The parent themes developed provided the organization for the presentation of my results in the following chapters.

3.3 Ethical considerations and dissemination

There were a number of ethical considerations I contemplated in developing this study; the primary one was maintaining robust confidentiality and anonymity of the focus group participants. All focus group participants were provided with a study information sheet and consent form – in the appropriate language of their choice – in advance of their participation. Oral information and facility for verbal consent were provided to enable full accessibility, however all participants provided written consent. All participant materials were provided in Xhosa and English, and my research assistant served as translator where necessary to assist with any further questions and explanations. Consent forms included permission to use direct quotes anonymously. As already noted, the name of Ulutsha Town was changed to provide further anonymity. If HIV status was revealed participants were asked if this could be noted but kept anonymous. Attempts were made at the start of each discussion to mitigate any potential harm to participants by endeavouring to be as clear as possible about the research aims and objectives; the consent process; and we allowed for as much time as needed for participants to ask questions and seek clarification to any concerns prior to starting the formal discussions (Sim and Waterfield, 2019). I received full ethical approval from both LSHTM and UCT prior to commencing participant recruitment and data collection.

Furthermore, serious consideration has been made regarding this study's impact on the local community and population in question, including the South African research community. This includes the means for appropriate feedback and follow-up as well as capacity building for public health qualitative research and joint authorship on project manuscripts. It has been agreed that a summary report of my findings will be shared with the local community via my local host following completion of the study; presented in lay

text in both Xhosa and English. Additionally, I plan to disseminate my findings through peer reviewed publication; commentary piece(s) for policy development professionals; and at topic relevant conferences.

In the conclusion chapter of this thesis there is an overview of how my study and findings can contribute to the field and its relevance to future research and policy development. In the following five chapters I present my results in full. Specifically, the results from our discussions on life in Ulutsha Town; health in Ulutsha Town; food and drink choices in Ulutsha Town; food and drink access in Ulutsha Town; and the scope for policy change within the community.

4. Life in Ulutsha Town

> The main problem here [Ulutsha Town], particularly for us the youth, is that it's not easy to find employment. There is no work; opportunities for us to find employment are quite slim… life is chaotic, you cannot even freely walk around your own township. [A young woman speaking during FGD2.]

In this chapter I provide an overview of what the young people I spoke to told me about life in Ulutsha Town. It presents their reflections on the general state of life in Ulutsha Town and some of the key elements of their day-to-day lives including unemployment, crime, and the presence of "foreigners" in the community. This chapter provides a context in which to place the results from our discussions on health, the cost of food, sugar, and policy.

4.1 Unemployment

The start of each focus group discussion began with me asking the group to tell us about life, and their lives, in Ulutsha Town. Unemployment was overwhelmingly seen as a significant element to life in Ulutsha Town and a driver for other factors impacting people's lives. The high rates of unemployment, especially among young adults, was mentioned in every discussion. Many participants stated simply, as this woman did, *"The youth is unemployed"* [FGD3]. Or as a man in his twenties said, *"And unemployment is too much, it's too much. Young guys don't work."* [FGD4].

Unemployment impacts both individual and household incomes, which comes out throughout these results, for example a young man in his twenties said:

> There are lot[sic] of people who are unemployed right? As we all know… healthy food is very expensive. Healthy food is very expensive, so, the least that our people can do is to buy the unhealthy food because it's cheaper…. [FGD7]

Or as this man next to him said:

> You buy cheap products as determined by your income. Honestly, unemployment is a huge factor here in Ulutsha Town, that leads to things such as food insecurity and crime. People's health suffers because they can't afford to buy healthy food. [FGD7]

These knock-on effects of unemployment for individuals, households and the neighbourhood were apparent to me throughout our discussions. For example, a woman in her twenties near the end of her discussion told us:

> Seriously, we are suffering, and we can't find jobs. You queue and run out of queuing money because there are truly no jobs these days and you can't help but give up and sit in the sun; the jobs that exist come through nepotism. We use money to make CVs, and you submit it, only for it to be thrown into the bin by the manager. It's heart-breaking and it will be better if they just told you upfront that there is no work. You queue, and queuing is money. You put in your CV, there is no work, there is nothing; at the end, you stop caring and are told that you have no care, all you want is to sit in the sun. It's not that you don't want work, it's that you can't find it. [FGD3]

In this case, the "queuing" referred to are the taxi queues which individuals from townships must navigate each morning and evening to commute to and from jobs which are located elsewhere. This woman is telling us that transportation itself is expensive and is a limiting factor to employment. It serves as an example of the lingering impacts of Apartheid geography, in which the spaces for potential employment are located far away from where people live in townships.

4.2 Crime

The other notable impact from unemployment discussed by our participants was crime. As a young man still in his teens said:

> Life around here is very tough. Very. Most of the people are unemployed. People they need jobs. They end up standing in the streets, robbing people, something like that just because of poverty. [FGD4].

Simply put, they told us that life in Ulutsha Town is *"full of crime"*.

Unemployment – and poverty – as a driver of crime was discussed in a number of ways by the participants. One example in our final discussion was a long conversation about how people – mothers in particular – may not have a choice but to steal to feed their children. A man in his twenties said:

> It takes a mother to compromise their principles in front of the child like that because of unemployment. So, we shouldn't view that type of thing as a bad crime because it can only take a parent to disrespect themselves like that in front of a child just to put food on the table… sometimes circumstances push you towards that action. [FGD7 – an all-male group]

If unemployment was seen as an underlying driver of Ulutsha Town's crime, gangs I was told were what much of that crime was built around. As a woman in her twenties said:

> …we have an issue with gangsters. Life is chaotic, you cannot even freely walk around your own township. You know that if you wander after 12, you will encounter gangsters. They act as though they are not part of the community, but they are. [FGD3].

She then said, *"you walk around feeling apprehensive."*

4.3 Foreigners

This apprehension was felt in other ways too, such as feeling unsafe to use communal outdoor spaces and parks, as well as what times of day people felt it was safe to move about the community. Feelings of anxiety and stress were expressed by multiple participants as being a key element to their life in Ulutsha Town.

In addition to unemployment and crime, a key source of this anxiety seems to come from the presence of "foreigners" living in the township.[13] While there was general sentiment

[13] During the time of my fieldwork (September 2019) there were on-going national tensions regarding the presence of non-South African Blacks, particularly those from other African countries, and in particular those living in townships. In our discussions these individuals were usually referred to generally as "Somalians" or "Somalis"; but representing any non-South African Black person from elsewhere in Africa. The high levels of xenophobia amongst the general population in RSA resulted in violent protests and riots throughout the country, including the greater Cape Town area and the Western Cape during the period of data collection.

about their "otherness" and not being South African, the predominant element of the participants anxiety linked to these members of the community was trust – or rather, a lack of trust towards them. This is an undercurrent that will be seen throughout these results. For example, when asked about life in Ulutsha Town one man in his early thirties said right away:

> From what I've observed, life in Ulutsha Town is quite hard and this is mainly because we are surrounded by Somalian shops; so we are facing a crisis of people who own their own factories that are not to standard…. [FGD2]

As will be presented further later in the results, non-South African Blacks or "Somalis" own a large number of the tuck shops[14] and informal food stands within Ulutsha Town and therefore are a part of the participants' food environments. And as a young man told us, *"I think Somalians have a negative role that they play; they sell us bad things…."* [FGD7].

These elements of unemployment, crime, and anxiety regarding foreigners provide the overarching context within which the young people in Ulutsha Town are eating and drinking. A final note on the context of life in Ulutsha Town, which came out of our discussions, are the family and household structures these young people are part of. The details on this come out throughout the results, particularly those on what people choose to eat and what foods people in Ulutsha Town have access to. In general, however, the young people we spoke to described three types of households they live in. One is larger, multi-generational households with one to a handful of income earners, where those bringing in income were the primary decision makers regarding food and budgeting. Two are single mother led homes, where often the sole monthly income comes from child benefit grants, which are

[14] Tuck shops in Ulutsha Town are informal food and convenience item stands, shops and stalls located throughout the neighbourhood and mixed in between houses. These stands are unregulated and are often run, according to our participants, by non-South African Blacks.

discussed in further detail later in these results. Finally, a handful of the young people in our groups lived independently or with one or two friends or similar aged family members in informal housing on the edges of Ulutsha Town. The decision makers with regards to food within households seemed to be mixed, with some young people telling us it was whomever made an income, while others like this young man in his twenties telling us:

> I: Let's say the father of the house is the one that works, does he make decisions?
> R: No, it's always the females
> I: If the mother is working, she makes the decisions?
> R: Yes
> I: But if the father is working, she will also make the decisions?
> R: Exactly [laughter]

The following chapters present the results on the health context of Ulutsha Town; what young people choose to eat and drink; the accessibility and affordability of food and drinks; and the context for policy change in Ulutsha Town. Note, as presented initially here, that an undercurrent of a lack of trust and concerns about safety of the foods and drinks consumed ran throughout our discussions.

5. Health in Ulutsha Town

> Diabetes is not a child's play, right? So, some of these things might lead to an unhealthy, unsustainable life for you. Fizzy drinks are much harm than we know. They create diabetes and other health issues. [A man in his twenties speaking during FGD4.]

With the global NCD prevention discourse focused on sugar as a risk factor, and fiscal policies as one of the key population level interventions widely promoted to address high levels of sugar consumption, understanding how the young people in Ulutsha Town view their health, and the health of their community is key. In this chapter I outline what the young people in Ulutsha Town think about health and the health context they live within through our discussions on chronic diseases, HIV, and health knowledge at large.

5.1 Chronic diseases

Throughout our conversations and through our questioning, the presence of chronic diseases and NCDs amongst the community was obvious. Many of the young people knew people or had older relatives living with diabetes, heart disease and cancer, some dying from these conditions. As a couple of young men described it:

> R1: Almost 80%, 90% they [parents] do have diabetes.
> R2: Diabetes is not only based on our parents because young people, even younger than me, are acquiring diabetes. It doesn't have a specific age. When diabetes is there, it's there. [FGD7]

Linked to this, there was an acknowledgement that having relatives living with a chronic disease impacts these young people directly:

> R: They also become an issue for us as well.
> R1: You see? You need to take them to the clinic where you are forced to sit and wait for a service the whole day, waiting and keeping your mother company. So, it truly affects us.
> R: What affects is the stress around.
> I: Stress around the person having the…
> R: Yes, stress around [it]. [FGD7]

Many of our participants were living in multi-generational family homes as mentioned in the previous chapter, with parents and aunts and uncles as the heads of households.

In talking about chronic disease more broadly, beyond their acute household experiences, the participants had a wide range of commentaries. For example, there were explicit links made between sugar and chronic disease. One woman in her twenties said:

> I will say for me its sugar that I am worried about because they say it causes gallstones, and the problem is you never know when its growing [Laughter]. Having diabetes is also an issue. [FGD4].

There was also discussion on their diets more broadly, beyond sugar, as exemplified by this woman saying:

> …for example, if you buy tripe that is full of fat and you develop high blood pressure even though you are still young. High blood pressures. You also develop a huge belly and you can't even tell where it comes from. [Laughter] [FGD6].

In talking about chronic disease and if these young people think about their health long term, there were a mix of responses. Some said they did – some broadly about "being healthy" and avoiding "acid" and others more specifically. For example, a young man in his twenties told us he did think about his long-term health and said this included, *"Like sugar diabetes…hypertension…all those kinds of diseases…stroke…high blood pressure…those chronic diseases."* [FGD7].

While others said they did not think about their long-term health. For example, a man in focus group five told us:

> It's because we don't know tomorrow and that's why sometimes when you have R30, you think of buying healthy stuff, but then again think, I might even die today or tomorrow, it doesn't depend on what I eat. [FGD5]

5.2 HIV

In talking about their health, and the context of their health more broadly, the presence of HIV within the community also came into our discussions. As a man in the last group said, *"…they are the ones that are in front now…diabetes and HIV."* This was a clear depiction to me of the double burden facing South Africa. And perhaps even more telling than this observation, was one by a different man in his twenties in the same group:

> HIV and the diabetes are two different things. You can live long when you got HIV, but you can't [live] long when you've got diabetes. [FGD7]

This sentiment relays that HIV has become normal place and something people in this community live with, whereas diabetes is new and having an acute impact on their lives right now; as was evident in the literature as well.

Our discussions around HIV in the community and its impact on the broader health context were intertwined with our discussions on sugar and policy – the latter of which is discussed in more detail in a later chapter. For example, a young man in one of our first discussions explained how he thought the government should "produce health" in the same way they have promoted the HIV prevention response:

> I would like to…about um the government supporting the health thing, the health environment by the tax, increasing the tax yeah, giving money to the health communities. I would like them, as it is they are producing help for people to use condoms, for prevention, they should use the same system in producing health, like in other communities… The government should also give out, as they are giving out free contraceptives and everything like, hand out to people like, like the old people, give them their own type of grocery bag. [FGD1]

This idea of the government "giving" or "producing" health appeared at least twice more in that same discussion and then in different forms and wording across the groups. With another man in his twenties saying:

> …it's not about giving them what they must buy, it's about giving them health because they don't give… They must do the same system by letting everyone get what they want because in order for them to be healthy, they must give them something to know that the government is giving me things to eat to be healthy and it's my own choice not to eat, not to do it. [FGD1]

Furthermore, a young woman in the same group said:

> If there was a system like that…like you don't pay for your health, you go and get your health. Then everyone can afford to buy what they need extra for their own health, so the whole family will be secured and safe. [FGD1]

These points on a broad health system that has been built around the response to HIV in RSA and the wider impact on the health environment and the government's role in "giving health" were seen to varying degrees in the discussions on choice of foods, access to foods, and policy as will be seen in the following chapters.

5.3 Knowledge

The final specific point on the health context of young people in Ulutsha Town is about their knowledge and understanding about health broadly, including the impact of food and drinks on their health. In the first instance, young people in Ulutsha Town suggested that more could be done to increase individual's knowledge about food, and food's impact on health. The majority of their knowledge seems to come from their time in school. A woman still in her teens told us:

> There are two subjects, right? Life orientation and life sciences. So, in life sciences where [you] learn more about how we digest food, more that stuff. So, you know that meat has lot of fats. Fats that are not good for the body, so you get a little bit scared when you eat meat because you know that it's not good for the health. [FGD5]

While most of the young people have had this formal education available to them, many felt more was needed. A woman in her thirties suggested:

> …there should also be workshops. Like, sessions where we can sit once or twice a week and talk about foods. Detailing how people should eat and treat themselves. Things like that. [FGD2]

Further to this, public awareness campaigns, the use of social media, and sessions at churches were all suggestions for how to educate the community on food to inform knowledge about health and food choices. This latter point, the food people choose to eat, is discussed in detail in the following chapter.

On sugar and sugary drinks more specifically, a man in his teens said:

> So, if you are told to stop drinking acidic drinks, people will put sugar in to tone down the acid or just stir it. So, you got ways to get what you want. [FGD5]

Throughout our discussions, beliefs, perceptions and understandings of how and why sugar impacts health were varied and manifested in different ways. For example, there was a discussion in the fourth group about the messaging around brown vs white sugar and general belief that brown sugar in healthier than white.

However, there was always the undercurrent of mistrust in those selling food and concerns about the safety of foods consumed, as I outlined in the previous chapter. This anxiety around safety at times seemed at odds with the knowledge about sugar these young people have. For example, from a man in his twenties:

> And you see sister this debate over sugar is hard, because sugar is quite expensive. When we talk together, its quickly apparent that sugar aids us, it gives us energy. It is quite beneficial and if we were not to have sugar, our blood will not work well. Am I lying? [everyone laughs] [FGD1]

And again, from a woman in her twenties:

> Our health is, how can I put it? It's not safe because we eat[sic] these Twizza's, that are prepared by 'my friends' [African foreigners] using dirty water from the toilet etc., you see? So, I can't see health yet. [FGD3]

These perceptions and understandings of knowledge linked to health and food are seen throughout the discussions on what people choose to eat and drink and what they have access to. As well, the broader health context of chronic diseases and the HIV experience – and "giving health" – will be seen within the wider results.

6. What people choose to eat in Ulutsha Town

> I never stop buying Coke. [From a man in his teens in FGD5.]

The young people of Ulutsha Town are making daily choices about what they eat and drink based on a number of socio-contextual factors. In this chapter I outline these factors including preference; fizzy, sugary drinks specifically; and the impact knowledge has on what people choose to eat. All placed within the context of life and health in Ulutsha Town.

6.1 Preference

> I: Can you tell us what people in Ulutsha Town eat?
> R: Junk food [laughter]
> R1: Mostly junk food, yah [more laughter] [group response in FGD4 discussion]

And as one man in his thirties said:

> We just eat what's nice, what you feel is nice for the tongue, you know? Not for our health but for the tongue. [FGD5]

This was followed by laughter from the group. The food preferences of the young people we spoke to included "junk food"; fat cakes[15]; meat – a wide variety based on availability; and sugary beverages.

The strong preference towards eating a lot of meat became apparent in the first group and continued throughout our discussions. As a woman in her twenties said:

> Like at my house, if you cook food without meat, the food piles up on the table as no one is interested in eating it up until someone cooks meat. [FGD1]

[15] Fat cakes are fried dough buns – a similar consistency to doughnuts – that are savoury and can be filled with a variety of fillings.

In addition to meat, young people in Ulutsha Town overwhelmingly express a liking for the sweet taste that comes from sugar. This is evident in cooking, general food consumption, and in the consumption of sugary drinks. One woman in her thirties said of her cooking:

> When I am making bread, yeah, I do [add sugar]. Sometimes if I am making, like beetroot salad. Mostly in salads and when I am making bread. And drinking tea. [FGD4]

Followed-up by another woman with *"That's when she puts lots and lots of sugar [in]"* and laughter from the group.

This exchange illustrates a fondness for the taste of sugar as well as a communal acknowledgement and perception of excess sugar consumption, based on the reaction from the group. The amount of sugar that is added to foods and drinks appears throughout our conversations. In one group, women discussed how much sugar they and others they know add to drinks:

> My brother will half fill the cup with sugar; he puts that much sugar [indicates using her hand]… When he is finished drinking, you will see there at the bottom [excess sugar]. [FGD4]

And within these conversations a conscious acknowledgement of a social awareness of excess sugar, exemplified here by one young man in his teens telling us how he takes his coffee, echoing many others we talked with:

> And when you drink coffee, you take a big spoon, one, two, it must be sweet. Like, if you ask me how many spoons for you, I will say two. But then I sneak more later. [FGD5]

Linked with the findings on accessibility, which is outlined in detail in the following chapter, young people in Ulutsha Town are making choices about what they drink based on their preferences, but also seek out alternatives to meet their budget. For example:

> I: …if Coke became too expensive, what else would you drink?

R: Water, tea, sparkling water
R1: And that drink, what is that drink? Halls.[16]
R2: And ginger beer.
I: Is ginger beer less expensive than cola?
R2: Yes, very much less expensive
R3: You buy a sachet and make it by yourself. Lemonade and sugar is also nice. [FGD5]

As evident from our discussions, a large portion of the sugar young people in Ulutsha Town consume comes from sugary drinks. Often sugary drinks are a choice over other options, in particular water which is discussed in the following chapter.

6.2 Fizzy, sugary drinks

With, often admittedly, low levels of water consumption amongst young people in Ulutsha Town which is presented in the following chapter, we kept coming back to what they *do* choose to drink. Fizzy, sugary drinks were mentioned again and again. Across the groups, I was told about all of the different types of sugary drinks people choose in Ulutsha Town. This list includes *"Twizza and Jive"*, and *"Fusion"* (a concentrated juice), and of course *"Coke"*. I was told about making *"sweet water*" by just mixing sugar and water and about having a fizzy drink every day after dinner, usually a *"Jive mos".* Here "mos" is an exclamation or confirmation word taken from Afrikaans to emphasis this individual's response. This final option, I was told, was often the choice because *"we don't have the money for Cokes or Fanta"* [FGD4].

The choice to drink water is often an afterthought as explained by this young man in his teens:

> I'll say that we drink coffee just because people are drinking it at home and when you are making coffee for your father and realise that you are craving for it as well. That's the only time we drink coffee or when you getting cold and you have to eat

[16] A concentrated juice similar to squash or cordial.

> biscuits. So, water, water, you don't always think about it and its only when you see a tap that you realise you haven't had water. It's mostly the last thing on your mind, to drink water. [FGD4]

Overall, it is apparent that many young people in Ulutsha Town like the taste of sugar and seek it out as part of their diets. As evident in focus group four when we clarified if people like sweet flavours, *"Yes!"* [in unison]. And when pressed on why this is the case the overall response from the women and men of the group was *"it tastes nice"*.

When asked what people drink in Ulutsha Town besides fizzy, sugary drinks many of the young people mentioned juice as being a potential other offer. However, juice was deemed as often being too expensive for regular purchase. It was noted that if people wanted juice, people could often only afford concentrated fruit juice or squash which is then diluted with water. The other particular point about fruit juice, which was made in several discussions, was how fruit juice was not *"acidic"* enough, and that people in Ulutsha Town prefer to buy drinks that have acid – fizzy drinks – but also those drinks are less expensive.

When talking about the choice of fizzy, sugary drinks in particular, the discussion often came back to Coke specifically by name. With the name and brand of Coke comes an understanding from the participants that Coke itself is more expensive than other sugary beverages, a point discussed further in the following chapter. There are numerous examples of when asked about the cost of sugary beverages generally, the price for Coke was what we were told – *"R13"*, *"R20"*, *"R22"*, etc.

While Coke dominates the market for sugary beverages, as highlighted in the literature review and from our discussions, young people in Ulutsha Town have a variety of choices of sugary, fizzy drinks to choose from. And as indicated by our discussions on cost and

accessibility presented in the following chapter, much of their choice in drinks is what they have financial and physical access to. Furthermore, with the prominence given to Coke specifically, there was a keen awareness of when the price of Coke has changed. Early in a discussion, a woman in her twenties pointed out that:

> …ever since I grew up, Twizza was always R11 and today, it's still R11. But you see Coke? Coke was R16 but now it's R22. [FGD5]

The other big name in fizzy, sugary drinks seemed to be Twizza. Twizza was presented as the lesser – in quality and cost – option to Coke. A few women in their thirties told us:

> I: What about you sister?
> R: No, we do not buy Coke at home.
> R1: We only buy Twizza on a pay day.
> R2: During the week, they like drink tea, then on the weekend, drink [Twizza]. [FGD6]

An interesting point to note, is that unlike with discussions around Coke, Twizza was presented to us as being "too acidic", "too sweet", and "not good for us". This is perhaps the case because Twizza is a local, South African brand that is less expensive than Coke and perceived to be inferior in quality to the global market leader. This conspicuous association with specific brands as was introduced in the literature review, and its links to the legacy of Apartheid, is expanded on in the discussion.

6.3 Knowledge

Finally, with regards to choosing foods and drinks, young people felt their parents did not teach them about making food choices or healthy foods:

> …it's rare to find parents who tell you to eat healthy foods - there is[sic] only a handful of parents that do that… [FGD1]

Similar sentiments were felt by a young woman in her teens, saying:

> So, these breadwinners, are people from the past, older people who know nothing about food and this person works, so obviously, he will want to eat nice every day. What is nice to a black person? Meat and fast food. So, I don't think breadwinners eat healthy, because they know nothing about health. The people that actually have some level of health knowledge are us, because we are at least taught at school and everything. [FGD5]

As the societal perceptions of a lack of trust in foreigners and the sources of food came through again and again, so too did the suggestion that the older generation and "breadwinners" of households were out of touch and could not be trusted to have the "right" knowledge about food. So in addition to feeling they could not trust the sources of food and drinks, such as the Somali run tuck shops, there was also the feeling they could not trust some of their sources of knowledge about food and drink. The former point is discussed again in the following chapter and in the discussion.

In addition to these discussions about parents – and others within their households – as a source of un-trusted knowledge, there were also several conversations regarding where people learn about food and health – or if they do at all – as first mentioned in the previous chapter on health in Ulutsha Town. In these discussions the link between food and health was not just nutrition. In fact, the nutritional healthiness of foods was only a small part of how these young people linked food with their health, and their food choices.

As one young man in his twenties said:

> I don't know what healthy food is. Everything that I am eating has side effects, you see? I will be buying a chicken there by a Shoprite, knowing that in the long run, maybe I will be sick of something. I don't even know what a healthy food is. [FGD7]

Health to these young people includes – to a significant degree – the safety of the foods they eat, and their perceived knowledge about that safety. This includes food hygiene; the ingredients used; and the production of the foods they are buying. This later point links

clearly to the anxiety and lack of trust displayed amongst our participants and often came back to the "Somalian shops". For example, a man in his thirties said:

> …because we are surrounded by Somalian shops; so we are facing a crisis of people who own their own factories that are not to standard; I mean, they are not doing well by us – they produce fakes. We buy goods thinking that they are the originals[sic] goods that we expect, only to discover that they are not. These things have an adverse impact on our bodies. [FGD2]

In addition, the food provided at the local soup kitchen by a charity was also questioned, more than once, by our participants. For example, a young man in his twenties told us:

> That soup thing… [kitchen]… it's another thing that you have no knowledge of… you don't know where the food is cooked or come from. You don't even know what they put inside the food. It's given to township people. [FGD7]

With limited options to begin with – outlined in the following chapter – feeling unsure and unsafe about the choices available because of their knowledge about their health, safety and sources of foods, is an anxiety for these young people. They use a number of factors for determining their choices of food and drinks and these choices are made within the context of what is accessible to them.

7. Access to food in Ulutsha Town

> We don't have a choice of what we eat. Even if you go outside… From the tuck shop, from the small shops that you find around the corner, what you only find here is the same thing. If you ever decide that you are going to do yourself a sandwich, let's say you are going to buy a bread, you are gonna buy cheese, tomato and eggs and what you call? Avocado…that thing is like too much. But if you go around the corner, you will find a fat cake there. It has a burger, cheese, chips, tomato…. [A man in his twenties describing the food options available to him in Ulutsha Town in FGD2.]

This is a stark illustration of the accessibility of food and the knock-on effect of what people then choose to eat. The role of food in young people's lives and health in Ulutsha Town encompasses a mix of choice and access. In this chapter, I present the results on access through the cost and physical availability of food generally; the access to and the role of water; and sugar and fizzy drinks specifically.

7.1 Cost

There is evidence to support the idea that a local food environment has an association with individuals' food access, choice and diet – this includes the cost accessibility of food options (Jaime et al., 2011). From the discussions we had in Ulutsha Town the cost of food – and sugar – including changes in prices, is a fundamental factor for access. Cost in and of itself creates an opportunity or barrier to accessing food, particularly for those living on very low or limited incomes (Temple et al., 2011).

Young people in Ulutsha Town say food is generally expensive. One woman in her twenties said:

> It's very expensive. When you go make[sic] grocery you must look 'Oh this one is cheaper than this one' you must compare prices so that you can get the lesser one than the other one. [FGD4]

When we asked in the first group about buying food, a man in his twenties emphatically said, *"The problem is money."*

Later in the same discussion group, a link between price and accessing 'healthy food' began to emerge, with one man in his twenties saying:

> …healthy food tends to be expensive, whereas your money is limited. So, you need to pay attention to your pocket before you make any purchases. [FGD1]

And as has already been demonstrated, what people choose is linked to cost and physical accessibility of foods. For example, a woman in her thirties told us:

> As bhuti (brother) was saying, if you have money, you have choice. We students let me say, if my dad instruct me to buy this and that, those things are meant to last for the month. So, you buy cheap things. You don't even think of vegetable. The only vegetable you think about is that combo.[17] Only people with money can think about organic food and vegetables that one steams. We go in and buy the cheapest thing we can find. [FGD6]

Furthermore, the high cost of food impacts access for those who are parents. The young people we spoke to who are also parents talked of having to *"make ends meet"* and sometimes having to *"just buy them food that we also eat just because we have no choice."* The young, single mothers in our groups prioritise the basics they need for their children. For example, one woman in her twenties told us:

> …we sometimes encounter several challenges as mothers who are raising children on their own. The grant money that we receive needs to be spent on the child's diapers and food…. [FGD3][18]

Their limited incomes and the cost of food leaves them with little flexibility on what food they have access to.

[17] In this case "combo" refers to a bundle of vegetables that could be purchased, usually based on weight. These combos comprise of a selection of vegetables, usually consisting of starchier, root vegetables such as potatoes and carrots.

[18] The South African Social Security Agency (SASSA) provides child support grants. These grants are designed to support "…lower-income households to assist parents with the costs of the basic needs of their child. The grant isn't meant to replace other income but intended to bridge the gap in the cost of living." As of October 2020, the grant was R440 a month per child (Western Cape Government, 2020). At the time of data collection (September 2019) participants told us the grant stood at R420 per child per month.

7.2 Physical availability

As well as food simply being too expensive to access, participants note price and option variations depending on the location of where they look for food. This is both the type of shop – as highlighted in the opening quote to this chapter – but also geographical location. In particular, there is the perception that food is even more expensive outside of Ulutsha Town. A man in his thirties said about location:

> In Ulutsha Town, things are accessible. You will find that things are expensive in other locations; for example, you will find that a bag of potatoes cost R5 here but when you venture out to other areas, you will find that it costs around R7. Some of us are then unable to afford veg, since its expensive [elsewhere]. [FGD2]

Further to this, elements of access such as the production (i.e. organic vs. non-organic) of food and quantity over quality come into play. These young people and their families are making decisions about what food is accessible to them based on how much they can get to feed everyone in the household. As one young man in his twenties said:

> You know if ever you choose for quality, then its small, then it's expensive. But if you choose for quantity, it's a lot and then it's enough for everyone. [FGD4]

The idea of access being in part due to location was of particular interest to focus group five. This was the youngest group on average with six of the ten participants being 25 or younger and all participants were either a student or unemployed. As one man in the group said:

> …if you pay close attention here in the township, our vegetable variety is limited and consist of what you know: spinach, carrots etc. There are vegetables that we do not have access to. There are vegetables that we have never consumed; yet they exist. But in other places when you enter, you can see the vegetable(s). [FGD5]

This idea of access to food because of location seemed to be felt on multiple levels. The first being, as I have touched on already in previous chapters, that there is dependence on shops and the range (or lack thereof) of food on offer and the cost, and a lack of other options for accessing food. For example, one woman in her twenties said:

> …things like farming are needed so that we don't only rely on getting our vegetables from places like the shop. It would be nice to have places that we know that we can plant our vegetables on. [FGD3]

As mentioned already, there was also a communal undercurrent of anxiety and lack of trust regarding tuck shops and other retailers being owned and run by non-South Africans or what was often referred to as “Somalians” or “Somalis”. Most participants felt strongly that the presence of these non-South African owned shops impacted their access to food and also the health and safety of the food they consume, as highlighted already in the previous chapters on health and what people choose to eat.

This anxiety with regards to access includes these shops’ role in the price of food:

> But brother, these Somalians change prices every day. When you go in the morning prices cost this much, and later, another price. [FGD7]

However, more broadly, it was evident that they felt they have no other options, as seen by a man in his thirties in the second focus group, highlighted in the first chapter on life in Ulutsha Town. His sentiments were summarized in his final point: “*Unfortunately, there is[sic] only a handful of shops that sell food that we can afford.”* [FGD2]

These perceptions of having *“no choice”* and only having *“poor, unsafe choices”* from the Somalian tuck shops aligns with the general xenophobic undercurrents running through South African, particularly Black, low-income communities at the time of this fieldwork, as noted in the earlier chapter on life in Ulutsha Town. And as outlined in that chapter, unemployment, poverty and crime are predominant in these young people’s lives. These socio-economic drivers of health directly impact food and drink choices and accessibility; actual and perceived. The food from tuck shops, while most likely safe, represents the wider

context of stress and xenophobic fears these young people live with and provide a convenient outlet for placing blame.

Continuing with location as a physical driver of access, and moving beyond Ulutsha Town, there were comments both from the participants in focus group five but from others as well that what they have access to in Ulutsha Town is not the same as what is on offer in Cape Town city centre, for example. And what they do have access to is not seen as very good*:*

> From this side, everything here, it leads you to death. But outside at least, there is actually life that side…. [FGD2]

Beyond Cape Town even, multiple people talked about the options outside of the Western Cape. For example, a man in his twenties said:

> ...what you find in township, you only find like, from our house, we only buy carrots and cabbage and like spinach, like butternut and what do you call it? Pumpkin. That's the only veg I eat. But when I go to Eastern Cape, I eat squash and sweet potato, like, different [things]…. [FGD5]

The Eastern Cape was mentioned frequently across the groups as being *"better"* or *"nicer"*.

7.3 Water

> And others don't drink water usual[sic], yeah, they don't drink water. [A man in his thirties speaking in FGD2.]

Throughout the focus groups there were mentions and discussions on the availability, quality and custom of drinking water, as well as the linkages between water and health. For example, there was mention of the taste of water in focus group four:

> I: Would there be things that you want to drink differently than sugary drinks?
> R: More water
> I: Do you find drinking water hard?
> R: Yes
> R1: Yeah, it doesn't taste nice [laughter] but when you drinking 'cooldrink' yoh! One

> glass, you want to take another glass. But when you drinking the water, that glass you don't finish it because it doesn't taste nice than the 'cooldrink'. [FGD4]

The colour and quality of the water in Ulutsha Town, as compared to that of central Cape Town was discussed multiple times. The water in Cape Town was described as clear, and clean, and having a better taste. While the water in Ulutsha Town was described as brown or white, *"dirty water"*.

The accessibility of water for drinking was presented in contrast to that of sugar and fizzy drinks which is presented next. Drought conditions in the Western Cape in recent years were noted as contributing to perceptions of water and its consumption.[19] Several young people noted that restrictions on accessing water shifted their consumption behaviour, and if they choose to drink water. And one young woman in her twenties noted when asked about access and drinking more water, "*Yeah, because you should drink 7 cups per day."* [FGD2].

This idea of *"should drink"* water comes up against the lack of trust and safety anxiety previously mentioned with regards to accessibility generally. The complexity around the access to and culture around drinking water – and choosing to drink water – was clear, as illustrated here among the women in the sixth focus group:

> R: We forget about it [water].
> I: Is tap water okay to drink?
> R: No, it's tasteless.
> I: Do people ever buy bottled water?
> R: No, we use too much.
> I: Its expensive?
> R: Yes, we don't buy water [laughter].

[19] The Western Cape Province experienced below average rainfall in 2015-2017 which contributed to the worse drought conditions on record since 1904. Even at the time of data collection in September 2019, measures and advisories were still in place throughout the region highlighting water scarcity and conservation efforts.

R1: We used to buy water when we had a problem with water; we used to buy it then.
R2: I never buy them[sic] even then. I usually boiled water. Boil and let it cool down.
I: Is bottled water more expensive than Coke?
R: No, it's cheaper. [FGD6]

And again, an example of the interconnected nature of what people choose and what they have access to. The last point on water being less expensive than Coke, links back to both the pervasiveness of Coke and to what people are choosing to drink even within cost and physical accessibility constraints.

7.4 Sugar and fizzy drinks

As with the presence and price of foods at large, and the accessibility of water, the young people in our groups were acutely aware of the presence and price of sugar and its role in the accessibility of food, but particularly fizzy, sugary drinks. Many participants identified sugar as being different or exceptional in its cost from other singular products or commodities. As a young man in his twenties said:

> You see these sugary stuffs tend to be the most expensive but if you look at bread, if you look at Metro's R5 bread…those things are weak and bland. The most important stuff are the most expensive ones. [FGD1]

Multiple times throughout our discussions it was repeated, sugar *"is very expensive"*.

More specifically, the cost of sugar and in turn sugary drinks was also a common subject. In particular, cost dictates when and if those drinks are accessed. Many people reflected on the monthly income cycle most people in Ulutsha Town live within; the beginning of the month is when there is money to spend. For example, from a woman in her twenties:

> I: So, things like Coke and juice are only for the beginning of the month?
> R: By the time the 6th come, its long gone [the money]. [FGD3]

In this instance, access (due to cost) and what they choose (based on preference) are not mutually exclusive. This young woman was making choices about what to buy and consume based on what was accessible to her throughout the month. Noting how expensive many of the young people find sugar, and sugary drinks, several admitted to drinking these beverages – particularly late in the month – only if others bought them. Their access to these products is based on the generosity of others. As a woman in her thirties openly admitted:

> I drink it, but I don't buy it [laughter]. I can drink the Coke if you buy it for me. Or if they lower the prices at Shoprite, then I can go and buy it, not just go and spend 20 something Rands when the Twizza is 11?! [FGD6]

This comment also points to the general preference for sugar and sweetness – she is still buying and consuming a fizzy, sugary drink, but it also highlights the dominance of Coke as previously discussed. In this case she can afford sugar in the form of Twizza, but not the preferred option in the form of Coke, which is too expensive. A woman next to her then said, *"For me, I don't buy one. I only drink it when I go to my neighbour's place."* [FGD6].

These accounts of the cost and physical accessibility of food are linked with the findings in the previous chapter on having the ability – perceived or real – of individuals and families to choose what they eat and drink. As a young man in his twenties in our last group said:

> …the people don't have a choice… They don't have a choice but to buy food that is applicable to them.... [FGD7]

Within the context of health, and what young people in Ulutsha Town choose, and what young people in Ulutsha Town have access to, we discussed and examined what scope and context for policy change there is within Ulutsha Town, which I present in the following chapter.

8. Scope for policy change in Ulutsha Town

> No, I just noticed the change in prices. They were cheaper before, but now they are expensive. [A woman in her thirties' response when discussing the RSA levy in FGD2.]

Our discussions did specifically address the RSA levy, given its role as the policy example for this study. However, from those discussions came broader points on what the government could be doing to improve the health – and lives – of the young people in Ulutsha Town and what scope there is on the ground for policy change and the intended behaviour change from policy. In this chapter I present results on our discussions about the RSA levy specifically and then our broader discussions about government intervention for improving health.

8.1 The levy

When discussing if participants had noticed a change in the price of sugary beverages in the last 18 months[20], almost all of the participants said they had. When discussing the noted change in price, the vast majority of the young people said that they did not know why exactly the price had changed, or only knew about the RSA levy very recently, or were learning about it for the first time that day. This was summed-up by a young man in his twenties who simply said:

> No [we did not know about it], but we can see that things that contain sugar are more expensive. [FGD1]

Based on these responses, we discussed with the participants why they thought the government had instituted the RSA levy and whether or not it would have its intended

[20] From implementation on 1 April 2018 to the time of data collection in September 2019.

impact – with very mixed responses. On why the government might have introduced the RSA levy, there were participants who, like this woman in her twenties said:

> I think they want us to drink things with raw sugar [as opposed to added sugar] since a lot of people who are living with diabetes[sic]. So, they want us to reduce the number of sugary beverages that we consume. [FGD1]

And this woman in her teens said:

> Maybe because we drink too much of it, now they see that there is too much of sugar diabetes, people dying from it, so maybe they want to stop it[sic] from that. [FGD4]

Or this man in his twenties who told us:

> Somehow, I think they made the sugar tax applicable to us because there are many diseases or sicknesses that have been going around, so apparently the Department of Health has requested for sugar tax. That's why fizzy drinks, the prices have risen…. [FGD7]

These discussions then often moved on to more mixed dialogues on if the RSA levy would achieve its intended purpose and how it was being experienced by the young people in Ulutsha Town. On its intended purpose and if it might "work", many people felt it would not, often very bluntly saying, like this woman in her teens, *"No [it is not going to work]. [laughter]. Not by a long shot."* [FGD4]. Other responses were more nuanced in their assessment on why the RSA levy might not reduce consumption within this community. For example:

> R (woman): I don't think it stands a chance, no.
> R1 (man): Coke is like alcohol [laughter]. It's like alcohol; you increase the price but they still gonna buy it.
> R (woman): We never stop. [FGD5]

Moving on from whether or not it would simply work – or not – participants had a range of thoughts on the intended purpose and the impact the RSA levy was having on Ulutsha Town. A woman in her thirties told us:

> I think, when the government raised the prices of sugary products, they were trying to ensure that people will take care of their health. But now, unfortunately, people don't do that. The government did not raise the prices to make people suffer. But it doesn't seem to be working. Once people develop a habit, they will find ways to feed it. [FGD6]

And a man in his thirties told us:

> On another scale of things, by them increasing the prices of sugars, somehow, they are trying to motivate people to stop eating too much sugar, but also it lacks information. If they educated people about the importance of you having less sugars, people will decrease in buying more sugar. [FGD7]

A point which links back to health and knowledge presented in previous chapters.

Also linked back to health and knowledge, was the thinking and understanding that the RSA levy would in fact force people to choose the "unhealthy" option because of price, not the healthier one. Explained here by a man in his twenties:

> And what you said about disadvantage, let's say Coke is way healthier than Twizza, even though it contains a lot of sugar but, but lower class is forced to buy the cheaper thing at all time [sic]. So, the more they tax things, the more they run to cheaper things. At the end, that thing affects their health. [FGD5]

This points to the sentiment in the previous chapter regarding brand loyalty to Coke and the feeling of it being better or healthier and that is why it is more expensive.

Despite a wide, general understanding of the government's intended purpose for the RSA levy – even if often felt that it would not work – many of the young people felt negatively towards the RSA levy or felt it should not be applied to everyone. As a woman in her teens said:

> I think the sugar tax is just there to disadvantage the lower-class people because even if the Coke is R30, the middle- and high-class people can still afford it but lower-class can't, so. [FGD5]

Both in the discussions about the RSA levy specifically and in the wider discussions, it was clear that individuals were re-budgeting and diverting funds away from other things, such as

leisure activities, to be spent on maintaining their sugary drinks consumption, despite the rise in price. This fuelled the sentiment that not everyone should be paying the RSA levy, as a man in his twenties said:

> So that's why I think the tax must not be paid by other people. It must be paid by people who are working only. People that are still in need of money, they shouldn't pay like tax. As it was before the prices went up, before the rand decreased, people from poor communities had to buy bread without tax, they had to buy the groceries without tax. Like, as it is now, people can use the SASSA card[21], but still pay tax. But before, it never happened. It's the government. [FGD1]

8.2 Beyond the levy

In four of the groups, the suggestion was made that instead of or in addition to the government taxing sugary drinks and making them more expensive, it might serve more good if they subsidised or lowered the price of healthier foods like fruits and vegetables to make them more accessible in communities such as Ulutsha Town. As stated by a man in his thirties:

> Based on my own opinion, I think that if the government were to put a tax on unhealthy foods, there might be some changes because here in Ulutsha Town we are a community that is faced by high unemployment, so it's not easy to buy expensive food. Instead, you prefer to buy cheap food. So, if the healthier things are cheap, that is when things will truly start to change. [FGD2]

And as another young man put it:

> Yes, it's pretty much a good idea. If also they could then bring other prices down; make the healthier stuff cheaper. [FGD5]

This sentiment was supported elsewhere too, for example by this young man in his thirties:

> I also think the government should intervene by trying to subsidise healthy food so that as a Black people we could afford to buy those foods at an affordable price. [FGD2]

[21] SASSA benefits card used with government provided financial benefits, including the child support grant.

In a number of the groups, there were then further, much broader discussions regarding government interventions for improving health. Participants had lots of ideas of what the government should be doing to help them – many of which come back to the idea of "giving health" – starting with employment and taxes in general. As a young man in his twenties said:

> …by ensuring that people who are unemployed do not pay tax; people who are unemployed they can't pay tax.… [FGD1]

And then in the following group, a man in his thirties told us:

> And I think it's important for the government to also create employment options since we face high unemployment. They need to hire unemployed people and have them bring food awareness or other related problems. This one that can solve both our problems. [FGD2]

This point speaks to NCDs and chronic poor health more broadly being clearly driven by wider determinants of health, as is well documented in the literature (Ataguba et al., 2015, Marmot et al., 2008). It is also helpful to note that people in Ulutsha Town know what wide elements contribute to their poor health too, in this case high unemployment. In response to the point above, another young man in the same group went on to say:

> It's very easier[sic]. The government should only, since the community people are not working, all of them, the government can create project for us to do our own garden, to plant our own vegetables. The things can help with the government, maybe the price will also reduce from its cost at the shop to give people who don't afford it to plant, at the back of your yard, to do garden there. [FGD2]

And in response to him, a third young man suggested:

> But I truly think bhuti (brother) if the government were to start something like that, small project you understand, people who are unemployed, as he said, doing door to door awareness, about healthy foods and whatnot, kind of stuff like this, I think at least earning that, at least you can help your mother at home, grandmother or maybe if you are living alone at home you can see what to do and what not to do. [FGD2]

Other suggestions, which came from across the groups, included changing TV advertisements to highlight the consequences of eating unhealthy foods; reductions or bans on advertisements for certain foods; and facilitating the opportunity for more people to grow their own foods.

Several discussions touched on the wider political-economic context of what governments can – and cannot – do. For example, the price of flour, sugar, and petrol were all mentioned. More broadly, beyond unemployment, widespread poverty was cited as both something the government should work to solve, but also as a barrier to some of the success of more targeted health interventions, such as the RSA levy and health information campaigns. These later points are linked to the on-going legacy of Apartheid as previously outlined and discussed further in the following chapter. However, it is also an important point to acknowledge when thinking about the goal of policy to "shape" and "improve" people's lives. The young people of Ulutsha Town know what structural barriers keep them from being healthy and keep policies such as the RSA levy from potentially working.

Finally, there was a sentiment felt by many that the government simply needed to do more for their community; to "give them health" and to improve their lives as a whole. As a teenage woman said:

> They should come more here, because we don't see the government here. They need to come and speak to us and see what they can do to help us. [FGD4]

The following chapter will place these results within a critical reflection examining how they compare to other evaluations of the RSA levy to-date and the policy in everyday life, including the context of food choices and access; HIV, NCDs and health in Ulutsha Town; and the role of policy in improving people's lives.

9. Discussion

In this chapter I will critically reflect on my results in light of Ozanne and Murray's (1995) conception of policy as a mechanism to improve people's lives by "shaping social structures". The aim of this study was to explore grassroots understandings and perceptions of food choices and food access, within a country with a double burden of NCDs and HIV, and the potential influence of national policy. In many ways it is an examination of consumers. My results from the focus group discussions provide a picture of the life, health, food environment and policy context of young people in Ulutsha Town. As first presented in the introduction, I have defined this policy reflection as using qualitative data to look at a policy in practice.

I will critically assess my results in two main ways. The first will be a reflection of the policy itself – its design and intention – placing my results alongside other assessments and evaluations of the RSA levy to-date. The second section will look at how my observations and policy reflection sit within the context of everyday life in Ulutsha Town; examining my results as an example of if and how "shaping social structures" can improve people's lives (Ozanne and Murray, 1995). This will include the history of HIV; the socio-economic conditions and drivers of health; and the legacy of Apartheid. The second section concludes with a discussion of the concept which emerged during our focus groups of "giving health" and the role of individual and community experience as a metric for critical assessment of policy. I conclude the chapter by outlining some of the limitations and challenges to this study.

9.1 Policy reflection – design and evaluations of the RSA levy

9.1.1 Fiscal policies designed to shift populations, not individual neighbourhoods

As outlined in the literature review, fiscal policies – specifically taxation on commodities – are designed to improve population health by four means: forcing or encouraging companies to reformulate their products; raising the price for consumers leads to a drop in purchasing and a drop in consumption; raising public awareness about the amount of sugar in the diet and its effect on health; and raising revenue from taxes earmarked to fund other health promotion programs (please see *Figure 1*) (Sinclair and Sing, 2018).

In addition, through the literature review I identified that SSB taxes are economically regressive in nature, in that lower income households pay a larger proportion of their income with any additional tax added as compared to higher income households (Sinclair and Sing, 2018, Freedman and Brownell, 2012, University of North Carolina Global Food Research Program, 2017). My results speak to the immediate, lived impact of the change in price of products that has come from the RSA levy. Many of the young people noted the rise in price of Coke and other brand name sugary beverages and with this a shift in when and if they bought those products. Some had to stop buying the more expensive products all together but did not stop consuming other sugary beverages. While others chose to budget for when they could afford the more expensive products such as Coke, for instance at the start of the month when they first got paid. The young people spoke clearly to the fact that the shift in price due to the RSA levy had impacted them economically in some way in response to the price changes but had not changed their overall levels of consumption significantly. In the literature review I highlighted a number of studies which looked at the regressive nature of such policies over the longer-term. However, my results illustrate the acute regressive economic impact of the RSA levy day-to-day (Backholer et al., 2016, Lal et

al., 2017, Nakhimovsky et al., 2016, Stacey et al., 2018).

If I return to the taxation mechanism, having acknowledged the potential economic burden placed on young people in Ulutsha Town by the RSA levy, I can look more specifically at the two elements I identified for this study in the context of the economically regressive nature of such measures: price influence over purchasing and consumption; and public awareness. As mentioned on page 82, my results point to a shift in purchasing based on the change in price in sugary beverages – even if many of the young people did not know why the price had changed. However, my results show that the shift was most often just to less expensive, non-name brand sugary, often fizzy, drinks or to purchasing at different times in their pay cycle. This is as opposed to a shift to lower or no sugar, healthier drink options. The observations regarding preference for and access to water is an example of one reason for this lack of a shift; for many of the young people we spoke to this was not seen as a viable alternative to their fizzy, sugary drink of choice. Or the association with fizzy, sugary beverage options that "taste nice" and/or are something nice to treat one's self to, so not something they would willingly stop consuming. Both water as an option – or non-option – and the concept of treating yourself to something nice speak to the wider accessibility theme which came out in my results. Also of note is that in the preceding years young adults in the RSA have been the leading consumers of SSBs (Manyema et al., 2014).

The other specific element of the taxation mechanism I consider is that of public awareness raising which comes from the implementation of a levy such as the one in RSA or is intended to come from such taxation. Public awareness in this case can be broken into two arms. The first, is public awareness regarding the RSA levy itself, both before and after its implementation. My results clearly indicate a very low level of awareness regarding the RSA

levy, how it is intended to work and what it is for, among the young people in Ulutsha Town. As noted above, many of the young people had noticed the change in price of certain products but did not know why. A large proportion of the participates indicated they had not heard about the RSA levy until our discussions. This particular point did not come as a surprise based on prior research and discussions with my local gatekeepers.

The second arm of the taxation mechanism of public awareness is, in this case, around the consumption of sugary beverages and health. In my results both on the health context of Ulutsha Town and those on the scope for policy change, a noticeable majority of participants indicated they already knew that drinking sugary drinks is not good for their long-term health in some way. This was evident in discussions about the ill health and chronic diseases older family members are facing, such as diabetes and cancer. As well as in talking about the "acidity" or acidic nature described of many fizzy, sugary drinks. It was not simply the nutritional element of what people drink but other factors – such as acidity – that these young people were thinking of when talking about the long-term impact on their health. A number of young people – when asked what the government should be doing to help their health – indicated that increasing education, health services, and subsidising healthier food options might bring better awareness and change to their community than the RSA levy.

9.1.2 Evaluations of the RSA levy

Having outlined how my results fit within the policy design and discourse of the benefits and role of implementing SSB taxes, I will now examine how my results compare with other evaluations and assessments of the RSA levy to-date. Given the timing of my study with the

implementation of the RSA levy in April 2018, I have divided this discussion into “before the levy” projections and “after the levy” evaluations.

As outlined in the literature review, there were modelling studies conducted ahead of the implementation of the RSA levy – and used by government and civil society to promote its implementation – which indicated the potential long-term health benefits and cost savings across the population and health system by implementing a SSB tax in RSA (Tugendhaft et al., 2016, Manyema et al., 2016, Manyema et al., 2014, Stacey et al., 2018). All of these studies suggest that over the long-term, rates of overweight and obesity, and other metabolic conditions, may reduce across the population. Some also looked at the potential health care cost savings, and broader savings to the economy at large, that would come from a lower burden of diet-related chronic disease in RSA.

In relation to my results, two non-modelling-based studies mentioned in the literature review conducted prior to the implementation of the RSA levy are of particular note. The first, is Murukutla and colleagues’ (2020) examination of the national mass media campaign ahead of the RSA levy’s implementation. From the surveys they conducted pre- and post-campaign, there are two aspects of their findings which do not align with my results. The first is that while three quarters of my participants would have been part of the target age range for the campaign, about a quarter of them would not have been old enough at the time. The campaign ran approximately 18 months before the RSA levy was implemented and began three years before I conducted my focus groups (Murukutla et al., 2020). However, the age of my participants falls into the range of some of the highest consumers of sugary beverages in RSA (Manyema et al., 2014).

The second, is that only 9% of respondents in the pre-campaign survey and 12% of respondents in the post-campaign survey came from what were classified as low socio-economic status (SES), which all of my participants would be classed as (Murukutla et al., 2020). Of this small group of households surveyed from low SES, in the post-campaign survey 52% were still unaware of the campaign (Murukutla et al., 2020). While this latter result roughly aligns with my results with regards to knowledge of the RSA levy itself – I would argue I had an even higher proportion of participants unaware – it is difficult to say from Murukutla and colleagues (2020) if the campaign was simply not targeted at lower SES groups or if the study design was such that the respondents from these groups were meant to be a small proportion compared to the whole of the study.

The other pre-implementation study of note with regards to my results, is that of Bosire and colleagues (2020). As discussed in earlier chapters, the methodology of this study has many similarities to my own and claims to be the first study using qualitative methods to examine understandings and perceptions of the RSA levy (Bosire et al., 2020b). Although Bosire and colleagues (2020) spoke to a wider age range of adults than I did, many of their results were similar to mine. For example, most of the adults in Soweto they spoke to were not aware of the upcoming RSA levy, similar to my participants not being aware the RSA levy existed after it had been in place for 18 months. Furthermore, the majority of participants in Soweto also felt, as did mine, that the RSA levy would not be effective (Bosire et al., 2020b). The authors suggested that combining the RSA levy with the subsidising of healthy food and further education would bring greater benefit to this population (Bosire et al., 2020b). Suggestions that were also made by my participants. This study is a useful comparison with my study from both a methodological perspective, but also in highlighting the similar understandings,

exposures and beliefs regarding health, SSBs, and the RSA levy in urban townships in different parts of RSA.

Following the implementation of the RSA levy in April 2018, there have been limited evaluations and assessments of the RSA levy to-date. Included in the literature review is Saxena and colleagues' (2019) cost-effectiveness analysis. The study looked at all income groups, and asserted that cases of poverty would be avoided because of the RSA levy, but estimated the bottom two income quintiles would bear the smallest tax burden increase and would have the least out-of-pocket heath cost savings over time (Saxena et al., 2019). The latter finding, on out-of-pocket health costs, they credited to these groups having high government subsidisation of health services (Saxena et al., 2019). While it is hard to directly compare this with my study, these findings do contradict in some ways what the people of Ulutsha Town told us regarding the immediate impact of increased prices on their very low and very constrained household budgets, as well as on their initial response to the RSA levy; it has yet to have had a significant impact on their consumption habits. Saxena and colleagues (2019) do acknowledge RSA's significant income inequalities and the legacy of Apartheid. The authors recognise that there may be differing impacts of public policy because of this unequal distribution of income (Saxena et al., 2019).

Finally, a further study which has been concluded following the implementation of the RSA levy is that of Stacey and colleagues (2019), summarised in the literature review. Their study examined the changes in beverage prices in RSA over a period of time covering the implementation of the RSA levy and just after, finding a significant price increase in carbonates (Stacey et al., 2019). This finding aligns with what young people in Ulutsha Town

told us, that they had noticed an increase in the price of sugary drinks, in particular Coke, in the 18 months prior to our discussions in September 2019.

Even with a limited number of assessments and evaluations of the RSA levy to compare with – both before and after its implementation – two observations can be made on the structure and intent of the RSA levy and evaluation designs. The first is that, even if included in the overall study, none of the studies focused on the lowest income groups in RSA and/or exclusively on young adults (Murukutla et al., 2020, Saxena et al., 2019). Given the economically regressive nature of SSB taxes like the RSA levy and its impact on low-income groups, like the community in Ulutsha Town, this could have an impact of on-going food access and the development of risk factors for NCDs. The second, was that the results from the three studies conducted with primarily quantitative or mixed methods presented here bare almost no alignment with my results, with the exception of the observations regarding changes in prices (Stacey et al., 2019, Saxena et al., 2019, Murukutla et al., 2020). The one study which used qualitative methods, however, even though it was conducted prior to the implementation of the RSA levy, presented many similar results with regards to understandings, exposures and beliefs about health, sugary beverages, and the RSA levy, as my own (Bosire et al., 2020b). Based on these comparisons with my study, I will now discuss my results as an example of if and how "shaping social structures" through the implementation of policy can improve people's lives and look at how my observations and policy reflection sit within the context of life in Ulutsha Town.

9.2 Policy in everyday life – "Giving health" in Ulutsha Town

As outlined in the literature review and above, the theory behind SSB taxes – how they are intended to work and how they are supposed to impact health – is well documented both

globally, and now specifically for RSA. How this plays out in practice, particularly in LMICs and for RSA, less so. This is in part because many of these measures are relatively new in the LMICs that have moved ahead with implementing them. Furthermore, as highlighted by several of the studies examined in the previous section, the impact or experience of a levy on specific sub-populations is even less so or not explicitly examined.

In this section I will discuss how my findings, in light of the other assessments highlighted above, speak to the everyday "practice" of the RSA levy within the context of Ulutsha Town and re-visit my original questions on food choice and access, actual and perceived; the intersection of HIV and NCDs; and the influence of national policy. I will consider the critical idea of the "interplay between theory and practice" of policies designed to shape people's lives and the impact of social inequality on health (Ozanne and Murray, 1995, Singer and Baer, 2018). This section is broadly divided into three parts: the first will be on the food choice and food accessibility context of Ulutsha Town and the drivers of these; the second will be on HIV, NCDs and health generally; and the third section will reflect on the concept of "giving health" in Ulutsha Town.

9.2.1 Food choices and food access in Ulutsha Town

9.2.1.1 Trust and safety

As outlined in the results, there are a number of components to the lives of young adults in Ulutsha Town which contribute to their food choices and access, in particular the context of trust and safety. These include wide-spread unemployment; anxiety and stress from poverty and crime; and a lack of trust towards those providing the foods people can afford and their sources of knowledge about food and drink.

My results speak clearly to the widespread prevalence of and anxiety from unemployment in Ulutsha Town. Two thirds of my participants listed themselves as unemployed and many commented on how the lack of work is driving many of the other stressors they identified within their lives and community. As presented in the literature review, RSA has one of the highest unemployment rates in the world and there is a significant evidence base on why RSA has come to have such significant employment, and income, inequalities; much of which is linked to the on-going legacy of Apartheid. It can be argued that this high level of unemployment is a determinant of poverty and crime in Ulutsha Town.

Closely associated with the high level of unemployment among the young adults in Ulutsha Town, is the stress and anxiety which comes from poverty and crime. My participants spoke, almost unanimously, right from the start of our discussions about the levels of crime in the area. Feelings of apprehension regarding gang activity, freedom to move about, and feelings of being unsafe in communal areas. This aligns with a significant evidence base, across disciplines, of the role social structures have in initiating and perpetuating poverty and its role as a determinant of crime (Marmot et al., 2008, Friel et al., 2011, Ataguba et al., 2015). Furthermore, in thinking critically about the role of social structures and policies on health, there is anthropological evidence to support the argument that structural violence, or the embodiment of social hierarchy – in this case high levels of unemployment – is a clear determinant of health through elements such as poverty and crime (Nguyen and Peschard, 2003).

I would argue that the manifestation of anxiety and stress cited above, with unemployment as the structural driver, is shown in my results in the lack of trust towards those providing the food that these young people can afford, and to a lesser extent a lack of trust towards

their sources of knowledge regarding food and drink. The clearest example of this comes from the lack of trust expressed towards “Somalis” and other “foreigners” seen to be the primary owners of tuck and informal shops. My participants spoke of the danger that came from not knowing how the products in these shops are sourced; they sell “bad things”; and we were told their prices fluctuate regularly. However, it was evident that for these young people they often had no other options for where to purchase food given their budgets. Therefore, before they can react to and change behaviours linked to the RSA levy on sugary beverages, these young people are simply having to navigate where to purchase food and drinks they can afford in the first place and manage the stress which may come from this decision making.

Another area of trust and safety as a context for the lived policy experience which presented themselves in my results, was a lack of trust in wider sources of knowledge regarding food and health, including from the older generations of family members many of the participants are still living with. While participants generally expressed an understanding of the role food, and sugar, play in health and chronic disease development, it was also clear that nutrition was only one – perhaps small – part of how they perceived “healthiness”, as touched on earlier. The public awareness messages linked with the RSA levy, which may not have reached the young adults we spoke to or Ulutsha Town, would only have had so much impact on the young people who felt they were entitled to something that “tastes nice” and would figure out a way to consume it no matter what.

9.2.1.2 Legacy of Apartheid

As summarised in the literature review, the legacy of Apartheid in RSA is significant. In particular for this discussion, RSA’s racialised income inequality and life in townships. As just

discussed, my participants – who are largely unemployed – align with the documented national high unemployment rate and levels of poverty. All of my participants are Black South Africans. This is coherent with Black South Africans being consistently in the lowest income groups in the decades since the end of Apartheid (Leibbrandt et al., 2010). Much of this perpetuation is driven by the legacy of and geography of townships.

A good example of this physical legacy from my results is when a young woman in her twenties described the process of just trying to get a job in the first place (please see her direct quote on page 50). She told us of the money spent to produce a curriculum vitae and then the time and money spent "queuing". This example points to a lingering impact of township geography and design; potential employment is located in certain spaces which are not in townships and people who live in townships have to make the effort, often at great expense, to venture out to these specific spaces (Turok, 2011).

This link between unemployment and the geography of townships as legacies of Apartheid and food access and choice is most starkly seen in the immense brand association and loyalty my participants attested to. In particular Coke versus other fizzy drinks products, including the RSA brand Twizza. Since the end of Apartheid, we know Coke and the other leading global fizzy and sugary drinks brands have held the lion's share of the market – as presented in the literature review (Igumbor et al., 2012). This control of the market – and the social status associated with being able to drink Coke – was evident in the course of my fieldwork. Time and again participants told us that Coke was their preferred beverage of choice. But also, in the sheer presence Coke has within the physical community. Tuck shops, corner stores, school playing fields, billboards, etc. all came with Coca-Cola's bright red signage and distinctive white font (please see *Figure 2* as an example). The pricing structure

of Coke products in RSA may be shifting because of the RSA levy, but the presence of Coke within Ulutsha Town is not (Stacey et al., 2019).

Figure 2. Example of pervasive Coca-Cola branding in Ulutsha Town

Source: Hannah Graff. September 2019.

Furthermore, food insecurity at large has been documented in townships, with evidence aligning with my results that people lack access to food at specific times of the month and were often unable to consume the foods they would prefer or knew to be healthy (Hunter-Adams et al., 2019). Food choices and food access in Ulutsha Town sit within broader socio-political determinants including trust and safety; and the economic, geographic and market legacies of Apartheid. The RSA levy, and its intended goal of lowering consumption and shifting awareness, sit on top of all of that. The broader health context of Ulutsha Town must sit within these structures as well.

9.2.2 HIV, NCDs and health

An aim of this study was to look at a national policy designed primarily for the primary prevention of NCDs within a country already facing a high burden of disease, in this case HIV. This context of HIV, both the continued high rates and many people still living with HIV,

but also the role it has played on life in RSA more broadly. Particularly in townships following the end of Apartheid, it was evident in talking to young people about the RSA levy and their lives and health in Ulutsha Town that the context of HIV on life is still relevant.

In talking about health, my results speak clearly to NCDs and HIV, in particular diabetes, being the leading health conditions in people's lives. Multiple participants told us that HIV and diabetes are the diseases that everyone is focused on now; the ones that are affecting them. However, as documented in the literature review and presented in my results, HIV is now the old or common disease whereas NCDs are the new, more pressing ones (Mendenhall and Norris, 2015). In my study, an element of this "commonness" of HIV will be because of the age of my participants, who will have only ever lived in an RSA deep in its response to it; including a health system built around this response.

Despite the seeming lack of awareness regarding the RSA levy's implementation, there was a level of awareness among the participants about what they "should" be doing for their health as already mentioned – perhaps another legacy of years of HIV public awareness campaigns. The participants knew they *should* be drinking more water and *should* be eating less sugar to help their health. However, as touched on in my results, the ability to drink water, for example, comes into conflict with the wider trust and safety anxiety felt by these young people and their physical and financial ability to access products. The RSA levy may be designed to shift consumers away from drinking fizzy, sugary beverages because they *should not* be drinking them for their health, the young people in Ulutsha Town however have larger structural barriers preventing them from making those choices in the first place.

As described above, the age of my participants is important in examining policy and health on the ground. Not only will my participants have been living in the context of HIV their entire lives but have an overall HIV infection prevalence which is going down, but also for the other rationale presented in my methods. Broadly speaking, 18-34-year olds are positioned at the nexus of economic independence and decision-making, although we learned that many are still living in multi-generational homes where the main earner is the primary decision maker with regards to food. This age group has high levels of SSB consumption, as apparent both from our discussions; as well as from data in the years leading up to the introduction of the RSA levy (Manyema et al., 2014). This age group is at the point where NCD risk factors, such as excess weight gain, are often established.

As with the long-term economic regressivity of the RSA levy, it is too soon to know if the RSA levy will have an impact on the long-term prevention of NCDs amongst this population. Lower income groups are often the prime sub-population for the health improvements targeted by taxation policy measures given the disproportionate burden of chronic diseases and ill health faced by these groups. However, what is evident is that there are structural barriers currently in place for these young people in Ulutsha Town and that larger evaluations of the RSA levy to-date have not necessarily taken these into account.

A final note on health in Ulutsha Town and policy on the ground. Approximately six months after I completed my fieldwork, the COVID-19 pandemic spread rapidly around the world. As noted in the literature review, RSA was not spared and like many other countries the pandemic has had a significant impact on people's health and the economy. Two elements of this situation are of interest for my study. The first, is the growing evidence regarding co-morbidities and COVID-19 mortality (Ssentongo et al., 2020). While RSA does not currently

have the same high rates of NCDs as some HICs, the still unknown long-term impact of COVID-19 – both the course of the virus and those now living with "long COVID"[22] – could add further burden to the RSA health system and economy (Davies, 2020, Joska et al., 2020). The second, is the economic impact of the pandemic on the community in Ulutsha Town. Increased and on-going unemployment due to on-going disruption to the RSA economy may exacerbate and prolong some of the barriers highlighted throughout this discussion.

9.2.3 "Giving health" and policy in Ulutsha Town

Finally, I return to the concept that large and broad social and political – in this case including economic – forces shape individuals' health (McElroy and Townsend, 2004). In particular, the impact of policy and social structures on health and the role of individual and community experience as a metric for critical assessment of policy (Scambler, 2013). The RSA levy is by design meant to shape one element of people's food environments in an effort to reduce their levels of sugar consumption. Based on my results and the discussion points above, it is not yet clear this will be achieved in Ulutsha Town.

However, other large social structures identified through our discussions are currently shaping these young people's lives. A legacy of Apartheid has left a continuing impact of economic inequalities in RSA. High rates of unemployment paired with an interplay of old and new health realities – in this case HIV and NCDs – brings me to my final point of discussion: "giving health".

[22] Currently "long COVID" refers to the lingering and longer-term health impacts being experienced by individuals who recovered from the initial infection. This currently includes a wide range of symptoms including fatigue, shortness of breath, cough, joint pain and chest pain (Centers for Disease Control and Prevention, 2020).

At multiple points throughout our focus group discussions, primarily when speaking about the health context of Ulutsha Town and scope for policy change, the idea of "giving" or "producing" health was mentioned. It came up in talking about the legacy of HIV and the RSA government's programs to promote prevention by "giving" out condoms and therefore "producing" better health – an old way. It came up when talking about the RSA levy itself and how the government should not tax those already living on low-incomes, but rather "give" them healthy foods through subsidising – something new. And it came up when discussing what the government could do to help their health beyond the RSA levy; they could "give" them more jobs.

This micro-level examination of experience of a policy within a wider, macro-level perspective has allowed me to critically reflect on the purpose of policy in shaping lives, and health, outside of the global policy discourse and accepted policy mechanisms. The two elements of the policy mechanism I focused on – price shifting consumption and public awareness – do not currently align in Ulutsha Town. While the other evaluations to-date point to the potential for long-term population impact from the RSA levy, my results suggest that wider, socio-economic barriers and structures within Ulutsha Town are currently preventing the RSA levy from having its intended impact within this community.

As outlined in the literature review, critical theory comes with limitations as a theoretical base. In particular, its roots in Marxist philosophy are seen by some as being dated and its broad nature and application "imprecise" (Antonio, 1981). This policy reflection did not use a rigid theoretical framework for analysis which, at least from a policy analysis perspective, might have made the results more applicable to the wider policymaking community. However, critical theory's broad nature did allow for "descriptive insights" into policy in

everyday life, the contributions of which to the field at large are discussed in the final chapter (Willis et al., 2007).

9.3 Limitations and challenges

There were a number of limitations and challenges to this study. I have divided them here into practical and conceptual, which I will cover in turn. The first practical limitation was the size and time constraints of the DrPH thesis as part of the degree requirements as a whole, which limited the extent of my primary data collection and analysis. This was mitigated through on-going refinement and reflection by myself and supervisory team of my aim, objectives and methods to keep them simple and manageable. Furthermore, the actual number of participants was slightly higher than the anticipated number and therefore I ended-up with a substantial set of data to work with.

The second practical limitation to this study was when – days of the weeks and times of day – we were feasibly and safely able to conduct the focus group discussions. While the local community leader who facilitated recruitment had no problems finding people to participate, it would have been unrealistic and unsafe for us to conduct focus group discussions in the evenings and therefore they were all held on weekdays in the middle of the day; hosting a focus group on a national holiday as mentioned in the methods was a conscious decision to try and speak to people who were employed. By hosting the focus groups when we did, we were always likely to get higher numbers of participants who are unemployed. While RSA and Khayelitsha have documented high rates of unemployment, our focus groups may have had a higher-than-average number of people unemployed which will have impacted my results.

The final practical limitation to my study was the fact that I am not a native Xhosa speaker. As discussed in the methods chapter, this was mitigated by having a native Xhosa speaker as a co-facilitator of the focus group discussions and research assistant, as well as having a third-party Xhosa speaker review the translated transcripts against the discussion recordings for accuracy. While I am confident that we captured to the best of our ability our conversations and the responses of the young people in Ulutsha Town, by default those conversations were different because I am not a native speaker.

In addition to these practical limitations, there were also two notable conceptual challenges to my study. The first is the challenge of the complexity of the HIV-NCD intersect. As noted at the beginning of this thesis, the HIV-NCD intersect is an emerging and growing area of research. In RSA it constitutes, among other things, a co-morbidities challenge (individuals and groups of individuals living with both); a dual burden of disease (both diseases across the population, not necessarily as co-morbidities); and a contextual reality to life in RSA. This challenge was mitigated by focusing on the later for my analytical context and framing the study as a snapshot within a much broader epidemiological and policy picture. This study has only scratched the surface on one element of the HIV-NCD intersect.

The final conceptual limitation and challenge to this study, is the timing and design of my study in relation to when the RSA levy was implemented (in April 2018). This is a limitation both with regards to what type of other evaluations and assessments of the RSA levy have been conducted to-date, as noted in the literature review and discussion. It is also a limitation in that population level policy measures such as the RSA levy are not designed to work overnight and often take a number of years or decades even before they yield any noticeable change in behaviour or health outcomes. This was mitigated through my study

design, research question and objectives. It was never my intention to examine long-term health impacts of the RSA levy on young adults in Ulutsha Town, but rather to highlight their day-to-day experiences of the RSA levy within a broad and complex context.

10. Conclusions

In this final chapter, I review the key findings from my results and policy reflection, and time talking about sugar in Ulutsha Town. I review how my study and findings can contribute to the field and are relevant to future research, and I end with concluding thoughts on my key findings.

In examining the design, purpose and assessments of the RSA levy in light of my results three things are apparent. First, policies such as the RSA levy are designed to shift whole populations not specific sub-sets and they are recognised as being economically regressive by design. At the time of my fieldwork, the RSA levy was having an acute, regressive impact on the young people of Ulutsha Town's already limited budgets. Comparing my results against other assessments and evaluations of the RSA levy both before and since its implementation indicate that low-income sectors of the population were not necessarily explicitly targeted during public awareness campaigns or were not included in any significant numbers in evaluations. For this population, the change in price was not yet drastically shifting consumption nor was public awareness from the RSA levy's implementation having an impact of access, choice or consumption.

However, it may be the case that targeted public awareness campaigns to communities like Ulutsha Town would have little impact given the already existing knowledge about sugar and health coupled with the wider determinants highlighted in this study. My results align with other studies from LMICs which attest to the acute economic impact of such policies on low-income sectors of the population, as highlighted in the literature review. What it adds to the literature base is even with this economic impact my study population is already well informed about the role of sugar and unhealthy foods on the diet and health more generally

but have larger structural barriers in place which may prevent a policy such as the RSA levy from having the intended impact, expanded on in the following point.

Second, the RSA levy in itself is meant to be a policy to shape people's lives and health. However, for the young people in Ulutsha Town it comes on top of structural and health barriers which have grown out of the legacy of Apartheid. The legacy or impact from Apartheid was not originally present in my research question, however it evolved from the wider literature review and data analysis. The themes identified through data analysis such as unemployment, crime and access to food, for example, highlight structures and legacies of Apartheid supported by the historical record and literature. These are structures that directly impact these young people's food choices and food access, and therefore any potential impact from the RSA levy.

In particular, there is the anxiety which has come from high levels of unemployment in the community and can be linked to trust and safety concerns with regards to food access and the physical legacy of Apartheid, including the geography of townships. Furthermore, the status and brand loyalty developed within this population over decades has meant that even with the rising prices of sugary, fizzy drinks many young people are figuring out a way to access and consume these products of choice regardless of cost. They may be witnessing the impact of NCDs and chronic disease on their community through family members, but do not yet feel the need to adjust their own diets accordingly and therefore are finding ways to consume what they would like, particularly sugary, fizzy drinks, regardless of the RSA levy.

Finally, the young people we spoke to in Ulutsha Town are just that, young. They have always lived within a community physically and socially shaped by the legacy of Apartheid and a health and social context defined by the decades long struggle with HIV, but are not yet experiencing the impact of chronic diseases on their own health. Their observations that "HIV is old" and "diabetes is new" are not unique within the country and point to the known rising tide of NCDs within RSA and the on-going presence of HIV. This perception of how HIV in particular – as an overall, contextual experience – has shaped these young people's experience with health, but also with the RSA levy; a key finding of my study.

The HIV-NCD intersect as outlined in the literature review and the discussion is incredibly complex. It manifested itself in this study as a backdrop to how these young people are experiencing the RSA levy – and conversely the RSA levy provides a lens for examining the intersect of HIV and NCDs as a context for policy change and impact. This population has seen and been told how the government "gave" them health through its response to HIV and are expecting the same with regards to access to healthy foods. The RSA levy was not yet seen to be a means of doing this.

10.1 Contributions to the field and relevance for future research

This study can contribute to the field and has relevance for future research and policy development in a number of ways. Foremost, it adds to and builds upon the call for "common cause" between the NCD and HIV research communities, as well as those advocating for population policy measures addressing them both (Bekker et al., 2018). In particular, as outlined in the preceding chapters, the HIV-NCD intersect is tremendously complex and this study contributes to the understanding of how the HIV context, such as

RSA's, contributes to how policy and other areas of public health (i.e. NCDs) are experienced day-to-day.

Building on the idea of how the HIV context impacts other public health policies, this study establishes a base for further research on this particular aspect of the HIV-NCD intersect. For example, similar studies could be conducted with different age groups in the same community, for example those over 50 who will have lived through both the end of Apartheid but also the peak of the AIDS epidemic and may now be living with one or more chronic disease. Or comparing a population from a low-income urban community such as Ulutsha Town with that of a low-income rural community which might have, for example, different preferences and access to foods and drinks. Finally, given the long-term nature of population policy measures, conducting this study again for example in five years could be an interesting and useful comparison regarding the impact of RSA's post-Apartheid and HIV contexts on structural determinants of health, but also an evaluation of any health and economic impacts from the RSA levy.

Regarding policy research, development and advocacy, this study contributes to the evidence base in a number of ways. Firstly, the findings add to the growing evidence on SSB taxes, and fiscal policies more generally, for public health in LMICs; and in particular expands the research scope and contribution on these types of policies in RSA (e.g. Bridge et al., 2020). Secondly, by conducting a study using qualitative methods to examine the "lived" policy experience, my grounded reflection of the RSA levy in context provides new and differing evidence on policy impact outside of more traditional, often quantitative-based, impact analyses. The fiscal policy discourse for public health globally has established very clear and easily replicable measures for the rationale for and means to implement SSB taxes

and levies as part of packages of policies to address the major risk factors for NCDs. However, the on-the-ground experience of a policy is usually far more nuanced than a flow chart or model can predict. For example, this study adds to the literature on the differing impact of public policies due to the unequal distribution of income in RSA (Saxena et al., 2019). Furthermore, my results align with similar understandings, exposures and beliefs regarding health, SSBs, and the RSA levy in similar communities elsewhere in RSA (Bosire et al., 2020b). Continuing to have qualitative-based research to sit beside the more established evidence, which highlights these nuances, is crucial to the development of better and healthier public policies.

10.2 Key findings

The aim of this study was to explore grassroots understandings and perceptions of food choices, food access, and national policy within the context of a country facing a double burden of NCDs and HIV. With a focus on two specific elements of the SSB taxation mechanism, price influence over purchasing and changes in public awareness, I utilised my focus group discussion data to critically reflect on the RSA levy's impact on day-to-day lives, within the larger context with which it exists in.

My results and policy reflection highlight the role of on-going income inequalities and high rates of unemployment – a documented legacy of Apartheid in RSA – on the lives of many low-income South Africans. In particular the regressive nature of fiscal policy measures, which in Ulutsha Town has yet to have a knock-on impact to levels of consumption but has impacted young people economically. This was an examination of consumers in the crudest sense and a grounded, critical policy reflection which adds to the long history of literature documenting structural barriers (i.e. racialised unemployment) and the broad impact of

social inequalities on health (i.e. a socio-economic environment limiting healthy food and drink consumption) (Ozanne and Murray, 1995, Scambler, 2013, Singer and Baer, 2018). However, my study moves this literature base forward by examining a contemporary measure, which is popular amongst many policy advocates and policymakers, and is designed to attempt to shift, at the population level, some of the disproportionate health burdens seen across populations.

Finally, the young adults in Ulutsha Town told us of seeing their older family members suffering from chronic diseases and wanting to be "given health" by the government; to give them what they need like they have done in the response to HIV. The RSA government has stated a desire to address widespread inequalities and the rising rates of obesity and other NCD risk factors in the country (Republic of South Africa National Planning Commission, 2012, Department of Health, 2013). NCDs and chronic diseases sit alongside HIV in RSA, but also within a health and social context that has been dominated by HIV for over 30 years. The RSA government's implementation of the RSA levy was a population level policy decision supported by public health evidence. However, it is important to examine the intended impact of a policy within the nuances of day-to-day life. A combination of analytic approaches is necessary to evaluating policy and developing better and healthier public policies in the future.

DrPH Integrating Statement

In this integrating statement I review my DrPH process and experience across the degree. I have done this chronically starting with a brief summary of my interest in pursuing a DrPH, followed by my thoughts on and a review of the taught components; the Organisational and Policy Analysis (OPA); and the thesis.

With a previous academic background in anthropology (BA) and medical anthropology (MPhil) I have long held an interest in the socio-cultural aspects of health, both at the community and population levels. After nearly a decade of health systems and then public health policy research, development and advocacy work I decided I wanted to expand my research training and experience; gain further and more formal policy and management instruction; and attempt to combine my interests and experiences in topics, anthropological discourse, public health, and policy.

There are two notable aspects to the assignments for the taught components I would like to highlight here. The first, is the *Knowledge Transfer & Influencing Strategy* assignment I completed for the *Evidence Based Public Health Policy & Practice* course. The assignment was to develop an influencing strategy for a real or fictional public health organisation to help them advocate for a policy. I had only just begun to develop my thesis topic at the time and decided to develop a fictional strategy entitled: "Introducing a Sugar-Sweetened Beverage Tax in South Africa: An Influencing Strategy for the *South African Health Collective*". Note this assignment was completed at the very start of 2016 and RSA's own SSB tax was still over two years away from being implemented. In this assignment I outlined the problem and why an SSB tax in RSA might be an appropriate policy to advocate for; the evidence supporting the use of SSB taxes for health; and influencing considerations

including stakeholders, barriers and opportunities, framing, and timing. Coincidently I noted in this assignment that the organisation should aim for implementation of a new tax prior to the 2019 RSA general election which occurred one week after my own thesis review seminar in May of 2019. One of the barriers I highlighted very broadly in this assignment was the regressive nature of SSB taxes, a theme which developed in my thesis.

The other notable element from the taught courses was the assignment for the *Understanding Leadership, Management & Organisations* course. The assignment was to complete a *Strategic Analysis of an Organisation* and I used this as an opportunity to begin work for my OPA project that would follow. Unlike with the previously mentioned assignment, for this assignment I did use a real organisation – my own. To-date I had always worked at small, non-profit charities or non-governmental organisations and while there are many advantages to working at a small organisation, there are also many challenges and frustrations. For the assignment I used a number of management and organisational frameworks, including SWOT and PEST analyses, to outline the organisation's structure and mission, strengths and weaknesses. This assignment set me up well to then dig a bit deeper through my OPA project.

The title of my OPA was *"Small but nimble": How does the UK Health Forum progress towards its mission to advance the NCD policy agenda?* and its aim was to "critically assess how UKHF progresses towards its mission to influence and advance the NCD policy agenda and the prevention of NCDs given its size. Specifically, how does the organisational size and culture – including management and leadership – within the broader external environment either help or hinder its work."

The UK Health Forum (UKHF) was a very small (10-20 staff at any one time), non-industry funded NCD prevention focused research and advocacy charity. At the time of my OPA study, it was operating at a fairly high level of production and influence despite a very tight and precarious financial picture. For my study I used a series of strategic management analytic tools, including a PEST and SWOT frameworks – both substantially expanded from the previously mentioned assignment – and placed those findings within leadership and management theories for my analysis. I conducted a series of semi-structured interviews with nearly all of the UKHF staff and Board of Trustees at the time. My results concluded that the organisation had a mission that was not clearly understood by the majority of its staff and that it relied heavily on the networks and name recognition of just a couple of individuals at the top of the organisation who would be hard to replace. I presented my findings to the UKHF Board of Trustees in May of 2017 and some of my recommendations were used in an attempt to save the organisation in the following two years.

While clearly not directly related to my thesis study, my OPA provided me with useful experience going into the thesis process. The first, was further experience with and execution of qualitative data collection and analysis methods. The OPA was also a very useful exercise in translating and presenting my findings to a number of different audiences and stakeholders; something I plan to do with my thesis results and throughout my career going forward. Finally, the findings from my OPA highlighted the importance of a participant's context in analysing their responses. For example, junior staff had a very different experience with and understanding of the organisational mission than senior staff and trustees.

As I mentioned at the start of this statement, a part of my interest in pursuing this DrPH was an attempt to pull together my interests and experiences in topics, anthropological discourse, public health, and policy. While the course work and OPA did this in practical ways, the thesis was my opportunity to do this – or attempt to do this – more comprehensively, especially with regards to topics. HIV was my first interest and first introduction to the complex realms of the social sciences and health when I was an undergraduate. My thesis was in part driven by an interest in returning to those roots, but also building off of the professional experience I have had which has been heavily within the NCD space, particularly primary prevention and policy.

Overall, the LSHTM DrPH experience has done what I had hoped. In particular, it has provided more formal instruction and exploration into policy development, but more importantly the management and organisation of public health organisations. Broadly, across the degree, I have had the opportunity to explore how to research, develop and hopefully advocate for better, healthier public policies through both well-run organisations and creatively examining policy design and the lived experience of policy.

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Appendix 1 – Demographic overview of focus group participants

FGD ID	*Date*	*Participants*	*Age*					*Gender*	
		#	*18-20*	*21-25*	*26-30*	*31-35*	*35+*	*Female*	*Male*
FG1	10-Sep-19	11		7	2	2		5	6
FG2	11-Sep-19	10		3	1	6		3	7
FG3	16-Sep-19	10		5	3	2		10	0
FG4	18-Sep-19	10	5	1	1	3		5	5
FG5	20-Sep-19	10	5	1	2	2		4	6
FG6	24-Sep-19	10	2		1	7		10	0
FG7	25-Sep-19	10	3	5		2		0	10
TOTAL		**71**	**15**	**22**	**10**	**24**	**0**	**37**	**34**

All female groups / All male group

FGD ID	*Date*	*Participants*	*Occupation*				*Children*	
		#	*Employed*	*Unemployed*	*Student*	*Other*	*Parents*	*Total children*
FG1	10-Sep-19	11		11			4	4
FG2	11-Sep-19	10	1	8	1		8	15
FG3	16-Sep-19	10	1	7	2		7	13
FG4	18-Sep-19	10		6	4		4	8
FG5	20-Sep-19	10		6	4		0	0
FG6	24-Sep-19	10	10				5	12
FG7	25-Sep-19	10	2	6	2		3	5
TOTAL		**71**	**14**	**44**	**13**	**0**	**31**	**57**

Appendix 2 – Example focus group topic guide

Example focus group topic guide for investigator:

Can you please tell us about life in Ulutsha Town?

What is your home/family structure like currently? Who do you live with?

Can you tell me about what you like to eat and drink?

Can you tell me about where you buy food and where you eat your meals?

Who in your households make decisions about meals and what foods you have at home?

Do you think about the foods and drinks you buy?

Do you think about how much food and drink cost?

How do you feel when you eat?

Where did you learn about food?

Where do you learn about your health and your body?

Interested in (not to be used as leading questions):

Food & food access
Do you think about the food you buy / what type of food do you buy and why?
Do you find it hard to find food?
Do you find it hard to afford food?

Health
Impact of sugar on overall health, weight gain?
Do you think about the food you eat being linked to your health?
Do you notice health campaigns or messaging?

Do health messages change your behaviour?

The tax

Do you drink soft drinks/fizzy drinks?
Do you know there is a tax on fizzy drinks that started in 2018?
What do you think about the tax?
Do you know why the government started the tax?

Appendix 3 – Data analysis codebook

Code name	Description
1. Life in Ulutsha Town Codes	
1.A. Unemployment	Any mention of lack of jobs; no jobs; high unemployment; etc.
1.B. Poverty	Mention of being poor; living in poverty; not having much; etc.
1.C. Crime	Any mention of crime; violence; theft; muggings; assaults; etc.
1.D. Family	Family structure, who lives in a household
1.E. Foreigners	Any mention of "foreigners"; “Somalians”
1.F. Drugs & alcohol	Any mention of drug or alcohol use in connection to "life in Ulutsha Town"
1.G. Built environment	Any mention of the physical environment; make-up; lay-out; etc. of Ulutsha Town
1.H. Money & budgeting	General reference to money (separate from “poverty”) and/or the need to budget money, not necessarily just for food
1.H.1. Cost of utilities	Explicit mention of the cost of electricity; gas; water; etc.
1.I. Children	A mention of children - having them; raising them; feeding them; etc. in Ulutsha Town
1.J. Local governance	Mention of the local government; governance structure; counsellors; etc. in Ulutsha Town
1.K. Jobs	Any mention of a job; employment; career; etc.
2. Food Codes	
2.A. Cost	Price of food; cost of food; change in the price or cost of food; etc.
2.B. Preference	Choice of food; foods they like; foods they don't like; what do they eat and drink a lot of? A little of?

Code name	Description
2.C. Decision	How do they decide what food they buy? Eat? Who in their household makes the decision(s) about the food that is purchased, cook and eaten?
2.C.1. Staples	Specific mention of "staple" or initial food items purchased each month in-line with budget and money available
2.D. Source	Where does your food come from? Where do you buy food?
2.E. Knowledge	What do you know about food? Where do you/have you learned about food?
2.F. Access	Access to and accessibility of food items
2.G. Consume	Foods eaten or consumed - may be paired with preference and/or decision
2.H. Farming	Specific mention of farming as it relates to food
2.H.1. At home farming	Growing/or not growing any of your own food
2.I. Cooking	Any discussion or mention of cooking; type of cooking; means of cooking; etc.
2.J. Culture	Explicit reference to "food culture" or "culture" as it relates to food knowledge, choice, preference, health, etc.
3. Sugar Codes	
3.A. Health	Sugar and links to health (positive or negative)
3.B. Sugary drinks	Any mention of sugary drinks (fizzy drinks, soda, Coke, Twizza, etc.) - Which ones do you drink? How much do you drink? How much does is cost? Preferences? Sugary drinks and your health?
3.B.1. Acid	Mention of "acid" "acidity" etc. in relation to the healthiness of sugary drinks (i.e., Coke).
3.B.2. Coke	Explicit mention of Coke, Coca-Cola, etc.
3.B.3. Quantity	Quantity of sugary drinks consumed

Code name	Description
3.B.4. Twizza	Explicit mention of Twizza - lower cost cola/soda drink (local to SA)
3.C. Water	Any mention of water with reference to drinking
3.D. General-Miscellaneous	Any additional or miscellaneous mention of sugar not related to 3A-C
3.E. Cost	Cost of sugar
3.F. Sweetness or flavour	Explicit mention of the sweetness or sweet flavour of something - may be paired with preference and/or other sugar codes
4. Health Codes	
4.A. NCDs	Any mention of a health condition categorised (by public health/policy) as a non-communicable disease
4.A.2. Diabetes	Type I or II
4.A.3. Cancer	Any specific mention of cancer - any type
4.A.4. Heart disease	Any specific mention of heart disease - any type and including heart attack
4.A.F. High blood pressure	Any mention of high blood pressure
4.B. HIV	Any mention of HIV - including historical, cultural, legacy reference
4.C. TB	Any explicit mention of TB
4.D. Safety	Any mention of health equating to the safety and make-up of foods and drinks ingested
4.D.1. Hygiene	Any mention of discussion of the hygiene or cleanliness of food, ingredients or food production
4.D.2. Ingredients	Specific mention of the ingredients in certain foods/food products as it links to that item's safety or healthy-ness
4.D.3. Production	Of food and drink - only linked with safety - and equating that to health

Code name	Description
4.E. Food choice	Food choice linked with health; wellbeing; how does it make you feel; etc.
4.E.1. Personal choice	Specific mention of personal choice vs. access with regards to food choices/what people consume
4.E.2. Habit	Habit as a driver of food choice
4.F. Knowledge	Where do you learn about health and/or own health knowledge
4.G. Health professional	Mention or discussion of interaction with a health professional (MD, nurse, CHW, etc.)
4.H. Health care setting	Health care facilities; settings; capacity; etc.
4.I. Exercise	Any mention of exercise; sport; etc.
4.J. Obesity-weight	Any mention of obesity; weight; size; body shape; etc.
4.K. Stress	Any mention of "stress"
5. Policy & the Government Codes	
5.A. Sugary Beverages Levy	Any mention of the RSA sugary beverages levy
5.A.1. Public Awareness	Public awareness before or after the implementation of the sugary beverages levy
5.A.2. Recommendations	Specific recommendations for the funds raised from the sugary beverages levy
5.B. Messaging	Mention/discussion of health messaging from the government; health professionals; food companies; etc.
5.C. Interventions	Mention/discussion of what the government; health professionals; etc. should be doing to help people's health
5.D. Information-education	Any mention of the information received regarding health; new taxes/laws/policy; etc.
5.D.1. Social media	Mention of social media as linked to information and public awareness from government and NGOs - specifically regarding health

Code name	Description
5.D.2. Food company marketing	Any mention of a food company marketing their products
5.E. Recommendations	Respondents recommendations to government - general
5.F. Geopolitical-economic	Wider national and global political and economic factors such as the price of raw commodities; inflation; etc.
5.G. Taxation (general)	Any mention of tax in a general sense, not the RSA sugary beverages levy specifically
5.G.1. Alcohol	Mention of alcohol taxation