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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 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 pleasure 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

- 58% share toilet and house in less than six households
- 16% share toilet and house in 4-7 households
- 26% share toilet and house in 8 and above households
- 17% share toilet and house in six and above households
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.
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