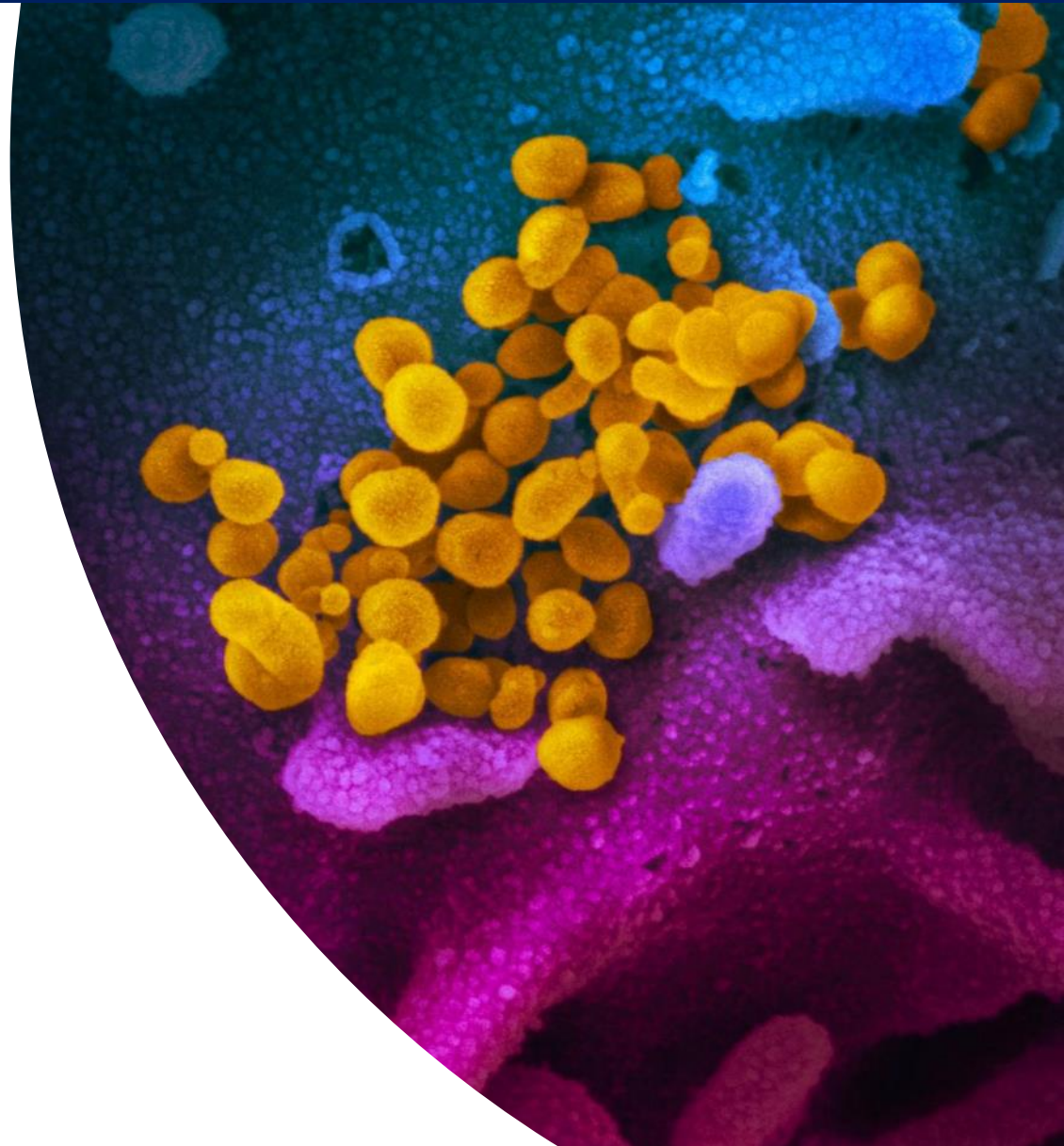


The UK's science-led response to COVID-19 and its role in harnessing a demographic dividend



Foreign, Commonwealth
& Development Office

Professor Charlotte Watts
FCDO Chief Scientific Adviser



Conceptual framework for demographic dividend



Proximate determinants:

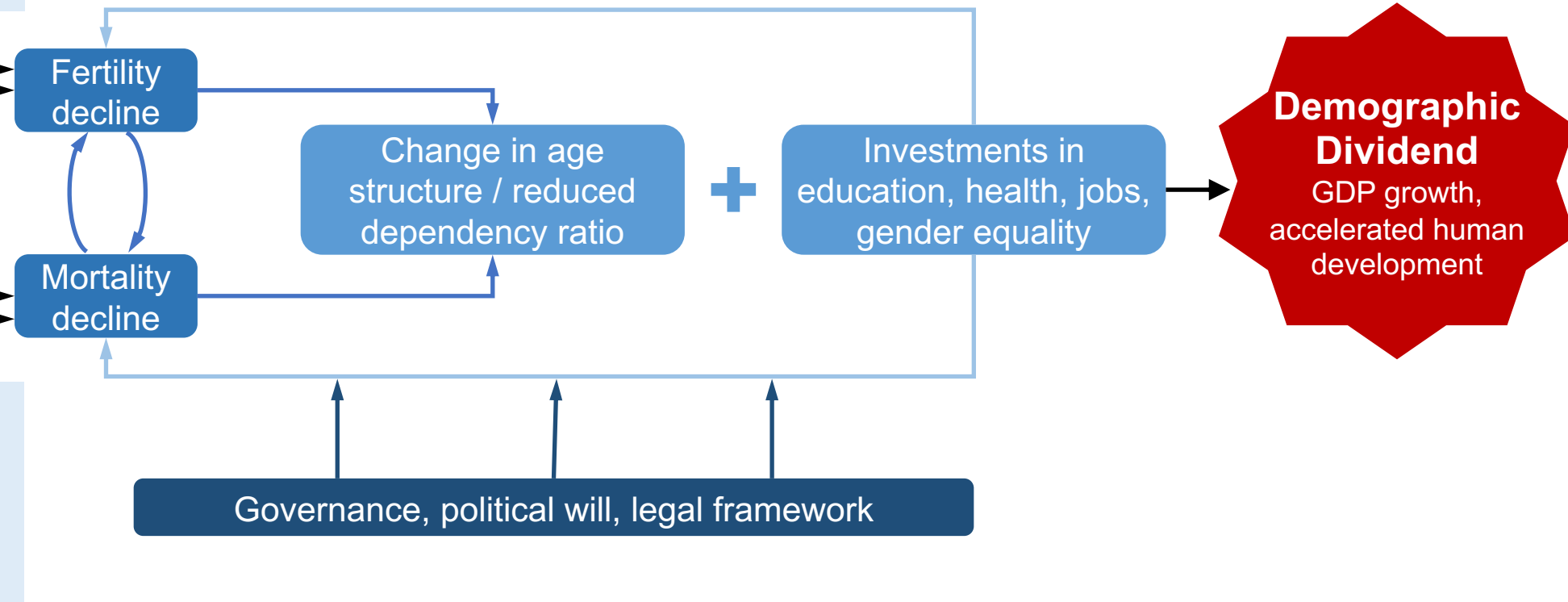
e.g. access to SRHR services and breastfeeding promotion

Distal determinants:

e.g. education, gender equality, income and employment

Proximate determinants:

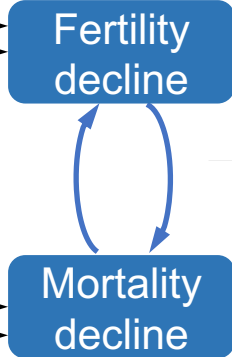
e.g. access to maternal, newborn and child health services; access to nutritious diets



COVID-19 is impacting on the proximate determinants of fertility and mortality

Proximate determinants:
e.g. access to SRHR services and breastfeeding promotion

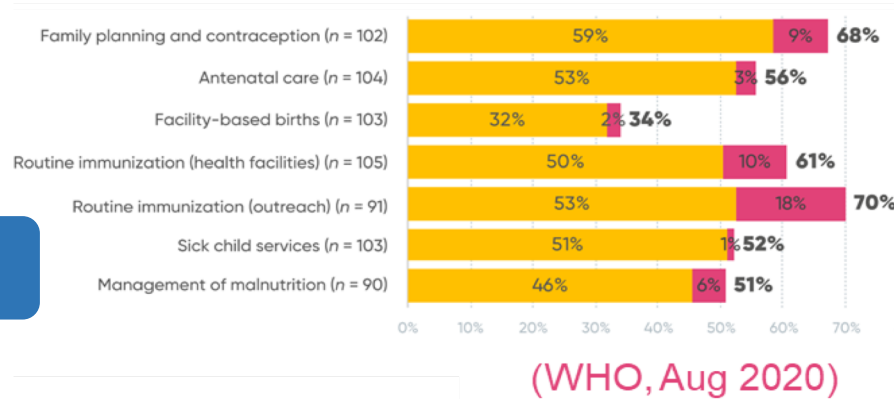
Distal determinants:
e.g. education, gender equality, income and employment



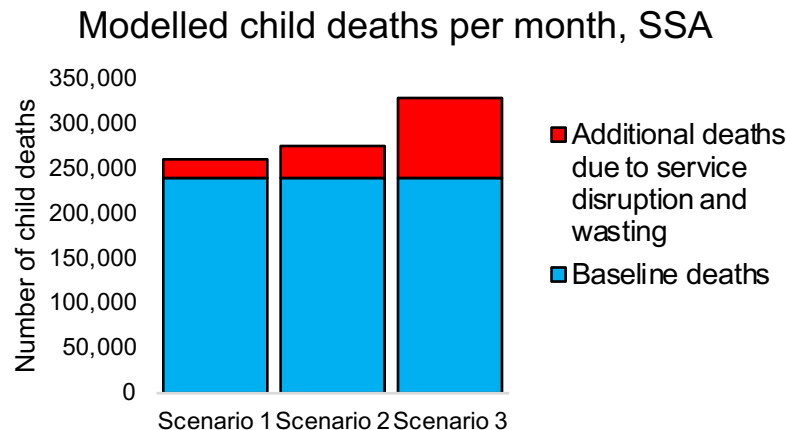
Proximate determinants:
e.g. access to maternal, newborn and child health services; access to nutritious diets

Family planning second most disrupted service; early data from Kenya suggests increased adolescent pregnancy / maternal mortality

Fig. 7. Percentage of countries reporting disruptions in reproductive, maternal, newborn, child and adolescent health, and nutrition services



Modelled projection of service disruptions in SSA: up to 88,000 additional child deaths and up to 4,300 additional maternal deaths per month

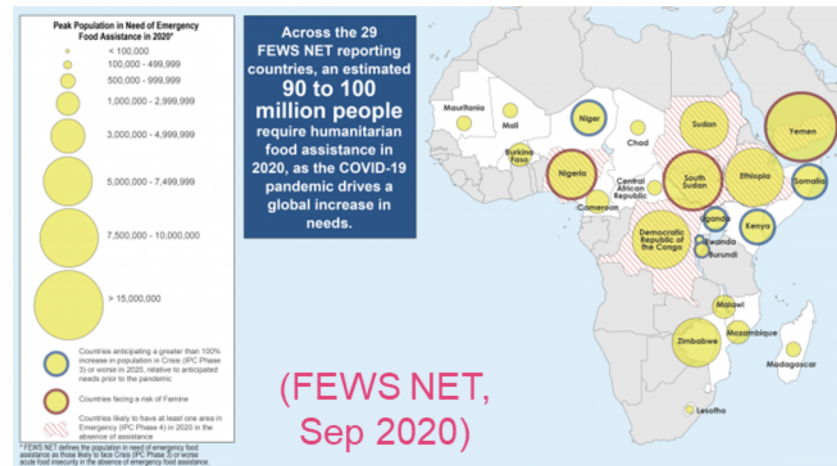


(Roberton T, et al, May 2020)

Modelled projections of service disruptions in SRHR and TB / HIV / malaria

- Up to 15 million unintended pregnancies and 3.3 million unsafe abortions if SRHR service coverage declines by 10% (Guttmacher, Apr 2020)
- Mortality impact of TB, HIV, and malaria in high burden areas projected to be of the same order of magnitude as COVID-19 over 5 years (Hogan AB et al, Sep 2020)

High risk of acute food & nutrition insecurity across SSA with COVID-19 exacerbating risk from conflict, climate, and other ongoing drivers



COVID-19 also impacting on the distal determinants of women's social & economic empowerment

Proximate determinants:

e.g. access to SRHR services and breastfeeding promotion

Distal determinants:

e.g. education, gender equality, income and employment

Proximate determinants:

e.g. access to maternal, newborn and child health services; access to nutritious diets

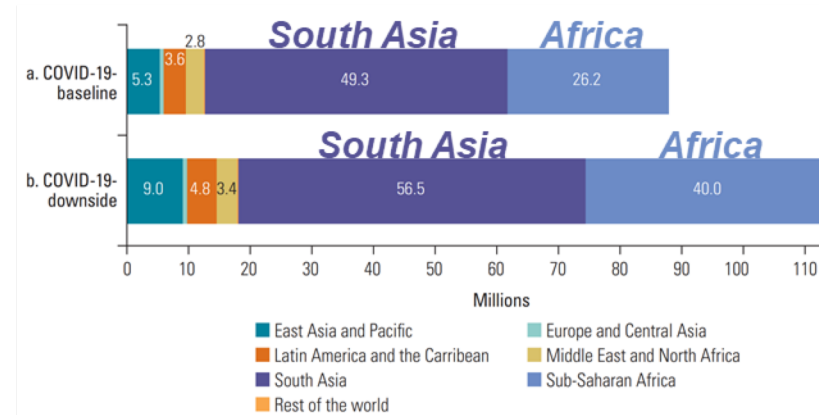
Fertility decline

Mortality decline

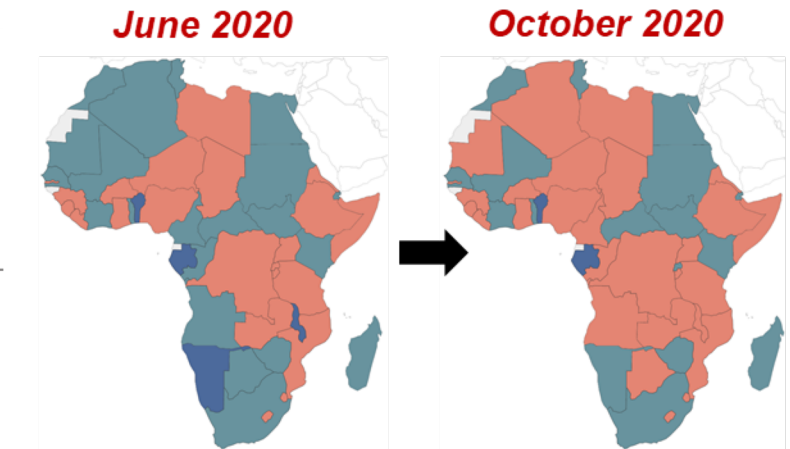
WB projects 26-40 million additional extreme poor in sub-Saharan Africa due to COVID-19

Income support coverage is limited and falling despite impact on livelihoods and incomes

FIGURE 0.4 Additional Poor at the US\$1.90-a-Day Poverty Line in 2020, per the COVID-19-Baseline and COVID-19-Downside Scenarios



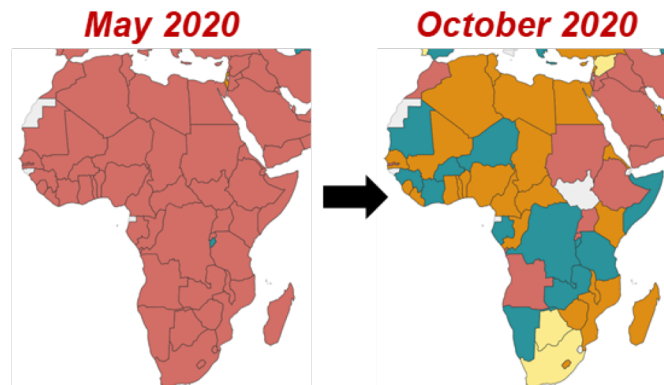
No income support Covers <50% of lost salary Covers >50% of lost salary



School closures slowly easing; at least half in SSA can't access remote learning (poor /

Evidence of COVID-19 threatening progress made on gender equality in SSA

No measures Recommended Required (only at some levels) Required (all levels)



(UNESCO, Oct 2020)

- ↑ violence against women and girls upwards of 25% (UNSG);
- >600,000 additional girls at risk of child marriage; >500,000 of adolescent pregnancy (SCF);
- disproportionate impact on women's economic activity, e.g. 70% of domestic workers in Africa are women – hard hit by containment measures (ILO).
- over 11 million girls may not go back to school, many of these in SSA (UNESCO).

Multi-sectoral action to mitigate impacts

- UK response includes **over £1 billion** to combat COVID-19 and reinforce the global vaccine effort.
- Includes **£145 million for UN appeals across sectors** including health / SRHR, education, food and nutrition security, and economy; **£55 million to IFRC**; and up to **£20 million to Africa CDC**.
- In addition, **over 300 programmes across more than 35 countries** addressing direct and indirect impacts of COVID-19 across health including SRHR, education, economy and social protection, gender equality, and governance.

The Women's Integrated Sexual Health programme: delivery of SRHR services

- **Supporting adaptation & maintenance of SRHR service delivery in 24 countries in Africa.**
- **Reinforcing importance of sexual and reproductive health (SRH) during pandemic**, leading to 10 countries classifying SRH as essential service.
- Enhanced screening, counselling and communications for **sexual and gender based violence**.
- **Partnership with AU** for investments for demographic dividend.



Image: WISH radio spots highlighting SRHR services during COVID-19

Girls education programming: delivery of remote and blended learning, and preparing schools for re-opening

- In **Ethiopia**, provided \$5 million to support digital technologies and connectivity; and educational leadership training for blended learning.
- In **Malawi** the Global Programme for Education has provided \$10 million to get schools and teachers ready for recovery.
- UK and Kenya will co-host a **high-level summit in 2021** to lead global action to educate every child and raise funds for the Global Partnership for Education.

Significant UK ODA R&D investments by FCDO

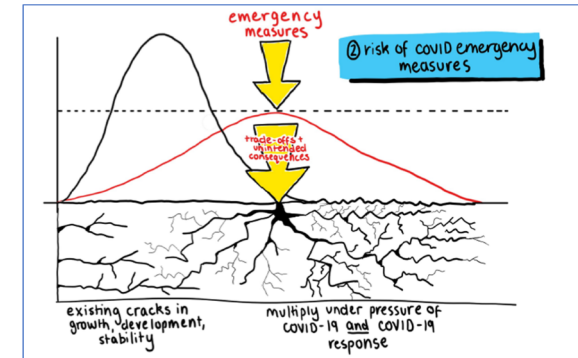
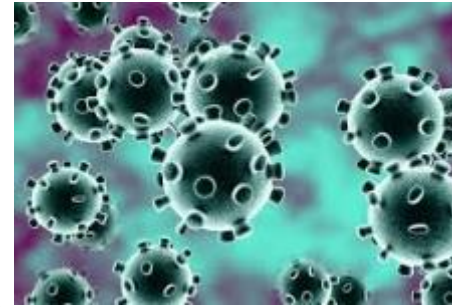
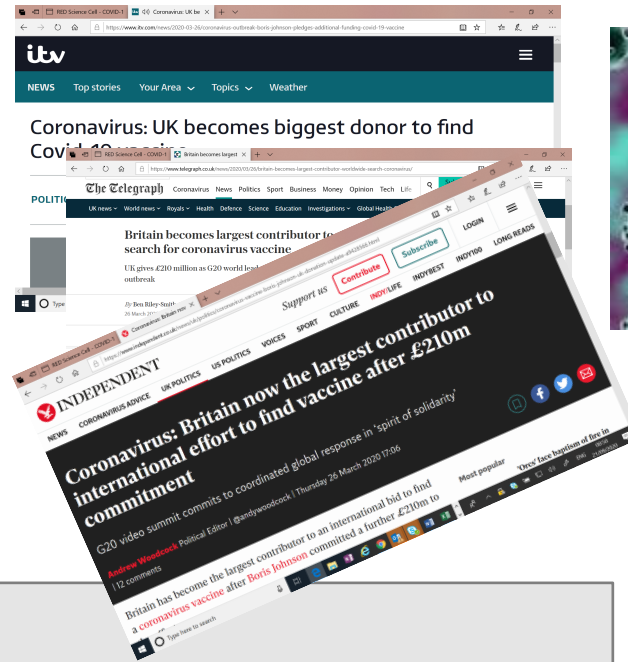
MAJOR NEW R&D INVESTMENTS

More than £400m DFID R&D investment to support the development and testing of vaccines, therapeutics and diagnostics (£313m), and to support innovations and to mitigate indirect impacts of COVID-19

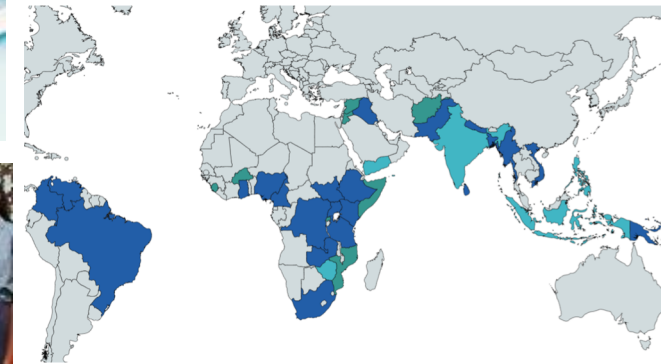


Broad range of areas supported:

- Support for surveillance and epidemiological modelling
- Monitor and identify how to respond to indirect impacts of COVID-19:
- Governance and conflict
- Economic growth
- Education
- Agriculture and food resilience
- Humanitarian responses
- Coalition for Epidemic Preparedness Innovations (CEPI) – Vaccines (£250m)
- Foundation for Innovations in Diagnostics (FIND) (£23m)
- ACT Therapeutics Accelerator – therapeutics (£40m)
- R&D on hygiene in partnership with Unilever (£50m)
- Frontier Tech COVID action – technologies (£4m)
- COVID-19 modelling - Wellcome Epidemic Partnership (£5m)



The COVID-19 Hygiene Hub is a free global service to help actors in LMICs who are responding to the pandemic to rapidly share their expertise and have their questions answered. The Hygiene Hub operates in English, French, Spanish, and Arabic.



Supporting multi-sectoral research, working with a broad range of partners



G²LM|LIC

Gender, Growth, and Labour Markets in Low Income Countries Programme

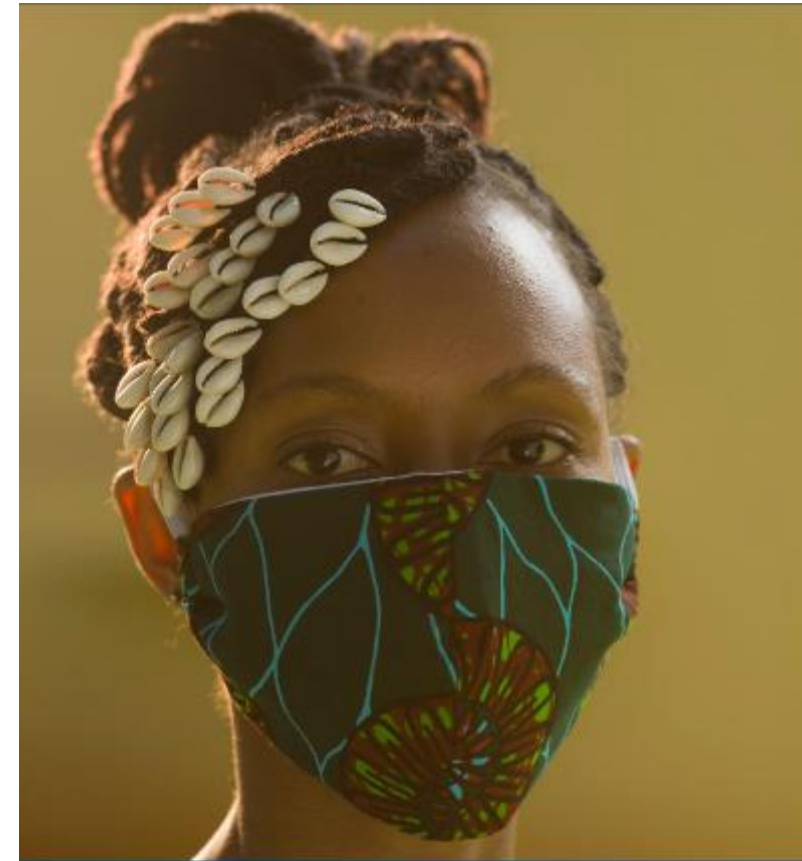


Private Enterprise Development in Low-Income Countries

3 rapid launches of **special calls for COVID-19 research**:

1. To collect data on the indirect impact of COVID-19 on **households, firms, and labour markets**.
2. To build evidence on **how to reduce these impacts** to aid recovery.

Social science and demography key in informing policy response (collaboration with AAS / KEMRI)



GRID³

GEO-REFERENCED INFRASTRUCTURE AND DEMOGRAPHIC DATA FOR DEVELOPMENT

- **High-resolution demographic data** through integration of geospatial and statistical data which is being **integrated into COVID-19 dashboards** that are better informing national COVID-19 responses.

Joint Initiative on Research in Epidemic Preparedness and Response

SSHAP

Social Science in Humanitarian Action Platform

- Rapid production of **social science research on the COVID-19 pandemic**, including preventing broader health impacts, integrating a gender lens.
- Broader research collaboration with Wellcome Trust investing in **essential research for disease control** to help inform COVID-19 responses in Africa.



GENDER INNOVATION LAB

- Africa Gender Innovation Lab (GIL) at the World Bank, supported by the UK, rapidly launched surveys on the **impacts on women in the workforce and women-owned firms in Africa**.

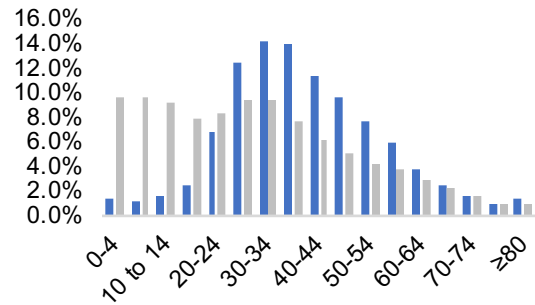
HEALTH AND SOCIO-ECONOMIC IMPACTS OF PHYSICAL DISTANCING FOR COVID-19 IN AFRICA

MAY, 2020

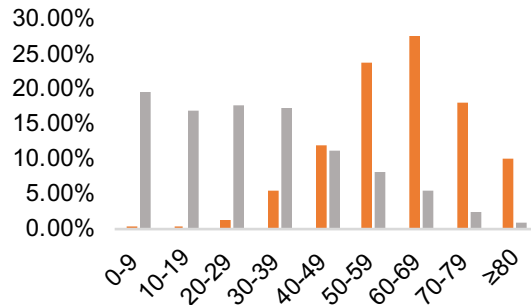
Data and analysis from SA instrumental in informing understanding of COVID-19 in LIC / MICs

Early disaggregated case and mortality data

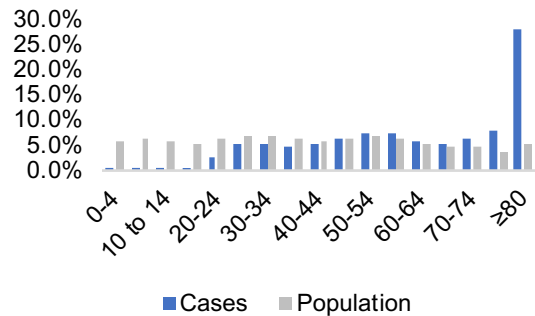
Distribution of cases and population - South Africa



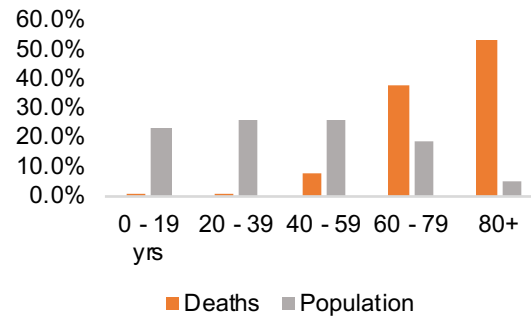
Distribution of deaths and population - South Africa



Distribution of cases and population - England

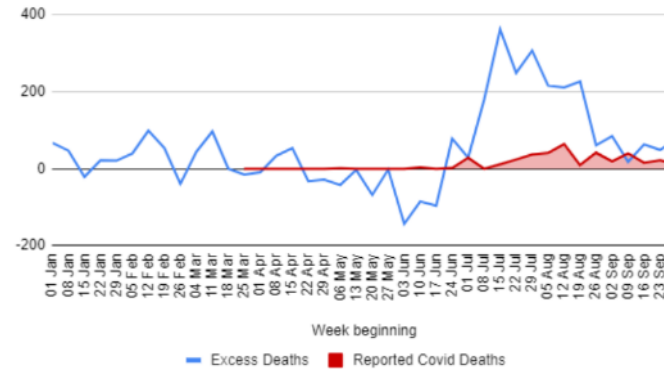


Distribution of deaths and population - England

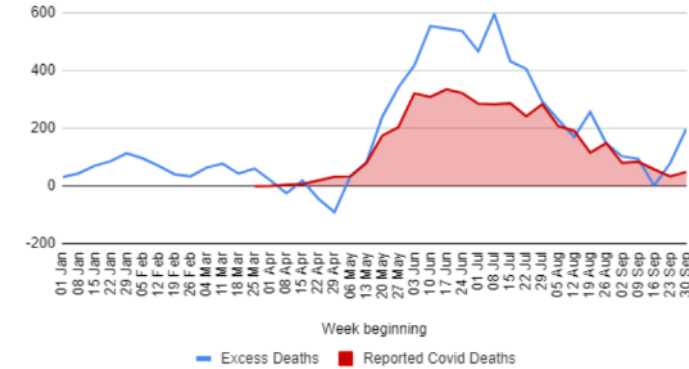


Excess vs COVID-19 deaths and under-ascertainment

NW (Natural) Excess Deaths and Reported Covid-19 Deaths



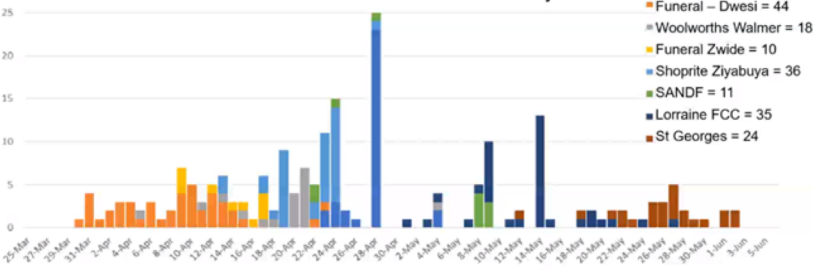
WC (Natural) Excess Deaths and Reported Covid-19 Deaths



Detection and approach to super-spreading events

Covid-19 in Eastern Cape

Covid-19 clusters with >10 cases in Nelson Mandela Bay district



Credit: Prof Abdool Karim, June 2020

- First case: 21 March
- Spreading events (outbreaks) in Apr - funerals, supermarkets, prisons, prominent GP (12)
- Funeral (10) → Westbank Prison (29) → Westbank community (33) + Mdantsane family (3) - seeding of vulnerable areas



Future COVID-19 vaccine strategies will need to apply a gendered & demographic lens

Researchers from around the world are racing to develop a COVID-19 vaccine

UK support from lab to job

156

19

11

2

10

0

Vaccines in pre-clinical evaluation

Vaccines in phase 1 small-scale safety trials

Vaccines in phase 1/2 safety trials

Vaccines in phase 2 expanded safety trials

Vaccines in phase 3 large-scale efficacy trials

Vaccines approved for general use

Source: WHO Draft landscape of COVID-19 candidate vaccines, 15th October

- Up to £548m for the COVAX Advance Market Commitment to ensure vaccines are affordable and available equitably
- Up to £250m to CEPI to support global development of COVID-19 vaccines
- Over £130m (non-ODA) to accelerate work undertaken by Oxford University and Imperial College London, including phase 3 trials and manufacturing the vaccine at scale

WHO recommends priority populations for vaccine targeting strategies

Different vaccines may be required in different populations

Epidemiologic setting scenario	Overall public health strategy for epidemiologic setting	Vaccine supply scenario	Priority populations
Widespread transmission	Initial focus on direct reduction of morbidity and mortality and maintenance of most critical essential services; also, reciprocity. Expand to reduction in transmission to further reduce disruption of social and economic functions. (A1) (A2) (A3) (B1) (B2) (C1) (C2) (D1)	Stage I (very limited vaccine availability, ranging from 1-10%)	Stage Ia (Initial Launch) <ul style="list-style-type: none"> - Health workers at high to very high risk of acquiring and transmitting infection (A1) (A3) (C1) (D1) Stage Ib <ul style="list-style-type: none"> - Older adults defined by age-based risk specific to country/region, specific age cut-off to be decided at the country level (A1) (C1)
		Stage II (limited vaccine availability, ranging from 11-20%)	<ul style="list-style-type: none"> - Older adults not covered in Stage I (A1) (C1) - Groups with comorbidities or health states determined to be at significantly higher risk of severe disease or death (in countries where the relevant comorbidities can be equitably assessed across the population) (A1) (C1) - Sociodemographic groups at significantly higher risk of severe disease or death (A1) (B1) (B2) (C1) (C2)

“Furthermore, multiple vaccine types will probably be needed across different populations (e.g. infants, children, pregnant women, immunocompromised individuals, and immunosenescent individuals aged ≥65 years).”

Source: WHO SAGE meeting of October 2020 Session 3: Roadmap for prioritizing population groups for vaccines against COVID-19

Source: Poland GA et al. SARS-CoV-2 immunity: review and applications to phase 3 vaccine candidates. Lancet. 2020; (published online October 13th)

Looking to the future

Trajectory of COVID-19

- ⇒ We cannot accurately predict how long the pandemic will last and / or scale of impacts
- ⇒ It is **likely that COVID-19 and the threat of COVID-19 will be with us for 1-2 years +**
- ⇒ **Infectious diseases, including COVID-19, thrive on inequality and disadvantage. The most vulnerable likely to experience the most significant impacts from direct and indirect impacts**

Demographic dividend under threat?

- ⇒ Evidence suggests that COVID-19 impacting on both the proximate and distal drivers of demographic trends
- ⇒ Although biologically, women may be at less risk of severe illness, they are likely to be more vulnerable to secondary impacts
- ⇒ Without action, may have significant major implications for demographic trends across the continent

Managing COVID-19 as a protracted crisis

- ⇒ **For many, the secondary impacts of COVID-19 are more significant than COVID-19, and will have a legacy beyond COVID-19**
- ⇒ **COVID-19 responses need to minimise indirect impacts**, including on drivers of a demographic dividend e.g. health, education, jobs, food and nutrition security, and gender equality.
- ⇒ **Cannot wait for a 'post COVID-19 world'. Investments in development need to continue, with adaptation**, to try to deliver services effectively in the context of ongoing transmission, and supporting catch up activities, where feasible