

SPONSORED BY THE



Federal Ministry  
of Education  
and Research

**CEBHA+**

Collaboration for Evidence-Based Healthcare and Public Health in Africa



UNIVERSITY of  
RWANDA



UNIVERSITEIT  
STELLENBOSCH  
UNIVERSITY

# SITUATIONAL ANALYSIS OF POPULATION-LEVEL INTERVENTIONS TARGETING RISK FACTORS FOR DIABETES AND HYPERTENSION IN RWANDA AND SOUTH AFRICA

**Nation NCD Research Symposium, 4<sup>th</sup> March 2020  
Cape Town, South Africa**

● Centre for  
● Evidence  
● Based  
● Health  
● Care

**Presenters : David Tumusiime and Jeannine Uwimana Nicol**

# Background

- NCDs, claim about 41 million deaths each year, which is equivalent to 71% global deaths (WHO, 2018)
- Both hypertension and diabetes, are a major contributor to morbidity and mortality worldwide (Mohan et al. 2013)
- More than 82% of NCDs deaths are from low and middle income countries (LMICs) CVD (WHO, 2016)

# Background, Cont'd..

- In Rwanda, hypertension was a leading cause of death (43%) among hospitalized patients at one of the national referral hospitals (Amendezo et al. 2008 )
- In South Africa, in 2014 the age-adjusted prevalence of T2DM was 9.7% for men and 12.6% for women, with variations across ethnic groups and a rapid increase among urban dwelling black South Africans (Peer et al. 2012).
- World Health Assembly called for a reduction in NCD deaths by 25% through various population-level interventions (WHO, 2013).

# Background, Cont'd..

- **Population-level health interventions** are policies or programs that aims to mitigate the distribution of health risk by addressing the underlying socioeconomic, environmental, behavioral or cultural conditions in which people live and work.
- The focus of this study is on those population-level interventions that are implemented **at the level of governmental or political jurisdictions only (e.g. cities, regions, countries)** aiming at improving environment, increasing physical activity, reducing smoking and improving diet or any other interventions addressing risk factors for diabetes and hypertension.

# WHO “Best buys”

Risk factors	Intervention (Supportive environment)	Intervention (Program)	Intervention (policy)
<b>Physical inactivity</b>	<ul style="list-style-type: none"> <li>Physical spaces such walkout lanes alongside the roads</li> </ul>	<ul style="list-style-type: none"> <li>Campaigns in Media for the benefits and showcases of exercising on TVs</li> </ul>	<ul style="list-style-type: none"> <li>Eg. Public employees Friday sports activities, Car-free days.</li> </ul>
<b>Poor diet quality</b> <ul style="list-style-type: none"> <li>Saturated fats</li> <li>Sugar</li> <li>Salt</li> </ul>	<ul style="list-style-type: none"> <li>Food system approaches (including health-in-all approaches in sectors such as agriculture and trade)</li> </ul>	<ul style="list-style-type: none"> <li>Salt reduction through mass-media campaigns</li> <li>Public awareness programme about diet</li> </ul>	<ul style="list-style-type: none"> <li>Reduction of salt content in processed foods</li> <li>Policy on replacement of trans-fats with polyunsaturated fats</li> </ul>
<b>Tobacco use</b>	<ul style="list-style-type: none"> <li>Creation of isolated smoking areas.</li> <li>Smoke-free work and public places</li> </ul>	<ul style="list-style-type: none"> <li>Campaigns of the dangers of smoking.</li> </ul>	<ul style="list-style-type: none"> <li>Package labelling</li> <li>Increased taxation of tobacco products</li> <li>Bans on advertising and promotion</li> <li>Prohibits tobacco</li> </ul>
<b>Alcohol consumption</b>	<ul style="list-style-type: none"> <li>Restrictions on the availability of retailed alcohol</li> </ul>	<ul style="list-style-type: none"> <li>Education of the dangers of excessive drinking</li> </ul>	<ul style="list-style-type: none"> <li>Excise tax increases on alcoholic beverages</li> <li>Reducing the availability of alcohol</li> </ul>

# Study objectives

1. To identify all population-level interventions targeting risk factors for diabetes and hypertension implemented in Rwanda
2. To describe their planning, implementation, and evaluation
3. To identify barriers and facilitators for advancing population-level interventions through policy and practice , and research

# Methods

To identify all population-level interventions targeting risk factors for diabetes and hypertension currently being implemented in Rwanda

To select the most relevant interventions and describe their planning, implementation, and evaluation

To identify gaps and opportunities for advancing population-level interventions targeting risk factors for diabetes and hypertension through policy and practice or research

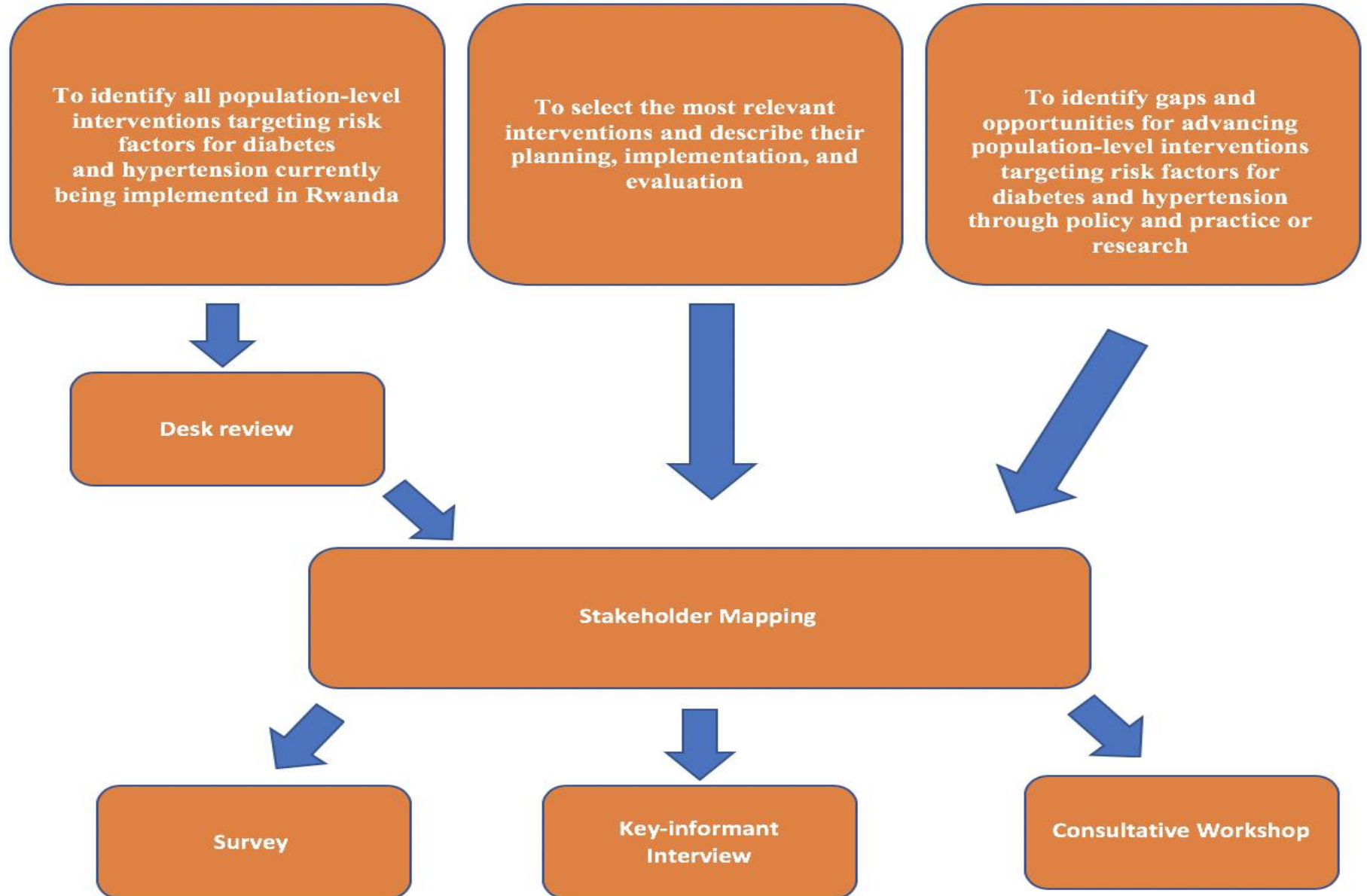
Desk review

Stakeholder Mapping

Survey

Key-informant  
Interview

Consultative Workshop



# **Results (South Africa)**

## **Desk review**

- Online search and grey literature was conducted (Pubmed, Ebscohost, Cochrane database, google scholar, scopus)
- A total of 2,387 records were retrieved (published and grey literature) and 31 documents were reviewed
- Documents reviewed included Acts and laws, regulations, policy documents, strategic plans, guidelines and reviews



# Risk factor: Tobacco use

Policies	Programs	Enabling environment
<ul style="list-style-type: none"> <li>• 1993-Tobacco Products Control Act 21</li> <li>• 1994-Tobacco Products Control Regulations</li> <li>• 1999-Tobacco Products Control Amendment Act 23</li> <li>• 2000-Tobacco Products Control Amendment</li> <li>• 2007-Tobacco Products Control Amendment Act 25</li> <li>• 2008-Tobacco Products Control Amendment Act 28</li> <li>• 2011-Tobacco Products Control- regulations</li> <li>• 2018 – Tobacco Control Bill- new bill focusing on banning advertisement of tobacco products</li> </ul>	<ul style="list-style-type: none"> <li>• Mass media campaign- Cancer day</li> </ul>	<ul style="list-style-type: none"> <li>• Creation of isolated smoking areas</li> <li>• Smoke-free work and public places</li> </ul>

## Key findings

- Excise taxation on tobacco has been proven as one of the successful intervention since the passing of the acts on Tobacco use (1994)
- The degree of excise tax pass-through, and the magnitude of discretionary increases in cigarette prices, is significantly determined by the competitive environment in the cigarette market. Hence, taxation of tobacco products need to be reviewed – incremented on regular basis
- A proper M&E system is needed to measure the impact of interventions addressing tobacco use

# Risk factor: Alcohol consumption

Policies	Programs	Enabling environment
<ul style="list-style-type: none"><li>•1989-Liquor Products Act 60</li><li>•2003-National Liquor Act 59</li><li>•2004-National Liquor Regulations</li><li>•2008-Western Cape Liquor Act;</li><li>•2013 – Gauteng Liquor Act</li></ul>	<ul style="list-style-type: none"><li>• Media campaign on dangers of drinking</li><li>• Mass median campaign on drinking and driving</li></ul>	<p>Restrictions on the availability of retailed alcohol</p>

## Key findings

- Alcohol control policies tend to focus more on the regulation of alcohol production and distribution (addressing trade and industry concerns)

- A strong alcohol Bill aimed at reducing advertising and promotion of alcohol exposure was passed in 2013 and its effect is yet to be established

- Impact evaluation to determine the effect of the Bill on reduction of alcohol consumption

# Risk factor: Unhealthy diet

Policies	Programs	Enabling environment
<ul style="list-style-type: none"><li>• Tax sugar content of sugar-sweetened beverages</li><li>• Reduction of salt content in processed foods</li><li>• Replacement of trans-fats with polyunsaturated fats</li></ul>	<ul style="list-style-type: none"><li>• Mass media campaign on salt reduction – SALT WATCH</li><li>• School nutrition program</li><li>• Woolworths Health Promotion Programme: “Making the Difference through Nutrition Programme”.</li></ul>	<ul style="list-style-type: none"><li>• National food security plan (home garden)</li><li>• Feeding schemes in schools</li></ul>

**Gaps**



- Taxation of SBBs has a direct impact on purchases, consumption, and ultimately on obesity. Impact yet to be measured in light of the targets for NCDs prevention.
- Salt reduction policy did not include the salt content in food provided by institutions such as schools, hospitals and restaurants

# Risk factor: Physical inactivity

Policies	Programs	Enabling environment
<ul style="list-style-type: none"><li>• 1996-Schools Act 84</li><li>• 1998-National Sports and Recreation Act</li><li>• 2011-Promotion of Physical Activity in Older Persons</li><li>• 2012–2016-National Strategic Plan for NCDs</li><li>• National strategic plan on Obesity (2015-2020)</li></ul>	<ul style="list-style-type: none"><li>• National recreation day</li><li>• Move for health campaign</li><li>• Big walk</li><li>• Park run</li><li>• Western Cape on Wellness (WoW!)</li></ul>	<ul style="list-style-type: none"><li>• Walkout and cycling lanes alongside the roads</li><li>• Public parks</li></ul>

## Gaps

- Lack of interventions geared to enabling environment countrywide are still lacking
- Lack of M&E system to measure the impact of Physical Activity interventions

# Results (Rwanda): Desk review and survey

**Desk review:** Grey (eg reports) and published; policies, strategies and guidelines documents

- Meetings with stakeholders to request for documents

**Survey:** Questionnaire to 60 participants; in depth interviews to 10 participants.

**Stakeholders Consultative workshop:** Presented the preliminary results for additional inputs in case of any missed information

# Risk factor: Unhealthy diet

Policies	Programs	Enabling environment
Non-Communicable Disease (NCD) Policy	Awareness campaign	Food production intervention
NECD (National Early Child Development) policy	Food production programs	Limitation of unhealthy food importation and local production.
National Agriculture policy	Malnutrition management program	Promote healthy food production
National Food and Nutrition policy	Girinka program – improve nutrition	Nutrition education and counselling

# Risk factor: Physical inactivity

Policies	Programs	Enabling environment
Friday physical activities policy	Community mobilization for physical exercises	Accessible PA infrastructure ( <i>exercise grounds, Road sidewalks for pedestrians, swimming pools, etc</i> )
Sport development policy (Mass sport and sport for all)	Car free day	Training of PA facilitators
	Mass sport program	Political willingness and participation in PA
	School sport program	Creation of car free zones
•NCDs policy	Inter-institutional competition	

**Gap to address**

Lack or inadequate follow up and evaluation to assess the impact of the interventions are remarkably visible

# Risk factor: Tobacco use

Policies	Programs	Enabling environment
<ul style="list-style-type: none"><li>•Tobacco control law</li><li>•Narcotic law</li><li>•Non Communicable Diseases policy</li><li>•Ministerial orders (MoH) prohibiting public smoking and banning shisha</li><li>•School health policy</li></ul>	<p>Awareness campaigns on the health risks of tobacco use</p> <p>Discouraging smoking in public</p> <p>Certification of tobacco used in Rwanda</p> <p>Health warning message on the tobacco packages</p>	<p>Establishing smoking areas</p> <p>Limiting tobacco production and importation</p> <p>Rehabilitation centers for drug and tobacco addicted people</p>

**Key findings**

Tobacco smoking is restricted and some have been banned



# Risk factor: Alcohol consumption

Policies	Programs	Enabling environment
<ul style="list-style-type: none"><li>•NCDs policy</li><li>•Increase taxes for alcohol importation</li><li>•Prohibiting opening pubs in working hours</li><li>•School health policy</li></ul>	<p>Awareness campaigns of the health risks of alcohol use</p> <p>Prohibiting alcohol drinking in specific places (work, schools,..)</p> <p>Gerayo amahoro “reach your destination safely”</p> <p>Don’t drink and drive</p>	<ul style="list-style-type: none"><li>• Banning non-standardized alcohol production</li><li>• Limiting time for accessing pubs and alcohol stores</li><li>• Prohibiting drinking in workplaces and schools</li></ul>

## Gaps

Laws prohibiting public drunk stay unclear about who is drunk and what is referred as public. This hinders the reinforcement of interventions targeting to reduce alcohol consumption

# Barriers to effective implementations

- Less collaborative efforts from all involved stakeholders
- Limited accessible infrastructure for physical activities in some areas
- Limited community involvement in the design and implementation
- Limited reinforcement and follow up of policy, regulation and laws, implementation
- Low or non-use of the available supporting environment
  - Limited knowledge about the risks and benefits of the interventions

# Facilitators to effective implementations

- Additional sensitization in public places such as churches, youth associations about risks of diabetes and hypertension
- Raising community awareness campaigns about the risks
- Decentralization of the interventions
- Increasing allocation of resources and supportive environment
- Reinforcement of laws regulating the use of tobacco, alcohol and other related risk factors

# Conclusion

- A number of population-level interventions targeting risk factors for NCDs have been developed and implemented
- However, to some extent, the effective implementation of these interventions have barriers
- Study recommendations:
  - Enhance community engagement in the design and implementation of these interventions
  - Establish a clear coordination mechanism for stakeholders involved
  - Strengthening monitoring and evaluation of implementation of population level interventions