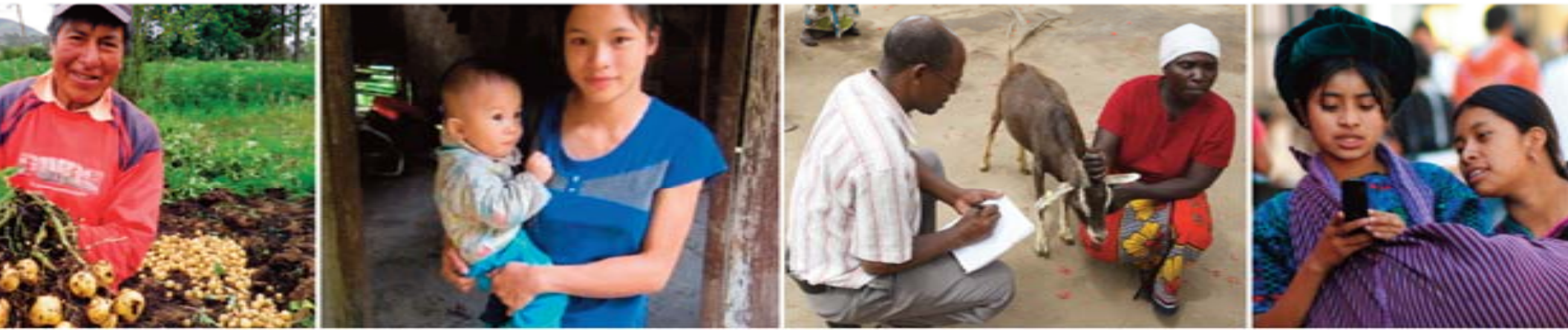


# IDRC | CRDI

International Development Research Centre

Centre de recherches pour le développement international

Canada



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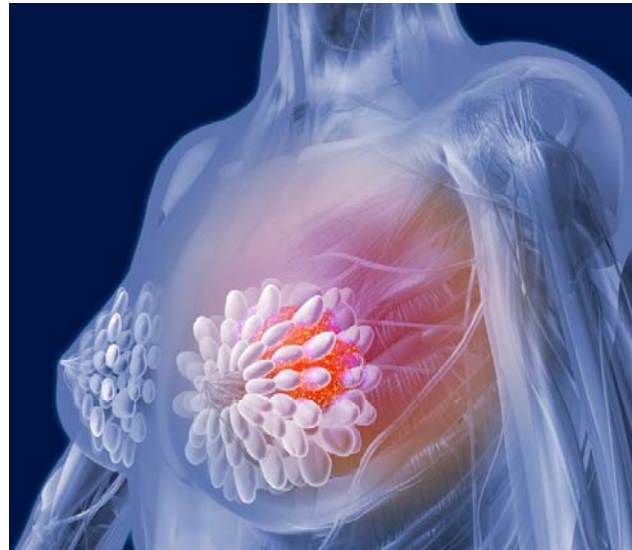
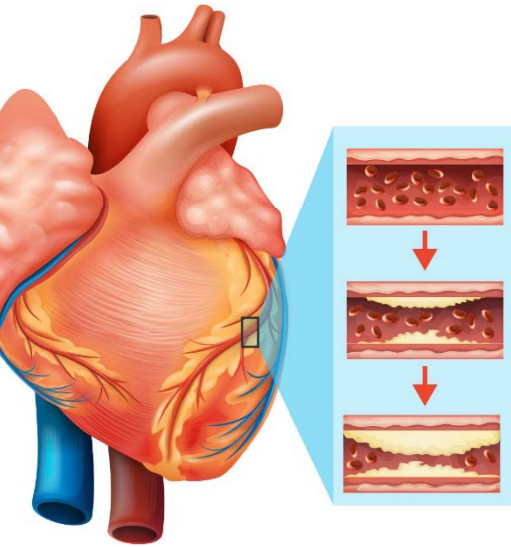
*Savoir. Innovation. Solutions.*

# Race towards Sustainable Development Goal (SDG) #3 – How will Non-Communicable Diseases affect the progress towards the Goals

**Dr. Sam Oti,** MD, PhD, FRSPH  
*(Senior Program Specialist, IDRC)*

Centre for Science and Environment (CSE) workshop  
*Kigali, 28<sup>th</sup> – 29<sup>th</sup> November 2018*

# NCDs: The Big Four

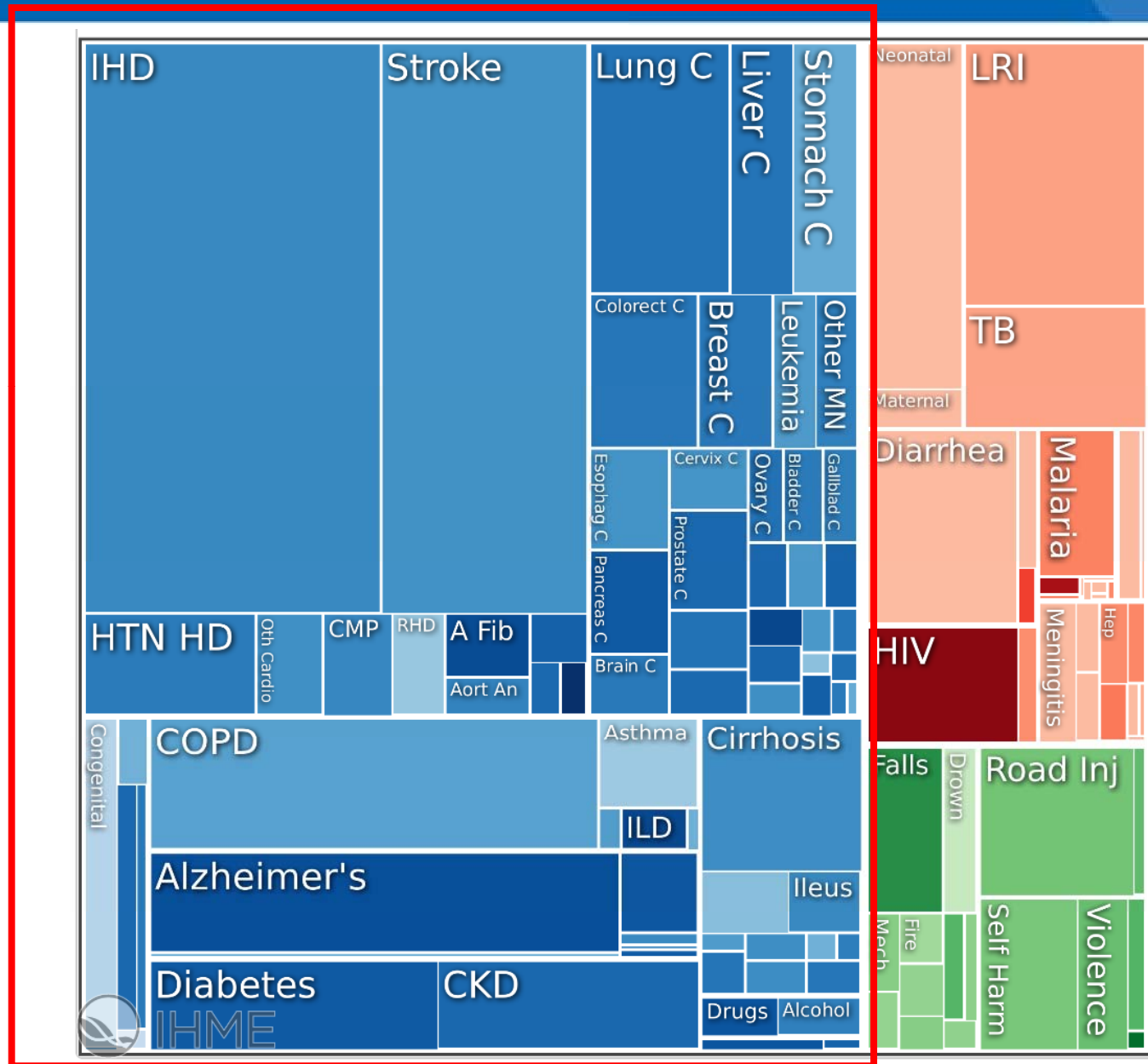


- Cardiovascular Disease
- Cancer
- Diabetes
- Chronic Respiratory Diseases

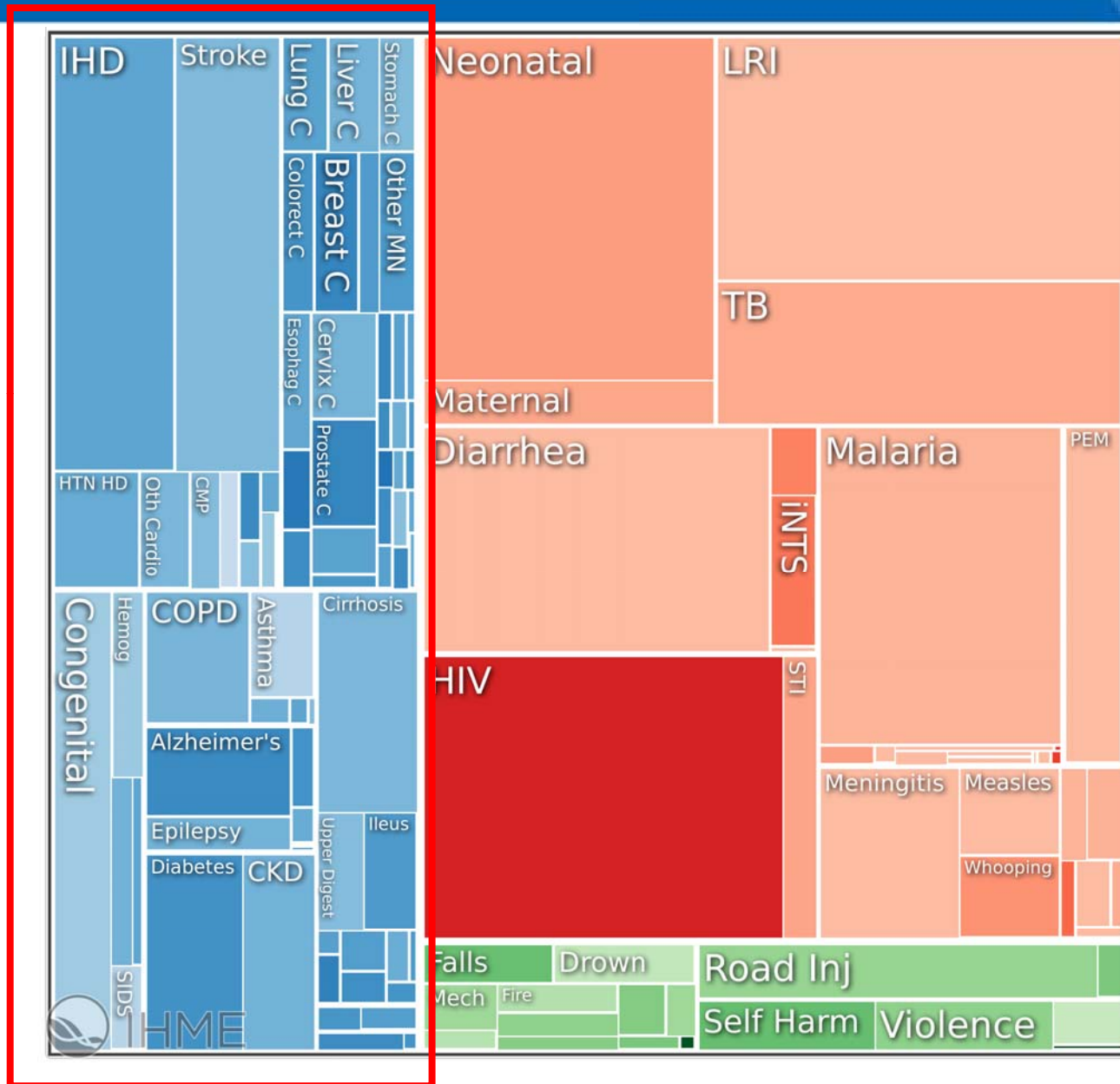




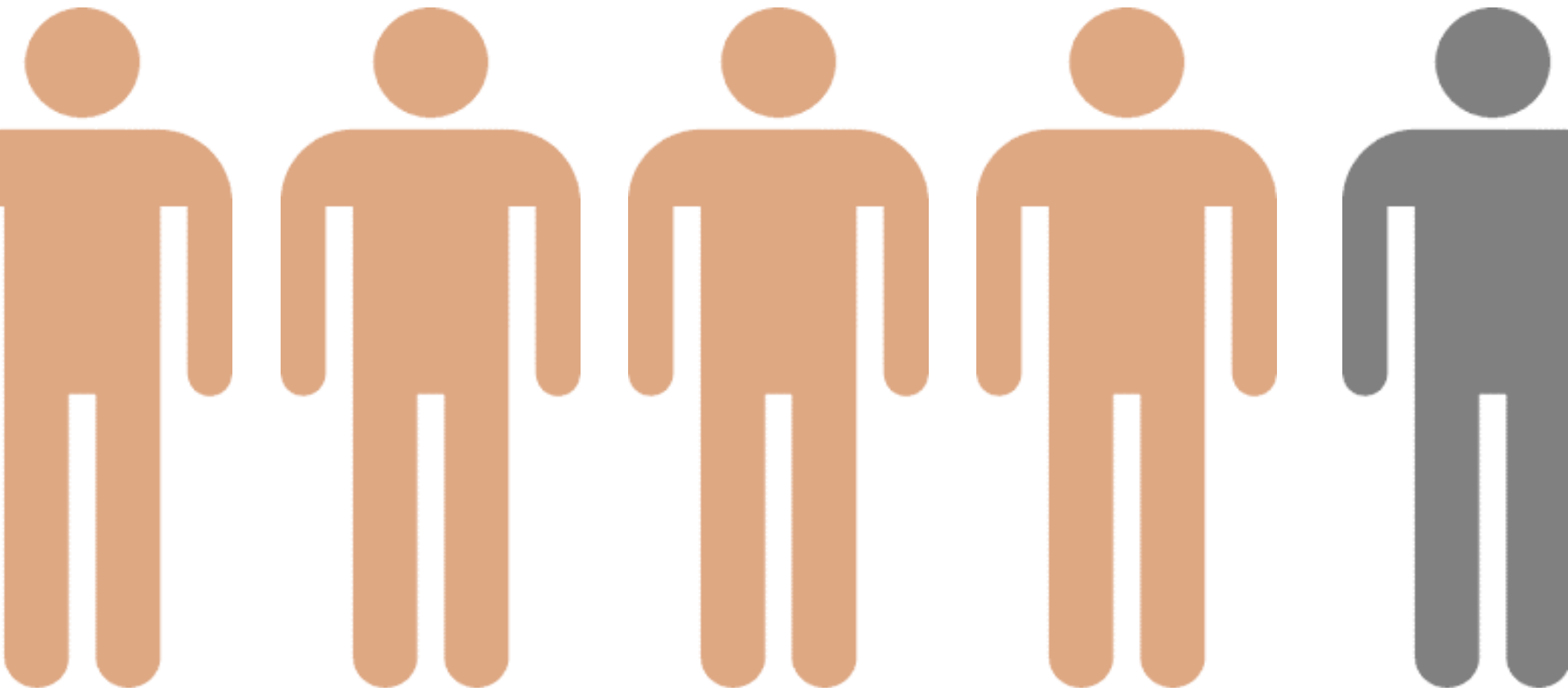
# Global deaths: Both sexes, all ages, 2017



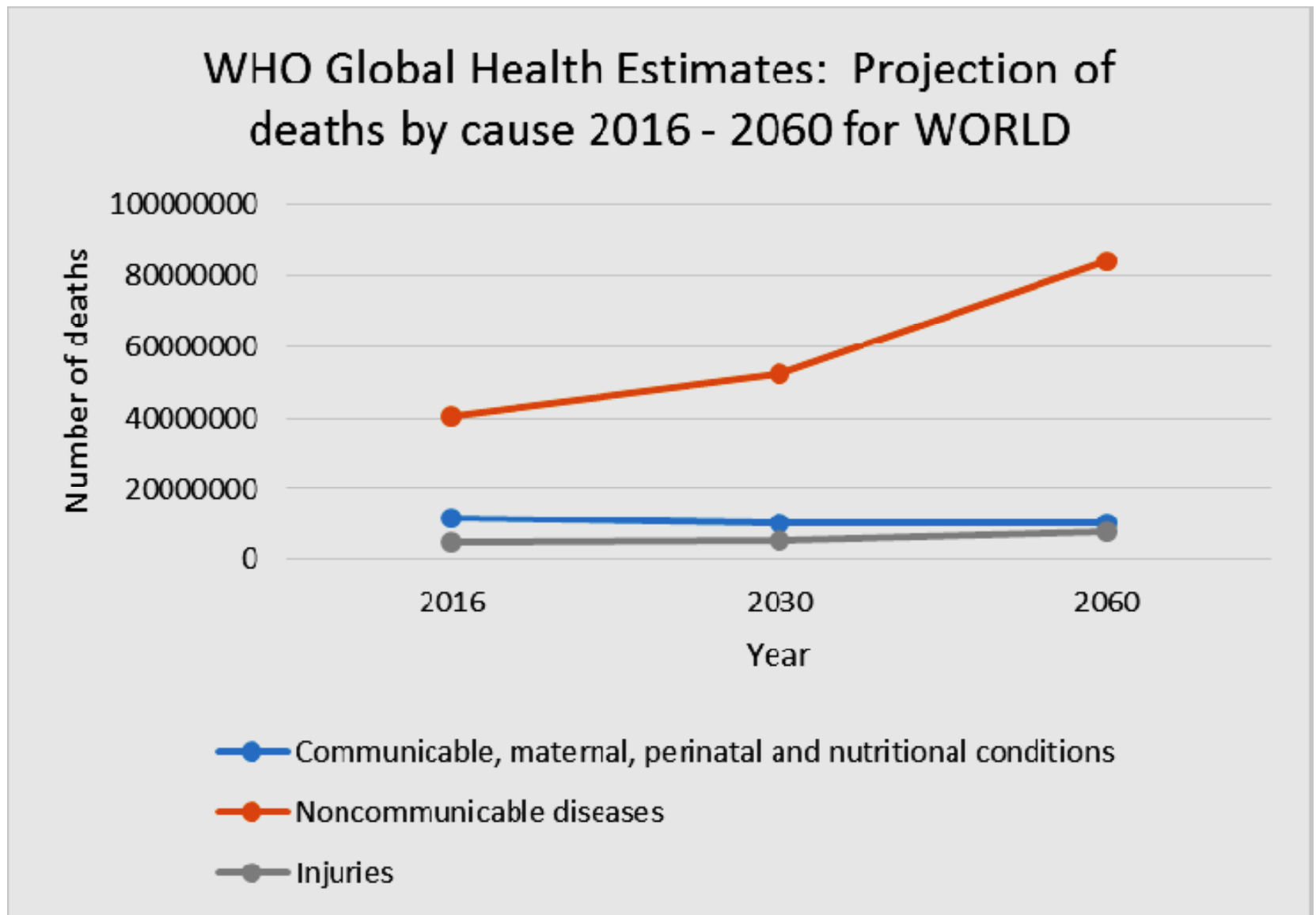
# SSA deaths: Both sexes, all ages, 2017



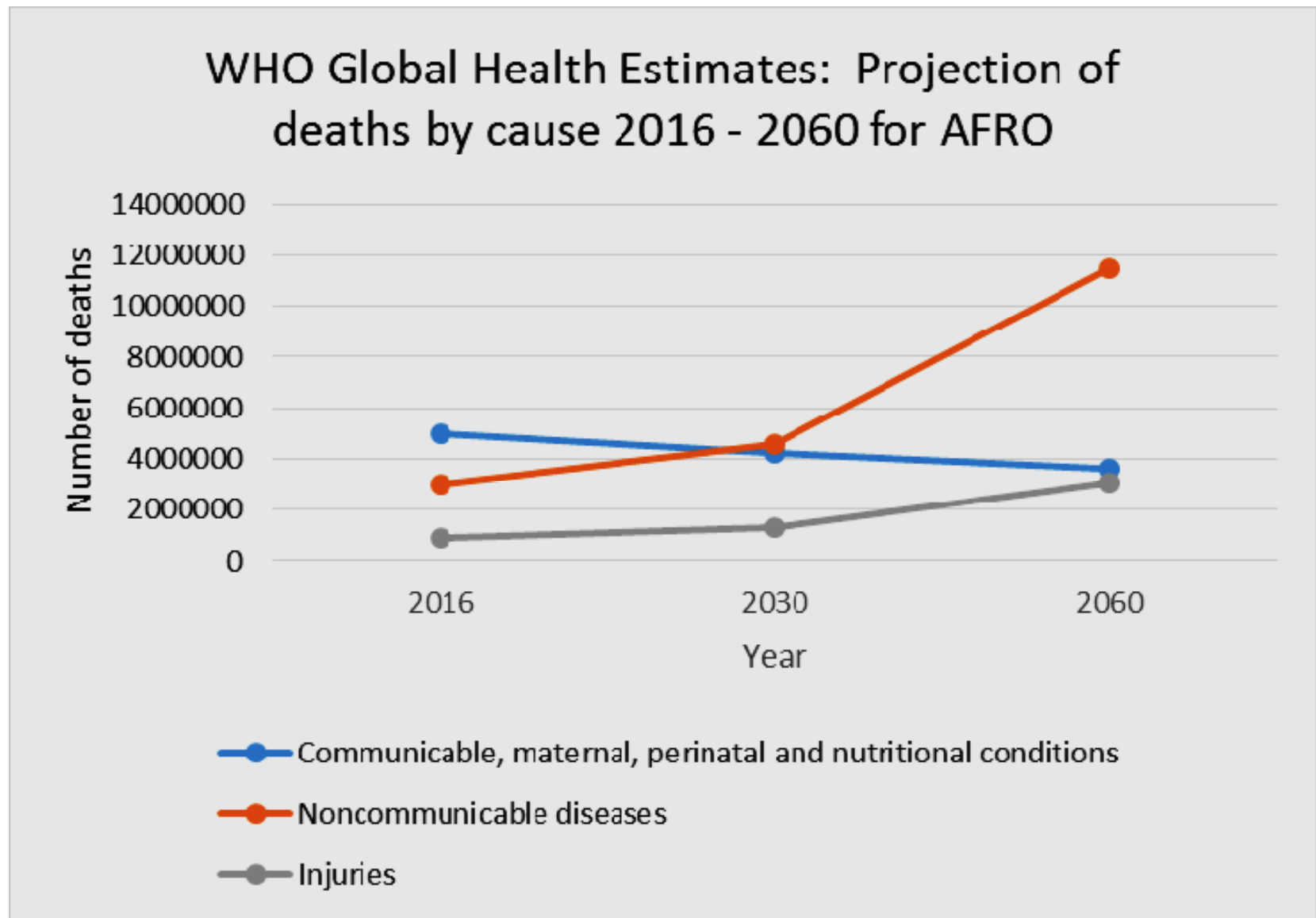
LMICs: 4 in 5 deaths from NCDs



# Projections 2016 - 2060



# Projections 2016 - 2060





# Africa: Double Burden of Disease

## Double burden of disease in the slums of Kenya

Samuel Oji Oti

### PhD REVIEW



## Exploring the paradox: double burden of malnutrition in rural South Africa

Elizabeth W. Kimani-Murage<sup>1,2\*</sup>

<sup>1</sup>African Population and Health Research Center, Nairobi, Kenya; <sup>2</sup>School of Public Health, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa

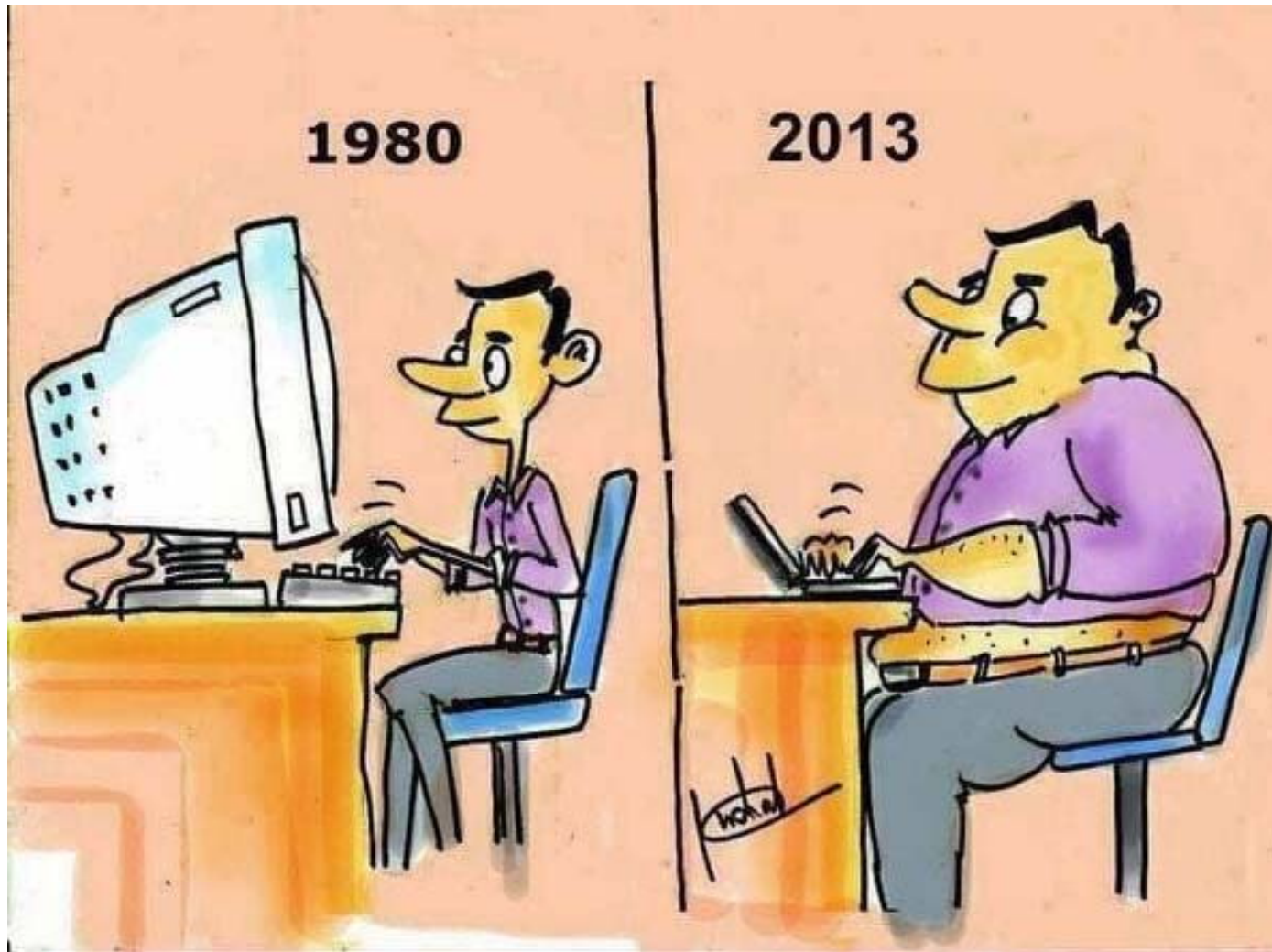
**Background:** This article is a review of the PhD thesis by Elizabeth Kimani-Murage that explores the double burden of malnutrition in rural South Africa. This is in the context of a worryingly rapid increase in obesity and obesity-related diseases in low- and middle-income countries (LMICs) including South Africa, and in the wake of on-going nutrition transition and lifestyle changes in these countries.

**Objective:** To understand the profiles of malnutrition among children and adolescents in a poor, high HIV prevalent, transitional society in a middle-income country.

**Methods:** A cross-sectional growth survey was conducted in 2007 targeting 4,000 children and adolescents aged 1–20 years. In addition, HIV testing was carried out on children aged 1–5 years and Tanner pubertal assessment among adolescents aged 9–20 years.

**Results:** The study shows stunting at an early age and adolescent obesity, particularly among girls, that co-exists in the same socio-geographic population. The study also shows that HIV is an independent modifiable risk fac-

# Why?



# Why=4 X 4



**CARDIOVASCULAR  
DISEASES**



**DIABETES**



**CANCER**



**CHRONIC RESPIRATORY  
DISEASES**

**and their 4 common RISK FACTORS**

**Tobacco use**



**Harmful use of  
alcohol**



**Physical inactivity**



**Unhealthy diet**



# Why=4 X 4

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## The Kentucky fried chicken Kenyans are queuing up for

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By JOHN FOX fox@africaonline.co.ke

A few weeks ago when we were being driven north in a minibus from Johannesburg to Hoedspruit, and when we reached Lydenburg, our driver asked if we would mind if he took a small detour.

“On this trip, this is where I get my lunch of Kentucky Fried Chicken,” he said.

And so he did. “This is the best fried chicken in South Africa,” he said.





# Africa: Overburdened Health Systems





# Africa: Overburdened Health Systems

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## 50 cancer patients affected as key machine breaks down again

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# Global Response



## 2011 High Level Meeting on Prevention and Control of Non-communicable Diseases

General Assembly | United Nations | New York | 19-20 September 2011



## GLOBAL ACTION PLAN

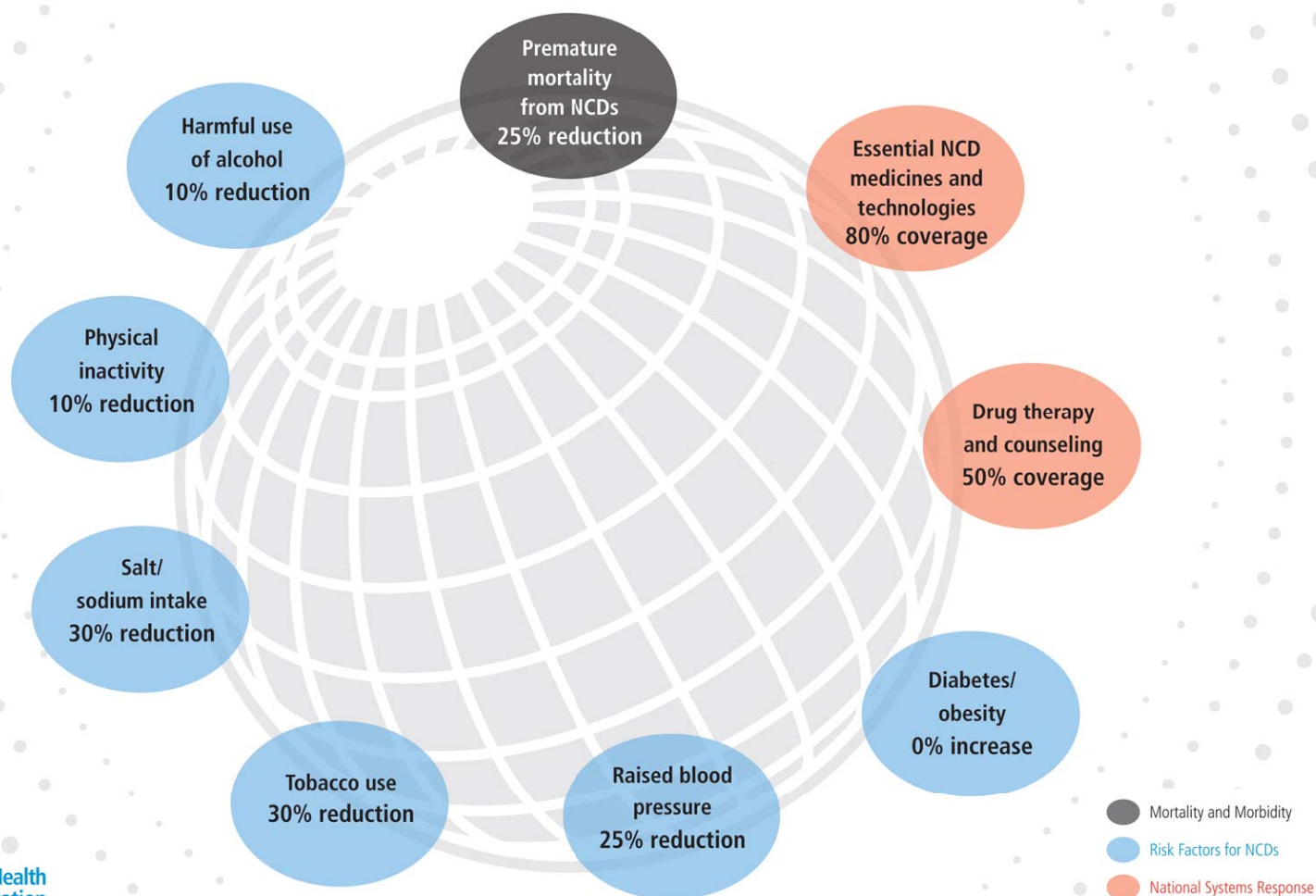
2013-2020



*Join ministers at the*  
**UNGA NCD Review 2014**  
(New York, 10-11 July 2014)

# Global Response

## Set of 9 voluntary global NCD targets for 2025





# Global Response

H IN  
G ERA



By 2030, reduce by **third** premature mortality from non-communicable diseases through prevention, treatment and promotion of mental health and well-being

Health  
Organization

[WWW.WHO.INT/SDGS](http://WWW.WHO.INT/SDGS)

SUSTAINABLE DEVELOPMENT GOALS

# Global Response



United Nations



TOGETHER  
LET'S BEAT NCDs



World Health  
Organization



# TIME TO DELIVER



Third UN High-level Meeting  
on Non-communicable Diseases





# Global Response - Stakeholders

**IDRC | CRDI**

International Development Research Centre  
Centre de recherches pour le développement international

**Canada**



**NCD Alliance**



**WORLD BANK**



**GACD**

GLOBAL ALLIANCE FOR CHRONIC DISEASES  
AN ALLIANCE OF HEALTH RESEARCH FUNDERS

**ACCESS  
ACCELERATED**

*Moving NCD Care Forward*

**Bloomberg  
Philanthropies**



**AstraZeneca**

Young Health Programme

A global community investment initiative

LANCET  
**CDI**  
WEALTHY  
Commission

*Reframing Noncommunicable Diseases  
and Injuries for the Poorest Billion*

# Global Response - Financing



GLOBAL HEALTH ACTION, 2017  
VOL. 10, 1326687  
<https://doi.org/10.1080/16549716.2017.1326687>



Taylor & Francis  
Taylor & Francis Group

CURRENT DEBATE

OPEN ACCESS Check for updates

## Financing national non-communicable disease responses

Luke Nelson Allen

Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK

The share of 'development assistance for health' dedicated to NCDs has remained at **1–2% (US\$ 492 million out of US\$ 36 billion)** of the total since 2000. This level of funding is insufficient to attain the nine targets in WHO Global Action Plan on NCDs.

# Global Response - Financing



GLOBAL HEALTH ACTION, 2017  
VOL. 10, 1326687  
<https://doi.org/10.1080/16549716.2017.1326687>



Taylor & Francis  
Taylor & Francis Group

CURRENT DEBATE

OPEN ACCESS Check for updates

## Financing national non-communicable disease responses

Luke Nelson Allen

Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK

From 2011 to 2025 it is estimated that NCDs will drain over **US\$ 50 trillion** from the global economy. Fortunately, preventing NCDs is very cheap in comparison with the costs of inaction. Scaling up the 'best buys' from **5% to 80%** coverage in all LMIC would cost **US\$ 11.4 billion**.

## WHAT GOVERNMENTS CAN DO TO

### PROMOTE HEALTH



Advance universal health coverage



Access to quality services



Access to affordable services



Protection from financial risk



Implement policies, engage the public



Ensure healthy diets



Make health risks clear



Leverage taxes



Tighten laws and regulations



Generate data for health



Create healthy cities and environments

## WHAT PEOPLE CAN DO TO

### PROTECT HEALTH



Follow medical advice



Stay physically active



Get vaccinated



Breastfeed



Tobacco use



Harmful use of alcohol



Consumption of food and drinks high in salt, sugar or unhealthy fats



Air pollution

AVOID

It's time for the world to **deliver** and **protect** people and communities and **#beatNCDs**



TOGETHER  
LET'S BEAT NCDs

#beatNCDs

[www.who.int/beat-ncds](http://www.who.int/beat-ncds)



# World Health Organization



## TOGETHER LET'S BEAT NCDs

Preparing for the third UN High-level Meeting on NCDs, 2018

# Africa's Response



Algeria  
Benin  
Botswana  
Burkina Faso  
Cabo Verde  
Cameroon  
Central African Republic  
Chad  
Comoros  
Congo  
Côte d'Ivoire  
Democratic Republic of the  
Congo  
Eritrea  
Ethiopia  
Gabon  
Gambia  
Ghana  
Guinea  
Kenya  
Lesotho

Liberia  
Madagascar  
Malawi  
Mali  
Mauritania  
Mauritius  
Mozambique  
Niger  
Nigeria  
Rwanda  
São Tomé and Príncipe  
Seychelles  
Senegal  
Sierra Leone  
Swaziland  
Togo  
Uganda  
United Republic of Tanzania  
Zambia  
Zanzibar  
Zimbabwe



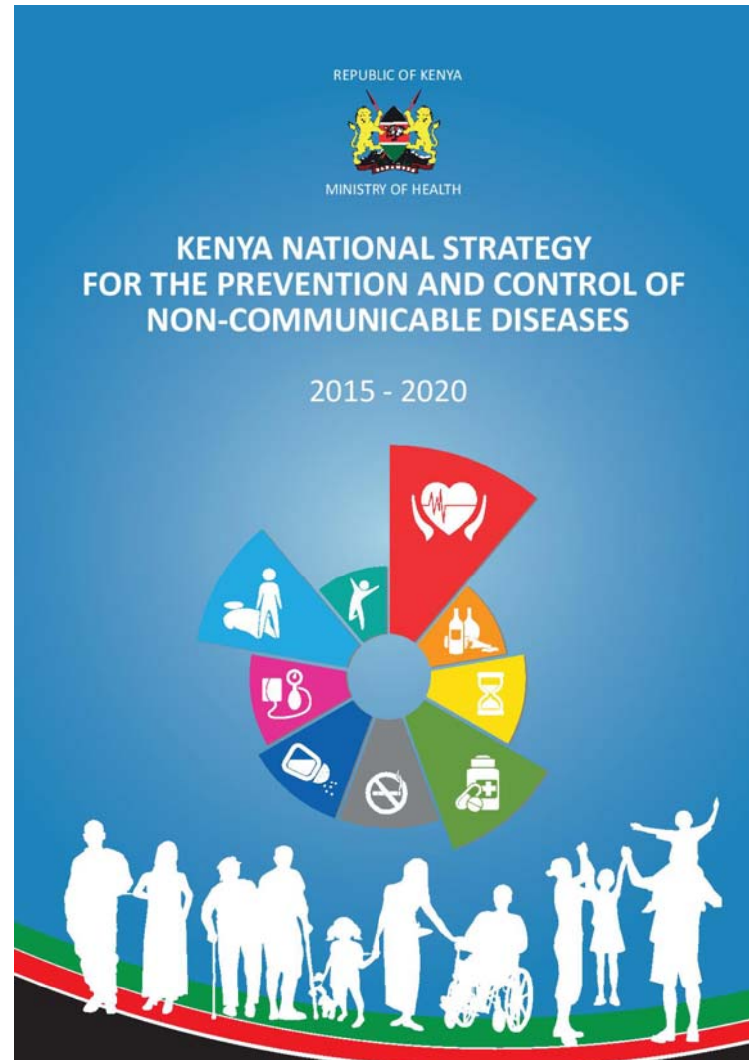
# Africa's Response



National Policy  
and  
Strategic Plan of Action

on  
Prevention and Control of  
Non-Communicable Diseases  
(NCDs)

Non-Communicable Disease Control Programme  
Federal Ministry of Health  
Abuja, Nigeria.  
May 2013



GOVERNMENT OF  
THE UNITED REPUBLIC OF TANZANIA

Ministry of Health, Community  
Development, Gender, Elderly  
and Children

**STRATEGIC AND ACTION PLAN  
FOR THE PREVENTION AND CONTROL OF  
NON COMMUNICABLE DISEASES  
IN TANZANIA 2016 – 2020**

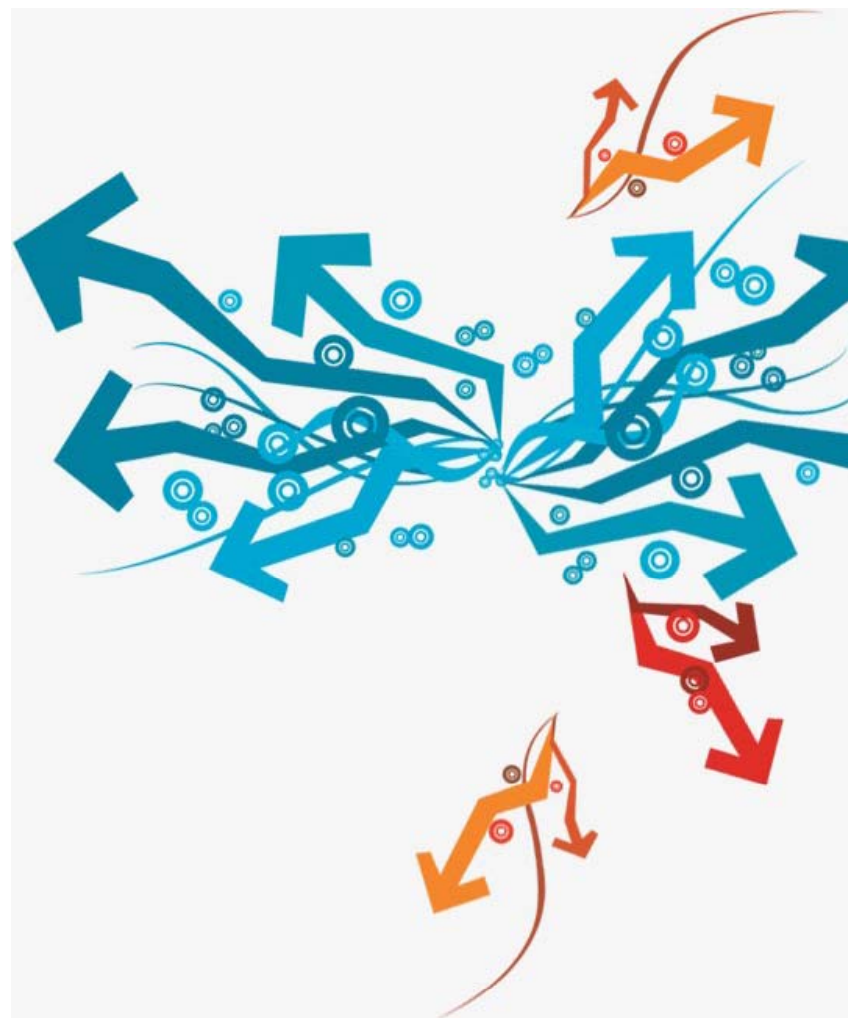
# Africa's Response: Sluggish and Disjointed

New or revamped units/depts.  
for NCDs in MoHs: Still poorly  
funded

Many small scale isolated  
research studies

Some attempts to include  
NCD indicators in HMIS

Health sector driven with little  
MSA



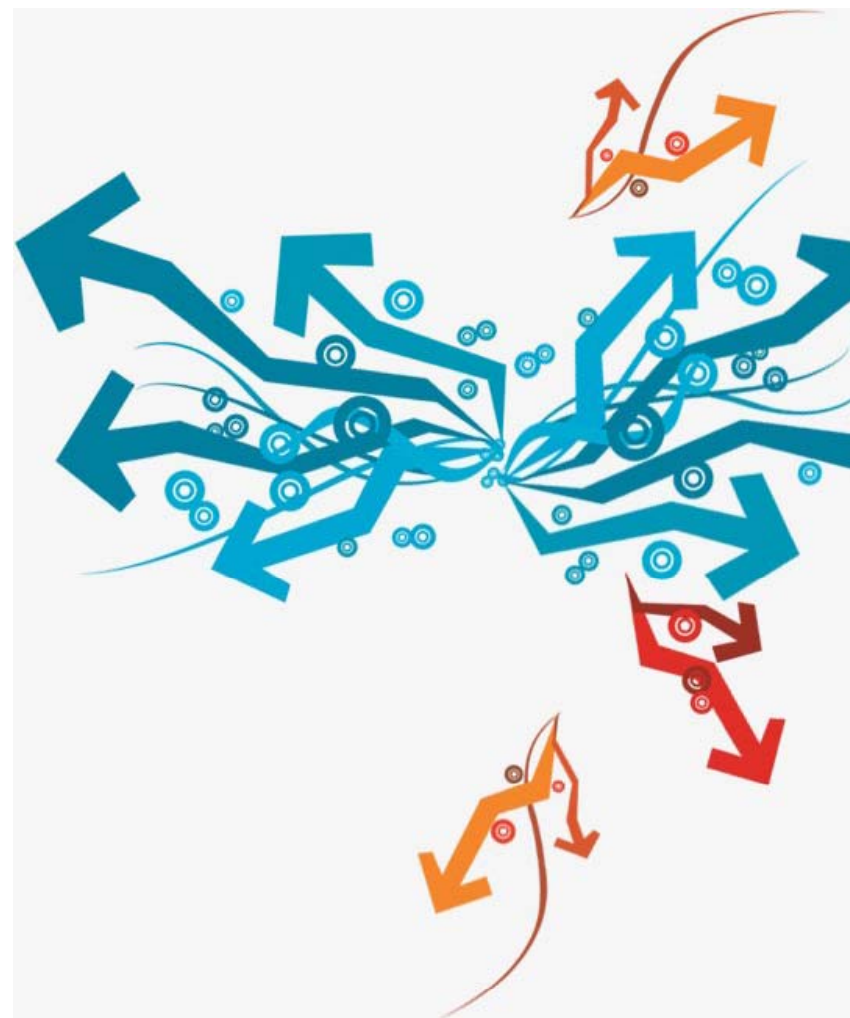
# Africa's Response: Sluggish and Disjointed

Expansion of national health insurance to cover some NCDs

Development of treatment guidelines and disease or risk factor specific policies, programs or action plans.

Some targeted laws and regulations e.g. SSB Tax in SA

Industry interference.



# Africa's Response: My subjective verdict





# Africa's Response: An objective verdict

Nyaaba et al. *BMC Public Health* (2017) 17:297  
DOI 10.1186/s12889-017-4199-6

BMC Public Health

RESEARCH ARTICLE

Open Access



## Tracing Africa's progress towards implementing the Non-Communicable Diseases Global action plan 2013–2020: a synthesis of WHO country profile reports

Gertrude Nsorma Nyaaba<sup>1\*</sup>, Karien Stronks<sup>2</sup>, Ama de-Graft Aikins<sup>3</sup>, Andre Pascal Kengne<sup>4</sup> and Charles Agyemang<sup>5</sup>

Our findings suggest that Africa is off track in achieving the NCDs indicators by the set deadlines. To make sustained public health gains, more effort and commitment is urgently needed from governments, partners and societies to implement these recommendations in a broader strategy. While donors need to sustain NCD advocacy with funding, African institutions such as The African Union (AU) and other sub-regional bodies such as West African Health Organization (WAHO) and various country offices could potentially play stronger roles in advocating for more NCD policy efforts in Africa.”



# Africa's Response: Where we should focus

## NCD ALLIANCE CAMPAIGN PRIORITIES

The 2018  
United Nations  
High-Level  
Meeting  
on NCDs



**PUT  
PEOPLE FIRST**



**BOOST  
NCD INVESTMENT**



**STEP UP ACTION ON  
CHILDHOOD OBESITY**



**ADOPT  
SMART FISCAL  
POLICIES THAT  
PROMOTE HEALTH**



**SAVE LIVES THROUGH  
EQUITABLE ACCESS  
TO NCD TREATMENT  
AND UHC**



**IMPROVE  
ACCOUNTABILITY FOR  
PROGRESS, RESULTS  
AND RESOURCES**

# Africa's Response: UHC case study

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1000+ organizations in 121 countries advocating for strong, equitable health systems that leave no one behind. → [HealthForAll.org](https://HealthForAll.org)

Dec 12, 2016 · 5 min read

## Thailand: At the forefront of Universal Health Coverage

By Piyasakol Sakolsatayadorn, Minister of Public Health, Royal Thai Government

Thailand has proved to the world that Universal Health Coverage (UHC) is achievable. Even with a GNI per capita of US\$ 1,900 in 2002, the entire population was fully covered by publicly-financed health insurance schemes.

# Africa's Response: UHC case study

**Because we are  
poor, we cannot  
afford not to have  
universal health  
coverage.**

**HEALTH  
FOR ALL**  
**12.12.16**  
UNIVERSAL HEALTH  
COVERAGE DAY

**H.E. CLIN. PROF. EMERITUS  
PIYASAKOL SAKOLSATAYADORN  
MINISTER OF PUBLIC HEALTH, THAILAND**



**ACT WITH AMBITION**

# International Development Research Centre

## About us:

- Established by an act of Canada's parliament in 1970
- We fund research in developing countries to promote growth, reduce poverty, and drive large-scale positive change
- Our head office is located in Ottawa, Canada + 4 regional offices:
  - LAC: Montevideo, Uruguay
  - SSA: Nairobi, Kenya
  - MENA: Amman, Jordan
  - SEA: New Delhi, India



# International Development Research Centre

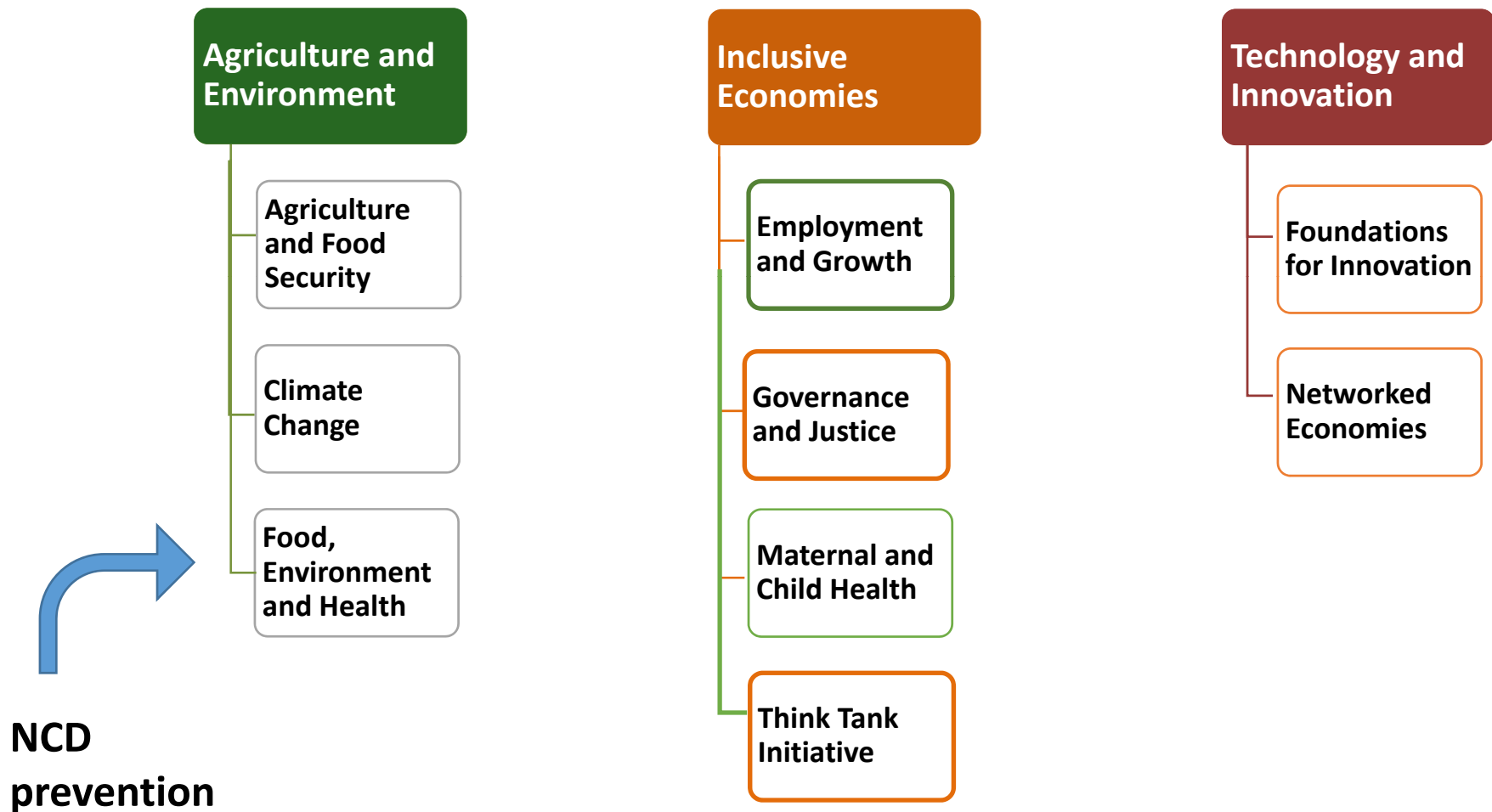
## Vision:

*« Knowledge, innovation, and solutions to improve the lives of people in the developing world »*

IDRC realize this vision by working toward 3 strategic objectives across its programming:

- 1. Invest in knowledge and innovation for large-scale positive change;*
- 2. Build the leaders for today and tomorrow;*
- 3. Be the partner of choice for greater impact.*

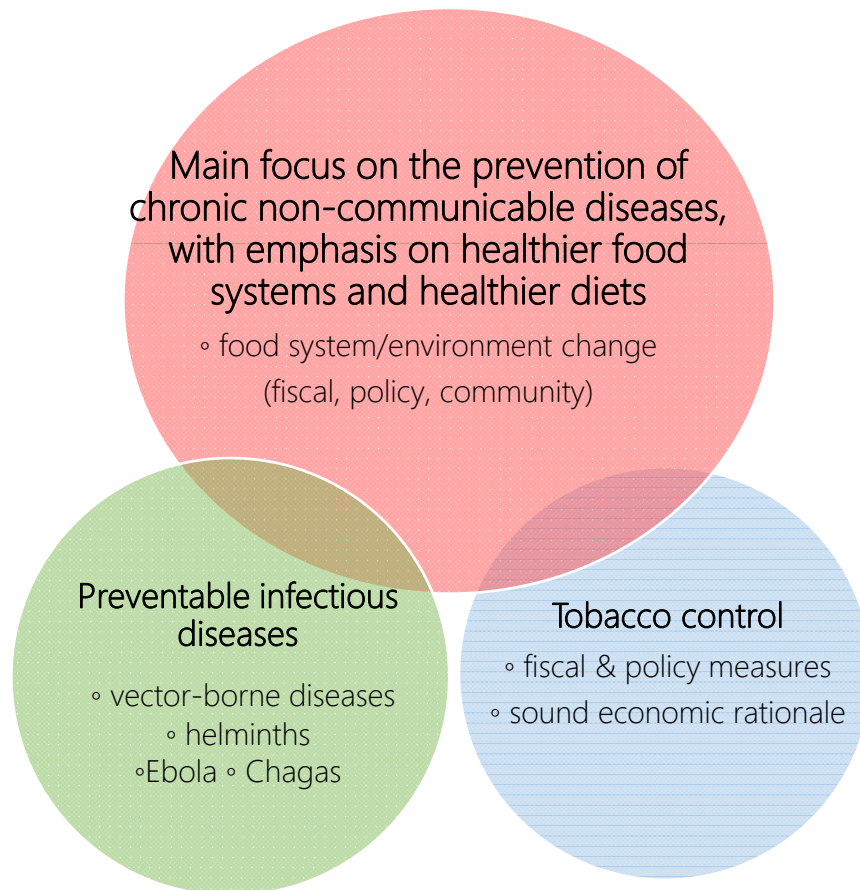
# IDRC Research Focus



# IDRC Program: FEH

## Food, Environment, and Health

**A population health research program with 3 foci**



A common, binding goal of prevention by:

- Addressing determinants of health and risk factors for disease through actions that are largely outside the control of the health sector
- Changing the environment and circumstances in which people live to enable better health

# IDRC Program: FEH

## FEH funding commitments since 2015

Food systems/environments targeting the prevention of NCDs: \$19.3M. 28 projects

Tobacco control: \$3.5M. 9 projects

Other NCD prevention: \$2M. 12 projects

Infectious disease: \$11.8M. 19 projects



# IDRC Program: example of impact

OPEN ACCESS Freely available online

PLOS ONE

## The Potential Impact of a 20% Tax on Sugar-Sweetened Beverages on Obesity in South African Adults: A Mathematical Model



Mercy Manyema<sup>1,2\*</sup>, Lennert J. Veerman<sup>3</sup>, Lumbwe Chola<sup>1,2</sup>, Aviva Tugendhaft<sup>1,2</sup>, Benn Sartorius<sup>1,4</sup>, Demetre Labadarios<sup>5</sup>, Karen J. Hofman<sup>1,2,6</sup>

**1** School of Public Health, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa, **2** PRICELESS-SA, MRC/Wits Rural Public, Health and Health Transitions Research Unit, School of Public Health, University of the Witwatersrand, Johannesburg, South Africa, **3** School of Population Health, University of Queensland, Brisbane, Queensland, Australia, **4** Discipline of Public Health Medicine, School of Nursing and Public Health, University of KwaZulu-Natal, Durban, South Africa, **5** Population Health, Health Systems and Innovation (PHHSI), Human Sciences Research Council, Capetown, South Africa, **6** Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, United States of America

### Abstract

**Background/Objectives:** The prevalence of obesity in South Africa has risen sharply, as has the consumption of sugar-sweetened beverages (SSBs). Research shows that consumption of SSBs leads to weight gain in both adults and children, and reducing SSBs will significantly impact the prevalence of obesity and its related diseases. We estimated the effect of a 20% tax on SSBs on the prevalence of and obesity among adults in South Africa.

**Methods:** A mathematical simulation model was constructed to estimate the effect of a 20% SSB tax on the prevalence of obesity. We used consumption data from the 2012 SA National Health and Nutrition Examination Survey and a previous meta-analysis of studies on own- and cross-price elasticities of SSBs to estimate the shift in daily energy consumption

# IDRC Program: example of impact

26/11/2018

Parliament finally passes sugary drinks tax | Health24

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Beyond Beauty

Home > Diet and nutrition > Beverages

UPDATED 12 DECEMBER 2017

## Parliament finally passes sugary drinks tax

*South Africa is on the right path to reverse the alarming numbers of diabetes cases and other NCDs associated with obesity.*



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Bestiality is much, much more common than you think

7 warning signs that you've got a bladder infection

# IDRC Program: example of impact



## EAST AFRICA

- Rwanda
- Tanzania
- Uganda
- Kenya

## SOUTHERN AFRICA

- Botswana
- Zambia
- Namibia



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## Readiness to Adopt Food Related Non-Communicable Disease Prevention Policies in Africa



# IDRC Program: example of impact



**Strengthening tobacco control  
in West Africa: How CRES is  
leading the charge**



AFRICAPORTAL

29 May 2018

4

min read



# IDRC Program: example of impact



Think Tank  
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## CRES: Curbing tobacco use through research and advocacy

Tobacco tax reform

*Image Credit: Green Living Project*

Consortium pour la Recherche Économique et Sociale (CRES) successfully engaged in research and outreach activities, both in Senegal and across West Africa, by focusing on reforms to tobacco taxation.

### Vitals

#### Think Tank:

[Consortium pour la recherche économique et sociale](#)

# IDRC Program: example of impact



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A blue banner for DigitalOcean. On the left is the DigitalOcean logo. In the center is an illustration of a laptop on a server. On the right, the text reads: 'The simplest cloud platform for developers and teams. Get started with \$100 credit.' There is a 'TRY FREE' button and an 'AdChoices' icon.

## OWAS To Increase Excise Duty on Tobacco Products, Regional Revenue

ed 1 year ago on November 25, 2017 By leadershipngr

A green and yellow banner for Nitro Productivity Suite. It says 'ONLY FOR CYBER WEEK' and '40% off the Nitro Productivity Suite'. There is a small 'AdChoices' icon.

An advertisement for the Leadership e-paper. It shows a tablet displaying the newspaper's front page with headlines like 'Oil Price Index Towards \$80pb As US Drilling Picks Up'. Above the tablet is the 'LEADERSHIP e-paper' logo. To the right is a 'Buy Now »' button with the Nitro logo and a small 'AdChoices' icon. Below the button, it says '\*For single-license purchases only'.

A banner for Air France. It features the Air France logo on the left. The text reads: 'MORE THAN 1.000 OTHER DESTINATIONS' and '40% off the Nitro Productivity Suite'. There is a 'Buy Now »' button and a small 'AdChoices' icon. Below the button, it says '\*For single-license purchases only'.



# IDRC Program: example of impact



## WEST AFRICA

- Senegal
- Nigeria
- Sierra Leone



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## Tobacco tax reforms to promote economic development in West Africa

October 24, 2018

Thank  
you

**Dr. Samuel Oti** MD, PhD, FRSPH

Senior Program Specialist | Food, Environment and Health Pro

International Development Research Centre

Regional Office for Sub-Saharan Africa

3rd Floor, Eaton Place, United Nations Crescent, Gigiri,  
Nairobi-Kenya

Tel: +254 709 074000 EXT: 408

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