



Population Age Structure and Vulnerability to COVID19: Evidence from Kenya.

By

Moses Muriithi
Reuben Mutegi
Germano Mwabu

University of Nairobi
African Centre of Excellence for Inequality Research (ACEIR)

Date, 27 October, 2021

Outline

- Introduction
- Study rationale
- Data and sources
- Methodology
- Study findings
- Policy implications and lessons
- Conclusion

Introduction

Known facts:

- The coronavirus disease 2019 (COVID-19) is a communicable respiratory disease caused by a new strain of coronavirus that causes illness in humans
- It was first reported in China in November 2019, but has since spread throughout the world.
- There are fundamental attributes that exposes general population to the risk of the this pandemic(**vulnerability**) = Vulnerability is defined as the propensity of an area to be exposed to the spread of Covid-19 combined with limited capacity to control it and care for infected people, as well as high exposure to negative food security impacts (

Study rationale

So what is the issue?

- **Though COVID19 vulnerability factors are deemed many in the literature, age has been considered a key determinant (CDC and WHO various)**
- **The population of elderly people in sub-Saharan Africa is projected to reach 67 million by 2025 and 163 million by 2050**
- **About 80% of all death occurring because of COVID19 disease in Kenya are on persons aged above sixty years(MOH, KENYA, 2021)**

Study rationale...

- Thus interacting of age structure with other vulnerability factor will provide a more informed picture of COVID19 vulnerability.
- This helps at informing how a country like Kenya would redistribute its limited resources to address spread of the pandemic.
- **There is need to provide evidence to which age structure interacted with other vulnerability variable could mimic magnitude of covid19 susceptibility/riskness**
- The objective of this paper is to provide such insight using available comprehensive survey historical data.

Data and sources

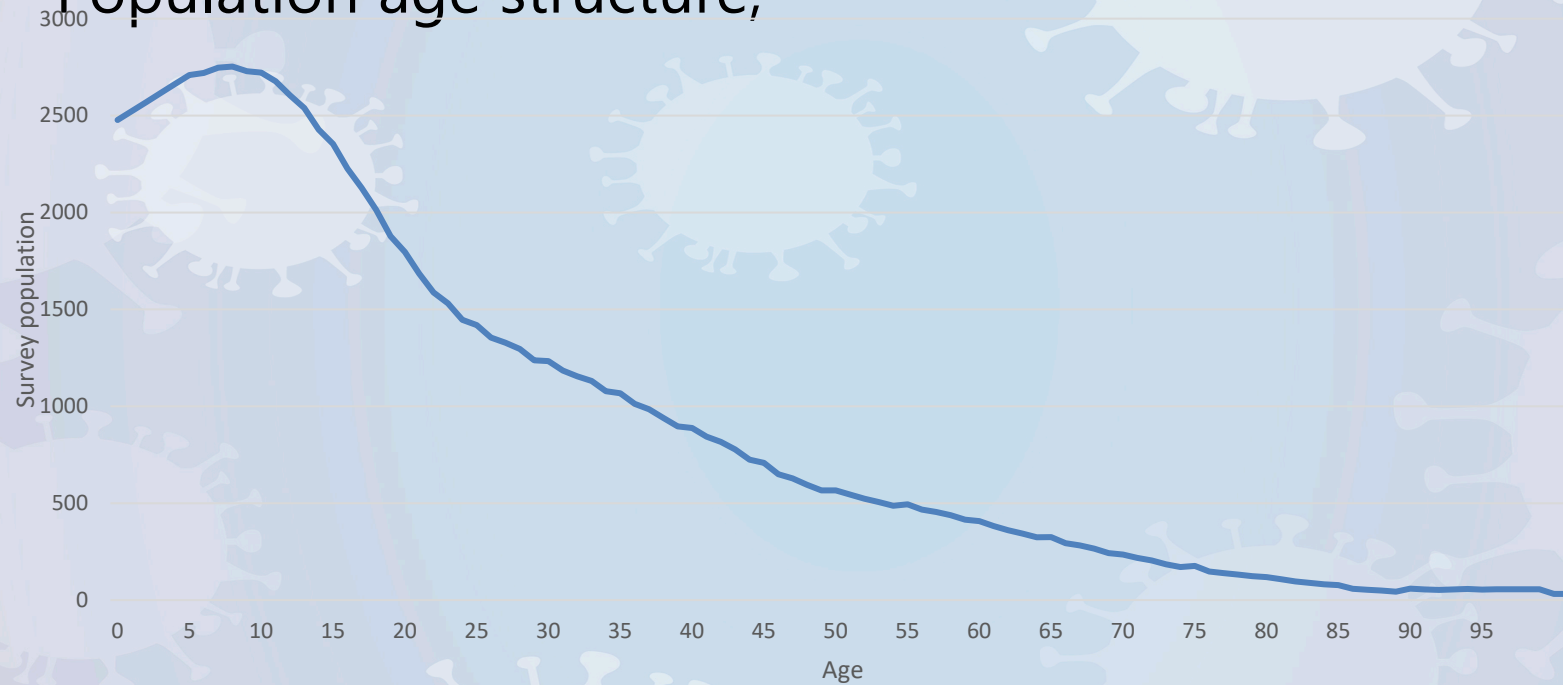
- This type of analysis is at the heart of how National Transfer Accounts (NTA) can inform policies to revive economies post-covid-19.
- Kenyan comprehensive household and individual survey data for 2015/2016 is used to document Kenyans vulnerability to COVID19.
- The data has age structure which is in line with lifecycle analysis.
- KEMRI Welcome Trust (2020) framework is used
- The framework describe a range of social constraints and access to services risk during COVID19 disease

Methodology

- The method of analysis follows the now well established NTA model to align vulnerability to COVID-19 to population's age structure
- The age structure is the summary variable that shows the extent to which different populations are vulnerable to COVID.
- The analysis goes further and shows profiles COVID-19 vulnerability to other relevant variables identified in recent literature.
- The other factors identified in the literature include: area of residence, sanitation, gender, health status, education, access to ICT-related infrastructure.

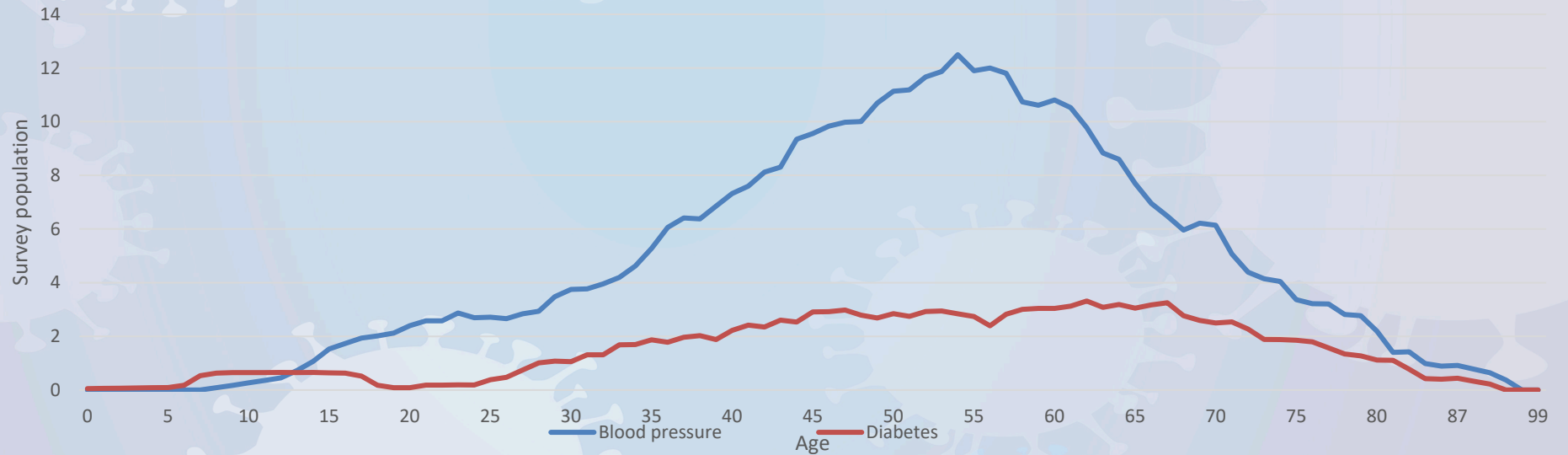
Some key Study findings:

- Population age structure;



Study findings...

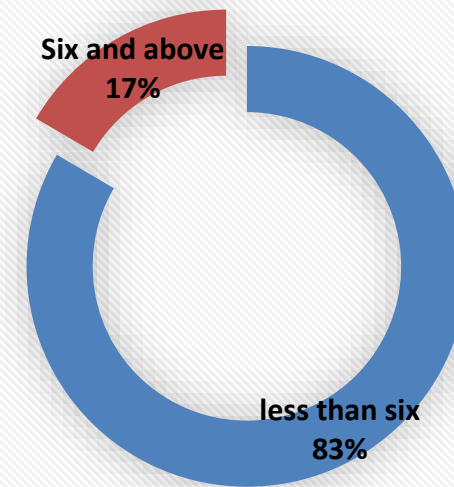
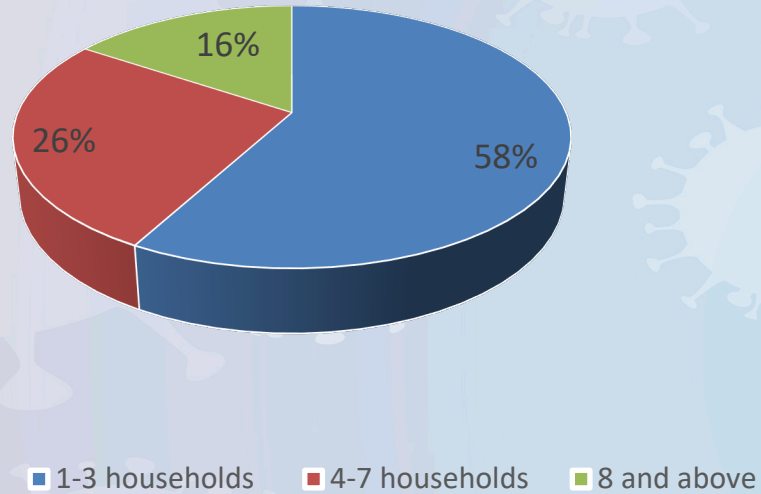
Health: Blood pressure and Diabetes



Findings...

- Majority of population of age 0-80 have no hand washing facilities at homes.
- It is noted that people of age 20-55 mostly use public means of transport, hence are exposed to covid-19
- A significant fraction of population, age 0-25, live in rural areas.
- However, from age 25 the population living in rural areas almost mirrors the one in urban areas where COVID19 has hit hard.

Study findings: Sharing of toilet and house household size



Policy implications and lessons

- Population groups living in vulnerable situations, are at high risk of contracting COVID.
- Targeted policies, guided by age structure data, can help reduce this risk.

Conclusions

- The analysis provides evidence about what policy makers can do to slow transmission of the COVID-19 disease, and similar pandemics – in the future.
- Routine health system surveillance tools, backed by NTA research at country levels, is key to the design of prevention and mitigation measures.

CONFERENCE NTA-AFRICA 2



MERCI DE VOTRE ATTENTION