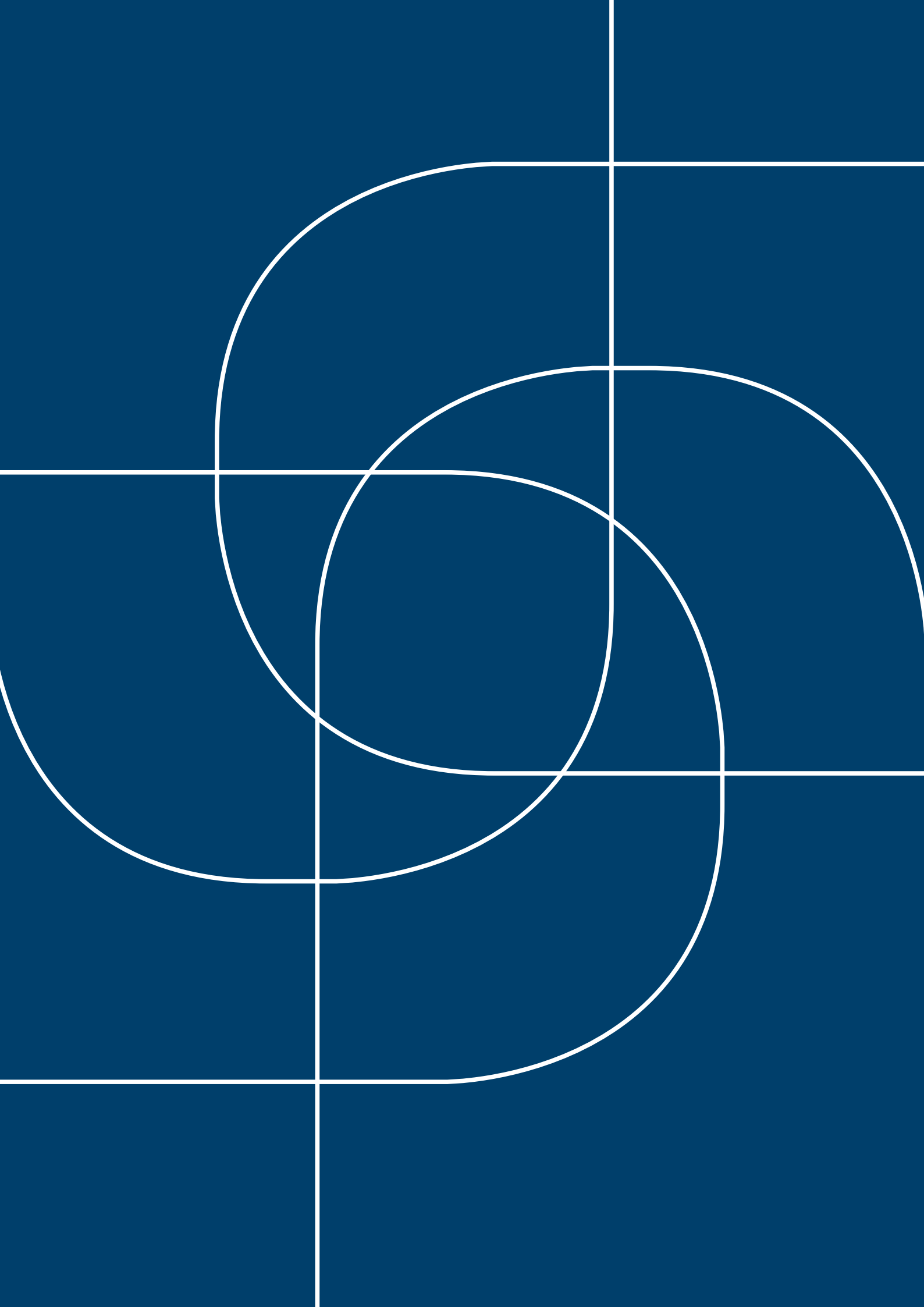
Rwanda NCD Alliance

UNIVERSAL HEALTH COVERAGE FOR NON-COMMUNICABLE DISEASES

A situation analysis of Rwanda



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Abbreviations & acronyms

CBHI: Community Based Health Insurance
CBN: Community Based Nutrition
CHWs: Community Health Workers
COVID-19: Coronavirus Disease of 2019
ESSP: Education Sector Strategic Plan
FCTC: Framework Convention for Tobacco Control
GBV: Gender-Based Violence
GDP: Gross Domestic Product
GYTS: Global Youth Tobacco Survey
HIV: Human Immunodeficiency VirusHuman Immunodeficiency Virus
ICT: Information and Communication Technology
LMICs: Low and Middle-Income Countries
MIFOTRA: Ministry of Public Service and Labour
MoH: Ministry of Health
NCBNP: National Community Based Nutrition Protocol
NCDA: Non-Communicable Diseases Alliance
NCDs: Non-Communicable Diseases
NST: National Strategy for Transformation
OpenMRS: Electronic Medical Records System
PLWNCDs: People Living with Non-Communicable Diseases
RBC: Rwanda Biomedical Center
RFDA: Rwanda Food and Drugs Authority
SDGs: Sustainable Development Goals
TV: Television
UHC: Universal Health Coverage
UHI: Universal Health Insurance
UN: United Nations
USD: United State Dollar
WHA: World Health Assembly
WHO: World Health Organization

EXECUTIVE SUMMARY

NCDs are globally recognized as a human development challenge, chronic in nature, and the world's leading cause of deaths, morbidities, and disabilities. Rwanda has been internationally recognized for remarkable gains in health and particularly in NCDs prevention and control, but there are still gaps in data collection and untapped data to provide evidence and support national engagement and policies addressing NCDs. This survey conducted by the Rwanda NCDA, in collaboration with the Rwanda Biomedical Center (RBC), aims to provide a national situational analysis of the current policy environment and political landscape relevant for health system strengthening and Universal Health Coverage for Non-Communicable Diseases.

This survey used a participatory and engaging approach of key NCD stakeholders to collect the needed information to draw conclusions and recommendations to inform future research, practice, policies, and decision making in the area of UHC for NCDs. In order to have an overview and full understanding of the situation, different types of data collection methods were used: Desk review, interviews, consultative meetings and focus group discussion with key informants.

A total of 91 participants were interviewed of whom 94.50% were aware of NCDs' negative impact on the national economy, and 90.11% recognized the interdependence of NCDs and their risk factors. Among the respondents about the strategies policies, and programs, 80.22% were aware that they are addressing NCDs while only 50.55% of the respondents said they are involved in the planning of NCDs programs, 69.23% did not participate in their implementation

The overview identified various interventions and policies implemented in Rwanda for the prevention, control, and management of NCDs. Those include not only visions, programs, strategies, and policies, but also laws, presidential and ministerial orders. The Health Sector Performance Report 2019-2020 indicates key focus on the decentralization and integration of NCDs prevention, early detection, care, and treatment towards universal health coverage. That so far have included NCDs clinics established in 97 health centers, training and mentorship programs conducted to improve the quality of services provided to patients with NCDs. Furthermore, Electronic Medical Records System (OpenMRS) for NCDs in 42 hospitals and phased out paper-based patients' consultations and follow up were established.[1] At the District level, the local government oversees the provision and management of health services including human resources. It ensures the coordination, accountability, implementation, and management of health activities at a decentralized level in order to improve service delivery, greater coverage of services, improved quality, cost-effectiveness, and ownership[2].

To ensure social justice and equitable access to all social benefits, from individual payment rate to community-based health insurance, taxation rates and school fees, a socio-economic categorization of all citizens called "UBUDEHE" has been created with regular updates, establishing the 2 first categories of people needing help from the government and the 2 other categories with a higher socioeconomic capacity. Along with that, in 2004, Rwanda has developed universal health insurance known as community-based health insurance (CBHI) for universal access to equitable and quality health care for all Rwandans.

Within the presented results, the government of Rwanda through the Ministry of Health is committed to providing leadership and support in the fight against NCDs bringing together all the efforts from different partners. We, therefore, appeal to all interested partners working in different NCD-related areas to collaborate and accompany the government efforts in that instance. We call for the following key actions for prevention, control, and care of NCDs: The instauration of a high-level mechanism of multisectoral coordination, a National advisory and technical working group for NCDs, the initiation of alternative mechanisms for the financing of UHC for NCDs, including increased taxation of tobacco, alcohol and sweetened sugary drinks and finally a strengthened awareness and education program about NCDs at all levels, including in schools and in the community.

1. BACKGROUND

2011 heads of states from around the world convened to:

- "Acknowledge" that the global burden and threat of NCDs constitutes one of the major challenges for development in the twenty-first century which undermines social and economic development throughout the world.
- "Recognize" the primary role and responsibility of Governments in responding to the challenges of NCDs and the essential need for the efforts and engagement of all sectors of society to generate effective responses for the prevention and control of NCDs.[3]

The 2019 UN High-Level Meeting on Universal Health Coverage issued a Political Declaration building on SDG target 3.8 on UHC and the WHO's 'triple billion' goals, which include extending UHC to one billion more people by 2023, to ensure access for all to health services without financial hardship. 2030 SDGs aims to reduce by 1/3 premature mortality from NCDs, which underpin the urgency of high-level political actions and enhancing cross-cutting functions for NCDs.[4]

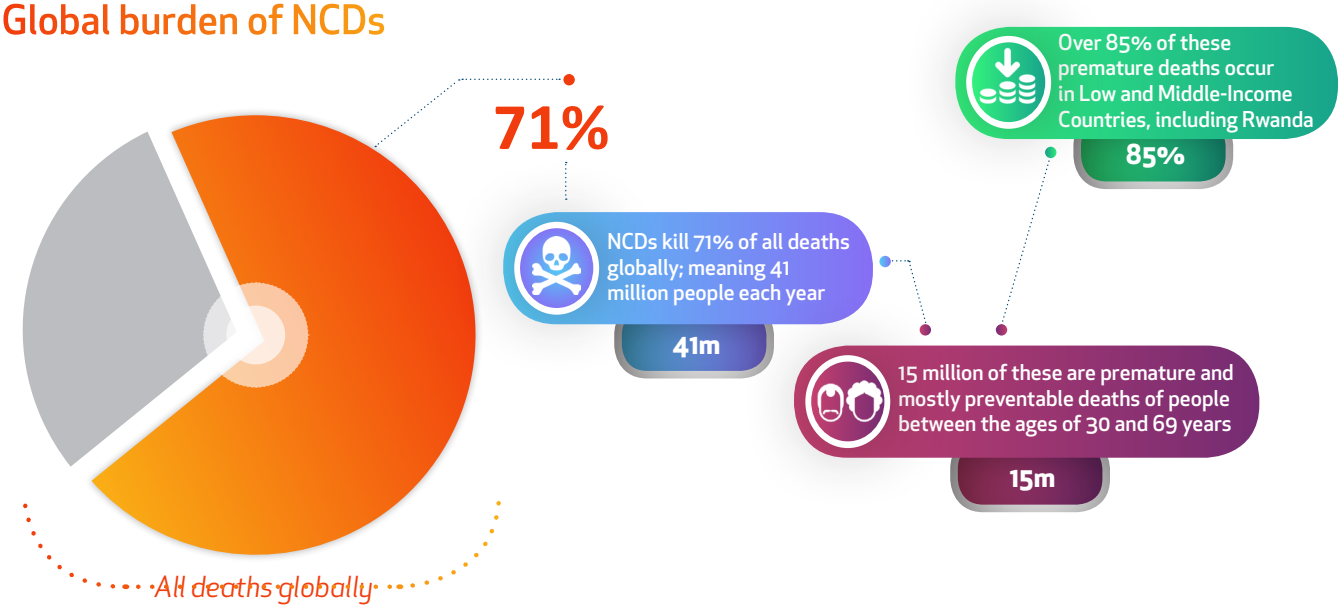
In line with the global commitment, **The Government of Rwanda** has been responding to make NCDs and UHC a high priority in development planning by assuring access to medical care for all, providing leadership and support that bring together all the efforts from different stakeholders.

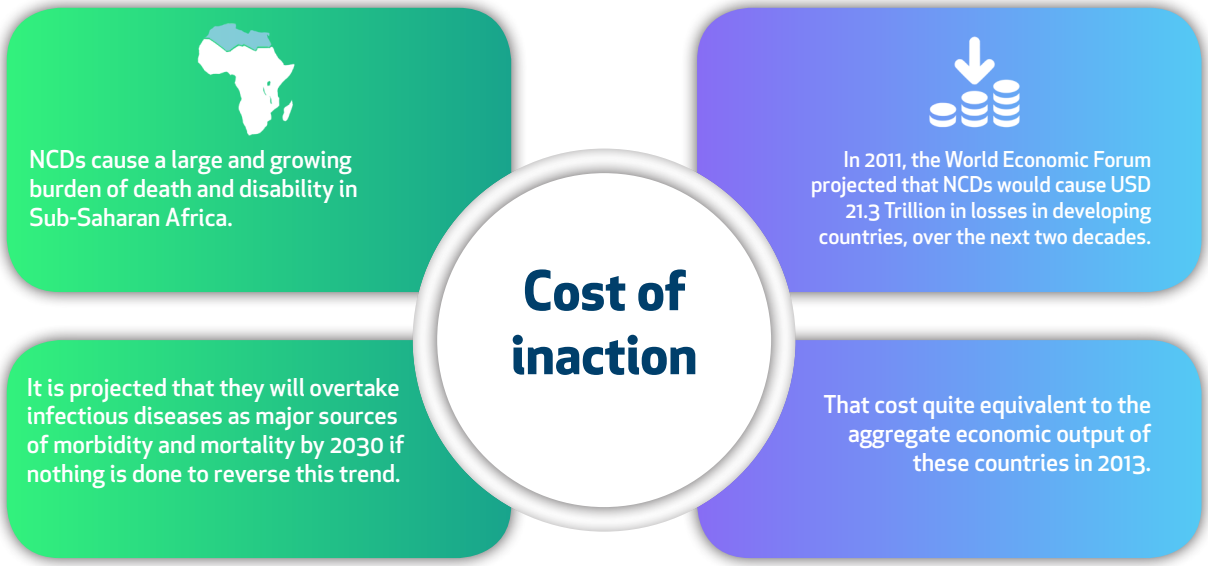
1.1. Global burden of NCDs & cost of inaction

At the global level, Non-Communicable Diseases --- mainly cancer, cardiovascular diseases, diabetes, chronic respiratory diseases, mental and neurological disorders --- are the most significant causes of death. They kill 41 million people each year or 71% of all deaths globally. Worryingly, 15 million of these are premature and mostly preventable deaths of people between the ages of 30 and 69 years (Productive ages). Over 85% of these premature deaths occur in Low and Middle-Income Countries (LMICs), including Rwanda. Many developing countries still face significant challenges in implementing global commitments and remain deeply concerned that the burden of non-communicable diseases continues to rise disproportionately.

Thus, NCDs cause a large and growing burden of death and disability in Sub-Saharan Africa. It is projected that they will overtake infectious diseases as major sources of morbidity and mortality by 2030 if nothing is done to reverse this trend.[5] In 2011, the World Economic Forum projected that NCDs would cause USD 21.3 Trillion in losses in developing countries, over the next two decades, a cost quite equivalent to the aggregate economic output of these countries in 2013.[6]

Global burden of NCDs



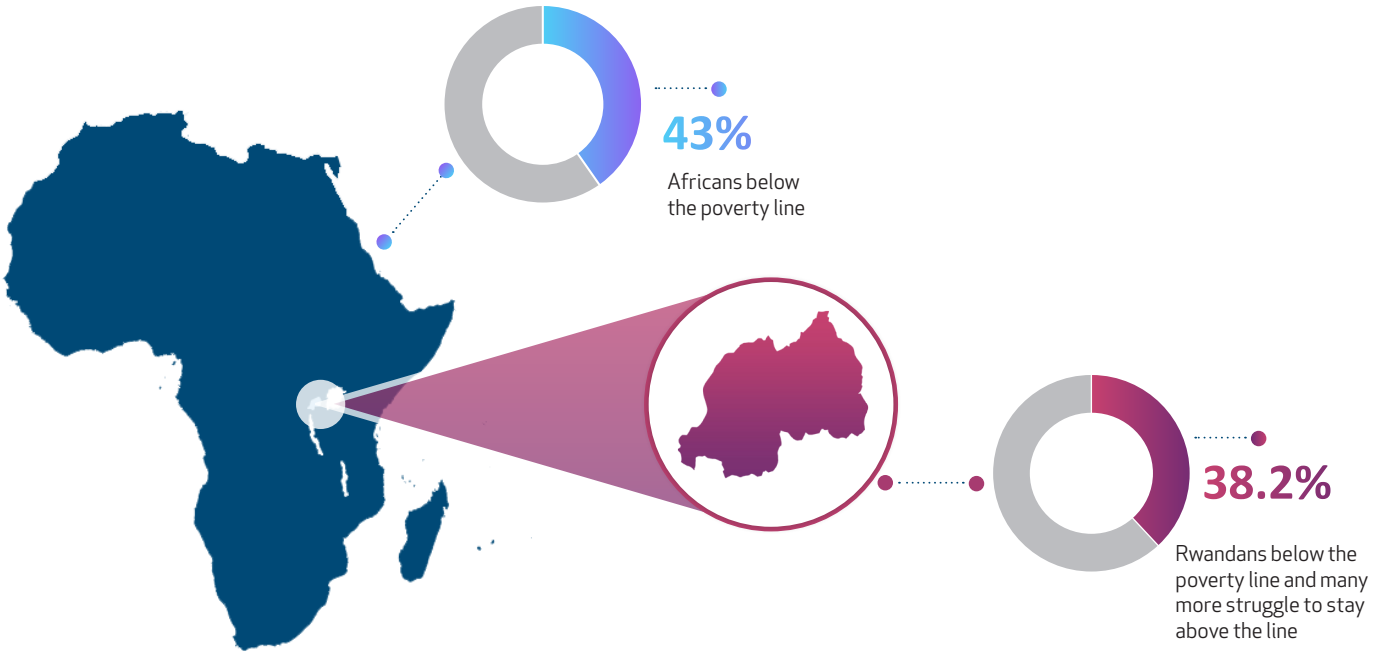


However, WHO has shown that by investing an additional USD 1.27 per person per year and implementing just some of the recommended WHO Best Buy cost-effective interventions in low- and lower-middle-income countries between 2019 and 2030, 8.2 million lives could be saved, and USD 350 billion could be generated in economic output as a result of reduced expenditure on health care, increased workforce participation resulting in boosted Gross Domestic Product (GDP), and more resources to invest in health. If all countries were to implement the full set of WHO cost-effective interventions, the investment returns would far outweigh any perceived initial costs.[7]

1.2. NCDs as poverty driver & human devt challenges

Everyday People Living with NCDs have to make painful trade-offs such as cutting back on education for children or selling assets to clear staggering NCD medical bills. Over 60% of PLWNCDs have experienced catastrophic health expenditure paying for NCDs treatment and care which often trap poor households in a cycle of suffering from health care expenses that exceed household's income, impoverishment, and illness, particularly those who are not insured.[8]

Nearly a half (or 43%) of Africans and 38.2% of Rwandans are below the poverty line and many more struggle to stay above the line.[9] These people have insufficient or no health insurance and face financial difficulty in accessing health care. This implies that when an NCD strikes, the entire household faces catastrophic out-of-pocket expenditure.



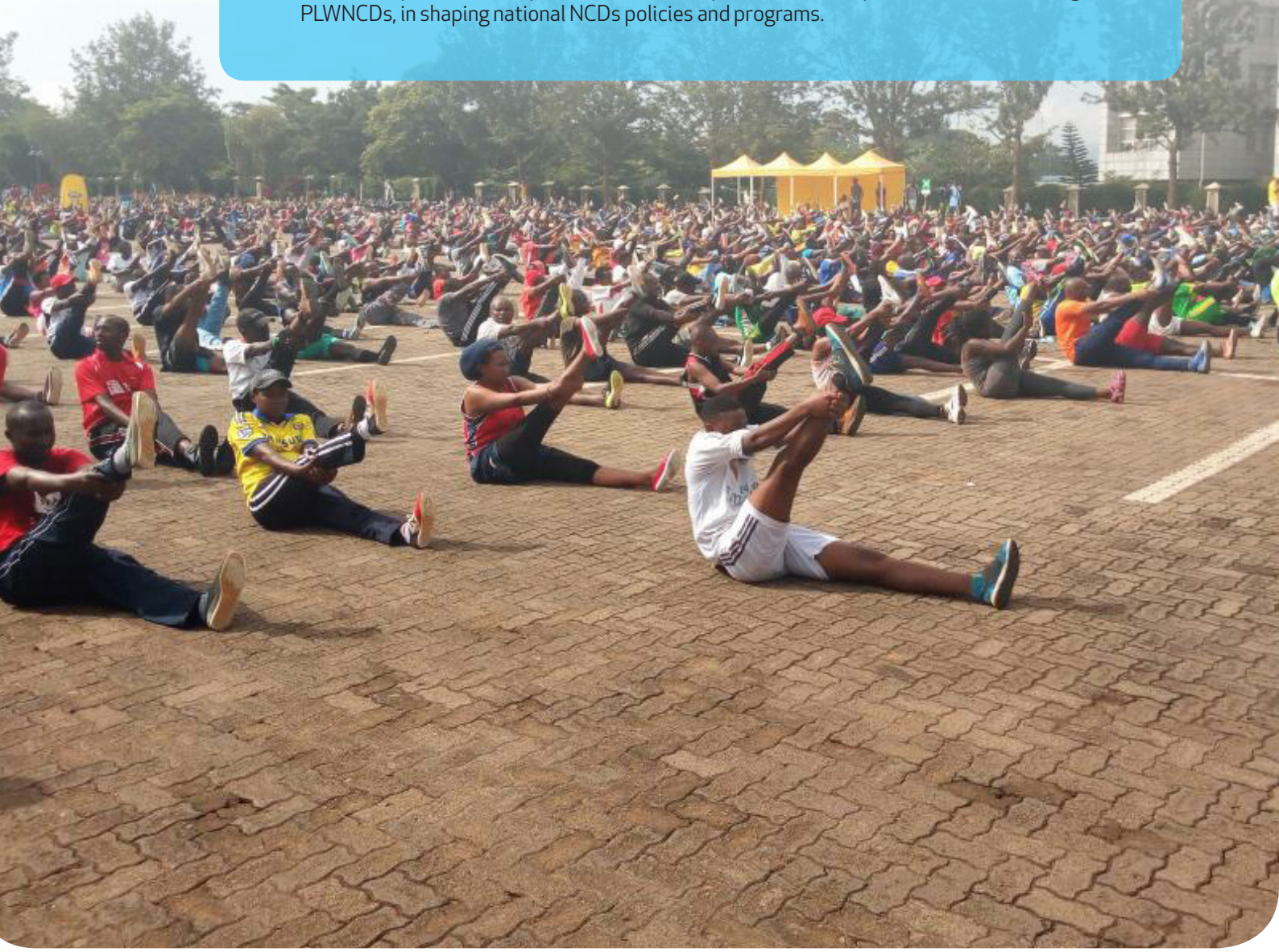
2. OBJECTIVES

2.1. General objective

This study aims to give a comprehensive overview of the policy environment and political landscape in the Rwanda healthcare system in relation to UHC for NCDs.

2.2. Specific objectives

- To have an overview of the existing policies and actions that address NCDs in Rwanda;
- To identify the national achievements, challenges, and opportunities (gaps) within the policy environment and political landscape in Rwanda in relation to UHC for NCDs;
- To identify key stakeholders that are involved in the planning and implementation of NCDs programs at all healthcare system levels and;
- To identify the roles, responsibilities, and empowerment of key stakeholders, including PLWNCDs, in shaping national NCDs policies and programs.



3. METHODOLOGY

3.1. Study design

The descriptive study with mixed design started with the development of study tools which were endorsed by a planning meeting of stakeholders. This boosted the engagement of stakeholders and helped to develop an inclusive plan of getting in deep information related to the situation. The source of information expected was from online resources for desk review which was followed by a series of interviews with policymakers, policy implementers, private sectors, civil societies, academia, people living with NCDs and international organizations. In addition, to enrich the content and harmonize collected data, we hosted consultative meetings with various institutions in respect to their role and interventions. The selection of surveyed groups used purposive sampling, basing on their role, and influence on the planning, management, advocacy, education, and research on UHC for NCDs. It is to note that many respondents from different targeted groups are members of the national NCD technical working group and NCDs focal person at the health facilities.

3.2. Data collection, sampling, & analysis

The methods that have been used in data collection to inform this study were desk review and interview.

- **Desk Review:**

Used website-based portal, Google search, and office visit at different institutions to access information related to UHC for NCDs.

- **Data collection tools:**

To facilitate on-field structured interviews, questionnaires were developed by the research team and endorsed by technical meetings of stakeholders. Structured interview questionnaires were developed in English and Kinyarwanda.

- **Interviews:**

In-depth physical interviews were held with 91 selected respondents and conducted in the preferred languages of the respondent either in English or Kinyarwanda. Each questionnaire was responded to by the respondent (s) from the institution (s) with respect to their responsibilities that are related to UHC and NCDs. The interviews took place in civil societies, international organizations and one district per province in selected governmental and private institutions. The district sites selected equally by considering urban and rural districts to assess the variability in different regions. PLWNCDs were chosen randomly in each selected district hospital considering the big four NCDs and 1 respondent from Community Health Workers (CHWs) in each district was chosen based on responsibilities.

Only data recorded during the data collection period

were considered for primary data. Structured interview questionnaires were used for the selected respondents and included both quantitative and qualitative (open-ended) questions.

- **Analysis:**

The collected data classified into categories and entered in excel sheets. Quantitative data analyzed with STATA version 14.2. Whereas thematic analysis used to analyze qualitative data.

- **Consultative meetings:**

Both face-to-face and online meetings conducted with key informants to fully provide additional information to what has been recorded from the desk review and interviews.

- **Validation workshop:**

Conducted with key stakeholders to provide final inputs and endorsement of the key findings.

4. FINDINGS

The findings from the situation are presented in the form of graphs, tables and text, along with the methodology used for obtaining the data.

4.1. Desk Review

4.1.1. National Responses to NCDs

The Health Sector Performance Report 2019-2020 indicates that much effort has been invested with a focus on the decentralization of NCDs prevention, early detection, care and treatment towards universal health coverage. That includes the NCDs clinics established in 97 health centers, the training and mentorship programs conducted to improve the quality of services provided to patients with NCDs. Furthermore, an established Electronic Medical Records System (OpenMRS) for NCDs in 42 hospitals phasing out paper-based patients' consultations and intensive follow up has been initiated.[1]

4.1.2. Political Landscape and people-centered program

Rwanda is commended and ranked by regional and international partners among the best people-oriented good governance systems. The Parliament, where gender balance has reached 63.8% of seats for women, makes legislation and is empowered by the constitution to oversee the activities of the Government. The local government ensures the provision and management of health services including human resources. It also ensures the coordination, accountability, implementation, and management of health activities at a decentralized level in order to improve service delivery, greater coverage of health services, improved quality, cost-effectiveness, and ownership.[2]

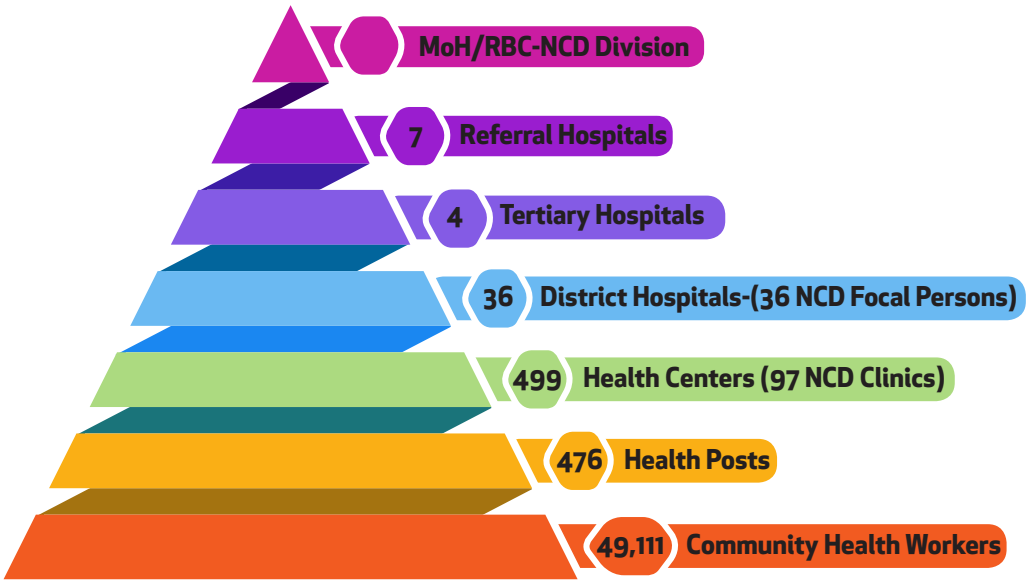
To bring governance closer to citizens, and improve leadership accountability, the Government has introduced a cultural-based performance appraisal approach named "**Imihigo**". Since 2006, all levels of government – both central and local – are required to plan, submit and implement their "**Imihigo**" commitments and targets which include economic, social and governance and justice pillars in order to improve transparency and accountability and make service delivery more responsive to local needs.[10]

To ensure social justice and equitable access to all social benefits, from the individual payment rate to the community-based health insurance to the school fees and some taxation rates, a system of the socio-economic categorization of all citizens called "**UBUDEHE**", has been created and updated regularly, establishing the 2 first categories of people that are in need of subsidy by the government and the 2 other categories with a higher socioeconomic capacity.

The recent "Vision 2050", replacing the "Vision 2020" sets a new pathway that will lead the country to the living standards of upper middle income countries by 2035 and of high-income countries by 2050.[11]

4.1.3. UHC for NCDs in Rwanda

Since 2004, Rwanda has developed universal health insurance known as community-based health insurance (CBHI) for universal access to equitable and quality health care for all Rwandans. Since the set of its targets, allowing the informal sector population to access essential health care packages and services is the purpose. Holistically, the Government of Rwanda managed to subsidize the cost of getting CBHI to the poorest families based on their socio-economic classes dubbed the "Ubuhede category".[12] While 91% of the population is covered by health insurance in Rwanda, CBHI covers 90% of health service costs at all levels of the health care system. After its implementation, utilization of health services increased from 30.7% in 2003 to 85% in 2008, with many key health indicators improving over the same period.[13] Annual health check-ups, including screening for NCDs, are included in the CBHI scheme for women over 40 years and men over 35 years. Therefore, CBHI is a central vehicle toward attaining UHC and Universal Health Insurance (UHI) in Rwanda.[14] The higher the coverage of citizens with CBHI, the greater the access to health care. To respond to Rwandans well-beings needs, the Government has put in place decentralization of the health system from the village to the central level.[14,15]



There are national clinical NCD guidelines linked to NCD medicines available on the country's essential medicines list. The task shifting in NCD care led NCD services that were pointed only to doctors shifted to nurses mainly NCD focal persons at each health facility. They assist the patients with NCDs control, check-up and follow up and medication refills.

4.1.4. Overview of Policies and actions

The presented information on the existing policies, strategies and programs related to NCDs and UHC have been obtained from online search and enriched with consultative meetings with key informants on their respective sectors and scope of work. The key information presented is an overview of national commitment and political landscape on NCDs and their risk factors and global commitments where applicable, all in line with prevention and control of NCDs.

Table 1. Overview of NCD Policies and National Engagement

Risk factors	International Commitments/ Declarations	Rwanda National engagement	
		Title/year	Description
Tobacco use	The WHO Framework Convention on Tobacco Control (FCTC) is the international treaty negotiated under the auspices of WHO. It was adopted by the World Health Assembly 2003 and entered into force in 2005.[16]	Ratification, 2005	Rwanda signed the convention in 2004 and has shown political commitment to fully support the FCTC objectives.[17]
		Presidential Order N° 13/01 of 25/05/2005	Ratifying the WHO Framework Convention on Tobacco Control.[18]
		Global Youth Tobacco Survey (GYTS) in Rwanda, 2008	GYTS is a school-based survey used to monitor tobacco use in youths and to guide programs related tobacco.[19]
		Tobacco Control Law N°08/2013 of 01/03/2013	This law aims at preventing under 18 years old contact with and to raise awareness on the consequences of tobacco.[20]
		NCD Risk Factor Survey, 2013/14	It provides information on NCDs burden and risk factors, standards of measurement of NCDs targets, gives a strengthening platform for NCDs effectiveness and opportunity for data comparison.[21]
		Ministerial Order N°20/33 of 09/06/2015	Determines characteristics and information to be displayed in the smoking area.[22]
		Public Notice, 2017	Banning of water-pipe tobacco smoking known as SHISHA TOBACCO in Rwanda.[23]
Harmful use of Alcohol	Member States of WHO reached a historical consensus on a global strategy to reduce the harmful use of alcohol during the World Health Assembly 2010.[24]	Organic Law N°01/2012/OL of 02/05/2012	Stating the penal code, is subject to a fine and imprisonment any person offering, selling or encouraging a child in alcohol sale or consumption.[25]
		Law N°68/2018 of 30/08/2018	The law prohibits public drunkenness and explains penalties related to it.[26]
		Gerayo amahoro road safety #Don't Drink and Drive campaign, 2019	Launched by Rwanda National Police, it emphasizes positive attitudes, decisions and behaviors when using the road in order to save lives. It discouraged high alcohol consumption, which in addition to road safety, reduced the risks of injuries and NCDs.[27]
Physical inactivity	The 57th World Health Assembly acknowledged the need to reduce the level of exposure to major risks resulting from the physical inactivity.[28]	Kigali International Peace Marathon, 2005	The Ministry of Sports enhances the advertisement and exposure of sports activities to stimulate public support and participation.[29]
		Rwanda Sports Development Policy, 2012	This policy aims at ensuring the availability of sporting infrastructures and materials, developing professional sports, mass sports and sports for all.[30]
		Ministerial order n°02/MIFOTRA/15 of 09/06/2015,	In order to ensure that all public servants participate in sports activities, the ministerial order reserved 2 Working hours of every Friday to sports activities.[31]
		Car Free Day Program, 2016	The City of Kigali and partners initiated the Car Free Day program with the main aim of promoting the culture of sports and active lifestyle among Kigali City residents to prevent NCDs and other illness due to sedentary way of life.[32]
		Law N°32/2017 Of 03/08/2017 Governing Organisation Of Sport, Games, And Leisure	The law aims to keep people's health, compete, contribute to economic development and promote community socio-cultural values".[33]
		Sector Strategic Plan for Sports and Culture, 2017/18-2023/24	This strategic plan provides a planning framework that will orient the Sports and Culture sub-Sectors to develop different sport disciplines and cultural values enshrined in Rwandan society.[34]
		Education Sector Strategic Plan (ESSP 2018/19-2023/24)	This ESSP recommends that all school improvement plans and evaluation programs have to include the provision of sports.[35]
		School Sports Policy, 2020	The purpose of school sports policy is to help students with better management of their lifestyle habits. The policy states that sports have proven to be one of the best ways to prevent non-communicable diseases.[36]

Risk factors	International Commitments/ Declarations	Rwanda National engagement	
		Title/year	Description
Unhealthy diet	The 57th WHA recognized unhealthy diet as one of the major risk factors responsible for the growing burden of chronic diseases.[28]	Comprehensive Africa Agriculture development program, 2003	This programme has a pillar which revolve on Increasing Food Supply and Reducing Hunger.[37]
		National Nutrition policy, 2005	The Policy was developed as the fundamental tool to guide the establishment of priority strategic directions in nutrition matters and to ensure effective advocacy to mobilize the human, material and financial resources required for the realization of the government's short-term and long-term nutrition programs.[38]
		National Community Based Nutrition Protocol (NCBNP), 2010	The general objective of this CBN protocol is to give interveners a clear orientation in matters related to Community Based Nutrition. To harmonize community nutrition interventions and to furnish the Ministry of Health and other interveners with a guiding national document for planning and implementation of the Community Based Nutrition Program.[39]
		District Action Plans to Eliminate Malnutrition, 2011	It is a comprehensive Joint Action Plan to fight malnutrition with several multi-stakeholders.[40]
		National Early Childhood Development Policy, 2011	This policy was developed to ensure all Rwandan children achieve their potential, are healthy, well-nourished and safe.[41]
		Rwanda National Food and Nutrition Policy, 2014	The policy focuses on resolving and reducing the prevalence of stunting among children under two (2) years. It calls for a multisectoral approach of nutrition activities from National level via Social cluster Ministries to the community levelvia District Plan to Eliminate Malnutrition.[42]
		7 Years Government Programme: National Strategy for Transformation (NST 1) 2017-2024	NST1 in its Social Transformation Pillar whereby the overarching goal is to develop Rwandans into capable and skilled people with quality standards of living and a stable and secure society to ensure a quality healthy population.[43]
		National food and nutrition strategic plan 2013-2018	This strategic plan was developed to implement the 2013-2018 national food and nutrition policy.[44]
		Law n° 003/2018 of 09/02/2018 establishing RFDA	RFDA, responsible for controlling processed food for humans and animals, food supplements and fortified foods.[45]
		National School Health Strategic Plan, 2014-2018	The overall objective of this SP is to create a healthy, safer and hygienic environment for the school community specifically, to improve and enhance knowledge of students and teachers about SH, including prevention of diseases, management of disabilities and special learning needs, HIV, GBV, hygiene, nutrition, physical education and mental health.[46]
		National Agriculture Policy, 2018	Rwanda is party to the Comprehensive African Agriculture Development Programme as reinforced in the 2014 Malabo Declaration 10 which aims to improve nutrition and food security.[47]
Non-Communicable Diseases	**International Commitments/ Declarations**	**Rwanda National engagement**	
		Title/year	**Description**
	1. UN High Level Meeting 2011 declared NCDs as major global development challenge.[3] 2. Sustainable Development Goals 3.4 target to reducing premature death from NCDs , by 1/3 by 2030.[48]	Non-Communicable Diseases Policy, 2015	This policy expresses the commitment of the Government of Rwanda in bridging the gap and addressing NCDs related problems as well as detailing the role of key stakeholders.[49]
		National Guidelines for Management of NCDs, 2016.	The guidelines developed as a wake of NCDs burden and call to play an active role in improving the quality of life in Rwanda.[50]
		NCD Division - RBC	The NCD division was established under RBC to coordinate and lead NCDs programs in Rwanda.[51]
		National Early Childhood Development Program Strategic Plan, 2017	The purpose of the program is to provide families and communities with essential growth factors for them to be accountable and responsible of their child growth in order to address NCDs.[41]
		Kigali City Cancer Challenge, 2019	It conjointly engages city stakeholders from both public and private sectors to design, plan, and implement cancer solutions.[52]
		Rwanda Cancer Centre, 2020	Rwanda inaugurated the up to date Cancer Centre equipped with Radiotherapy that represents a boost in cancer treatment.[53]

4.1.5. Key stakeholders and their roles

The desk review of National NCDs policy and IV Health Sector Strategic Plan enriched consultative meetings with key informants led us to identify the key stakeholders with their roles in NCDs policies and programs.15,13 The empowerment program led by The Ministry of Health involved intergovernmental institutions, non-health actors, the private sector, and civil society in the development of a plan and supports the national efforts for implementation of NCD prevention and control programs through regular consultation with the Technical Working Group on NCD.

Table 2. Table illustrating key stakeholders and their roles in shaping National NCDs Policies and Programs

Key Stakeholders	Roles
The Ministry of Health (MoH)/ Rwanda Biomedical Centre	-Is responsible for the overall coordination and ensures that national capacity, leadership, and governance for NCDs prevention and control are strengthened. -The NCDs Division under Rwanda Biomedical Centre is responsible for day to day implementation of interventions related to NCDs prevention and control.
World Health Organization (WHO)	To provide leadership and evidence base data for critical government actions on surveillance, prevention, and control to meet global targets to reduce NCDs' burden.
Education sector	-Integrate NCD prevention and control in school curricula. -Support research to generate evidence based data for NCDs monitoring and decision making.
Local Government	- Integrate NCDs check up in the community, in the Imihigo of Local leaders - Sensitization of the community on prevention and control of NCDs during Umuganda or public gatherings.
Environment and Natural Resources	Reinforce and implement the policy and recommendations for air-indoor pollution and other environmental factors related to NCDs
Infrastructure Sector	Reinforce the implementation of the policy of accessibility that promotes physical activities.
Agriculture Sector	Ensure production of healthy food crops (fruits, vegetables, cereals and other sources of healthy foods).
Justice Sector	Ensure the enforcement of laws and regulations on control of risk factors of NCDs(e.g.: Tobacco, alcohol and road traffic control laws and regulations)
ICT Sector	Support ICT innovations and creativities for health promotion in relation to NCDs Prevention
Trade and industry sector	Regulate the trade of processed foods and beverages
Finance and Economic planning	-Allocate a special budget for highly specialized care for Cardiac Surgery, Cancer Treatment, Kidney transplantation, and NCD diagnosis - Increase direct and indirect taxes on tobacco and alcoholic beverages
Labor sector	Ensure systematic annual screening of NCDs among public and private sector employees
Civil Society	Community-based organizations, umbrella and other civil society entities are playing a role in community sensitization and ensuring involvement of people living with or affected by NCDs, in impact mitigation of the diseases
Private Sector	Actively participate in the country initiative for NCD prevention and control activities and provide expertise where needed.

4.2. Interview

4.2.1. Respondents profile

Respondents in this situational analysis were in 6 categories. The variation in respondents were relatively equal.Most presented respondents were from Policy implementers (22), Policy makers (21) people living with NCDs (20), and civil society organizations (18). The remaining categories had a relatively low number of respondents: international organizations(6) and (4) respondents were from the private sector as they are described by the following figure:

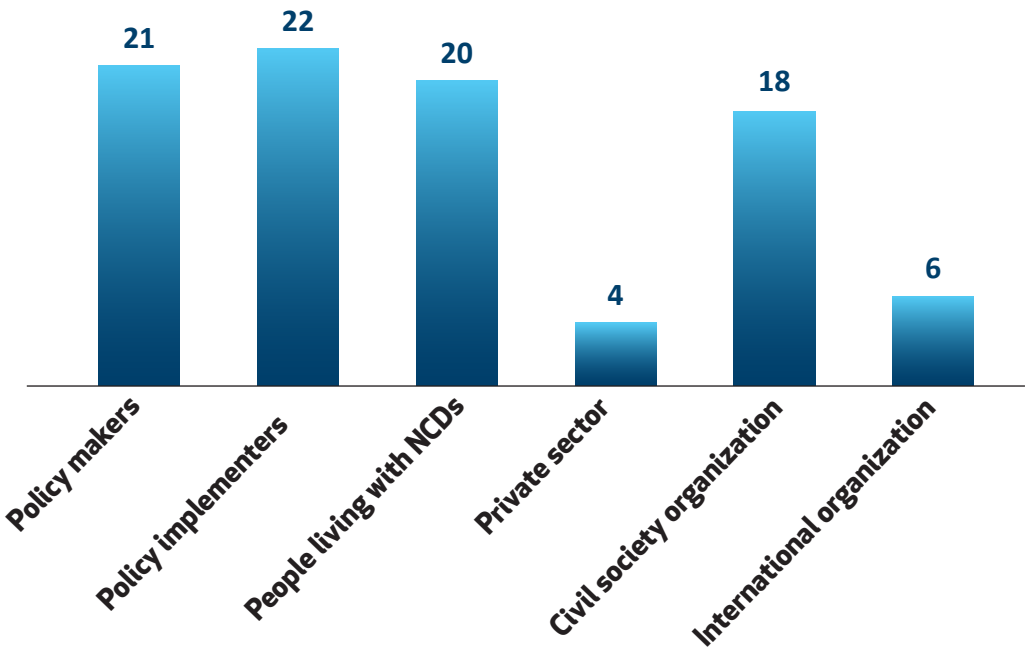


Figure 2. Distribution of respondents by category

4.2.2. Level of awareness on existing NCDs Policies and Actions Among Respondent

The field interview has provided information concerning the level of awareness of respondents about the existing NCDs policies and actions.

Table 3. Level of awareness on Existing NCDs policies and actions among respondent

Ranking Statements	Level of information and awareness in percentage(%)		
	Disagree	No Idea	Agree
Heard about NCDs	1.10	0.0	98.90
NCDs negative impact on the National economy	3.30	2.20	94.50
The interdependence of NCDs and their risk factors	1.10	8.79	90.11
Trends of NCDs and interdependence with their risk factors	2.20	8.79	89..01
Existing National strategies, policies, and programs on tobacco	4.40	19.78	75.82
Existing National strategies, policies, and programs on alcohol	16.48	28.57	54.95
Existing National strategies, policies, and programs on physical activity	0.0	12.09	87.91
Existing National strategies, policies, and programs on a healthy diet	4.40	13.19	82.42
Existing National strategies, policies, and programs on a healthy diet	4.40	13.19	82.42
Strategies, policies, and programs give outcomes to NCDs	5.49	19.78	74.73
Health care systems for NCDs in Non-Health government sectors	18.68	34.07	47.25

Health care systems for NCDs in Civil Society	14.29	30.77	54.95
Health care systems for NCDs in Private Sector	25.27	37.36	37.36
Legislation on tobacco pack labeling and pictorial health warnings	4.44	22.22	73.33
The established minimum age for purchase and consumption of alcohol	9.89	7.69	82.42
Restrictions on time and dates at which alcohol can be purchased	50.55	16.48	32.97

A higher proportion of the respondents agreed that they have information and are aware of: NCDs (98.80%), NCDs negative impact on the National economy (94.50%) and interdependence of NCDs and their risk factors (90.11%).

The awareness on policies, strategies and programs related to the big 4 risk factors of NCDs were presented differently where only 54.95% of respondents found to know policies related to alcohol whereas 75.82% about tobacco, 82.42% on a healthy diet and 87.91% about physical activities. Among the policies, strategies, and programs only 80.22% presented to be aware that they are responding to NCDs.

Existing NCDs program and actions in non-government sectors presented on 47.25% , 54.95%in civil society and 37.36% in private sectors.
On the other hand, 50.55% of the respondents argued there are no restrictions on alcohol purchase, 9.89% disagreed that the minimum age for purchase and consumption of alcohol is established and on the other hand, 4.44% of respondents didn't agree that there is legislation on tobacco pack labeling and pictorial health warnings.

4.2.3. Level of involvement in planning and implementation of NCDs programs

The involvement of interviewed respondents in planning NCDs programs showed no apparent difference. 50.55% of respondents said they are involved in planning NCDs programs, while 49.45% declined their involvement.

Results from figure 2 showed that the proportion of respondents who are not involved in the implementation of NCDs programs is twice as those who reported being involved. It says that 69.23% had not been involved in implementing NCDs programs, while 30.77% reported that they had been involved.

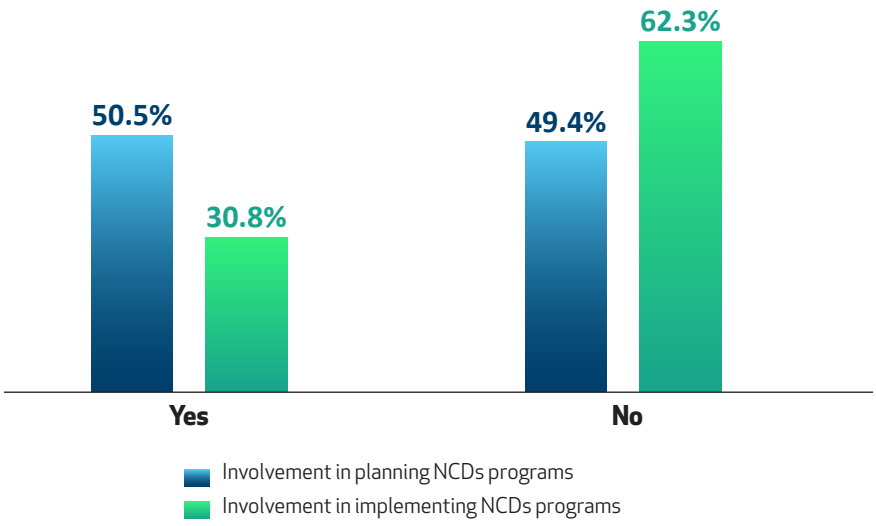


Figure 3. Involvement and implementation of NCDs programs

4.2.4. UHC in practice (Accessibility and affordability of NCD Medical care)

The field interviewed participants attentively people living with NCDs have assessed on their insights and experience about UHC in Practice. The assessed variables were accessibility and affordability to NCDs medical care. The most reported challenge on accessibility of NCDs medical care was limited access and shortage of NCDs medicine claimed by 89% of respondents. It followed with the long waiting for care at health facility reported by 73.6% while 26.4% pleased with easy access to care and 13.2% referred to the limited continuum of NCDs medical care.

The findings are presented in the figure below:

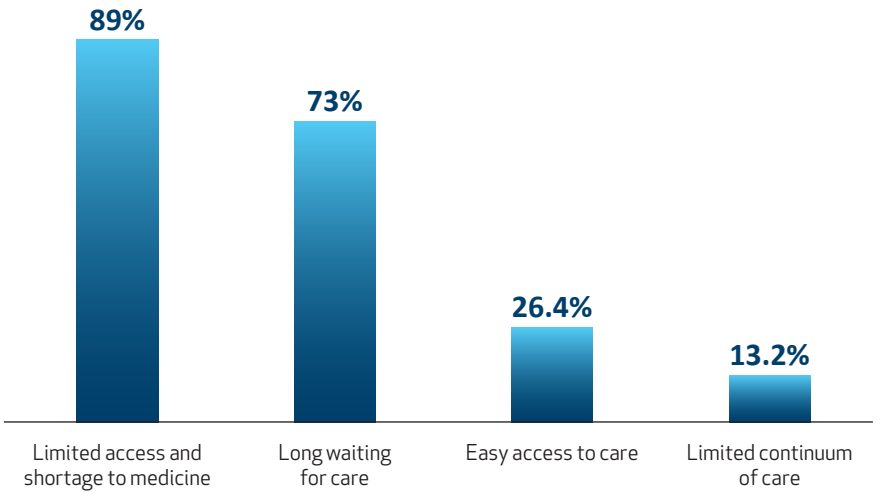


Figure 4. Accessibility to NCDs medical care

The affordability of NCDs medical care was presented in 3 classes. 70% of respondents reported that their medical care was fully covered by insurance, 25% are covered partially with insurance while only 5% are not covered by insurance at all. They are presented in the figure below:

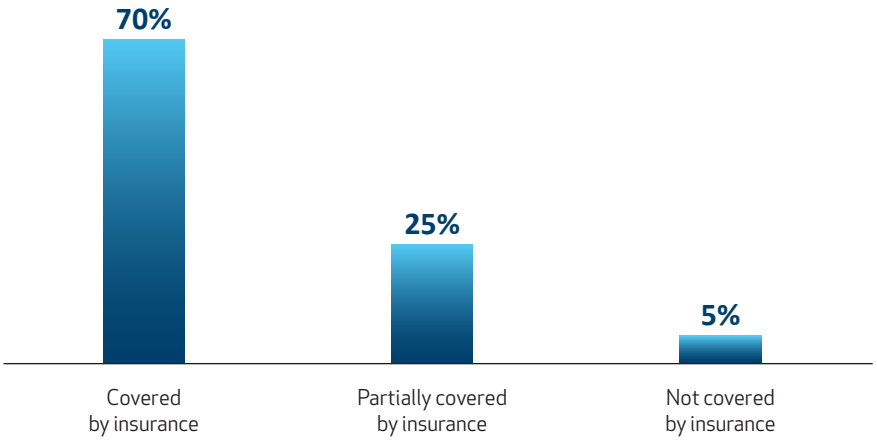


Figure 5. Affordability of NCDs medical care

Table 4. Rwanda Political Landscape in relation to UHC for NCDs: Challenge and Opportunities

Variables	Challenges	Opportunities
Financial constraints	Insufficient governmental budget allocation to NCD programs and decrease in multilateral funding.	• The government of Rwanda is open to partnership and provide favorable environment for investors. • Opportunity for innovative financing mechanisms for NCDs: increasing taxes on tobacco, alcohol, sweetened drinks…
NCDs Awareness	Limited knowledge and misconceptions on the risk factors and consequences of NCDs, among policymakers, health professionals and the general public.	• Government driven awareness and education campaigns on NCDs. • Integration of NCD education in school's curricula • Increase the use of Radio, TV and social media platforms in NCD awareness and education campaigns
Workforce	Lack of sufficient and specialized personnel and centers for NCDs management.	• Optimize integration and decentralization of NCD services through the health system down to the village level • Improve continuous training and task shifting for NCD workforce at all levels
Leadership And governance	• Low levels of knowledge and involvement in the planning, implementation and monitoring of NCD programs among stakeholders • Suboptimal outcomes of NCDs activities due to insufficient multi sectoral collaboration.	• Establishing a high level multi sectoral and inter-ministerial coordination committee for NCDs. • Reinforcing the existing Advisory and Technical Working Group for NCDs. • Establishing strong monitoring and evaluation systems and structured accountability mechanisms for NCD programs
Information and research	Lack of evidence and data for better planning and policy guidance.	• Establish research priorities for NCDs and create incentives for research and publication (Annual NCD Forum…) • Improve availability of NCD morbidity and mortality data for research and publication
Access to NCD care	Reported low levels of accessibility and affordability of NCD care services by PLWNCDs	• Regular review and update of the UBUDEHE categories • Innovative mechanisms for financial empowerment of PLWNCDs and Civil society organizations through RGB? Ministry of social affairs? (cooperatives, tontines…)
Infrastructures and equipment	- Shortage of medical equipment, and supplies needed for NCDs prevention and control (BP & ECG machines, glucometers, lab machines). - Lack of specialized centers and technology for advanced NCDs treatment (kidney transplant, heart surgery…)	• Improved training and equipment for primary care level health facilities • Establish needed specialized NCD care centers of excellence • Plan for specialized training programs locally in partnership with University of Rwanda and regional and international specialized centers for NCDs
Monitoring, evaluation and reporting	Lack of an effective M&E system for NCD programs including inadequate reporting	• Reinforce and decentralize existing digital collection systems for NCD morbidity and mortality data (HMIS) • Improve existing reporting and publication systems(DHS)

4.4.NCDs and COVID-19

The COVID-19 pandemic rapidly spread across the world and has hampered countries' ability to address and respond to NCDs. The virus has caused widespread delays in health care while also drawing attention to countries' NCD burdens, as people living with NCDs are more vulnerable to become critically ill with the COVID-19. The disruption of health services is especially critical for those who suffer from NCDs and need daily treatment.[54]

Rwanda is on track to achieve global Sustainable Development Goal 3.4, which aims for a one-third reduction in premature mortality from NCDs by 2030. Even so, according to recent data, NCDs account for more than 70% of all COVID-19-related deaths in the country.[55] The Ministry of Health through the Rwanda Biomedical Centre, did all possible to avoid disruption in access to essential medicines for NCDs like insulin. MOH/RBC partnered with civil society organizations (Rwanda NCD Alliance members) in outreach programs and awareness campaigns. An innovative physical activity promotion and NCD education campaign was initiated during the COVID 19 pandemic, using a "TV Fitness Show", aired on social media at the same time. It was launched in collaboration with the Ministry of Sports and TV companies to replace the "Car Free Day" mass sports activities during the pandemic. During the current nationwide vaccination rollout, priority is being given also to people with underlying chronic conditions including NCDs among other vulnerable groups.[57]

During the pandemic period, COVID-19 and NCDs are coupled as a "syndemic" that reinforces each other and disproportionately affects the most vulnerable populations. Understandably, COVID-19 deaths can be lowered if NCDs are prevented, treated and reduced.[58]

It will be very important for the government to ensure that people living with NCDs, not only do not face disruptions of critical health services during the pandemic, but also after the crisis, to rebuild healthier health systems. NCD prevention and management is a key strategy for improving population health and reducing the impact of future crises.[54]

5. DISCUSSION

This study has shown that the policy environment and political landscape in Rwanda are favorable for strengthening the health system in relation to UHC for NCDs. The Government's vision, policies and strategic plans are comprehensive and show clear engagement in ensuring high standards of living for all Rwandans in 2050, through achieving SDGs and sustaining integrated, decentralized health services related to NCDs, a people centered and accountable governance. The ongoing decentralization of health services to the community coupled with the shifting of NCDs-related tasks from doctors to nurses has played a key role in bringing health services closer to the population and is expected to improve prevention and early detection of NCDs.[13]

The subsidized and equitable community-based health insurance (CBHI) system covering 90% of the health care cost, for 91% of Rwanda's population is the foundation for achieving UHC for NCDs, despite noted challenges to its sustainability. It has scaled up the access to medical care from 30.7% to 85% since its creation. The synergy study carried out in Rwanda about universal health insurance assessed the challenges and solutions of the CBHI and found a gap in the financial sustainability of CBHI that could limit its coverage of health costs for members. The authors found that CBHI sustainability would be achievable under the condition of the continued political commitment to achieve UHC.[12]

Participants especially people living with NCDs' response about the accessibility of NCDs health services have highlighted challenges including limited access and shortage of medicines (89%), long delays for getting care (73.6%), and continuity of care(13.2%), which may be related to distances and transportation costs or to insufficient numbers of NCDs care staff to patients .

About the affordability of NCD care, 25% and 5% of respondents respectively reported that insurance covered partially or not at all the cost of NCD care. This may be one of the challenges due to the 10% out-of-

pocket payment or possible mismatch between the socio-economic category and real financial capacity of PLWNCDs.

The gaps in continuity of care highlighted by some respondents may be also linked to limited coverage by CBHI for specialized kidney and cancer care like dialysis (16 sessions) and transplantation when needed. The stock-out of NCD medicines at the hospital has been reported to push patients to get them from private pharmacies, increasing out-of-pocket payments and may have been worsened by the Covid 19 pandemic as well. There is a need for more research to identify all bottlenecks along the procurement chain. These findings are comparable to the results from a study done in six low and middle-income countries to assess the availability and affordability of selected essential medicines for chronic diseases. It was found that medicines in private pharmacies cost 2-3 times more than in public health facilities.[59]

Rwanda has endorsed main global targets to reduce premature deaths from NCDs by 25% by 2025 and has pledged even a more ambitious national target of "80/40/2020" aiming to reduce by 80% mortality in under 40 years old by 2020. An outcome assessment study would be necessary to know how far it has been achieved.

In tackling key risk factors for NCDs, Rwanda ratified the WHO framework convention on tobacco control in 2005, in order to achieve target No 5 recommending 30% reduction of tobacco use. Since then, main political commitments and instruments have been established, including Tobacco Control Law N°08/2013 of 01/03/2013, Ministerial Order N°20/33 of 09/06/2015 and Smoke-free city initiative in the City of Kigali. The study findings have shown quite low levels of awareness of the tobacco use policies (75.82%). This is similar to the findings from the study carried out in Uganda about the knowledge, opinions and compliance related to the 100% smoke-free law in hospitality venues in Kampala, Uganda, which revealed the awareness to be moderate where 57% agreed that they had not been adequately informed about the smoke-free law though 90% were supportive of the law.[60] Another study done in Nigeria assessing the tobacco-related knowledge and support for smoke-free policies among community pharmacists reported that only 51.9% had heard of the World Health Organization Framework Convention on Tobacco Control (WHO FCTC) and a little over half of the respondents (53.8%) were aware of any law in Nigeria controlling tobacco use.[61, 62]

The level of stakeholders involved in planning for NCDs programs is found to be fair at 50.55% while the level of those involved in implementations is low at 30.77%. This may be related to inadequate multi-sectoral coordination mechanisms, insufficient monitoring and evaluation systems, low levels of program ownership, prioritization, or NCD awareness. Similar barriers have been highlighted from a study carried out in five Sub-Saharan African countries about multi-sectoral action in non-communicable diseases prevention policy development that found multi-sectoral action to be hindered by the lack of awareness of different sectors about their contribution, complexity of coordination of the committee and inadequate resources to implement all planned activities.[63] There is a need for stronger coordination mechanisms which include capacity building, resource generation to enable the functioning of the NCD programs committee, and enforced monitoring and evaluation of outcomes is recommended to drive the multi-sectoral collaboration efforts in the control of NCDs, in line with recommendations from the WHO in the global action plan on NCDs.[63]

Different challenges are known to hinder the UHC achievement for NCDs including a low budget allocation, low availability and accessibility of medicines, shortage of medical equipment, low external assistance, insufficient monitoring and evaluation systems and low coordination of NCDs programs with the non-health sector. A report of The Ministry of Health of Rwanda has also highlighted the low budget allocation to NCDs programs as the budget allocated to NCDs was found to be 2% of the health budget, compared to 57% for HIV/ and 1.7% of 186 billion Rwandan Francs allocated to disease control and prevention in the fiscal year 2015/16, which hinders the level of their prioritization.[64]

5.1. Study Limitations

Limited access to some documents:

Some documents are not available online to be used or referenced in the study. Additionally, some of the documents available online were drafts that caused us to hesitate if they should be used or not even though they contained relevant information to our situational analysis. Despite all those constraints we managed to consult the owners of the document where possible in order to gather as much information as possible.

Restrictions due to the COVID-19 pandemic:

We have faced the challenge of reaching the respondents on time due to the restrictions on mobility and physical meetings, as well as the overwhelming workload of most officials.

6. CONCLUSION & RECOMMENDATIONS

Community-based health insurance, integrated and decentralized health services are Universal Health Coverage vehicles for Non-communicable Diseases in Rwanda. However, commendable work is done in addressing NCDs, some stakeholders who were involved in our study seem to be unequipped and uninformed about their roles in NCDs prevention and control programs. This might be the effects of a low level of ownership in the implementation. Considering the study findings, and the challenges and gaps identified, there is still a need for higher levels of awareness and education about NCDs at all levels, more effective multi-sectoral coordination mechanisms, more efficient data collection and monitoring and evaluation systems, more effective accountability mechanisms, and increased financial prioritization for UHC and NCDs. We are suggesting the following main recommendations:

High-Level Multi sectoral Coordination Mechanism:
The Ministry of Health has put in place structured strategic plans, with guiding policies and a clear list of stakeholders with their specific role and responsibilities in NCDs prevention and control programs. A high level multi sectoral coordination committee, ideally at the Prime Minister Office, has been recommended by the WHA and the WHO, in order to oversee the implementation, the performance and effectiveness of all NCD policies, plans and programs, as well as the accountability of all stakeholders. The Multi sectoral Committee would be assisted by the existing National NCDs Technical Working Group, which needs to be reinforced and formally created. The multisectoral coordination approach would be decentralized and integrated in the performance based accountability system of "IMIHIGO". This will progressively improve the enforcement of the laws and policies, the follow-up, reporting, research, monitoring and evaluation of the programs, for evidence-based interventions and planning for UHC and NCDs.

Financing of UHC for NCDs:
Within the competitive priorities, budget allocation for NCDs is still a challenge as large amounts of the national budget will be relying on outside partners contributions. There is a need to explore alternative financing mechanisms like increased excise taxes on risk factors commodities like alcohol, tobacco, sweetened drinks and to earmark part of generated income for NCDs prevention and control programs. Moreover, it is time to think about engaging platforms that attract more investment in NCDs, which could help to cut back the cost of inaction on NCDs.

Strengthening Awareness and Education in the community:
Knowledge is power but the current mechanisms and budget allocation for education and awareness of NCDs are still not effective. NCDs need to be addressed from the grassroots level and Community Health Workers, Civil Society Organizations and PLWNCDs can play a role in reaching and educating the community if they are empowered and facilitated to collaborate with local leadership to raise awareness in the community for NCDs prevention and control.

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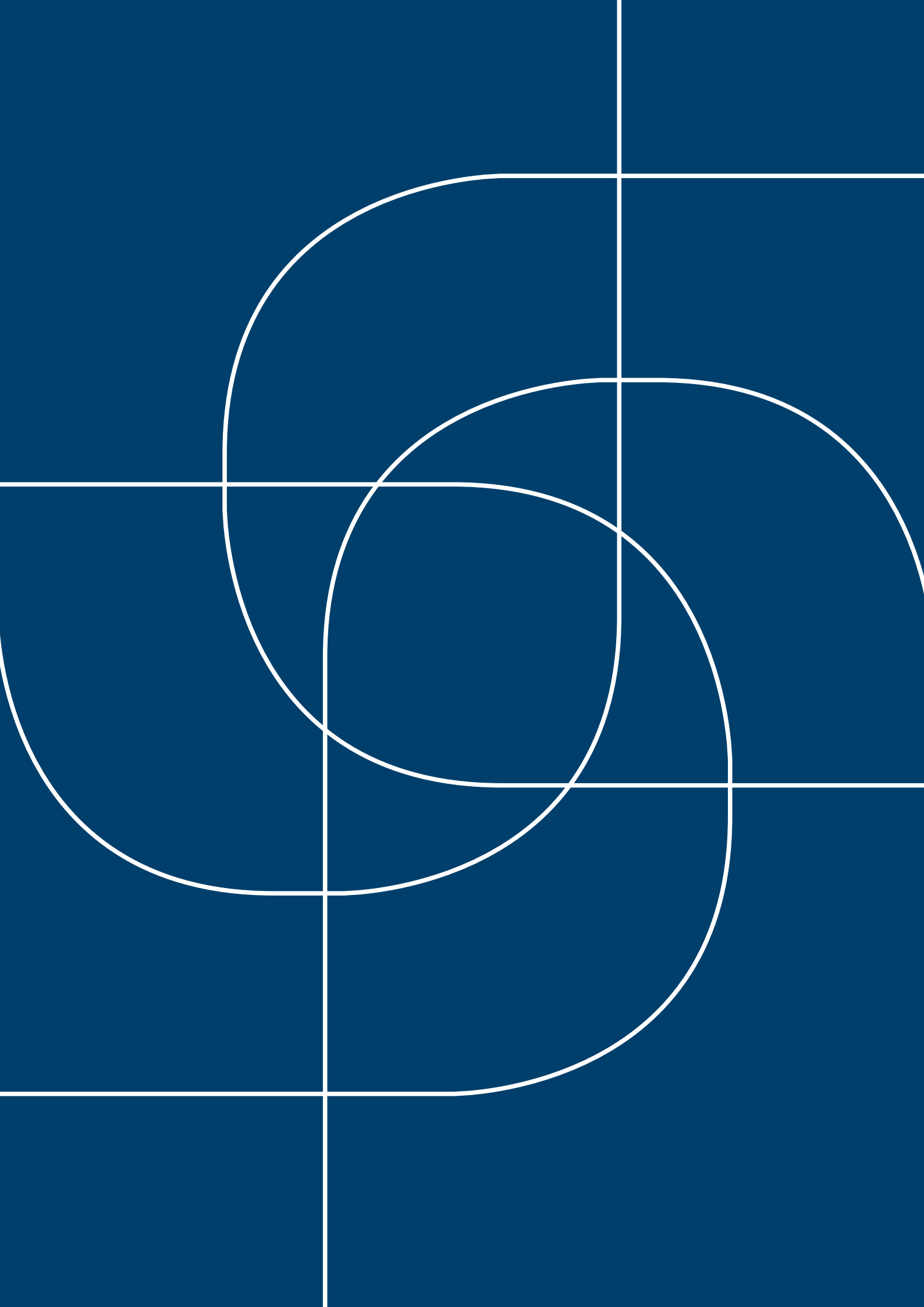

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