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Rolling the wheels of collaboration

Tobacco control policy development and alcohol policy implementation in Zambia

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Dedication

I dedicate this thesis to my family who have supported me throughout this PhD journey.

To my mom, Miss. Doreen Namukoko, you have been the shining light of my life. You have always guided me to work harder and to remain disciplined and humble in my pursuit for academic excellence.

To my late dad, Mr. Obed Silumbwe, I vividly remember the time we would sit to solve mathematics and science problems back in the small rural town of Maamba in the Southern Province. It was there, that you taught me and my siblings to believe in the limitless possibilities of education. Dad, you had always wanted to earn a PhD and work for a university someday. Unfortunately, dearth robbed you of this possibility. You set the foundation for my pursuit of academic excellence, and I pray that this thesis makes you proud even as your rest in eternal peace.

I also dedicate this thesis to my elder sister, Nelly Mwansa Silumbwe and her family, particularly my brother in-law Mr. Dickson Hachibola for your support and encouragement during the past five years.

To my young brothers, Wankumbu Ceaser Silumbwe and Wantula Simbaya, I hope this work can inspire you guys to do even greater things because I know that you are more than capable.

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Abstract

Background: In many low-and middle-income countries, tobacco smoking and harmful alcohol consumption are major public health threats that are inadequately addressed at the policy level. For example, efforts to formulate a comprehensive tobacco control policy have been on going in Zambia for close to 12 years, but the country has still not yet been able to finalise one. While Zambia adopted an alcohol policy in 2018, its implementation remains a huge challenge. This thesis sought to enhance understanding of the context and the collaborative dynamics in the Zambia tobacco control and alcohol policy processes. In particular, it aimed (i) to determine the extent and sociodemographic determinants of tobacco smoking and harmful alcohol consumption (Sub-study 1); (ii) to explore and explain the role of principled engagement and shared motivation in the delayed tobacco control policy (Sub-study 2); and (iii) to unpack factors that shaped the capacity for joint action in the implementation of the alcohol policy (Sub-study 3).

Methods: This was an embedded mixed-methods study that comprised a across-sectional study based on the Word Health Organization STEPs population-based survey of 4302 individuals (Sub-study 1) and two policy case studies – the tobacco control policy development (Sub-study 2) and the alcohol policy implementation (Sub-study 3). Sub-study 2 used key informant interviews data collected from 27 tobacco control policy stakeholders across several government sectors, civil society, and an international organisation. The data was supplemented with a document review of tobacco laws and policies in Zambia. Regarding Sub-study 3, 25 key informant interviews were conducted with members of the National Alcohol Policy Implementation Coordination Committee. The quantitative data were analysed using log binomial regression while thematic analysis was applied to the interview data.

Results: For the context, Sub-study 1 showed substantial disparities in daily tobacco smoking and binge drinking between men and women. There was a higher prevalence of smoking in men, older adults, and those with the lowest education level, while binge drinking was more prevalent in men and urban residents. Sub-studies 2 and 3 revealed several system level factors that affected the collaboration in the tobacco control policy process, including interference from the tobacco industry, contradictory laws that incentivise tobacco production and weak enforcement of subsidiary tobacco control laws. Further, the systemic issues affecting collaboration in implementation of the alcohol policy comprised the framing of alcohol as an economic issue, the weak regulation of illicit alcohol

production and the sociocultural acceptance of harmful alcohol consumption behaviours. According to Sub-study 2, the collaborative dynamics of principled engagement and shared motivation in the tobacco control policy process have been constrained by ineffective communication, mistrust, limited evidence, the absence of community advocacy and the lack of authority among sector representatives. Sub-study 3 revealed that the alcohol policy is generally recognised as a framework for stakeholder action targeting the control of harmful alcohol consumption. However, weak coordination and resource challenges among implementing agencies have undermined their capacity for joint action, ultimately impeding the implementation of this policy.

Conclusion: The higher prevalence of tobacco smoking and binge drinking among sub-groups such as men, older adults, those with the lowest education level and urban residents calls for targeted strategies in collaborative efforts to address tobacco and alcohol. Several policy and legal issues affect the development of the tobacco control policy, while the collaborative dynamics are fraught with challenges that threaten critical collaborative outcomes such as trust, commitment and legitimacy. Thus, embracing practices that seek to foment trust, understanding, and legitimacy among key government sectors may go a long way in accelerating collaboration in the tobacco control policy process. Furthermore, enhancing the collaborative efforts to implement the alcohol policy will require strengthening the capacity for joint action by overcoming coordination and resource challenges among implementing agencies.

Keywords: alcohol policy, binge drinking, collaboration, principled engagement, shared motivation, tobacco policy, tobacco smoking, Zambia

Acronyms

CGR	Collaborative governance regime
CSO	Civil society organisation
CVDs	Cardiovascular diseases
DALYs	Disability adjusted life years
FCTC	Framework Convention on Tobacco Control
IFCG	Integrative framework for collaborative Governance
KII	Key informant interviews
LMIC	Low-and middle-income countries
MoH	Ministry of Health
NCDs	Noncommunicable diseases
SEA	Standard enumeration areas
SSA	Sub-Saharan Africa
SI	Statutory instrument
UNZA	University of Zambia
WHO	World Health Organization

Glossary

Binge drinking	Also known as heavy episodic drinking, the World Health Organization defines binge drinking as consuming more than five alcoholic drinks for men and four for women on three or more days per week [1]
Capacity for joint action	Capacity gained by stakeholders engaged in any collaborative undertaking to achieve a shared purpose [2, 3].
Coalitions	Groups of individuals and organizations that share beliefs and come together to advocate for specific policies or changes in a particular policy area [4].
Collaborative governance	A process of public policy making and management that seeks to engage and involve multiple sectors in decision making [2, 5, 6].
Daily tobacco smoking	Individuals who smoke any tobacco product daily
Policy process	Series of activities that are concerned with the development, implementation, and evaluation of policies [7].
Principled engagement	To engage in a constructive, respectful, and ethical manner when collaborating on public policy making and implementation [2, 3].
Shared motivation	The collective commitment and positive attitudes among sector representatives toward the collaborative policy process and its goals [2, 3].

Original Papers

This thesis is based on the following four papers, which I refer to in the main text by using their respective Roman numerals. Three of these papers are already published and one is under review.

I. **Adam, Silumbwe,** Miguel San Sabastian, Charles Michelo, Joseph Mumba Zulu, and Klara Johansson. Sociodemographic factors associated with daily tobacco smoking and binge drinking among Zambians: evidence from the 2017 STEPS survey. BMC Public Health 22, no. 1 (2022): 205.

II. **Adam, Silumbwe**, Miguel San Sebastian, Joseph Mumba Zulu, Charles Michelo, and Klara Johansson. The role of principled engagement in public health policymaking: the case of Zambia's prolonged efforts to develop a comprehensive tobacco control policy. Global Health Action 16, no. 1 (2023): 2212959.

III. **Adam Silumbwe**, Miguel San Sebastian, Joseph Mumba Zulu, Charles Michelo, and Klara Johansson. Collaborative dynamics and shared motivation: exploring tobacco control policy development in Zambia. Health Policy and Planning39, no. Supplement_2 (2024): i19-i28.

IV. **Adam, Silumbwe**, Miguel San Sebastian, Joseph Mumba Zulu, Charles Michelo, and Klara Johansson. Inertia or unanticipated bottlenecks? Exploring the implementation determinants of the national alcohol policy five years post-enactment in Zambia. (In manuscript).

Prologue

I remember after I first got my grade 12 results from Hillcrest Technical High School (Southern Province) in 2007. I was unsure of what career to pursue. I had gotten 7 points, and at the time, it was almost certain that I would have to enrol in the school of natural sciences to pursue prestigious career in engineering or medicine. However, after several long conversations with my dad, who was a chemist and had been trained at the University of Zambia (UNZA), he advised me to pursue a career in the social sciences. His main reason was that the Zambian manufacturing and mining industry had collapsed, and so I would struggle to find employment after graduation.

In 2008, I applied to study economics at the UNZA. However, during this same period my dad had stopped working and my mum was hardly making enough to support my university training. I asked to myself, 'How would I manage to complete my university studies with both parents being in such a financial situation?' Fortunately, on one of my walks to town in Lusaka, I met a man who had a newspaper that contained an advert for fully funded undergraduate scholarships to study in Cuba, by the Loans Board of Zambia, under the Ministry of Education. Looking through the advert, I noticed that one of the programmes was a bachelor's in health services management and economics. Without giving it much thought, I decided I would give it a try since it aligned closely with what I wanted to pursue at the UNZA. To my surprise, I was invited for the interviews and then awarded the scholarship. I decided this was my best shot at a university education given my parents' dire financial situation. In July of 2008, I left Zambia for Cuba.

Before beginning my bachelors training in Cuba, I spent the first 6 to 8 months in a small town called Sagua Lagrande, in the province of Villa Klara. It was here that I had my introduction to Spanish language and premedical training. During this time in Sagua, I had my first interactions with aspects of the Cuban health system, that to my surprise, given that Cuba and Zambia were developing countries, was different than I was used to at home. Indeed, Sagua was a small town, but the local hospital had almost all the specialties – including neurosurgeons, cardiologists and others – that we could only read about in books back at home. Most of these specialties despite the large demand, were only found in Zambia's capital Lusaka, at the time. Further, what also caught my eye was the speed with which the Cuban health system would respond to contain public health emergencies and outbreaks like dengue. Quickly, they would pause all school programmes and mobilize a cadre of professionals to identify cases and people at risk, and in no time, the situation would be brought under control. Moreover, I learned that the Cuban health system had

made remarkable progress in managing and halting the HIV pandemic, which at the time, was Zambia's greatest public health challenge. Finally, the Cuban primary health care system, characterised by family doctors and nurses, reached every group of houses to ensure systematic health prevention and promotion efforts. For me, this was my introduction to public health.

After completing my Spanish language and premedical course in 2009, I went to Guantanamo Province to commence my bachelors' degree programme. During the initial stages of the programme, I had already began thinking ahead about how I would apply some of the acquired public health knowledge from Cuba to address the pressing health problems in Zambia. Fortunately, during the second year of my bachelor's programme, I met my first mentor, Dra Anselma Betancourt, who was a senior lecturer at the local Faculty of Medical Sciences of Guantanamo. She had been trained in public health and had a lot of international and research experience. After sharing with her my vision regarding my desire to contribute to address health issues back in Zambia, she advised that continuing with a public health career at the postgraduate level would be the best platform for me, and I was equally convinced about this after further consultations.

Upon graduation from bachelor's degree in 2014, having spent 5 years in Cuba, I went back to Zambia. I found that there had been little progress and with almost the same public health challenges as before I had left. I wanted to find a platform to practice public health, whether as part of the frontline personnel in charge health promotion or as professional in charge of training others in this field. At first, I almost joined a private health insurance firm, but after further reflection, I turned down the offer because I thought I would be limited to selling insurance policies, which did not align with my vision to contribute to improving public health in Zambia. I then approached the UNZA Department of Economics, where the then Head of Department Prof. Felix Masiye, after looking at my results script, advised me to visit the Department of Public Health. I met the Dean of this department, at the time, Prof. Charles Michelo, who told me to come back after a couple of weeks. When I visited him and shared my vision, Prof. Michelo happily welcomed and assigned me to the Department of Health Policy and Management as an apprentice. I worked in this department as an assistant, learning about the local Zambian health systems, while seeking opportunities to further my studies.

In 2016, I was appointed a Staff Development Fellow within the Department of Health Policy and Management and was awarded a scholarship to pursue a Master of Public Health in health policy and management. During this time, I gained a

deeper understanding of the different domains or focus areas of public health including the relevant methodologies. It was evident that while HIV, tuberculosis and malaria were still major problems, there had been notable progress. Mortality due to these diseases had declined significantly, and local health systems were now readjusting to better address the rising problem non-communicable diseases (NCDs). Moreover, people who had long term infections such as HIV were now living longer and developing NCDs, further complicating their management. However, Zambia, like other low- and middle-income countries, lacked appropriate policies as well as personnel to tackle these NCD-related issues. Indeed, there was mature evidence from high-income countries, who had already gone through this stage of development showing that addressing NCD risk factors such as tobacco and alcohol consumption could help evade the impending NCD pandemic. In countries like Zambia, such policies could contribute to saving significant resources spent on treating complicated NCDs, that could otherwise be redirected to pressing developmental needs.

Thus, I have conceived thesis with the goal of providing crucial evidence that could contribute to strengthen Zambia's intersectoral response to NCDs. Specifically, I have focused on unpacking the hurdles and how to enhance intersectoral collaboration in the development and implementation of NCD risk factor control policies for tobacco and alcohol. I use the metaphor 'rolling the wheels' to refer to the need to overcome the collaboration complexities that affect tobacco and alcohol control as well as the need to collectively accelerate the policy response given the growing burden of NCDs in Zambia.

Background

More than 70% of annual global deaths are caused by non-communicable diseases (NCDs) such as cancers, diabetes and cardiovascular diseases (CVDs) [8]. About 85% of these deaths are premature and are mostly recorded in low and middle-income countries (LMICs). Sub-Saharan Africa (SSA) reports the highest probability of dying from an NCD for individuals aged 30 and 70 years [9]. There has been a significant increase in the disability-adjusted life years (DALYs) lost due to NCDs, from a total of 91 million in 1990 to 151 million in 2017 [10]. It has been projected that the disease burden based on DALYs due to NCDs will surpass that of infectious diseases in SSA by the year 2030 [11]. This transition is largely driven by preventable behavioural risk factors such as smoking; physical inactivity; unhealthy diets; and harmful alcohol consumption; and metabolic risk factors such as obesity and elevated blood pressure, glucose, and cholesterol.

Although there is limited country-level data, NCDs are known to be a major public health problem in Zambia [12]. For example, heart failure, kidney disease, and CVDs such as stroke, are the foremost causes of morbidity and mortality in the health facilities [13, 14]. Further, the prevalence of hypertension, which is a major driver of stroke, is 30.4%–34.8% in the urban population, and 25%–28% of in the rural population [15-17]. The likelihood of dying from common NCDs before the age of 70 years among people aged 30 years is nearly 20% [18]. Due to easy exposure to risk factors such as tobacco smoking and harmful alcohol consumption, many Zambians are at risk of developing an NCD [19] .

Public health policies that address smoking tobacco and drinking alcohol, two behavioural NCD risk factors, have been hugely credited for decreasing the incidence of NCDs in high-income countries [20]. As such, the largest global public health treaty – the World Health Organization Framework Convention on Tobacco Control (WHO-FCTC) recommends that countries design and implement tobacco control policies that restrict production, supply and exposure to tobacco [21]. Similarly, the WHO Global Strategy to Reduce Harmful Consumption of Alcohol of 2010, updated in the WHO Global Action Plan for the Prevention and Control of NCDs 2013–2020, recommends that countries adopt effective policy measures to prevent harmful alcohol consumption [22]. However, many LMICs have struggled to develop and implement comprehensive health policies addressing tobacco smoking and harmful alcohol consumption due to several multilevel factors [23-26].

Zambia signed the WHO-FCTC in 2008 and a year later began the process to develop a tobacco control policy [27]. Yet, despite more than a decade of collaborative engagement between the government and non-governmental stakeholders, the country has still not finalised this policy. Although Zambia has auxiliary tobacco control legislations – Statutory Instruments No. 163 of 1992 and No. 39 of 2008, regulating labelling, advertising, sales to minors, and public smoking bans – enforcement remains weak [28]. On a positive note, Zambia adopted an alcohol policy in 2018. However, 5 years later there has been minimal progress in collaborative efforts to implement key strategic alcohol policy control measures [29]. The primary law upon which the alcohol policy is anchored – the Liquor Licensing Act of 2011 [30], which regulates alcohol sales and distribution – has also faced enforcement challenges across the relevant sectors.

Due to the complexity of tobacco and alcohol control, which spans multiple sectors, developing and implementing these policies requires collaboration among several actors. Although most previous studies in Zambia have extensively documented the country context of tobacco and alcohol control [31-35], they have not paid much attention to the collaborative dynamics in the tobacco and alcohol policy processes. Given that policy development in Zambia is collaborative in nature, unpacking these dynamics is of great importance in strengthening cross-sectoral tobacco and alcohol control policy efforts. Drawing lessons from the collaborative dynamics is crucial to developing strategies of how best to manage the different stakeholders in tobacco and alcohol control to accelerate the development and the implementation of the respective policies.

Therefore, in this thesis, I apply a collaborative governance lens to better understand how the broader context and the collaborative dynamics have shaped the development of the tobacco control policy and the implementation of the alcohol policy, respectively. The goal is to critically reflect on the policy process and to draw lessons for collaborative health policy development and implementation in the context of the growing problem of NCDs in Zambia and beyond.

Structure of the thesis

This thesis is based on three interrelated sub-studies and is organised in seven main chapters. In Chapter One, I introduce the concepts of public policy management, collaborative governance, the health policy environment, and the collaborative dynamics. I provide the context of the two main policy cases studies – the tobacco control policy development and the implementation of the alcohol policy in Zambia. This chapter also provides the rationale of this thesis. Chapter Two presents the

general and specific objectives of this thesis. Chapter Three describes the collaborative governance theory and the integrative framework for collaborative governance (IFCG) and how I applied them. Chapter Four focuses on the methods, including a description of the study design, population, sampling, and recruitment approach; data collection and analysis; and ethical considerations. Then, in Chapter Five, I present the findings of the three sub-studies, which are organised according to the four main elements of the IFCG. These elements consist of the external systems factors, the collaborative dynamics of principled engagement, shared motivation, and capacity for joint action. In Chapter Six, I discuss the study findings, specifically how the systems context shapes collaboration and how to strengthen the collaborative dynamics between the relevant government sectors to enhance the development of the tobacco control policy and implementation of the alcohol policy. Finally in Chapter Seven, I provide the concluding remarks and recommendations for policy, practice and research.

Introduction

Public policy management

Government decisions on matters within different sectors such as education, trade, finance, health, and the environment are guided by public policies or rather courses of action and inaction propagated by the government to address societal issues [36]. Developing these public policies requires advocates of a specific policy to frame and present societal problems in a manner that obliges or compels the government to act on it [37]. At any point in time, there are always several individuals and organisations competing for government attention to address specific societal problems [38]. These policy actors tend to adopt different strategies, including engaging in policy dialogues, providing persuasive evidence, lobbying policymakers, and offering several policy alternative scenarios [39]. Governments must appraise the various policy alternatives and decide on the best policy option [39].

The public policy process can be complex and challenging. It typically consists of agenda setting – bringing of policy issues to the forefront – followed by policy formulation and implementation [40]. Indeed, this is a highly contested process involving multiple actors with diverse interests, beliefs and agendas, where power dynamics are always at play [41]. In addition, addressing social issues is not only complicated by the inherent dynamics within the policy development process, but also by the potential inadequacies or inefficiencies of public-sector management systems that equally stifle efforts to tackle societal issues once the policies are formulated [42]. Therefore, it is imperative for governments to overcome such hurdles by leveraging the means to manage and align the diverse policy actors, institutions and interests towards attainment of social goals [43].

The role of collaborative governance

To address the inherent challenges of public policy processes, in the past two decades many governments have increasingly changed their approach to public policy management – moving from sector specific to multisectoral, which entails integration of multiple sectors in the design and implementation of public policies. Collaboration between state and non-state organisations or actors has taken a central role in these policymaking and implementation efforts [44]. This shift has largely been driven by the inadequacies of the traditional top-down public policy management models in which a few policymakers select the best courses of action. Such models can be highly bureaucratic and prescriptive, contributing to policy failures. Moreover, collaboration has been deemed to provide a better mechanism

to address the complex or rather wicked public policy problems because it can enhance knowledge, innovation, and joint policy ownership across multiple sectors [45]. The wickedness of public policy refers to the fact that policy problems can span multiple sectors, often leading to intended and unintended outcomes [42]. Addressing this issue demands coordinated action across the relevant sectors. Further, collaborative policy processes emerged to foster a greater sense of government accountability regarding how public policies are designed, developed, and implemented [46]. In addition, implementation of the 'Health in All policy, 'in 2006, re-energised the need for multisectoral public policy planning and implementation to address the social determinants of health across multiple sectors [6, 47, 48]. This policy recognises the need to incorporate health considerations into policymaking across various sectors such as education, labour, housing, agriculture, social welfare, local government, etc.

The form of governance that brings together state and non-state actors from different sectors in public policy management is known as collaborative governance. It seeks to enhance collaboration among diverse stakeholders from across sectors through aligning their interests, mandates and actions [49, 50]. According to Emerson et al.[3], collaborative governance mobilises stakeholders from different sectors to address public policy issues that cannot be solved by a single organisation, through consensus-oriented decision-making. Further, it consists of a structured approach to engaging with actors from different sectors on a particular policy issue, and it is primarily cantered around ensuring trust, inclusiveness, stakeholder participation, as well as joint decision-making, and accountability [51]. These features greatly contribute to overcoming the challenges associated with cross-sector public policy development and implementation efforts. During the past two decades or so, this mode of governance has gained a lot of traction in public administration and has also become very prominent in several other disciplines such as public health, urban planning, environmental and natural resources management [52, 53]. Indeed, there are many studies on collaborative governance, most of which have concentrated on identifying context-specific conditions under which this mode of governance can succeed or fail [2, 3, 5, 6, 44, 46, 54-58] (more details in Chapter Three).

Health policy process and key actors

Health policies are meant to guide decisions on the organisation, services, and funding arrangements of local health systems [59]. They influence the actions of all people and institutions involved in the promotion and maintenance of health, beyond just providing health services [60]. Typically, the process of developing

health policies starts with framing a health problem in such a way that it makes it to the agenda setting stage, where it is weighed against other policy priorities [61]. The health policy formulation stage involves several policy actors who engage in discussions and consultations regarding the content of the policy [62]. The product of these engagements is a draft policy that is subjected to further refinement by different stakeholders [63]. Once there is consensus, the policy is adopted and then moves to the implementation stage.

However, health policies are never implemented as intended. Oftentimes, the frontline staff who implement these policies tend to adapt or may even misinterpret them [64]. This is usually because they must cope with the inadequate resources in the implementation settings [65]. The resulting modifications and adaptations to health policy ends up becoming policy in practice – what people who get to interact with the health system recognise as policy. Indeed, health policy not only comprises the official government documents, but also the unwritten practices and adaptations at the lower levels of the health system [64].

There are several state and non-state actors, that play different roles in driving the health policy process. Usually, the policy hosting organisation, the Ministry of Health (MoH), is responsible for convening and managing all relevant and interested stakeholders to consult regarding formulation of a specific health policy. Within the MoH are specialised technical working groups that provide expert advice on certain policy issues [66]. The civil society organisations (CSOs) consisting of local and international organisations are important non-state actors in the health policy process. These organisations advocate for government policy action on particular health concerns [67], and they are crucial in holding the government accountable regarding policy implementation. Health policy stakeholders within the government include the Ministries of Community and Social Development Services, Local Government and Rural Development, Water Development and Sanitation, Labor and Social Security, Education, Finance, and Agriculture. In a collaborative health policy process, the leading organisation – the MoH – mobilises these stakeholders through a structured policy consultative mechanism. Indeed, collaborative governance is essential to ensure appropriate participation and representation of all these actors in such a mechanism, fostering a health policy that boasts stakeholders support, which enhances its implementation prospects, policy legitimacy, and sector commitment [68].

The health policy milieu and collaborative dynamics

Collaborative policy processes are shaped by several dynamics. Before I describe the unique set of circumstances, or rather dynamics, that help understand why collaborative policy processes succeed or fail, it is crucial that I first discuss the broader policy environment that comprises the political, historical, national, and international contexts [41]. Indeed, the dynamics within a collaborative health policy process do not occur in a vacuum; rather, they are influenced by the prevailing legal and political frameworks as well as the socioeconomic and sociocultural contexts [46]. These system-level factors can significantly shape how policy actors engage with and view each other, by either facilitating or hindering collaboration. Crucially, they have an impact on the internal dynamics and greatly affect the overall performance of the collaborative policy process [46]. For example, election of a new government may lead to changing a policy position that had been collaboratively agreed upon or may even provide a window of opportunity for a new policy initiative. It is also important to recognise that certain policy positions perpetuated by several sectors may be because of the historical context of a particular country. One such example is how governments, particularly those of LMICs, continue to promote tobacco cultivation as a strategy for economic development, as was the case 50 years ago [69-71]. Ultimately, this negatively affects collaborative tobacco control policy efforts in many of such countries.

Collaboration is largely shaped by power dynamics among the different policy actors [56]. How these actors exercise their power can determine who is represented or participates in the process. Power inequities tend to subvert collaboration. Policy actors who lack power are susceptible to manipulation and find it arduous to engage in the policy process [59]. On most occasions, the power imbalances can weaken actor trust and commitment to the cause [56]. Some forms of power include political authority, financial resources, and technical expertise [72]. For example, the specific kind of knowledge that policy actors have on a particular policy issue may be overshadowed by experts, who may use their technical powers during the policy discussions. The wielding of financial power to sway government policy action by tobacco and alcohol companies has been widely documented within the literature on commercial determinants of health [73, 74]. Similarly, during the implementation of health policies, frontline providers exercise their discretionary power by selectively implementing aspects of the health policies they deem appropriate or feasible, as mentioned earlier [64, 75].

Other dynamics such as the style of engagement as well as the stakeholder interactions, deliberations and communication are crucial to the success of

collaborative policy processes [76]. Relational issues such as trust, comprehension, and mutual respect are central to effective collaboration [54, 56, 57]. In fact, trust is often equated with fruitful collaboration [56]. It contributes to strengthening and maintaining relationships among the policy actors despite their conflicting mandates. However, getting to a point where these different actors can trust one another requires time and skilful facilitation by those presiding over the collaborative public policy process [2, 54]. Another set of collaborative dynamics including facilitative leadership, social learning and coordination emerge from the enhanced capacity to carry out collective actions as stakeholders continue to collaborate [54].

Collaborative dynamics in tobacco and alcohol policy processes

Throughout the world, tobacco and alcohol control policy processes are known to be contentious because of conflicting commercial and public health interests [77, 78]. In both policy processes, external influences often undermine the cross-sector collaborative efforts. In addition, misaligned mandates and interests among key government sectors make collaboration difficult [79, 80]. Consequently, tobacco and alcohol control stakeholders face challenges in reaching consensus and enforcing specific policy measures. Governments must navigate these complex collaborative dynamics to formulate and implement effective tobacco and alcohol control policies that protect public health. Yet, there is a paucity of research documenting how these collaborative dynamics pan out in LMIC settings such as Zambia.

Tobacco and alcohol control context

The global and Zambian contexts

Globally, tobacco smoking and harmful alcohol consumption are the main causes of premature mortality and the cross-cutting risk factors in all the four major NCDs. Together, they account for approximately 3–8 million deaths, and between 13–200 million DALYs lost every year [81, 82]. The global adult per-capita alcohol consumption has increased over the past three decades, from 5·9 L in 1990 to 6·5 L in 2018, and is projected to reach 7.6 L by 2030 [83]. Some of the highest figures of harmful alcohol consumption are reported in SSA, where about 19% of men are binge drinkers – that is, they consume more than five alcoholic drinks for men and four for women on three or more days per week [1]. Close to 80% of the population of tobacco users are in LMICs and about 18% of men in SSA are tobacco smokers [81].

In Zambia, each year tobacco kills more than 7, 000 people, culminating in > 100, 000 DALYs lost [84]. The smoking prevalence is highest in the 45–49 years-old age

category, while people start smoking at an early age [85]. Among men aged 15-49 years, the prevalence of cigarette smoking increased from 15% in 2000 to 23% in 2007 and then dropped to 19% in 2013-14 and 2018 [85]. Further, the prevalence of tobacco uses among the youths aged 13–15 years is 13%. In addition, 40% of the students are exposed to tobacco smoke, while 30% are reached by tobacco advertisement and promotions [86, 87].

Tobacco is recognised as a key cash crop by the Zambian government [32]. According to the Tobacco Board of Zambia (TBZ), there are about 20,000 tobacco farmers and every year tobacco earns the country between $ 92 – $ 156 million [88, 89]. On the other hand, treating people with tobacco complications costs the Zambian government about 1.2% of the national gross domestic product (GDP) [84].

The majority (64%) of adult Zambians are lifelong alcohol abstainers, a trend that mirrors most SSA countries [19]. Yet, among the drinkers above 15 years of age, more than 60% of the men are heavy episodic or binge drinkers [90]. About 10% of Zambian men report alcohol-use disorders, more than the 4% average recorded in the WHO African region [90]. Early alcohol drinking is also a significant problem in Zambia. Almost 50% of the students in grades 7–10 are reported to abuse alcohol [91]. This is mainly because the alcohol industry continues to provide cheap and easy access to alcohol regardless of age or location [92]. Zambia earns about $270 million in revenue from alcoholic beverages every year [89]. Harmful alcohol consumption remains the main driver of road traffic accidents, sexual violence, injuries and HIV infections in the country [93-95].

The framework convention on tobacco control

The World health Organisation Framework Convention on Tobacco Control (WHO-FCTC) is an evidence-based treaty for the global control of the tobacco epidemic [21]. Dubbed the most significant public health treaty of our time, it aims to protect the world against the negative consequences of tobacco use [96]. To date, more than 180 member states have ratified this treaty since its inception in 2005 [27]. The WHO-FCTC consists of several articles stipulating control measures for tobacco supply and demand, which each country, that is party, is obliged to adopt and enforce [97]. Tobacco demand reduction measures such as taxation, protection from smoke exposure, regulation of product disclosures, public awareness, advertising and sponsorship, and cessation are outlined in Articles 6 and 8–14 [98]. Supply-side measures are contained in Articles 15–17 which seek to address illicit tobacco trade, sales to and by minors, and support for economically viable

alternative livelihoods [99]. Lastly, Articles 4 and 5, which are fundamental to the work presented in this thesis, refer to the general obligations of all signatories. These include developing comprehensive tobacco control policies, and coordinating mechanisms, and protection from the tobacco industry's commercial and vested interests [100, 101].

Zambia signed the WHO-FCTC in May 2008 and immediately embarked on efforts to domesticate its articles. In the same year, the country issued Statutory Instrument No. 39, which banned smoking in public spaces and established fines for non-compliance, and in the following year began to develop a comprehensive tobacco control policy [32, 97]. Zambia has an existing excise tax regime on tobacco products; the current tax rate of 37% of sold cigarette brands is far below the 70% recommended by the WHO-FCTC [27]. The country has not ratified the protocol to eliminate illicit trade of tobacco products and tobacco products remain cheap and affordable, with no tax on snuff or smokeless tobacco [27]. Additionally, most of the WHO-FCTC tobacco control supply-side measures have not been fully assimilated into non-health sectors [102]. Specifically, there exists a misalignment between policies in the economic sector and many supply side control measures on in the FCTC [31].

Tobacco and alcohol control strategies

To control tobacco use, the WHO promotes the adoption of a suite of strategies known as 'the MPOWER measures,' across all countries [103]. This package of cost-effective and high-impact strategies is intended to address the demand for tobacco: M, monitor use and prevention policies; P, protect from smoke; O, offer cessation services; W, warn about the dangers; E, enforce bans on adverts; and R, raise taxes. These are also known as the 'best buys' of tobacco control. Some of these measures had already been incorporated into the Zambian legislation even before the country assented to the WHO-FCTC, although they were enforced weakly. For example, Statutory Instrument No. 163 of 1992 regulates the sale of tobacco products to minors and advertising, and it ensures that these products contain danger warning messages [104]. As I noted earlier, Zambia also has a tobacco control legislation that regulates smoking in public areas [28]. I discuss this and other tobacco regulations further in Chapter Five.

Likewise, to address harmful alcohol consumption, the WHO recommends that countries adopt a set of cost-effective interventions also known as the 'best buys' for alcohol control. These include raising taxes, enacting and enforcing bans, restricting exposure to adverts across multiple forms of media, and enforcing

restrictions on the availability of alcohol sold by retailers [22]. Although not all the 'best buys' of alcohol control have been implemented in Zambia, there have been notable but weak efforts to adopt some of these cost-effective interventions. The country boasts an excise tax on spirits, wines, and beer, although it is lower than what is recommended by WHO to effectively impact alcohol availability and access [90]. According to the Public Health Act, the legal minimum age of drinking and off-premises sales is 18 years [105]. Further, the Liquor Licensing Act No. 20 of 2011 regulates alcohol production, distribution, retail, timing, and off-premises sale of alcohol [90]. However, the age restriction is not enforced as young people and youths continue to have unrestricted access to alcohol, while the operation of liquor trading facilities is uninhibited [93]. Moreover, there are no restrictions on alcohol advertising and sponsorship [90, 92].

In addition, the public sector is primarily responsible for providing health services in Zambia. However, treatment services for smoking and alcohol use disorders are not available at local health facilities. Alcohol use disorder treatment is mainly provided at the country's only mental health hospital–Chainama Hills Mental Hospital–in the capital city, Lusaka. Nevertheless, those who can afford it have the option of seeking treatment from private healthcare providers.

The health policy case studies

Case study 1: Tobacco control policy development in Zambia

In response to Article 5 of the WHO-FCTC, which requires countries to develop comprehensive tobacco control strategies, Zambia embarked on a process of developing a tobacco control policy in 2009 [106]. This policy is intended to operationalise some of the demand and supply-side measures outlined in the 'best buys' of tobacco control [107]. Over the years, the process of developing the tobacco control policy has involved several consultative meetings between government departments including Ministries of Agriculture, Commerce, Finance, Justice, and Labour and non-governmental organisations such as the tobacco control consortium and the Zambia alliance against NCDs, led by the MoH, through a policy coordination committee. Thereafter, submissions to this committee were collated into a draft policy document that was circulated for review among the different stakeholders. All feedback was submitted directly to the MoH and discussed with other stakeholders for validation. Once the draft policy had passed the consultation stage, the host, the Minister of Health, presented it to the Cabinet of Ministers for approval. During the stated period, there has been two draft tobacco control policies submitted to the Cabinet, one in 2010 and another in 2020, but neither has been

approved [31, 35, 108]. Both drafts sought to promote smoke-free environments and to regulate tobacco advertising, promotion, sponsorship, labelling, and sales. However, on both occasions, the Ministers of Commerce, Agriculture and Finance raised concerns on the draft tobacco control policy proposals regarding illicit tobacco trade, alternative livelihoods, and taxation, respectively. Hence, the Cabinet of Ministers withdrew both drafts and called for further consultations among the concerned ministries.

Case study 2: Alcohol policy implementation in Zambia

In 2018, Zambia adopted the alcohol policy, which incorporates some of the WHO cost-effective measures [29]. Its vision is to significantly contribute to reducing the impact of harmful use of alcohol by 2030. The alcohol policy contains several provisions that aim to bolster and coordinate efforts to control and prevent harmful alcohol use across government sectors like the Ministries of Finance, Local Government, Commerce and Trade, Transport and Communication, Home Affairs, Education and Health. Furthermore, it seeks to augment enforcement of current legislation such as the Liquor Licensing Act No. 20 of 2011 [30], and the Roads and Road Traffic Act of 2002 that addresses drunk driving [109]. Additionally, the alcohol policy decrees that all alcohol sold in the country be distributed through licensed outlets that adhere to strict timelines, safety, and quality standards. Finally, while discouraging social stigma towards individuals undergoing alcohol treatment and rehabilitation, the policy emphasises the provision of services for treatment of alcohol-use disorders and its associated harms at lower levels of the health system. All these policy measures are to be coordinated by the National Alcohol Policy Implementation Coordination Committee, an organ that is responsible for operationalising the alcohol policy implementation plan. This committee provides a platform to coordinate the activities of different stakeholders working in the alcohol control space.

The timeline in Figure 1 shows a snapshot of the key phases of both the tobacco and alcohol control policy process in Zambia.

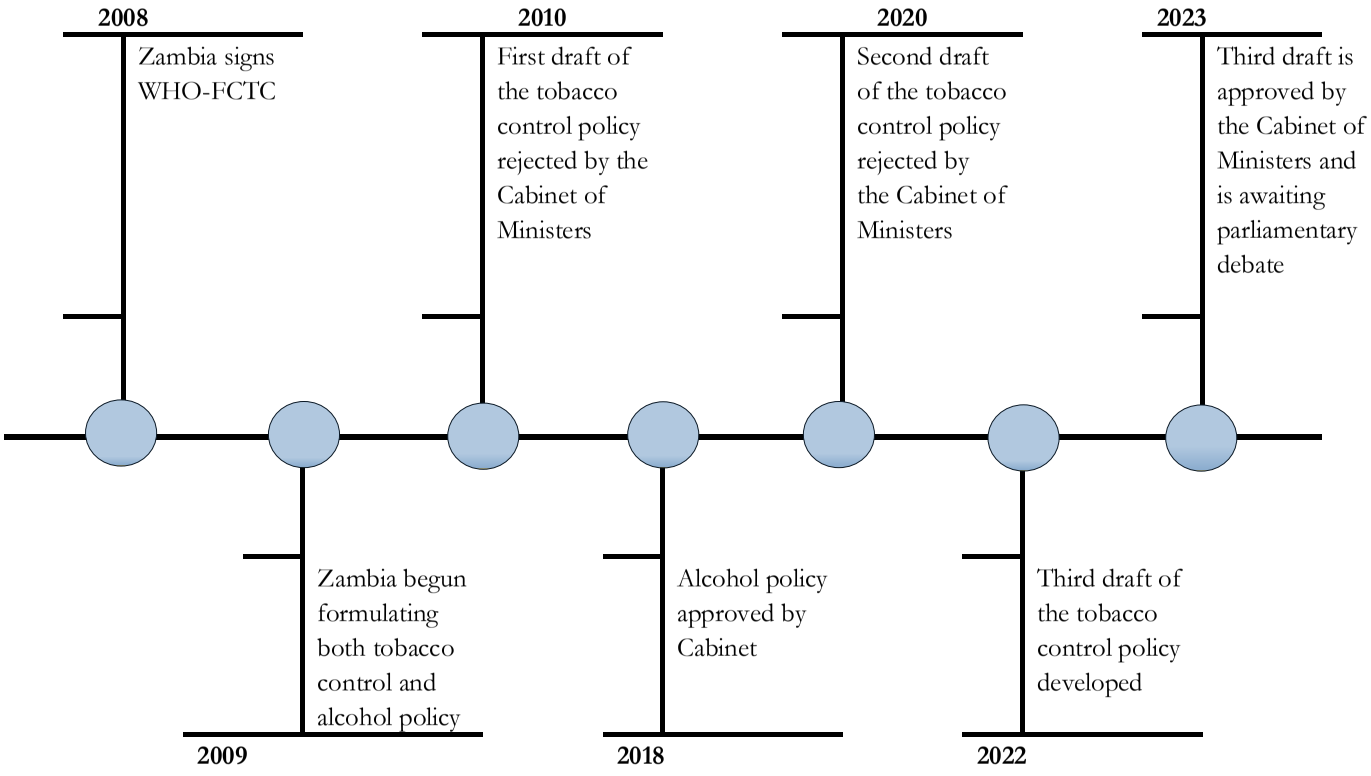


***Figure 1**: Phases of the tobacco and alcohol control policy process*

Rationale of this thesis

As I had indicated earlier, collaborative policy processes for tobacco and alcohol control can be complex and contentious in LMIC settings [77, 78, 110-113]. Several factors account for this phenomenon, including the ability of the tobacco and alcohol industries to covertly resist any government policy or regulatory measures that limit potential profits [73, 113]. Further, the inherent fiscal challenges in LMICs entail that governments are partly dependent on tobacco and alcohol incomes, resulting in conflicts of interests among policymakers [114-116].

For a long time, Zambia has been engaged in a process to formulate a tobacco control policy. Despite more than a decade of collaborative efforts, the country has not been able to agree on a comprehensive tobacco control policy with requisite supply-side measures [108]. Little is known about these collaborative dynamics and how they have shaped the current state of the tobacco control policy process. Additionally, while the alcohol policy sets ambitious targets to reduce harmful alcohol consumption, many of the policy measures are yet to be fully realised [117]. It remains unclear which factors affect the collaborative implementation of the alcohol policy in Zambia.

Given that there are multiple affected sectors, with varying interests and mandates to shape the development of the tobacco control policy and implementation of the alcohol policy, it is crucial to assess collaboration in both policy processes if Zambia has to enhance its NCD prevention efforts. The multisectoral nature of demand and supply policy measures for tobacco and alcohol control requires better governance of collaborative efforts among the involved stakeholders for better policy outcomes. Yet, most studies in Zambia and other LMICs have paid little attention to exploring collaboration in such contested health policy processes [118-120].

This thesis provides a platform to better understand and develop strategies to overcome the challenges of collaboration in contentious health policies for tobacco and alcohol control or similar public health issues in LMICs, amidst the rising burden of NCDs in these settings.

Thesis Objectives

General objective

The overall objective of this thesis is to contribute to a better understanding of the systems context and the collaborative dynamics during the development of the tobacco control policy and implementation of the alcohol policy in Zambia

Specific objective

1. To ascertain the magnitude of tobacco smoking and harmful alcohol consumption problem using a nationally representative sample (Sub-study 1) [117]

2. To explore and explain the role of principled engagement and shared motivation in the delayed development of a comprehensive tobacco control policy (Sub-study 2) [108]

3. To unpack and describe factors that shape the capacity for joint action in the implementation of the alcohol policy (Sub-study 3)

Theoretical and Conceptual Framework

This thesis primarily draws on collaborative governance theory to analyse the dynamics and relationships among the different stakeholders, and how they shaped the tobacco and alcohol control policy processes in Zambia. I adopted Emerson's integrative framework for collaborative governance (IFCG) to explore the general context and collaborative dynamics within the stalled formulation of the tobacco control policy, and the challenges with collaboration when implementing the alcohol policy [2]. In the subsequent sections, I explain how both the theory and the framework were applied in this thesis.

Collaborative governance theory

Collaborative governance theory aims to elucidate situations in which collaborating state and non-state actors from multiple sectors engage in consensus-oriented decision-making to generate widely supported policy actions [58, 121]. According to this theory, the consensus-oriented nature of collaborative governance helps to navigate the complexities of public policy management, as mentioned earlier [46]. Moreover, collaborative governance theory also tries to describe the unfolding of collaborative interactions among state and non-state actors, and establish how and when these dynamics can lead to anticipated outcomes [49, 50]. Given that the health policy process in Zambia is collaborative in nature – policies are both co-developed and co-implemented by several sectors – this theory provides a useful tool with which to explore the collaborative dynamics in both the tobacco and alcohol control policies.

Taking the collaborative governance lens as the point of departure for exploring collaborative dynamics in the two case-studies allows this study to adopt a framework that describes optimal functioning of any collaborative undertaking. Such a framework outlines important variables, factors or dimensions to consider when studying the practice and performance of collaborative governance. Indeed, there are many such frameworks distinguished by the fact that some of them consider collaboration as linear while others view it as a cyclic process [5, 50]. The IFCG takes the later view, underlining a set of interconnected elements that can be used to explore the collaborative process.

The integrative framework for collaborative governance

The IFCG, shown in Figure 2, prescribes a set of crucial and closely interrelated factors that may lead to the success or failure of multi-sector initiatives by unpacking the inherent process of collaboration [3, 46]. This framework starts with the broader outer *systems context*, consisting of the socioeconomic, policy, and legal milieu that offers both challenges and opportunities to collaborate. Within this milieu are a set of factors, separate from the broader systemic determinants known as the *drivers* of collaboration like leadership, incentives and interdependence that start and maintain the momentum of collaboration – referred to as the *collaborative governance regime* (CGR). This CGR contains the internal collaborative dynamics of principled engagement, shared motivation, and capacity for joint action that facilitate successful relationships and collaboration that give rise to collective actions, impacts, and adaptations to the broader systems context. According to Emerson et al. [2], the quality and success of collaboration depends on the strength of these interlinked dynamics, portrayed as *rolling wheels* inside the CGR. As such, my thesis, specifically focuses on exploring how these three collaborative dynamics unfold while illuminating the local system context of tobacco and alcohol control in Zambia.

The general systems context (Sub-studies 1, 2, and 3)

As mentioned earlier, the general systems context comprises the prevailing policies and laws, as well as the sociopolitical, socioeconomic and sociocultural dynamics that shape the collaborative policy process [2]. Such environmental-level determinants can either enable or hinder collaboration by generating prospects or imposing constraints. There is a reciprocal relationship between the systems context and the CGR: the systems context influences the CGR and is also shaped by the collaborative actions that emerge out of the CGR. Several other components of the systems context that affect the practice of collaboration are described in the literature, including, for example, the history of conflict among policy actors and even the timing of political elections, as I stated earlier [5]. The systems context can be challenging to capture because of its broadness [122]. To mitigate this issue, I supplemented the information from the stakeholders with a document review of tobacco laws and policies in Zambia. Additionally, given the absence of nationally representative evidence on the extent of tobacco and alcohol-related problems in Zambia, I analysed the STEPs survey data to highlight the demographic profiles of population sub-groups that smoke daily or drink excessively as part of the systems context.

The collaborative governance regime

The CGR is crucial for the application of the IFCG. This thesis is situated in the collaborative dynamics of the development of the tobacco control policy and the implementation of the alcohol policy within the CGR [3]. Two separate CGRs were the object of study in this thesis.

The first CGR is the tobacco control policy consultative meetings, convened by the MoH under the Department of NCDs. With support from international partners such as the WHO country office, these meetings brought together sector representatives from various government ministries, including the Ministries of Local Government, Finance, Commerce and Trade, Agriculture, Education, Labor Relations, and Justice. Although initially planned to take place quarterly, the meetings were scheduled based on the need to address emerging specific tobacco-related agenda items, reflecting the protracted nature of the policy development process given that the efforts began over a decade ago.

The second CGR is the National Alcohol Policy Implementation Coordination Committee, overseen by the Ministry of Local Government and Rural Development. This committee coordinates stakeholders to implement alcohol control activities stipulated in the policy. The MoH serves as the secretariat, while other stakeholders, including CSOs and relevant government departments (e.g., Ministries of Education and Community Development) play important roles in supporting the policy implementation efforts.

Principled engagement and shared motivation (Sub-study 2)

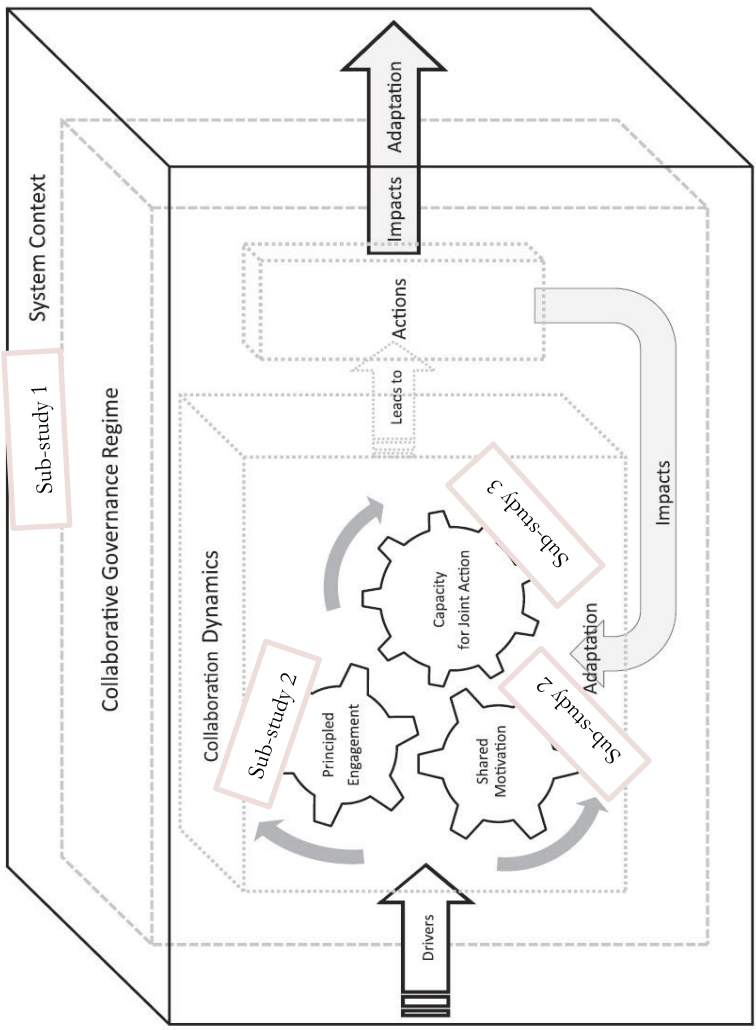
The first collaborative dynamic is principled engagement which triggers the *rolling wheels of collaboration* by convening stakeholders from multiple sectors into a collaborative policy-development process. Decisions regarding who is invited to participate in the collaborative tobacco control policy development process and whom they represent sets the momentum for collaboration. Principled engagement involves practicing principles such as fair dialogue, open and inclusive communication, engaging in uncomfortable conversations, self-assertion, and ensuring impartial representation of major interests [2, 3]. Moreover, it matures with time. Through regular exchanges, a sense of shared purpose— shared motivation — emerges among the collaborators.

This leads me to the second collaborative dynamic of shared motivation, which underscores the *relational* aspects that are born out of the collaborative policy process, including trust, understanding, legitimacy, and commitment as stakeholders

continue to interact [3, 123]. Unpacking these relational issues among policy actors is of particular importance given the long and protracted nature of the tobacco control policy process in Zambia. The first component, *trust*, improves with time as stakeholders collaborate and prove to each other that they are reasonable and dependable. *Mutual understanding* denotes the aptitude to value and respect other stakeholders' takes, even when not in agreement. *Internal legitimacy* refers to the agreement that the stakeholders in the collaborative policy process are credible. Finally, *shared commitment* is the inner motivation that propels stakeholders to pledge themselves to the collective endeavour.

Capacity for joint action (Sub-study 3)

The capacity for joint action is a product of the CGR that emerges from the different sectors working together [2]. It is this collective capacity to take joint action that sustains and maintains collaboration. The four main features of the capacity for joint action encompass procedural and institutional arrangements, leadership, knowledge, and resources. Procedural and institutional arrangements signify the structures, rules, and norms that are crucial to manage stakeholder relations. Leadership is both an external driver and an outgrowth of the collaborative process. Knowledge embodies the new information learnt through collaboration. Lastly, resources are a benefit of collaboration, permitting stakeholders to share assets such as funding, time, expertise and logistics. I have situated the exploration of the capacity for joint action within the implementation of the alcohol policy because this policy process is more advanced compared with the tobacco control policy.



Adapted from Emerson et al. [2]

***Figure 2**: The integrative framework for collaborative governance*

Methods

Epistemological perspective

Underpinning any type of research is a paradigm that denotes a researcher's view of the world they seek to study and knowledge they generate. Before I describe the methods, I would like to reflect upon the key paradigms behind this research. Indeed, such reflections are crucial for others to understand how I settled on the methods I applied.

In this thesis, I mainly adopted a social constructivism paradigm, which postulates that knowledge is a product of the different interpretations of experiences and daily interactions [124]. These events create a unique experience and view of reality (or multiple realities) that this research sought to discover from every individual (or rather unit of analysis). To unpack these distinctive views of the contextual factors as well as the collaborative dynamics shaping the tobacco and alcohol control policy processes, I conducted individual qualitative key informant interviews with various sector representatives (described under Sub-studies 2 and 3).

I also drew on the positivist paradigm to establish the demographic profile of daily smokers and binge drinkers that can be generalised to the whole country (Sub-study 1) [125]. This paradigm assumes the existence of an observable and measurable reality within the studied population that can be confirmed by analysing data or evidence from a representative sample of respondents.

Overall study design

I employed an embedded mixed methods design, using both quantitative and qualitative data (Table 1) [126]. According to Creswell et al.[126], an embedded design is based on one dataset providing a supportive and secondary role to the other, which is the main method of the study. This design was appropriate for answering the different specific objectives that required distinct types of data to address the overall objective.

This thesis predominately comprises of two qualitative case studies of the tobacco control policy development and the alcohol policy implementation in Zambia (Sub-studies 2 and 3). I embedded the quantitative component within the main qualitative policy case studies to provide more context regarding tobacco smoking and harmful alcohol consumption (Sub-study 1).

Data were collected from two different groups of participants – the community members in Sub-study 1 and the policy stakeholders in Sub-studies 2 and 3 (Table 1). Although the analysis for these sub-studies was done separately, I tried to integrate the qualitative and quantitative components when interpreting the main findings in the discussion section.

Table 1: Summary of the methods used in Sub-studies 1-3

Objectives	**Design**	**Data collection**	**Data analysis**	**Data collection period**
To determine the sociodemographic factors associated with daily tobacco smoking and binge drinking among Zambians	Cross sectional survey	STEPS Questionnaire administered to 4302 respondents	log binomial regression	Jul – Oct 2017
To explore and explain the role of principled engagement and shared motivation in the delayed development of a comprehensive tobacco control policy	Qualitative case study	27 key informant interviews Document review	Deductive and inductive thematic analysis	Jan – May 2021
To explore the implementation determinants of the national alcohol policy five years post-enactment	Qualitative case study	25 key informant interviews	Deductive and inductive thematic analysis	Jun – Oct 2023

Sub-study 1

Study design

I used secondary data collected through the nationally representative STEPS survey of 2017, to establish the burden and risk factors associated with tobacco smoking and harmful alcohol consumption [127]. The STEPS survey methodology gathers information for surveillance of NCD risk factors. It consists of three phases/steps of data collection: questionnaire, physical measurements, and biochemical measurements. The captured variables include demographics, health status, and health behaviours, which provide data on lifestyle risk factors such as tobacco smoking and harmful alcohol consumption.

Sampling and data collection

The STEPS survey used the Zambia Population-based HIV Impact Assessment survey sampling frame to identify 5791 households from 347 standard enumeration areas (SEAs). It involved three sampling stages. First, the SEAs were selected from the 10 provinces proportionally to population size. Second, 15 households in rural SEAs and 20 households in urban SEAs were selected systematically based on household counts. Third, one eligible member from each household was randomly selected for interviews. A response rate of 77.7% was recorded, signifying that 4302 respondents were included in the final analysis. Further details on the STEPS survey are available elsewhere [28].

Data analysis

There were two outcome variables in this sub-study. First, daily tobacco smoking, which was derived from the question, "do you currently smoke any tobacco products (such as cigarettes, shisha, cigars or pipes) daily?" Second, I used a proxy measure for binge drinking based on the question, "how many times did you have six or more standard drinks in a single drinking occasion over the past 30 days? [117]. The socioeconomic variables, including education, occupation, and residence (rural and urban), served as independent variables. I was unable to use income because a substantial amount of data was missing. I also used additional independent variables to adjust for confounding, including sex, age, and marital status. I used both descriptive and inferential statistics to determine the prevalence of daily tobacco smoking and binge drinking, and the associated sociodemographic factors respectively. I applied sampling weights during the analysis to account for non-response, and the sampling procedures. I used log binomial regression analysis to determine the factors associated with the outcome variables.

Sub-study 2

Study design and participants recruitment

In the second sub-study, I adopted an exploratory qualitative case study design that employed two data sources – a document review of tobacco legislation/policies and a set of key informant interviews [108]. Only documents that aimed to control the demand and supply of tobacco in Zambia were included in this review. To recruit key informants, I used both purposive and snowball sampling. I was able to identify some participants using the tobacco control policy committee meeting records from the MoH, and in some instances, representatives of the sectors directed me to other people to interview. The interviews were conducted between May and September 2021.

Data collection

For the document review, I created a predefined grid in Excel that I used to extract data from the selected documents. This grid collated data related to the objective of a particular law/policy, its content with regards to collaboration in tobacco control and the target of legal/policy measures (Table 6). Guided by the principle of data saturation, which prescribes that I stop conducting interviews at the point where additional data does not provide new insights [128], I was able to conduct 27 key informant interviews with tobacco control stakeholders across government departments, an international organisation, and CSOs including the Centre for Policy and Trade, the Non-communicable Diseases Alliance and the Tobacco Free Association of Zambia (Table 2). The IFCG was used to guide the development of the interview questions [2].

Data analysis

I used both deductive and inductive thematic analysis according to Braun and Clarke [129]. The initial analysis phase consisted of transcribing the transcripts verbatim, familiarising myself with the transcripts, and reading through my field notes. The analysis was deductive in that I drew the main themes from the core elements of the concepts of principled engagement and shared motivation (described in Chapter Three). A detailed reading of a subset (six) of the transcripts resulted in the development of the sub-themes that were then grouped into their respective main themes. The resulting code-list was then applied to code the remaining transcripts. I regularly discussed the coding of the content with my supervisory team, which facilitated the process of refining and aligning of the themes. The coding was done in NVivo 12 Pro software.

Table 2: Participants for Sub-study 2

Sector	Number of interviews
Civil Society Organisations	4
Ministry of Local Government	2
Ministry of Labour	1
Ministry of Health	5
Ministry of Agriculture	4
Ministry of Commerce	2
Ministry of Education	2
Ministry of Finance	3
World Health Organisation	2
Ministry of Justice	2
Total number of interviews	**27**

Sub-study 3

Study design and participants

This sub-study focuses on national level policy actors and some of the challenges they have faced in the collaborative implementation of the alcohol policy during the initial five years after its enactment. Similarly, I used an exploratory qualitative case study design comprising of data from 25 key informant interviews with representatives of key government ministries and agencies as well as the CSOs implementing alcohol control activities. These CSOs included Alcohol Concern Zambia, Anti Alcohol Zambia, Pioneer Abstinence of the Sacred Hearts of Jesus, Serenity Harm Reduction Programme and Paradigms Zambia. Using both purposive and snowball sampling, I interviewed members of the National Alcohol Policy Coordination Committee who referred me to other actors, specifically government agencies working in areas of drug abuse, traffic control, liquor licensing and mental health (Table 3).

Data collection

I developed the interview guide for this sub-study based on policy analysis and the implementation literature [41, 122]. The key questions addressed aspects related to the content, processes, and factors that shaped collaboration among government sectors when implementing the alcohol policy. The interviews were approximately 30 – 45 minutes long and were all conducted and recorded in English at a location

convenient to the participants. Similarly to Sub-study 2, I determined the final number of participants I interviewed based on the principle of data saturation [128]. Only one participant declined to be recorded, so I took notes during that interview.

Data analysis

For this sub-study, I also employed deductive and inductive thematic analysis according to Braun and Clarke [129]. Given that the national alcohol policy was already at the implementation phase, I analysed the interview data by focusing only on the capacity for joint action. The first stage consisted of the preliminary reading and familiarisation of the verbatim transcripts. For the deductive analysis, I used a similar approach to Sub-study 2 in that the key elements of capacity for joint action were categorised as the main themes. These included the organisational structure, coordination, leadership, and resources. After detailed reading of the transcripts and discussions with my supervisory team, I developed the sub-themes and then allocated them to their respective main themes. Next, I developed a codebook consisting of the main themes and sub-themes and used it to code all the transcripts in the NVivo 12 Pro Software.

Table 3: Participants for sub-study 3

Participant category	**Role in implementation of the alcohol policy**	**Number of interviews**
Civil society organisations	Advocacy and prevention	7
Chainama Mental Health Hospital	Treatment and rehabilitation services	3
Lusaka City Council	Enforcement of liquor licensing Act of 2011	3
Road Transport and Safety Agency	Enforcement of the road traffic Act of 2022	3
Drug Enforcement Commission	Treatment and rehabilitation services and law enforcement	1
Ministry of Health	Treatment and rehabilitation services and health education	6
Ministry of Local Government	Enforcement of liquor licensing Act of 2011	1
Ministry of Education	Health education	1
Total number of interviews		**25**

Ethical consideration

This study was approved by the Excellence in Research Ethics and Science Converge Ethics Committee as well as the Zambia National Research Authority (ref. no. 2019-Dec-007) in 2021 and then renewed in 2023 (ref. no. 2023-jul-045).

For the Sub-studies 2 and 3 in which I collected primary data, I obtained informed consent from the participants. First, I provided them an information sheet that explained the study, potential risks and benefits, and why I had chosen them to be part of the study (Appendix A). I also explained to the participants that they were free to opt out of the study if they judged it to be risky to them. Once this was done, those who agreed to participate signed the informed consent form (Appendix B). Although I mostly sent the information sheet via email, each participant signed the informed consent form on the day of the interview.

The interviews were held at a location that the participants considered to safe for them to engage in the discussions. Because most of the participants were government department representatives, I was able to conduct the interviews at their offices. When an office setting was not conducive, I requested that we move to a place with better privacy. Moreover, to ensure confidentiality during the interviews, I did not use the participants actual names. Furthermore, when providing quotes in this thesis, I have used participants identifiers.

This study had minimal to no risks for the participants, except perhaps if revealing information on the sector's position on any of the policy issues could be considered risky, especially if a respondent did not agree with that sector. To avoid any kind of misgivings regarding the study, I ensured that before interviewing any sector representatives, I obtained permission from the respective ministry permanent secretaries, CSO heads, and government agency managers. In addition, I received approval from the MoH to use the STEPs survey data for Sub-study 1.

Results

In the subsequent sections, I present the findings organised according to the key elements of the IFCG. I begin by highlighting the magnitude of the tobacco smoking and binge drinking problem and describe the major legal, political, socioeconomic and sociocultural factors that shape the collaborative tobacco control policy development and the alcohol policy implementation, as part of the Zambian context. I then go on to describe the views of stakeholders regarding two critical collaborative dynamics of principled engagement and shared motivation in the tobacco control policy process. Lastly, I provide the stakeholders views regarding the capacity for joint action in the implementation of the alcohol policy. In Table 4, I present the main findings across the three sub-studies.

The general systems context of tobacco and alcohol control in Zambia

Daily tobacco smoking and binge drinking

Based on the nationally representative survey of 4,302 respondents of 18–69-year-old Zambians, the prevalence of daily tobacco smoking was 9.0%, and binge drinking was 11.6%, both higher among men at 17.1% and 18.6%, respectively. Those who were married/cohabiting had a higher prevalence of both smoking and binge drinking, 10.8% and 12.6%, respectively. The prevalence of daily smoking was highest in respondents from rural areas and those with no education. A high prevalence of binge drinking was noted in respondents from urban areas, those with some secondary or tertiary education and the employed while a lower prevalence was observed among students or homemakers (Table 5).

The adjusted prevalence ratios showed that men were 14.3 [95% CI: 9.74-21.01] times more likely to smoke daily than women, individuals aged > 45years were 1.44 [95% CI: 1.03-1.99] times more likely to smoke daily compared with those aged 18–29 years. Those with no education or only primary education were 2.70 [95% CI: 1.79-4.07] times and 1.86 [95% CI: 1.22-2.83] times more likely to smoke daily than those with secondary or tertiary education, respectively. Binge drinking was 3.67 [95% CI: 2.83-4.76] times more prevalent in men than women. Lower adjusted prevalences of binge drinking were noted in rural residents 0.59 [95% CI: 0.46-0.77] compared with urban residents and in students/homemakers 0.58 [95% CI: 0.35-0.94] compared with employed participants.

Table 4: Summary of key findings from the three sub-studies

Framework component	Main findings	Sub-study
Systems context tobacco and alcohol control	- Men are more likely to smoke and binge drink than women - Older adults are more likely to smoke than young ones - People with the lowest education level are more likely to smoke compared to those who are educated - Urban residents more likely to binge drink compared to rural residents - Students or homemakers are less likely to binge drink compared to those employed	1
	- Tobacco industry interference in the tobacco control policy process - Existence of laws that incentivise expansion of tobacco industry manufacturing capacity - Tobacco and alcohol are framed as economic issues by the government - Lack of laws regulating illicit alcohol production - Weak enforcement of tobacco smoke free law and the Liquor Licencing Act by local authorities - Social acceptance of tobacco and alcohol by local communities	2 and 3
Principled engagement and Shared motivation in tobacco control	- Ineffective communication among government sectors - Lack of openness or suspicion affecting cross-sector engagement/collaboration - Anti-tobacco control sectors contest the tobacco burden evidence - Inadequate community participation and representation in the tobacco control policy process - Lack of trust among tobacco control stakeholders - Representatives lack authority to shape tobacco control within respective sectors - Weak political commitment to tobacco control by government	2
Capacity for joint action to implement alcohol policy	- Alcohol policy generally recognised as a basis for action on harmful consumption of alcohol by all stakeholders - Restructured alcohol policy coordination committee propelled implementation of the policy - There is coordination and resource challenges that restrict enforcement of alcohol control policy activities	3

Table 5: Weighted distribution of sociodemographic variables in total and by outcomes

Variables	Total sample n (%)	Smoking n (%)	Binge n (%)
Total sample	4302 (100.0)	389(9.0)	468 (11.6)
Sex			
Men	2 109 (49.0)	361 (17.1)	355 (18.6)
Women	2193 (51.0)	28 (1.3)	113 (5.3)
Marital status			
Single	1286 (30.0)	83 (6.5)	128 (10.5)
Married/cohabitating	2527 (58.9)	272 (10.8)	298 (12.6)
Divorced/widowed	480 (11.2)	33 (7.0)	41 (9.1)
Age (years)			
18–29	2015 (46.9)	139 (6.9)	196 (10.2)
30–44	1470 (34.2)	145 (9.9)	182 (13.4)
>45	816 (19.0)	105 (12.9)	90 (11.9)
Residence			
Urban	2104 (48.9)	131 (6.2)	267 (13.5)
Rural	2198 (51.1)	258 (11.8)	201 (9.7)
Education level			
Senior secondary/tertiary	1145(26.6)	63 (5.5)	149 (13.8)
Junior secondary	929 (21.6)	71 (7.7)	100(11.5)
Primary	989 (23.0)	96 (9.7)	91 (9.8)
No education	1236 (28.8)	157 (12.7)	128(11.0)
Occupation			
Employed	2159 (50. 3)	258 (11.9)	278 (14.0)
Unemployed	1415 (32.9)	114 (8.1)	148 (10.9)
Student/homemaker	721 (16.8)	16 (2.2)	42 (6.0)

The legal, political, and sociocultural environment affecting tobacco and alcohol control

Tobacco control laws and policies

According to the document review, there are several subsidiary laws aimed at controlling tobacco smoking that have been in place for decades (Table 6), although during the interviews, the stakeholders emphasised that these laws are poorly enforced. For example, Statutory Instrument No. 163 of 1992 promotes health references in adverts, regulates labelling, restricts the sale of tobacco to children and

prohibits commercial advertising, while Statutory Instrument No. 185 of 2008 regulates smoking in public spaces. Conversely, other laws focus on incentivising and sustaining tobacco production, thereby contradicting collaborative tobacco control efforts. Key amongst these is the Tobacco Act No. 10 of 2022 which aims to ensure quality in the tobacco production value chain by regulating growers, licensing graders, buyers, and sales.

The stakeholders also highlighted that there are policy positions that encourage tobacco manufacturing, which suppresses intersectoral supply-control measures. Specifically, they referenced the Seventh National Development Plan which acknowledged tobacco as a key cash crop for economic diversification and foreign exchange earning but was silent on specific control measures. Moreover, the Zambia Development Agency–a state organ that facilitates trade and investment–provides tax incentives for tobacco manufacturing, which multinational companies have begun to take advantage of to expand production. According to the stakeholders, this policy by the Zambia Development Agency contradicts the WHO-FCTC proposals not to provide tax incentives to the tobacco industry.

Alcohol control laws and policies

The stakeholders acknowledged the Liquor Licensing Act as the principal law targeting harmful alcohol consumption; it contains progressive clauses that regulate facilities engaged in the sale of alcohol. However, some expressed concerns about the indiscriminate issuance of liquor trading licenses by the local authorities to facilities that fail to meet minimum standards.

> *"The number of applicants is overwhelming. I think for Zambia; alcohol consumption has become such a good business. The consumption is high, and many people trade in it. The council committee which issues the licences only meet once in three months in a formal manner to look at the applications."* [RLCC0010]

Furthermore, they indicated that the large volumes of applications for these liquor trading licences lead to human errors during the licencing process, while some cited a conflict of interest, as those in charge of scrutinising the applications may also engage in the alcohol trading businesses.

> *"There is a lacuna because the law has not restrained the committee members, who issue the alcohol trading licences, from participating in this same business. Conflict of interest is a major issue – how do they punish themselves if they don't obey the law?"* [RLCC0010]

In addition, some stakeholders underscored the absence of legally binding regulations on advertising, sponsorship and promotion of alcohol as a major challenge to implementing the alcohol policy in Zambia. They stated that the absence of laws regulating illicit alcohol production and sale contributed to the affordability and accessibility of alcohol as well as the proliferation of informal alcohol markets.

Table 6: *Document review of tobacco laws and policies in Zambia*

Law	Objective	Position on collaboration in tobacco control	Target of legal measures
1. Public Health Act, No. 12 of 1930 (as amended to Act No. 22 of 1995)	Provides for the notification, prevention, and suppression of infectious diseases, and regulates all matters concerned with public health including water, food supplies sanitation, and housing.	Does not clearly state the role of collaboration in tobacco consumption control efforts, focuses more on infectious diseases control and general matters of public health	Demand
2. Tobacco Act No. 64 Chap. 237	Provides for the promotion, control, and regulation of the production, marketing and packing, control of export, and import of tobacco, as well as the promotion of research in connection with tobacco.	Not concerned with tobacco consumption control, but rather the focus is on marketing and production.	Supply
3. Tobacco Mktg and Licensing Rules – a subsidiary of the Tobacco Act	Provides rules for licensing of graders, buyers, auction floors, marking of bales for sale, packaging of tobacco for sale, and sale of tobacco by auction	No clearly stated position on collaboration regarding tobacco consumption control	Supply
4. Statutory Instrument 138 of 1968 – tobacco general regulations	Regulates permits to export tobacco, prescription of noxious substances, prohibition against sale of tobacco treated with certain substances, fumigation and certificate of inspection.	No clearly stated position on collaboration regarding tobacco consumption control	Supply
5. Statutory Instrument 139 of 1968. Act No. 13 of 1994 – registration of growers	Regulates registration of growers, registration periods, duration of registration, and application for registration	No clearly stated position on collaboration regarding tobacco consumption control	Supply

6. Statutory Instrument 140 of 1968. Act No. 68 of 1977 – regulations for prescribed classes of tobacco	Regulates the prescribed classes of tobacco	No clearly stated position on collaboration regarding tobacco consumption control	Supply
7. Statutory Instrument 163 of 1992 – public health tobacco regulations	Concerned with labelling, prohibition of commercial advertising on billboards and newspapers, reference to health in advertising, sale of tobacco to children, and prohibition of smoking in places.	Targets regulation of tobacco promotion and consumption but provides no clearly stated guidelines on the role of collaboration	Demand
8. Statutory Instrument 185 of 2008. The local government Act No. 281 – prohibition of smoking in public places regulations	Prohibits smoking in public places	Targets regulation of tobacco promotion and consumption but provides no clearly stated guidelines on the role of collaboration	Demand
9. 7th National Development Plan 2017 – 2021	To create a diversified and resilient economy for sustained growth and socioeconomic transformation driven, among others, by agriculture, tourism, manufacturing and mining.	Departs from sectoral-based planning to an integrated multisectoral development approach, but there no mention of this with regarding tobacco consumption control	Supply
10. National Cancer Control Strategic Plan 2016 – 2021	Provides guidance on the interventions needed to reduce the burden of cancers in Zambia.	Recognises the role of other sectors in controlling tobacco consumption, a key risk factor for cancers in Zambia	Demand
11. National Health in All Policies Strategic Framework 2017 – 2021	To ensure that all sectors include health and well-being as key considerations in policy development; lays a strong	Proposes that health is integrated in other sector policies, that is, education, gender, water and sanitation and environmental protection, community	Demand

	foundation for the implementation of the strategies	development, social services and local government; no specific mention of tobacco control	
12. Zambia National Health Research Priorities 2018 – 2021	To align the production of research evidence to the National Health Goals and Objectives and to provide guidance to researchers, research institutions, academic institutions, policy makers, programme implementers, health development partners and other partners on Zambia's health research focus.	Does not clearly recognise tobacco as a key priority research area among all the key themes of focus. Collaboration is key area of implementing the prescribed policy areas	Demand
13. Zambia National NCD Strategic Plan 2013 – 2o16	To raise the priority accorded to the prevention and control of NCDs in the national agenda through advocacy and multi-sectoral partnership	Recognises tobacco as a major risk factor for NCDs and proposes strategic direction to address it; however, collaboration in implementing tobacco control efforts is not mentioned	Demand
14. Zambia National Health Strategic Plan 2017 – 2021	To improve the health status of people in Zambia to contribute to increased productivity and socio-economic development	Proposes general NCD control strategies, but does not underscore collaboration in tobacco control efforts	Demand
15. Vision 2030	Aims for Zambia to become a prosperous middle-income nation by 2030	No clear strategy on tobacco control in Zambia	Supply

The sociopolitical context of tobacco and alcohol control

According to the stakeholders, both tobacco and alcohol production are considered to be sources of employment by the government. Therefore, any attempt to regulate supply through means such as high taxes is thought to be inimical to the country's development efforts. The stakeholders from economic sectors such as the Ministries of Agriculture, Commerce, and Finance expressed fear that a restrictive tobacco control policy might decimate an entire industry, potentially throwing a considerable group of farmers that depend on it into poverty.

Similarly, the stakeholders highlighted that the alcohol business is generally framed as an economic issue comprising many breweries across the country, which employ a lot of people and provide a market for local grain farmers. Further, community members view alcohol trading as a simple income-generating business in which they can easily engage. Thus, many people in low socioeconomic settings tend to engage in illegal brewing of alcohol for sale.

> "*They are those who produce alcohol illegally. In Chimwemwe compound, Kitwe. Someone is producing illegal alcohol, like potent stuff [Kachasu] that finds its way to Copperbelt University, and I am told that they must organise transport for psychiatric help for the students that are affected. Then there is illegally sold alcohol on the streets."* [RCS005]

According to the health sector and civil society stakeholders, the tobacco industry employs strategies such as corporate social responsibility, event sponsorships during elections, infrastructure development, and meetings with political figures, and lobbying legislators to sway government leaders' against passing a comprehensive tobacco control policy.

> *"At that time, we discovered that the tobacco industry interfered. Just as we convinced the Ministries of Health and Finance about the need for a tobacco control policy. The industry submitted a strong opposing paper to the Ministry of Commerce. When the matter went to the cabinet, the commerce minister spoke strongly against the bill, leading the Health Minister to withdraw it, effectively killing the bill."* [RCS007]

Moreover, the stakeholders explained that the political nature of regulating tobacco and alcohol could impact government popularity, especially in tobacco-farming provinces/districts, so the government needs to tread carefully. They indicated that developing a tobacco control policy and implementing the existing alcohol policy requires a clear plan to provide alternative livelihoods for those economically dependent on income-generating activities involving both products.

> *"If someone has been brewing alcohol for survival or sending children to school, how can we migrate them to an alternative livelihood so that they do not lose a source of income? those are issues that have never been addressed."* [RMH004]

The sociocultural context of tobacco and alcohol control

The stakeholders were critical of how the sociocultural environment promoted the use of tobacco as well as impeded implementation of the alcohol policy. They contended that the Zambian society tends to accept and encourage smoking and excessive drinking at social events by celebrating people who spend and smoke or drink more, as being generous. This sociocultural perception and tolerance can make enforcing both tobacco and alcohol control laws challenging as one respondent recounted.

> *"In Zambia when you drink more, if you spend more on alcohol, people will praise you. It's like the perception is, for lack of a better word, very dysfunctional around alcohol in our society. And it's highly defended. Also, I think understanding of harmful and non-harmful use of alcohol is very low in our community."* [RCH0018]

In addition, representatives from the Ministry of Local Government and Rural Development disclosed that the sociocultural tolerance of alcohol consumption contributes to the community's failure to report violations of the Liquor Licensing Act. Even when community members are cognisant of illegal alcohol trading, they often do not report it to the local authorities. In some cases, community members oppose the attempts by local authorities to close facilities engaged in illegal alcohol trading/brewing. Such resistance poses a challenge to the implementation of the alcohol policy within communities.

The role of principled engagement and shared motivation in the tobacco control policy process

According to the stakeholders, several factors have shaped the collaborative dynamics of principled engagement and shared motivation in tobacco control, particularly within and across government sectors.

Ineffective communication and contested tobacco evidence

Although most of the stakeholders acknowledged the importance of intersectoral action in addressing tobacco, they noted that ineffective communication in the tobacco control policy process affects collaborative engagement efforts between government sectors. They reported that most of the communication takes place

mainly during and towards the consultative meetings. The sectors do not regularly exchange information on tobacco control.

> *"What I have noticed is that the communication among the sectors with regards to tobacco control hasn't been that effective. For instance, you only hear about certain issues when we are about to have a meeting. I think if we are to make progress in addressing the contentious issues in the proposed policy, we need more effective communication and sharing of information on tobacco."* [RMF0015]

Some stakeholders expressed concern that the tobacco control policy process lacks openness, particularly regarding candid discussions on contentious issues such as managing the impact of the proposed policy on tobacco farmers. They believed the process does not accommodate concerns from other sectors. Further, they felt that the tobacco control policy process provides inadequate opportunities for stakeholders to communicate their perspectives or to convey policy resolutions to their respective sectors.

> *"When going to a meeting on issues like this, you must have an open mind. If Ministry of Agriculture discusses tobacco, they need to discuss the product and its interest without personal bias. MoH should not have predetermined solutions. They should learn, influence, and help other stakeholders understand why regulating tobacco consumption is important for Zambia and its economy."* [RMA0020]

Furthermore, the stakeholders explained that communication has been impeded by disagreements about the credibility of the current evidence on the tobacco problem in Zambia. Specifically, certain stakeholders dispute some of the evidence provided by the MoH, particularly from the NCD Investment Case, which quantifies the economic impacts of smoking. They question the extent to which smoking is a problem as depicted by the MoH. Further, they believe that the evidence is inaccurate, as it does not reflect what is observed in the communities. This scepticism affects engagement, as certain sectors question the need for a tobacco control policy.

> *"Some stakeholders misunderstand the tobacco control fight. They think it's superficial and only meant to impress donors. They say that if you're going to talk about tobacco control in the country, give us the evidence, be clear on how big the problem is."* [RIO0023]

Inadequate participation and representation of the community

Participation and representation in collaborative policy efforts is key to satisfying the tenets of principled engagement. However, some of the stakeholders in the tobacco control policy process decried the absence of community representatives, even though communities ultimately bear the impact of tobacco harms. Further, stakeholders from the Ministry of Local Government and Rural Development indicated that they had felt marginalised at some stage in the policy process, even though they are custodians of key tobacco legislation such as the Smoke-free law.

> *"Where I saw a challenge is, you are trying to pass a law that is going to affect the community, and they are not represented. The community voice hasn't been very active in the fight against tobacco. There was a need to involve the traditional and community leadership in tobacco control efforts since they are the most affected by the loss of lives due to tobacco."* [RCH007]

Lack of trust, undermined legitimacy and limited political commitment

Based on the participants' views, there is a general absence of trust among the stakeholders driven by the perception that the economic and production sectors have been compromised by the tobacco industry. On the other hand, these sectors are sceptical of the tobacco control efforts because they believe that the proponents of the policy are also motivated by a desire for funding from international tobacco control actors. Another factor that purportedly affects trust is the suspicion that some stakeholders have leaked information to tobacco companies that, in turn, uses this information to undermine the tobacco control policy efforts. Moreover, the fear that a tobacco control policy will eventually destroy the tobacco industry affects trust amongst sectors opposed to tobacco control.

> *"Let me not sugarcoat it. My fear is that the bill, which might seem moderate, could lead to an outright ban. Some provisions might not be friendly to tobacco stakeholders, and that's my concern."* [RMA0017]

According to the MoH, junior representatives, who have limited authority to make decisions or enact changes in their respective sectors, are designated to the tobacco consultative meetings. They believed that this has compromised the legitimacy of the stakeholders involved in the tobacco control policy process. In addition, the stakeholders from the economic and production sectors deemed some of the suggested tobacco supply control measures–like the predetermined tax-threshold of at least 70% of the total consumer price of tobacco products–to be unfeasible for Zambia. They assumed that such measures were merely copied from international

frameworks such as the WHO-FCTC. This view has further undermined the tobacco control policy's legitimacy, as it implies a lack of adaptation of the proposed policy content to the local context.

> *"You cannot simply adopt global Western policies and say, 'This works in Sweden, so let's do the same here.' That approach doesn't work. It's important to understand the local context. While we have smokers in Zambia, the numbers and habits differ from developed countries, especially from times when their laws were less strict."* [RMLRD0024]

Several stakeholders mentioned that there was a general lack of political commitment to the tobacco control policy. Most activities in the policy process are funded by donors, with minimal government resources. Additionally, some sectors do not prioritise tobacco control, viewing it as a lesser issue among Zambia's many competing priorities.

> *"So, within the Ministry of Health, there's a strong commitment to advancing the FCTC framework. However, we've lacked support from other line ministries. Civil society support has been fine, but what we truly need is comprehensive government support."* [RIO0019]

Capacity for joint action in the implementation of the alcohol policy

As I stated in Chapter Three, this collaborative dynamic refers to that capacity to work together that grows out of the collaborative process. It can comprise activities such as any new structural arrangements that make it possible for collaboration to flourish. Additionally, the pulling and joining of different resources when stakeholders come together is an important aspect of the capacity for joint action.

Policy recognition and structural reorganisation

All the stakeholders agreed that the alcohol policy is beneficial for coordinating collective efforts to control harmful alcohol consumption, as it supports advocacy initiatives to address what many considered a neglected societal issue. However, they noted that the lack of concrete policy measures and directives in the alcohol policy such as a high taxation regime, have hampered the capacity for joint action to implement this policy.

> *"The policy could have been more specific and forceful, outlining specific steps, enforcement measures, and declarations. There's a need for stronger references to the Liquor Act and other related acts concerning alcohol."* [RCH0018]

> *"In the policy, there's no tax provision. In other countries, the alcohol industry pays taxes, with some funds allocated to rehab centres. Since alcohol can cause sickness, it's noble to allocate funds for treatment, a component missing in the policy."* [RCH007]

The stakeholders reported that the reorganised alcohol policy implementation committee which had initially comprised of several organisations superintended by the MoH, has improved its capacity for joint action. They noted that reducing the number of members in this key implementation arm has helped to expedite decision-making on alcohol–related activities, reducing the red tape and inaction that had characterized the initial five years post enactment. Moreover, restructuring this committee and placing the Ministry of Local Government and Rural Development as the chair has provided a platform to leverage their established network of structures, including local councils, to enhance implementation of alcohol control activities. The Ministry of Health has been reassigned to be the secretariate of the committee.

> *"In the past, the Ministry of Health took the lead in developing and initially implementing policies related to alcohol and other related substances. But when it came to implementation, we realize that the Ministry of local government and Rural Development is the one that is mandated with the implementation of the alcohol policy."* [RMH009]

Coordination and resource challenges

Furthermore, according to the stakeholders, the capacity for joint action in implementing the alcohol policy has been affected by inadequate coordination among implementing agents such as local government and the state police. The limited collaboration between these key enforcement bodies has significantly impacted policy implementation. Moreover, local authorities tasked with aspects of the alcohol policy such as drunk driving, regulating illegal sales, licensing, and ensuring compliance have faced challenges including insufficient authority to enforce certain measures and frequent shortages of resources such as transport, personnel, and finances.

> *"If council workers responsible for patrolling and confiscating illegal alcohol aren't paid their salaries, it poses a significant challenge. Therefore, the local authority should collaborate with the Ministry of Local Government and Rural Development to establish a sustainable method for paying these workers. It's crucial that revenue collection prioritises their salaries."* [RCS001]

Discussion

This thesis attempted to shed light on the current situation of tobacco smoking and harmful alcohol consumption as well as understand the collaborative dynamics influencing the delayed development of the tobacco control policy and the implementation of the alcohol policy in Zambia. In this section, I provide a summary of the findings and first discuss how the broader context shapes stakeholder collaboration across sectors in tobacco and alcohol control efforts. Next, I explore the specific collaborative dynamics–principled engagement, shared motivation, and capacity for joint action–and discuss ways to strengthen them to accelerate the development of the tobacco control policy and enhance the implementation of the alcohol policy.

The findings revealed significant differences in daily tobacco smoking and binge drinking between men and women. Higher smoking prevalence was associated with being a man, older, and having lower levels of education, while binge drinking was more prevalent among men and urban residents. Several systemic factors affected collaboration in the tobacco control policy process, including tobacco industry interference and incoherence between economic sector policies and tobacco control measures. Further, the framing of alcohol as an economic issue, weak regulation of illicit alcohol production and the sociocultural acceptance of alcohol also shaped collaboration in alcohol control.

Principled engagement and shared motivation in the tobacco control policy process were hindered by ineffective communication, mistrust, limited evidence, inadequate community representation, and the lack of authority among sector representatives. Although the alcohol policy was generally recognised as a framework for stakeholder action to address harmful alcohol consumption, frail coordination and resource constraints among the implementing agencies undermined the capacity for joint action, ultimately impeding policy implementation.

How the systems context shapes collaboration

Men, older adults and the lower educated were more likely to smoke tobacco. As expected, these findings are consistent with what has been reported previously in studies conducted in the Zambian towns of Lusaka and Kitwe [130, 131]. Like many countries in SSA, smoking is socially accepted in Zambia, especially among older men. A previous study reported that early initiation to smoking in Zambia is a major problem [132], largely driven by weak enforcement of existing tobacco control legislation, and therefore smoking in adulthood may suggest continued addiction to

this vice as these individuals age. Further, the high prevalence of tobacco smoking among people with a lower education level can be explained by the low perception of risk associated with such behaviour, possibly due to lack of awareness of the associated negative consequences [133, 134]. In addition, this may suggest that the current collaborative efforts to create awareness of the dangers of smoking are not reaching Zambians with lower education.

A higher prevalence of binge drinking was observed among men and urban residents. In comparison to other countries, the prevalence of binge drinking in Zambia is lower at 11.6% compared with 12.7% and 14.1%, in Kenya and South Africa, respectively [135, 136]. Regarding being a man as the main driver of binge drinking, similar results have been reported in studies conducted in Kenya, Ethiopia, and South Africa [135, 137, 138]. As revealed by the study participants, this finding is likely reinforced by the positive sociocultural practices and norms that promote excessive drinking. Like many countries in SSA, excessive drinking tends to be also associated with masculinity while it is considered shameful for women [139, 140]. Binge drinking among urban residents could possibly be explained by the fact that these individuals have greater economic possibilities and can therefore afford to drink more. Further, this could also suggest the need to strengthen collaborative efforts to counter the massive advertisement of alcohol, that according Letsela et al. [141], hugely influences urban drinking.

Sociocultural acceptance of excessive alcohol consumption has negatively affected collaborative efforts to implement the alcohol policy. As noted in other studies [139, 140, 142, 143], alcohol has come to be allocated a special place within the fabric of social interactions where, for example, men who drink larger volumes are celebrated as being generous. These values, as mentioned by the participants, manifest during social events such as outings, weddings, and traditional ceremonies, perpetuating unhealthy drinking habits. Subsequently, communities fail to report violations of alcohol control laws, like the unlicenced selling of liquor, to local authorities, as they have normalised such behaviour. Galvanising community support can be a crucial lever for policy formulation and implementation efforts [144, 145]. This is even more relevant because both the alcohol and tobacco industry have been very successful at mobilising community support by using farming contracts and corporate social responsibility, which makes it harder to counter their influence [146]. For example, in Indonesia, the anti-tobacco control coalition has been able to block collaborative policy reforms by strategically harnessing public support [77, 147].

One of the main contentious issues in the delayed tobacco control policy was the concern for farmers whose livelihoods depends on tobacco. Based on the participants' perspectives, there seems to be a lack of clarity regarding the government strategy of how tobacco farmers in Zambia will be supported as they transition to alternative livelihoods. This finding suggests an opportunity for collaborative efforts, particularly with the Ministry of Agriculture to promote much more rewarding cash crops. Evidence from previous studies on the economics of tobacco production has shown that tobacco farming is not as profitable as it is portrayed by the industry [148-152]. Any marginal profits are nullified by the high costs of labour associated with tobacco farming. In fact, farmers make higher profits from cultivating health-friendly cash crops such as soybeans, cereal and pulses [149]. Off course, this is also dependant on other variables like seasonality and, crucially, the availability of markets. According to a study from Zambia, Kenya and Malawi, tobacco farmers are willing to switch if there are guaranteed markets and profits [34]. However, shifting households whose entire lives have depended on tobacco to alternative cash crops may be challenging.

A major issue in Zambia's policy environment that affects collaboration in tobacco control is the existence of policies that constrain the measures aimed at controlling tobacco supply prescribed by the WHO-FCTC. This finding has been reported in previous studies [31-33, 153]. Indeed, these studies have highlighted noteworthy misalignments between the economic policies and some of the WHO-FCTC recommendations such as maximising taxation to fund tobacco-related health consequences as well as restricting incentives that promote expansion of the tobacco industry. However, according to the participants, the policy to attract foreign direct investment is already enticing into the country, multinational tobacco companies, that have the capacity to produce millions of cigarettes for the local and regional markets every day; a finding that is corroborated by Labonté et al [33]. These incoherences have the potential to also constrain cross-sector collaboration during implementation of the tobacco control policy if not well addressed. Therefore, these findings suggest the need to harmonise economic and health sector policies targeting tobacco production to achieve better collaboration.

Another aspect that has likely affected collaborative efforts is a view that a tobacco control policy is not necessary because tobacco is not a big problem in Zambia. Those from the economic sectors such as the Ministries of Agriculture and Finance have argued that there is no need for a new tobacco control policy; instead, they think that the country should concentrate on firming up the already existing subsidiary laws that have been in existence for a long time. Their argument is

founded on three main reasons as highlighted in a previous study by Lencucha et al.[31]: tobacco is not consumed in Zambia but rather exported to other countries, the economic benefits outweigh the health costs, and tobacco consumption is a personal choice. However, this perspective downplays the fact that existing tobacco control laws in Zambia are inadequate and are weakly enforced, especially when it comes to regulating tobacco supply. Moreover, it also ignores the evidence that the expanding tobacco industry in Zambia is reaching vulnerable youths that may fall into a vicious cycle of addiction to smoking [33].

Despite all these systemic challenges, there seems to be a positive window of opportunity for the tobacco control policy since the change of government in 2021. Recent developments have included approval by the Cabinet of Ministers and subsequent presentation of the third Tobacco Bill No. 10 of 2022 to the Ministry of Justice for legislative drafting so that it can be submitted to parliament for debate. In support of this bill, the new Chief of the Zambia National Public Health Institute, an organisation mandated to oversee public health security in the country, has put forward a strong argument to parliament about the need to strongly regulate tobacco, citing its huge public health implications [154]. Indeed, as Kingdon's multiple streams theory suggests, such a window of opportunity provides the perfect moment for the tobacco control coalition to advance its agenda [155]. It also presents an opportunity to promote the collaborative enforcement of existing tobacco control legislation.

Strengthening principled engagement and shared motivation

Most of the participants' views seem to point to eroded trust and increased suspicion, which ultimately affects collaboration among tobacco control actors, particularly between the Ministry of Health and other government sectors. Building trust among tobacco control stakeholders is vital for sustaining meaningful and respectful collaborative relations in such contentious policy settings. Indeed, trust is so essential to collaborative undertakings that in most literature it is considered a prerequisite of effective collaboration [54, 56, 57]. Trust also facilitates information sharing and helps to generate shared commitment to collective goals [2]. To build and sustain trust in tobacco control, Article 5.3 of the WHO-FCTC prescribes how to protect the integrity of the tobacco control policy process from the commercial and vested interests of the tobacco industry [100, 146]. Key measures may include restricting interactions between state actors with the tobacco industry and ensuring that such engagements are transparent and free from conflicts of interest.

The limited amount of available evidence concerning the burden of disease of tobacco smoking has contributed to stakeholder misunderstandings regarding tobacco control and thus has affected cross-sector collaboration. This lack of evidence has often been exploited by the anti-tobacco control stakeholders to sway government and public opinions to their advantage [108]. Indeed, similar studies have equally highlighted the scarcity of evidence regarding the burden of disease of tobacco smoking, as a major weakness to policy advocacy efforts [118, 156]. In cases where such evidence exists, there are concerns regarding how persuasive it is to counter the arguments of anti-tobacco control stakeholders. There are a few large studies such as the NCD investment case that have quantified the economic impact of tobacco smoking and related illnesses in Zambia, and the nationally representative STEPs survey of 2018 which provides a baseline of the tobacco prevalence estimates [19, 31]. However, such evidence should be produced consistently to provide convincing figures on the trends and patterns of smoking. This will be important for policy learning purposes and to debunk arguments against the tobacco control policy in these collaborative spaces [77].

Another dynamic that affected collaborative engagement in the tobacco control policy process was both the assignment of junior officers as sector representatives and their frequent turnover. This impacts policy-learning as well as collaboration within the tobacco control policy process because every new representative may harbour different sentiments or ideas regarding policy change and how to engage with other sectors [157]. Furthermore, junior government officers' lack of authority weakens their capacity to provide appropriate leadership on tobacco control issues in their respective sectors. Moreover, their frequent reassignment to other duties limits effective sector participation and representation which affects continuity in the tobacco control policy process. Perhaps having a fixed term of representation for every tobacco focal person can help address the challenge of reassignment or turnover.

Strengthening the capacity for joint action

The participants mentioned that the alcohol policy initially encountered challenges of ownership because it was deployed towards the end of the previous Zambian government's tenure of office. These early challenges to policy continuity may be attributed to changes in policy priorities by the new government. However, the recent organisational changes in the alcohol policy implementation coordination committee as outlined by the participants provided a cause for hope with regards to collaborative implementation of the alcohol policy. Specifically, the reorganisation of this committee into a core group of members, and transfer of the alcohol policy

from the Ministry of Health to the Ministry of Local Government and Rural Development, may be a significant step to enhance its implementation. Local government has the necessary capacity, including key legislation such as the Liquor Licencing Act, to implement alcohol control activities. Indeed, several studies underscore the importance of having the right institutional and procedural arrangements to sustain and maintain collaborative action [2, 5, 158].

Coordination is crucial to maintaining the capacity for joint action. However, the participants views pointed to fragmentation in the coordination of alcohol control mandates among government agencies. Specifically, the Home Affairs Police and the Local Government Police seem to not complement one another regarding the enforcement of alcohol control laws in Zambia, which has weakened the implementation of the policy. Similar findings regarding coordination challenges have been reported in LMICs; this phenomenon has been attributed to the lack of clarity regarding the roles of these enforcement agencies [159], which I think could also be the case in Zambia. In Australia, a study among police officers found that the vagueness concerning the role of the police, and the separation of Ministerial responsibilities for liquor licensing and policing made it difficult to enforce liquor licensing legislation [160]. To implement the alcohol policy effectively, the National Alcohol Policy Coordination Committee should strive to get these implementing agents to collaborate by ensuring that their roles and duties are clarified.

Another crucial aspect to strengthen the capacity to joint action in the implementation of the alcohol policy is to ensure the availability of resources. These resources present in several forms including time, technical and administrative that may be sourced from collaborating stakeholders [161, 162]. However, based on the interviews, most of the alcohol policy-implementing agencies lack financial and human resources, which significantly affects their capacity jointly enforce key legislation like the Liquor Licencing Act. The inadequacy of financial and human resources is one of the most cited barriers to collaborative efforts to implement alcohol policies across various settings [25, 163]. Given that alcohol-related issues are largely felt at the local level, building local resource streams and coalitions can help to strengthen the capacity for joint action on alcohol control [164].

Contributions to research and practice

At the time of publishing Sub-study 1, to the best of my knowledge, this was the first study that had estimated the binge drinking problem and associated factors thereof in Zambia using a representative sample. Most of the previous studies had been done on specific sub-populations such as people with HIV/AIDs and those

with psychiatric disorders [93, 95]. I believe that the findings from Sub-study 1 are crucial for devising targeted interventions to prevent excessive drinking within the general population. Further, these findings are timely as Zambia develops the second strategic plan for non-communicable diseases and their risk factors.

By exploring the collaborative dynamics in such contentious health policies, I was able to uncover some of the underlying factors that may shape or explain the failure and success of collaborative health policy arrangements. These results may inform the adoption of appropriate engagement strategies in contentious health policy processes.

While most policy analysis studies in Zambia have focused on the contextual and institutional drivers of policy change [32-35, 102, 118], none have paid attention to collaboration and relational aspects in health policy processes. Yet, the literature has shown that relational issues like trust, understanding, commitment and legitimacy can be crucial to the success of collaborative policy process [54, 68, 165]. I believe that by exploring principled engagement and shared motivation, I addressed an important but often overlooked aspect of health policy analysis.

I propose context-specific considerations that can contribute to enhance the collaborative process of formulating the tobacco control policy and implementing the alcohol policy in Zambia and similar LMIC settings. These considerations may also be extended to other contentious public health policy processes.

Methodological considerations

A combination of qualitative and quantitative methods is valuable for enhancing the understanding of intersectoral collaboration in tobacco and alcohol control policy processes. Nonetheless, I would like to acknowledge the difficulty of integrating the results when these two methods address different research questions. This challenge is particularly relevant in this thesis, as the quantitative component focuses on the broader context that informs the collaboration rather than directly assessing collaboration itself. Despite the challenges, this thesis has several methodological strengths and limitations that must be acknowledged to contextualize the findings.

In Sub-study 1, the principal strength is the use of a nationally representative STEPs survey data, which allowed me to generalise the picture of tobacco smoking and binge drinking in Zambia. This is a robust weighted survey that uses validated and standardised tools and was spearheaded by the WHO and the Ministry of Health. However, as in many such surveys, the tendency to underreport the extent to which

one engages in such behaviours should not be overlooked. This may likely be the case for women, especially if smoking or drinking does not conform with traditional norms of femininity. Further, it is possible that the retrospective nature of the questions for variables such as binge drinking may be subject to recall bias.

In Sub-studies 2 and 3, applying the IFCG to the contentious tobacco control policy process, helped to focus on a set of specific dynamics to explain how and why certain strategies may not be working and perhaps contribute to the delayed tobacco control policy. This is one of the few studies that has applied such a framework to tobacco control policy development. Further, I did not only depend on the interviews regarding the tobacco control policy process, but also, I complimented it with the document review. In addition, collecting data from multiple sector representatives contributed to broader perspectives regarding the tobacco and alcohol control policy processes. However, only interviewing a selected sample of representatives of governmental and non-governmental organisations without talking to the Cabinet of Ministers may not have provided the whole picture of why there has been a delay in enacting the tobacco control policy in Zambia. Further, the more than a decade of efforts to develop the tobacco control policy as well as the 5-years since the implementation of the alcohol policy may potentially have affected key informants' recollections of the key dynamics in the collaborative policy process. In addition, the broad scope of the alcohol policy made it challenging to define clear boundaries of implementation activities, complicating the analysis.

In this thesis, I mainly used qualitative methods for two out of the three sub-studies. Therefore, I discuss two crucial aspects of assessing the trustworthiness of the qualitative research findings–transferability and reflexivity.

Transferability

Transferability entails the degree to which the findings in one study are applicable to other similar settings [166]. To ensure transferability, throughout this thesis, I have tried to give a detailed description of the processes including why and how I arrived at certain decisions. Further, a key to the transferability is the description of the context, so I provided both the international and local contexts of tobacco and alcohol control, and delved deeper into the legal, political and sociocultural context shaping the collaborative dynamics in both policy processes. This is crucial to make judgements on the transferability because someone who wants to use these findings in other settings can judge whether the context is applicable to their settings or not.

Reflexivity

Reflexivity means reflecting on how one's social position may interfere with the ability to maintain objectivity [167]. This principle refers to how my positionality affected the way I went about the research process and, ultimately, the research findings [168, 169]. As a health policy and systems researcher, I obviously had my predetermined views about how the policy process should unfold, which may have shaped some of the themes I identified. Moreover, being a public health person [170], my prejudice may be obvious, particularly when it comes to views that do not support the tobacco or alcohol policy. Further, I may consider myself as outsider in this research process because I had never participated in any of the tobacco and alcohol control policy meetings prior to the data collection. This may have affected how much information the participants were willing to share with me given how contentious these policy processes were.

To address these challenges, I made sure that during the data analysis, I constantly discussed the themes from the transcripts with my supervisory team. This not only helped me steer past of my preconceived notions about the policy process but also enhanced the credibility of the findings. In addition, I strived to build the required rapport for the participants to open-up and made sure that their views were accurately captured and discussed during the data collection.

Research dissemination

I presented the findings from my first two papers at the Public Health Association of South Africa Conference in Gqeberha, Western Cape, in 2023. This conference gathers public health schools in South Africa and is open to neighbouring countries including Zambia. My presentation was well received and elicited interesting discussions, particularly from the participants who had worked on tobacco and alcohol related topics in Zambia. The third paper was published as part of a global supplement on intersectoral governance on the road to health in all policy which was launched by the Health Systems Global Executive Director at the global health systems conference in Nagasaki, Japan in November 2024. I made a podcast for my third paper which can be accessed on the following Health Policy and Planning journal website: https://bit.ly/3B5mfjy. In addition, I intend to avail copies of my thesis to both the tobacco control policy and the alcohol policy implementation coordination committee (Figure 3).

***Figure 3**: Presentation of thesis findings at a conference*

Conclusion

There are huge differences in tobacco smoking and binge drinking between men and women, while higher prevalences of these behaviours were noted in men, older adults, the least educated, and urban residents. These findings suggest the need for targeted control strategies in Zambia. However, collaborative policy efforts to address these risky behaviours are constrained by industry interference, incoherences between economic sector policies and control measures, weak enforcement of subsidiary legislations, and the sociocultural tolerance.

Further, the thesis reveals that the collaborative tobacco control policy process is fraught with many challenges, which threaten crucial collaborative outcomes such as trust, commitment. and legitimacy. Thus, to those that preside over this policy process, specifically the Ministry of Health, embracing principled engagement practices such as facilitative leadership, open and inclusive communications, information sharing and use of credible evidence may go a long way in improving the collaborative dynamics with other government sectors. This, I believe will be vital in enhancing collaboration during the development of the tobacco control policy and will sustain this collaboration during implementation.

In addition, this thesis shows that collaboration in the implementation of the alcohol policy in Zambia is still weak, particularly at the local level where implementing agencies operate. Strengthening the capacity for joint action in implementing the alcohol policy will require overcoming coordination and resource challenges among these local agencies. The government can achieve this by providing the necessary financial and human resources, clarifying roles among the implementing agencies, and strengthening accountability.

Recommendations

Recommendations for policy

1. Provide political will by ensuring commitment of financial, human and technical resources to the relevant agencies involved in tobacco and alcohol control activities.

2. Harmonise and align tobacco and alcohol production laws and policies across economic sectors with relevant control measures such as higher taxation, advertisement regulation, and restrictions on sales to and by minors.

3. Enforce adherence to Article 5.3 of the WHO-FCTC, which emphasises the need for governments to protect the tobacco control policy process from commercial and other vested interests of the industry.

4. Develop a clear plan or strategy with the buy-in of affected local communities for alternative livelihoods for households that engage in tobacco farming or alcohol businesses.

Recommendations for practice

1. Strengthen preventive strategies that target sub-groups that are most at risk of smoking and binge drinking. These include men, older adults and those with lower levels of education, and urban residents.

2. Enhance information exchange and overall communication regarding tobacco control among the stakeholders. A clear understanding of the stakeholder roles and accountabilities will be crucial in propelling forward the collaborative tobacco control policy process.

3. Strive to provide facilitative leadership that is open to engage/discuss tough conversations, one that is accommodative of dissenting views, and consistently seeks to build trust, understanding, commitment and legitimacy among non-health sector stakeholders.

4. Integrate and strengthen the provision of smoking cessation services and the treatment of alcohol use disorders in the primary healthcare system.

5. Strengthen engagement with community structures in the development of the tobacco control policy and promote awareness of key measures in the alcohol policy to enhance community adoption and support.

6. The alcohol policy coordination committee should prioritize the adoption of values that protect citizens against harmful alcohol use at the centre of their advocacy efforts.

7. There is a need to strengthen coordination and collaboration among alcohol policy implementing agencies by ensuring clarification of roles for instance, between the Council Police and Home Affairs Police.

8. Strengthen the enforcement of the liquor Licensing Act by reviewing and updating key regulations as well as ensuring compliance through regular inspections and stiff penalties to those that break the law.

Future research directions

Based on the findings in this thesis, future research with regards to intersectoral collaboration in addressing tobacco and alcohol may seek to focus on the following areas.

1. Quantify the socioeconomic inequalities associated with smoking and drinking and, if possible, measure how these inequalities change over successive waves of critical datasets such as the WHO STEPS and alcohol policy impact surveys. This evidence will be crucial not only for surveillance purposes but also for assessing the impact and progress of collaborative efforts to control these risky behaviours.

2. Because I used a specific framework to study collaboration; it may have limited my focus to certain elements within that framework. I suggest that future research apply social network analysis approaches to explore key actors and their influence as well as to identify strategies for strengthening relationships and communication among these tobacco and alcohol control stakeholders.

3. Explore the most effective approaches and strategies for enhancing coordination, accountability and transparency among government agencies such as the local city councils that are responsible for implementing the alcohol policy.

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Appendices

Appendix A: Information sheet

My name is Adam Silumbwe, a PhD student at Umeå University, Sweden.

I will read you a form that explains this research study. You have been asked to take part because you are one of the people that is knowledgeable about the study topic. This study aims to evaluate the role of collaboration in Zambia's policy response to smoking and alcohol consumption.

There are no physical nor psychological risks involved in this study but if you feel uncomfortable answering some questions, you are free to stop the interview sessions. Your responses will neither affect you nor your work. This study will generate important information regarding the study topic.

The interview will last between 30 to 45 minutes. You can either choose to take part or not. If you decide to, you do not have to be in it until the end. You can opt-out when you want to. You will not be identified by your name during the interviews for confidentiality. Instead, we will identify you with numbers. Only the people who are involved in this study will have access to this information and it will be properly secured. There shall be no financial re-imbursement of any sort, but I will be providing transport refunds for taking part in the study.

*If you need more information about this study, you can contact the Principal Investigator, Mr. Adam Silumbwe at +2609776085894, Dept of Health Policy and Management, School of Public Health, University of Zambia. You can call the Chairperson ERES Converge IRB +260 955 155634/260 955 155633, 33 Joseph Mwilwa Road, Rhodes Park, Lusaka, or email at eresconverge@yahoo.co.uk.

Appendix B: Consent form

By signing below, I _____, agree to take part in this study willingly. I understand the purpose of the study as well as the usefulness of the findings. I know my rights as a participant, and I know the risks and benefits of this research.

Participant's signature/ thumbprint: _____

Witness signature/ thumbprint: _____

Date: _____

*If you want to talk to anyone about this study, you can contact me, the Principal Investigator, Adam Silumbwe at +260976085894, or you can call the Chairperson of the University of Zambia Biomedical Research Ethics Committee at +260211256067.

Appendix C: Interview guide for sub-study 2

Target group

1. Ministry of Health
2. Tobacco control civil society organisations

Purpose of the research

Thank you for agreeing to do this interview. My name is……..……This study aims to evaluate the role of collaboration in Zambia's policy response to smoking and alcohol consumption. To help do that, we would like to know your experiences, views, submissions around the current collaborations of various sectors to address tobacco in Zambia.

Discussion ground rules

After the completion of the consent process, which explains the study in detail and gives us permission to discuss with you, you are requested to provide answers to all the questions, if uncomfortable you may skip to other questions. The interview will last an hour. Please note that we shall be recording the information for our analysis.

Have you any questions prior to the interview?

[Turn on the recorders]

I am the interviewer……...……. interviewing KII ……..……Date……..……. Start time……End time

Background Information (kindly fill in the information below**)**

Sex: Male…….
Female……

Occupation and
Sector……
……

Experience/years in executing current
duty……
……

Age at last birthday……
…….

Main question	Probe
Please tell me about yourself?	▪ Your job ▪ You experience ▪ What is your current role with regards to tobacco control?

I would like to find out the role of governance in intersectoral action to control tobacco in Zambia?	**Collaboration**
	▪ Describe your understanding of collaboration
	▪ Describe your understanding of intersectoral action and its role in addressing tobacco control?
	▪ What are some of the collaborative/intersectoral activities that you are involved to address tobacco control?
	  ▪ Is there any prior history of collaboration to act on tobacco? what was the activity? who and how was it initiated?
	  ▪ Probe for any efforts to involve other sectors in tobacco policy development. What was their role?
	  ▪ How should the various sectors be engaged in intersectoral action against tobacco?
	  ▪ What sorts of incentives and motivations to encourage intersectoral action across sectors?
	  ▪ How would describe the roles and participation of various sector stakeholders in intersectoral action on tobacco?
	▪ Describe some of the factors that may facilitate intersectoral collaboration to address tobacco in Zambia?
	▪ Explain the factors that may hinder intersectoral collaboration to address tobacco in Zambia?
	  ▪ Probe for political and social cultural
	  ▪ Probe regulatory –policy and law
	▪ What would you consider to be the most important factors for collaboration on tobacco control to occur?
	  ▪ Do you have suggestions of how intersectoral collaboration may be enhanced?

	Strategic vision ▪ How supportive is the policy and legal environment for intersectoral action on tobacco in Zambia? Describe some of the challenges you have encountered in coming up with a comprehensive tobacco policy? How can they be addressed? **Leadership and coordination** ▪ What do you understand by coordination? ▪ Please explain how intersectoral coordination is conducted in tobacco control in Zambia. ▪ If not, how should it be? ▪ What role does leadership play in fostering intersectoral action? What form of leadership is most appropriate for tobacco control in the Zambian context? ▪ What kind of coordination activities are in place/needed to address tobacco control? ▪ What structures are in place to coordinate intersectoral action on tobacco? ▪ How effective do you think are those structures? ▪ What process are in place to govern and follow up on intersectoral action on tobacco control? ▪ Describe some of the factors that may facilitate the coordination of intersectoral action on tobacco control in Zambia? ▪ Explain the factors that may hinder efforts coordination action on tobacco control across sectors? ▪ Probe for political and social cultural ▪ Probe for regulatory– Policy and law ▪ Do you have any suggestion of how coordination of action to reduce tobacco across sectors can be enhanced?

Appendix D: Interview guide for sub-study 2

Target group

1. Ministry of Local Government and Rural Development
2. Ministry of Agriculture
3. Ministry of Commerce and Trade
4. Ministry of Finance

Purpose of the research

Thank you for agreeing to do this interview. My name is……..……This study aims to evaluate the role of collaboration in Zambia's policy response to tobacco smoking and harmful alcohol consumption. To help do that, we would like to know your experiences, views, submissions around the current collaborations of various sectors to address non-communicable diseases in Zambia.

Discussion ground rules

After the completion of the consent process, which explains the study in detail and gives us permission to discuss with you, you are requested to provide answers to all the questions, if uncomfortable you may skip to other questions. The interview will last an hour. Please note that we shall be recording the information for our analysis.

Have you any questions prior to the interview?

[Turn on the recorders]

I am the interviewer……...……. interviewing KII ……..……Date……..……. Start time……End time

Background Information (kindly fill in the information below**)**

Sex: Male…….
Female……

Occupation and
Sector……
……

Experience/years in executing current
duty……
……

Age at last birthday……
…….

Main question	Probe
Please tell me about yourself?	▪ Your job ▪ You experience ▪ What is your current role with regards to tobacco control?
I would like to find out the role of governance in intersectoral action to control tobacco in Zambia?	**Collaboration** ▪ Describe your understanding of collaboration ▪ Describe your understanding of intersectoral action and its role in addressing tobacco control? ▪ What are some of the collaborative/intersectoral activities that you are involved to address tobacco control? ▪ Is there any prior history of collaboration to act on tobacco with other sectors – MoH? what was the activity? who and how was it initiated? ▪ Probe for any efforts to involve other sectors in tobacco policy development. ▪ How should the various sectors be engaged in intersectoral action against tobacco? ▪ What sorts of incentives and motivations to encourage multisectoral action across sectors? ▪ How would describe the roles and participation of various sector stakeholders in intersectoral action on tobacco? ▪ Do you have any activities within your sector addressing tobacco– probe incorporation into policy or program ▪ Describe some of the factors that/may facilitate intersectoral collaboration to address tobacco in Zambia? ▪ Explain the factors that/may hinder intersectoral collaboration to address tobacco in Zambia? ▪ Probe for political and social cultural ▪ Probe regulatory –policy and law ▪ What would you consider to be the most important factors for collaboration and action on tobacco control to occur? Do you have suggestions of how collaboration may be enhanced?

	Strategic vision ▪ How supportive is the policy and legal environment for intersectoral action on tobacco in Zambia? ▪ Describe some of the challenges you have encountered in coming up with a comprehensive tobacco policy? How can they be addressed? **Leadership and coordination** ▪ What sought of intersectoral action is/should be prioritised for your sector to reduce tobacco? ▪ What are some of the capacities required for your sector to be able to implement this action? ▪ What role does leadership play in fostering intersectoral action? What form of leadership is most appropriate for tobacco control in your sector? ▪ What do you understand by coordination? ▪ Please explain how intersectoral coordination is conducted in tobacco control in Zambia. ▪ If not, how should it be? ▪ What are some of coordination activities to address tobacco control? ▪ What structure is in place to coordinate intersectoral action on tobacco? ▪ How effective is the structures and mechanisms? ▪ Are there any polices in place to facilitate the coordination intersectoral coordination? ▪ What process are in place to govern and follow up on intersectoral action on tobacco control? ▪ Describe some of the factors that/may facilitate the coordination of intersectoral action on tobacco control in Zambia? ▪ Explain the factors that/may hinder efforts coordination action on tobacco control across sectors? ▪ Probe for political and social cultural ▪ Probe for regulatory– Policy and law ▪ Do you have any suggestion of how coordination of action to reduce tobacco across sectors can be enhanced?

Appendix E: Interview guide for sub-study 3

Target group

1. Ministry of Health
2. Ministry of Local Government and Rural Development
3. Ministry of Commerce and Trade
4. Ministry of Finance
5. The civil society organisations

Purpose of the research

Thank you for agreeing to do this interview. My name is Adam Silumbwe, the principal investigator of this study. This study aims to identify barriers and facilitators to implementation of alcohol policy in Zambia. To help do that, we would like you to share your experiences and views regarding the current efforts to implement the alcohol policy across sectors.

Discussion ground rules

After the completion of the consent process, we will commence the interview. I will read out questions and you are free to skip those you may not be able to respond to. The interview will last an hour. Please note that we shall be recording the information for our analysis.

Have you any questions prior to the interview?

[Turn on the recorders]

I am the interviewer……...……. interviewing KII ……..……Date……..…….. Start time……End time

Background Information (kindly fill in the information below**)**

Sex: Male…….
Female……

Occupation and
Sector……
……

Experience/years in executing current duty……
……

Age at last birthday……
…….

Main question	Probe
Please tell me about your role regarding alcohol control in Zambia.	• Can you describe to me your experience with the alcohol policy implementation? ▪ In which stage of implementation would you say the policy is?
I would like to get you views with regards to the alcohol policy implementation	• What do you think about the content of the alcohol policy? • How feasible and realistic are some of the aspects of the alcohol policy to implement in the Zambian context? ▪ Which specific aspects of the content do you think are good? ▪ Which should have been included? • What is your organization doing or have done regarding alcohol policy implementation? ▪ How is your organization working to implement the policy? • What do you think are the main facilitators to the implementation of the alcohol policy in Zambia? ▪ Probe for prevailing situations/contexts that make it possible to implement the alcohol policy ▪ How do you think the policy and legal environment has or is affecting the implementation of the alcohol policy? ▪ What have been some of socioeconomic and the political factors that facilitate the implementation of the alcohol policy? ▪ Who have been or are the main actors involved in promoting the alcohol policy implementation?

	What role do they play in the implementation of the policy?
	
	• Which do you think are or have been the main barriers to implementation of the alcohol policy in Zambia?
	  ▪ Probe for prevailing situations/contexts that impede implementation of the alcohol policy
	  ▪ How would you describe the policy and legal environment and how it affects implementation of the alcohol policy?
	  ▪ What were some of socioeconomic and the political factors that inhibit the implementation of the alcohol policy?
	  ▪ Who are the main actors inhibiting the alcohol policy implementation?
	  ▪ What factors hinder actors' participation in the alcohol policy implementation?
	
	• How do you think we can address these barriers to implementation of the alcohol policy?
	  ▪ What should be done/what is missing from your perspective? By whom should it be done?
	
	• From your own perspective, what do you think has been achieved with regards to implementation of the alcohol policy?

Appendix F: Ethical approval

NATIONAL HEALTH RESEARCH AUTHORITY
Paediatric Centre of Excellence, University Teaching Hospital, P.O. Box 30075, LUSAKA
Tell: +260211 250309 | Email: znhrasec@gmail.com | www.nhra.org.zm

Ref No:…… **Date: 11th February, 2020**

The Principal Investigator
Mr. Adam Silumbwe
Umea International School of Public Health
Department of Epidemiology and Global Health
SWEDEN.

Dear Mr. Silumbwe,

Re: Request for Authority to Conduct Research

The National Health Research Authority is in receipt of your request for authority to conduct research titled **"Evaluating Implementation and Governance of Zambia's Policy Response to Selected non-Communicable Diseases Risk Factors: A Policy and Systems Analysis Approach."** I wish to inform you that following submission of your request to the Authority, our review of the same and in view of the ethical clearance, this study has been **approved** on condition that:

1. The relevant Provincial and District Medical Officers where the study is being conducted are fully appraised;
2. Progress updates are provided to NHRA quarterly from the date of commencement of the study;
3. The final study report is cleared by the NHRA before any publication or dissemination within or outside the country;
4. After clearance for publication or dissemination by the NHRA, the final study report is shared with all relevant Provincial and District Directors of Health where the study was being conducted, University leadership, and all key respondents.

Yours sincerely,

Prof. Godfrey Biemba
Director/CEO
National Health Research Authority

All correspondences should be addressed to the Director/CEO National Health Research Authority

DOCTORAL THESES FROM
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