



COVID-19

Demography Evidence Summary

No.9

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This is the 9th of a weekly COVID-19 Demography Evidence Summary (DES) to signpost DFID and other UK government departments to the latest relevant evidence and discourse on COVID-19 to inform and support their response. It is a result of 4 hours of work per week and is not intended to be a comprehensive summary of available evidence on COVID-19 but aims to make original documents easily accessible to decision makers which, if relevant to them, they could refer to before making decisions.

The scope of DES includes emerging evidence on i) how COVID-19 impacts on demographic indicators, ii) how demographic indicators impact on transmission/spreading and mortality rate, and iii) policy advice on tailoring such responses to account for demographic indicators.

** Means a specific focus on Africa.*

Academic journal articles and research papers

Impact of demographic indicators on COVID-19 spreading and mortality

Publication date	Title/URL	Journal/Publication type	Authors	Summary	Tags
08.07.2020	The COVID-19 mortality effects of underlying health conditions in India: a modelling study	medRxiv (not peer reviewed)	Novosad, P., Jain, R., Champion, A., & Asher, S.	This study compares COVID-19 comorbidities and how it will affect mortality rates and the age distribution of mortality in India with a high income country, England. The findings show that relative to England, Indians have higher rates of diabetes (10.6% vs. 8.5%), chronic respiratory disease (4.8% vs. 2.5%), and kidney disease (9.7% vs. 5.6%), and lower rates of obesity (4.4% vs. 27.9%), chronic heart disease (4.4% vs. 5.9%), and cancer (0.3% vs. 2.8%). Population COVID-19 mortality in India relative to England is most increased by diabetes (+5.4%) and chronic respiratory disease (+2.3%), and most reduced by obesity (-9.7%), cancer (-3.2%), and chronic heart disease (-1.9%). Overall, comorbidities lower mortality in India relative to England by 9.7%. Accounting for demographics and population health explains a third of the	Comorbidity, age structure

				difference in share of deaths under age 60 between the two countries.	
07.07.2020	Are men dying more than women by COVID-19?	medRxiv (not peer reviewed)	Pinto de Melo, T., Alves Silva, D., & Naime Barbosa, A.	<p>The study aimed to clarify if the infection and death rate by COVID-19 differ among gender in the top 50 countries with the highest death rates. Also, the authors investigated if secondary variables such as Human Development Index (HDI), number of hospital beds, average age, temperature, percentage of elderly, smoker and obesity are contributing to the variability observed among countries. Meta-analyses and meta-regressions approaches were applied to official public data reported by the WHO and governments until May 2020. A random effect model was used for the meta-analysis and heterogeneity was calculated by I2 statistic. There was not significative difference between men and women to be infected by COVID-19 ($P = 0.42$), though a significative difference was observed for death rate ($P < 0.0001$). High heterogeneity was observed among countries. For both infection and death rates this variability was mainly explained by the HDI (42.3% and 54.2%). Countries with highest HDI present less difference between sexes.</p>	Mortality, gender, poverty

*07.07.2020	Does sub-Saharan Africa truly defy the forecasts of the COVID-19 pandemic? Response from population data	medRxiv (not peer reviewed)	Dongmo, F.M.C., Ndjabo Monique, A., Amandus, A. et al.	<p>As Sub-Saharan Africa seems to defy most predictions the authors conducted a cross-sectional study comparing the projected and actual numbers as well as population proportions of COVID-19 cases in the 46 SSA countries on May 1st, May 29th (4 weeks later) and June 26th (8 weeks later). The source of the projected number of cases was a publication by scientists from the Center for Mathematical Modeling of Infectious Diseases of the LSHTM, whereas the actual number of cases was obtained from the WHO situation reports. On May 1st, May 29th and June 26th, respectively 40 (86.95%), 45 (97.82%) and 41 (89.13%) of the SSA countries reported a number of confirmed cases that was lower than the predicted number of 1000 cases for May 1st and 10000 for both May 29th and June 26th. At these dates, the population proportions of confirmed Covid-19 cases were significantly lower (p-value <0.05) than the projected proportions of cases. Across all these dates, South-Africa always exceeded the predicted number and population proportion of COVID-19 infections. The authors conclude for SSA countries that they defy the dire predictions of the COVID-19 burden. Preventive measures should be further enforced to preserve this positive outcome.</p>	Spreading
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*26.06.2929	Younger ages at risk of Covid-19 mortality in communities of color	Gates Open Source (not peer reviewed)	Klugman, K.P., Zewdu, S., Mahon, B.E. et al.	More than 85% of Covid-19 mortality in high income countries is among people 65 years of age or older. Recent disaggregated data from the UK and US show that minority communities have increased mortality among younger age groups and in South Africa initial data suggest that the majority of deaths from Covid-19 are under 65 years of age. These observations suggest significant potential for increased Covid-19 mortality among younger populations in Africa and South Asia and may impact age-based selection of high-risk groups eligible for a future vaccine.	Mortality, Age structure
26.06.2020	Exploring the young demographic profile of COVID-19 cases in Hong Kong: Evidence from migration and travel history data	PLOS One (peer reviewed)	Cruz, C.J.W., Ganly, R., Li, Z. & Gietel-Basten, S.	This paper investigates the profile of COVID-19 cases in Hong Kong, highlighting the unique age structure of confirmed cases compared to other territories. The analysis shows that positive cases in Hong Kong have been concentrated among younger age groups, with the largest incidence of cases reported in the 15–24 age group. This is despite the population's rapidly aging structure and extremely high levels of population density. Using detailed case data from Hong Kong's Centre for Health Department and Immigration Department, the study analyses the sex and age distribution of the confirmed cases along with their	Age structure, Youth, Migration

				<p>recent travel histories and immigration flows for the period January to April 2020. It shows Hong Kong's high proportion of imported cases and large overseas student population in developing COVID-19 hotspot areas such as the United Kingdom. Combined with community action and targeted and aggressive early policy measures taken to contain the virus, these factors may have contributed to the uniquely younger age structure of COVID-19 cases in the city. Consequently, this young profile of confirmed cases may have prevented fatalities in the territory.</p>	
18.06.2020	<p>Does Density Aggravate the COVID-19 Pandemic? Early Findings and Lessons for Planners</p>	Journal of the American Planning Association	Hamidi, S., Sabouri, S., & Ewing, R.	<p>The study finds metropolitan population to be one of the most significant predictors of infection rates; larger metropolitan areas have higher infection and higher mortality rates. It also finds that after controlling for metropolitan population, county density is not significantly related to the infection rate, possibly due to more adherence to social distancing guidelines. However, counties with higher densities have significantly lower virus-related mortality rates than do counties with lower densities, possibly due to superior health care systems. These findings suggest that connectivity matters more than density in the spread of the COVID-19 pandemic. Large metropolitan areas with a higher number of counties tightly linked together through economic, social, and commuting relationships are the most vulnerable to the pandemic</p>	Population Density, Spreading

				outbreaks. They are more likely to exchange tourists and businesspeople within themselves and with other parts, thus increasing the risk of cross-border infections.	
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Impact of COVID-19 on demography

Publication date	Title/URL	Journal/Publication type	Authors	Summary	Tags
June	Precarity and the pandemic. COVID-19 and poverty incidence, intensity, and severity in developing countries	Working Paper by UNU-WIDER / WIDER WP 2020.77	Sumner, A., Ortiz-Juarez, E., & Hoy, C.	This paper makes a set of estimates for the potential impact of the COVID-19 pandemic on poverty incidence, intensity, and severity in developing countries and on the distribution of global poverty. The authors conclude there could be increases in poverty of a substantial magnitude—up to 400 million new poor living under the \$1.90 poverty line, over 500 million new poor living under the poverty lines of \$3.20 and \$5.50. Further, the global income shortfall below each poverty line could expand by up to 60 per cent; the daily income losses could amount to \$350m among those living under \$1.90 per day and almost \$200 million among the group of people newly pushed into extreme poverty. Finally, the report presents country-level poverty estimates that show the location of global poverty is likely to shift towards	Socioeconomic, poverty

				middle-income countries and South Asia and East Asia. Our estimates are indication of the range of potential outcomes.	
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Policy briefs, statements, tools, guidelines

Publication date	Title/URL	Publication organisation/type	Authors	Tags
08.07.2020	COVID-19 Mortality Risk Assessment: An International Multi-Center Study	medRxiv (not peer reviewed) / Introduction to COVID-19 Mortality Risk Assessment (CMR) tool	Bertsimas, D., Lukin, G., Mingardi, L. et al.	Mortality
30.06.2020	Doing Things Differently: What It Would Take to Ensure Continued Access to Contraception During COVID-19	Global Health: Science and Practice / Volume 8, Issue 2 / GHSP-D-20-00171/ 32561528	Weinberger, M., Hayes, B., White, J., & Skibiak, J.	Family Planning, Policy
*22.06.2020	Covid-19 in West Africa: Impact on the value chains	Policy brief by Clingendael Institute	Bisson, L. & Hambleton, T.	Economy, Policy
18.06.2020	UN Policy Brief: The World of Work and COVID-19	Policy brief by UN/ILO	United Nations	Employment, Policy

Comments, Editorials, Opinions, Blogs, News

Publication date	Title/URL	Article type	Authors
*08.07.2020	Learning from the best: Evaluating Africa's COVID-19 responses	Blog post in Brookings	Youssef Travaly (Vice President AIMS-NEI Global Network) and Aretha Mare (Research Officer – Next Einstein Forum)
*06.07.2020	How are the youth stepping up to COVID-19 in Africa?	Blog post in LSE	Alcinda Honwana (Strategic Director at LSE's Firoz Lalji Centre for Africa and Centennial Professor at the

			Department of International Development) and Nyeleti Honwana (Program Officer at the Harry Frank Guggenheim Foundation and a co-founder of Global Black Youth)
*03.07.2020	Covid-19: No large hidden outbreak in Africa but health worker shortage worsens	News article in BMJ / 2020;370:m2685	Owen Dyer
*02.07.2020	The 'Gig Economy': What a halt in travel and tourism means for the youth in Africa	Blog post in Africa Population and Health Research Center (APHRC)	John Muchira (Postdoctoral Research Scientist)
*18.06.2020	COVID-19 Across Africa: Epidemiologic Heterogeneity and Necessity of Contextually Relevant Transmission Models and Intervention Strategies	Opinion in Annals of Internal Medicine	Jean Olivier Twahirwa Rwema, Daouda Diouf, Nancy Phaswana-Mafuya
*11.06.2020	Who has been hit hardest by South Africa's lockdown? We found some answers	Article in The Conversation	Channing Arndt (IFPRI, CGIAR) and Sherman Robinson (IFPRI)

COVID-19 Data hubs relevant for Demography

Organisation	Title	URL
*African Arguments	Coronavirus in Africa Tracker: Data on confirmed cases in Africa	https://africanarguments.org/2020/06/11/coronavirus-in-africa-tracker-how-many-cases-and-where-latest/
Data World	COVID-19 Data Resource Hub	https://data.world/resources/coronavirus/
UN statistics division	Updates on census 2020 and COVID-19	https://unstats.un.org/unsd/demographic-social/census/COVID-19/
*GeoPoll	Data dashboard on COVID-19 impact on Africa	https://www.geopoll.com/blog/coronavirus-in-sub-saharan-africa-food-security-covid-testing/#dashboard
Migration Data Portal	Migration data relevant for COVID-19 pandemic	https://migrationdataportal.org/themes/migration-data-relevant-COVID-19-pandemic
World Bank Group	Understanding the COVID-19 pandemic through data: Data centre on COVID-19	http://datatopics.worldbank.org/universal-health-coverage/coronavirus/
Flowminder	Using mobile operator data to track COVID-19	https://COVID19.flowminder.org/

University of Southampton	WorldPop global demographic data: Portal with localised demographic data on sex and age accessible to tailor COVID-19 responses	https://www.southampton.ac.uk/publicpolicy/COVID19/tatem-worldpop.page
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COVID-19 Resource hubs relevant for Demography

Organisation	Title	URL
*African Population and Health Research Centre (APHRC)	APHRC COVID-19 Situation updates in Sub-Saharan Africa	https://aphrc.org/COVID-19-situation-updates/
*Africa Centres for Disease Control and Prevention (Africa CDC)	Africa CDC COVID-19 Resource hub	https://africacdc.org/COVID-19/COVID-19-resources/
*UN Development System in Africa	One-stop knowledge information centre of all UN agencies on COVID-19	https://knowledge.uneca.org/COVID19/
Family Planning 2020	Family Planning and COVID-19 resource hub	http://familyplanning2020.org/COVID-19
Global Partnership for Sustainable Development Data	COVID-19 resources hub on data and mapping	http://www.data4sdgs.org/resources/COVID-19-resources
*INCLUDE Knowledge Platform	COVID-19: Challenging Inclusive Development in Africa	https://includeplatform.net/inclusive-development-covid-19-pandemic/
International Conference on Family Planning	COVID-19 and reproductive health	https://icfp2021.org/COVID19
International Union for the Scientific Study of Population	Demographers' contributions to the understanding of the COVID-19 pandemic	https://iussp.org/fr/node/11297
*ONE	The ONE Africa COVID-19 Tracker	https://www.one.org/africa/about/policy-analysis/covid-19-tracker/

Population Council	Research hub on the COVID-19 pandemic	https://www.popcouncil.org/research/responding-to-the-COVID-19-pandemic
Population Europe	The Network of Europe's leading Demographic Research Centres on Demography and COVID-19	https://population-europe.eu/news/demography-coronavirus
REACH Initiative	Supporting the Humanitarian Response to COVID-19	https://www.reach-initiative.org/what-we-do/news/updates-on-ongoing-research-and-activities-linked-to-covid-19-pandemic/
UNFPA	United Nations Population Funds COVID-19 knowledge hub	https://www.unfpa.org/COVID19

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Methodology

The rapid weekly search looks for peer-reviewed academic articles, however, due to rapid developments most academic literature is not peer-reviewed (yet). Therefore, the literature is complemented by a search of the homepage of high-impact global health, demography and population journals and a Twitter search of their Twitter pages. A search also of preprints, for example from medRxiv. Additional commentaries, opinions, and commissioned pieces are selected based on relevance. The search for dashboards, guidelines, tools, editorials, comments, blogs, opinions and news is mostly through academic institutions, journals, C19 resource hubs and following lead academics and professionals on Twitter.

About this report

The weekly Demography Evidence Summaries are not intended to replace professional advice and the researcher or the K4D consortium cannot be held responsible for any decisions made about COVID-19 on the basis of the summaries alone.

K4D services are provided by a consortium of leading organisations working in international development, led by the Institute of Development Studies (IDS), with Education Development Trust, Itad, University of Leeds Nuffield Centre for International Health and Development, Liverpool School of Tropical Medicine (LSTM), University of Birmingham International Development Department (IDD) and the University of Manchester Humanitarian and Conflict Response Institute (HCRI).

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