

COVID-19

Demography Evidence Summary

No.6

Evert-jan Quak

Institute of Development Studies

18 June 2020

This is the sixth 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 decisionmakers which, if relevant to them, they could refer to before making decisions.

The scope of DES has been broadened from this week on by including evidence on how COVID-19 impacts on demographic indicators, with a focus on sub-Saharan Africa. Also, DES continues to look to the demographic indicators that impact on transmission/spreading and mortality rate, and the emerging evidence and 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
Forthcoming	Gender equity and public health outcomes: The COVID-19 experience	Journal of Business Research Volume 116, August 2020, Pages 193-198	Leung, T.Y., Sharma, P., Adithipyangkul, P., & Hosie, P.	Data from 210 countries shows a clear evidence of the importance of women's role in managing public	Gender, mortality

				<p>health outcomes, with the strong positive effects of gender equity and the proportion of women in legislature on public health expenditure, which in turn shows significant impact on the number of diagnosed and critical cases but not on the number of deaths. The results provide useful insights about the factors that influence the representation of women in political systems around the world and its impact on public health outcomes.</p>	
Forthcoming	Emerging study on the transmission of the Novel Coronavirus (COVID-19) from urban perspective: Evidence from China	Cities, Volume 103, August 2020, 102759	Liu, L.	The study reveals that the distance to epicentre is a very strong influential factor and is negatively linked with the spread of COVID-19. In addition, subway, wastewater and residential garbage are	Population density, spreading

				positively connected with the virus transmission. Moreover, both urban area and population density are negatively associated with the spread of COVID-19 at the early stage of the epidemic.	
*15.06.2020	Potential implications of SARS-CoV-2 epidemic in Africa: where are we going from now?	BMC Infectious Diseases	Torti, C., Mazzitelli, M., Treccarichi, E.M. & Darius, O.	Africa can lead the fight against COVID-19 provided appropriate containment response systems are put in place along with addressing the systematic bottlenecks such as access to water, improvement of food systems, health education, critical care hospital bed capacity and increasing health care financing and investment.	Mortality, Policy
15.06.2020	Global, regional, and national estimates of the population at increased risk of severe	The Lancet, Global Health	Clark, A., Jit, M., Warren-Gash, C., Guthrie, B., Wang, H.H.X.,	The study estimated that 22% of the global population, have	Comorbidity

	<p>COVID-19 due to underlying health conditions in 2020: a modelling study</p> <p>COVID-19: rethinking risk</p>	<p>The Lancet, Global Health (comment on the article Clark et al.)</p>	<p>Mercer, W.S. et al.</p> <p>Schwalbe, N., Lehtimäki, S., & Gutiérrez, J.C.</p>	<p>at least one underlying condition that puts them at increased risk of severe COVID-19 if infected. 4% of the global population is at high risk of severe COVID-19 and would require hospital admission if infected. The share of the population at increased risk was highest in countries with older populations, African countries with high HIV/AIDS prevalence, and small island nations with high diabetes prevalence.</p>	
*12.06.2020	<p>What works and what does not work in response to COVID-19 prevention and control in Africa</p>	<p>International Journal of Infectious Diseases (journal pre-proof)</p>	<p>Rutayisire, E., Nkundimana, G., Mitonga, H.K., Boye, A., & Nikwigize, S.</p>	<p>The five countries with the highest commutative number of cases in Africa are South Africa, Egypt, Nigeria, Algeria, and Ghana. The lower number of COVID-19 cases in most African countries is attributed to inadequate health systems, low-to-absent testing capacity,</p>	<p>Policy</p>

				<p>poor reporting system and insufficient number of medical staff. Cooperative prevention and control measures are one of the promising solutions to deplete the spread of COVID-19 on the continent.</p>	
*10.06.2020	<p>Sub-Saharan Africa's Demographic and Health Characteristics Will Influence the Course of the COVID-19 Pandemic</p>	<p>Online research article on <i>Population Reference Bureau</i></p>	<p>Kaneda, T. & Ashford, L.S.</p>	<p>Next to age structure this study argues that for Africa migration (South Africa, Kenya, and Ethiopia are travel hubs for the rest of the continent, creating a situation where people may move from higher prevalence areas to lower prevalence areas, driving the spread of infection), large households with intergenerational living conditions, and rapid urbanisation with high population density in slums, are all important context specific factors that</p>	<p>Age structure, intergenerational living, mortality, spreading</p>

				influence the spread and mortality rates of COVID-19.	
10.06.2020	Seeding COVID-19 across sub-Saharan Africa: an analysis of reported importation events across 40 countries	medRxiv	Skrip, L.A., Selvaraj, P., Hagedorn, B. et al.	A total of 13,201 confirmed cases of COVID-19 were reported by 48 countries in SSA during the 54 days following the first known introduction to the region. Out of the 2516 cases for which travel history information was publicly available, 1129 (44.9%) were considered importation events. At the regional level, imported cases tended to be male (65.0%), were a median 41.0 years old, and most frequently had recent travel history from Europe (53.1%). The median time to reporting an introduction was 19 days. Countries that had, on average, the highest case fatality rates, lowest healthcare capacity, and	Spreading, Migration

				highest probability of premature death due to non-communicable diseases were among the last to report any cases.	
08.06.2020	A scaling approach to estimate the COVID-19 infection fatality ratio from incomplete data	medRxiv	Seoane, B.	The study estimated a nearly exponential growth of the fatality ratio with age, which anticipates large differences in total IFR in countries with different demographic distributions, with numbers that range from 1.82% in Italy, to 0.62% in China or even 0.14% in middle Africa.	Mortality
07.06.2020	Predicted COVID-19 fatality rates based on age, sex, comorbidities, and health system capacity	medRxiv	Ghisolfi, S., Almas, I, Sandefur, J., von Carnap, T., Heitner, J., & Bold, T.	Accounting for differences in the distribution of age, sex, and relevant comorbidities yields substantial differences in the predicted IFR across 21 world regions, ranging from 0.11% in Western SSA to	Age structure, comorbidity

				<p>0.95% for High Income Asia Pacific. However, these predictions must be treated as lower bounds, as they are grounded in fatality rates from countries with advanced health systems. In order to adjust for health system capacity, the study incorporated regional differences in the relative odds of infection fatality from childhood influenza. This adjustment greatly diminishes, but does not entirely erase, the demography-based advantage predicted in the lowest income settings, with regional estimates of the predicted COVID-19 IFR ranging from 0.43% in Western Sub-Saharan Africa to 1.74% for Eastern Europe.</p>	
06.06.2020	Age, gender, and territory of	Joint Research Centre of the	Goujon, A., Natale, F.,	This study explores the	Age-structure, population

	COVID-19 infections and fatalities	European Commission Technical Report	Ghio, D., Conte, A., & Dijkstra, L.	main demographic differentials in the spread and impact of COVID-19 paying special attention to the combined effect of age and gender, and to the differences at territorial level where population density plays a large role in the diffusion and outcome of the disease in terms of morbidity and mortality. The information is important for designing an exit strategy from COVID-19 and anticipating the rebound for certain segments of the population with differential medical needs, particularly those living in high-density locations.	density, spreading, mortality
--	------------------------------------	--------------------------------------	-------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------

Impact of COVID-19 on demography

Publication date	Title/URL	Journal/Publication type	Authors	Summary	Tags
Forthcoming	Impact of COVID-19 on transportation in Lagos, Nigeria	Transportation Research Interdisciplinary Perspectives, Volume 6, July 2020, 100154	Mogaji, E.	The paper recognises the effect on transportation in emerging economies, where lockdowns and restrictions on movement may be ineffective, a state with high population density, poor transportation infrastructure and a large informal economy. Adopting the 'avoid-shift-improve' framework, this paper presents practical implications for public and private sector policymakers, as they navigate this precarious time and chart a new path for individuals and Nigeria.	Mobility
13.05.2020	Assessing the potential impact of COVID-19 on life expectancy	International Institute for Applied Systems Analysis (IIASA) Working Paper.	Marois, G., Muttarak, R., Scherbov, S.	At 10% prevalence rate, the loss in life expectancy at birth is likely above 1 year in North America	Life expectancy

				<p>and Europe and in Latin America and the Caribbean. In South Eastern Asia and in Sub-Saharan Africa, one year lost in life expectancy corresponds to a prevalence of infection of about 15% and 25%, respectively. Given the uncertainty in fatality rates, with a prevalence of COVID-19 infections of 50% under 95% prediction intervals, life expectancy would drop by 3 to 9 years in North America and Europe, by 3 to 8 years in Latin America and the Caribbean, by 2 to 7 years in South Eastern Asia and by 1 to 4 in Sub-Saharan Africa. In all prevalence scenarios, as long as the prevalence rate of COVID-19 infection remains below 1 or 2%, COVID-19 would not affect life expectancy in a substantial manner.</p>	
--	--	--	--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

Policy briefs, statements, tools, guidelines

Publication date	Title/URL	Publication organisation/type	Authors	Tags
*June 2020	Africa's lockdown dilemma: High poverty and low trust	UNU WIDER Working Paper No.76	Egger, E., Jones, S., Justino, P., Manhique, I., & Santos, R.	Policy
*June 2020	COVID-19 and the socioeconomic impact in Africa: The case of Ghana	UNU WIDER Background Note No.05	Danquah, M. & Schotte, S.	Policy
June 2020	Are official confirmed cases and fatalities counts good enough to study the COVID-19 pandemic dynamics? A critical assessment through the case of Italy	ESRC Centre for Population Change paper that introduces a tool to collect and harmonise official COVID-19 statistics.	Bartoszek, K., Guidotti, E., Iacus, S.M., & Okroj, M	Data, Policy
*June 2020	COVID-19 Impacts on African Children - How to Protect-a-generation at Risk	Save the Children Pan-African Policy Paper		Youth, Policy

Comments, Editorials, Opinions, Blogs, News

Publication date	Title/URL	Article type	Authors
*17.06.2020	The potential impacts of COVID-19 on teenage pregnancy in Kenya	Blog post on African Population and Health Research Centre (APHRC)	Anthony Idowu Ajayi (Postdoctoral Research Scientist) and Meggie Mwikali Mwoka (Policy Research Officer)
*16.06.2020	After COVID-19, education in Africa will not be the same	Blog post on <i>Global Partnership for Education</i>	Oley Dibba-Wadda (Chairperson of Executive Committee, ADEA), & Stefano De Cupis (Senior communications officer, ADEA)
*15.06.2020	Coronavirus – Sierra Leone: Innovative sexual health app to help prevent surge in teenage pregnancy due to COVID-19	News article on CNBC Africa	
12.06.2020	Healthier societies for healthy populations	Comment in <i>The Lancet</i> , Volume 395, Issue 10239, 6–12 June 2020, Pages 1747-1749	Healthier Societies for Healthy Populations Group
*09.06.2020	COVID-19: The state cannot save us	Opinion on <i>African Arguments</i>	Andries du Toit (Director of the Institute for Poverty, Land and Agrarian Studies at University of the Western Cape) and Diana Mitlin (Professor of Global Urbanism at the Global

			Development Institute, University of Manchester)
*08.06.2020	DKT Liberia innovates its actions to mitigate COVID-19 impact on access to Family Planning	News article in <i>The New Dawn</i>	Antonio Cazares Turcott (DKT Liberia Country Manager)
*08.06.2020	The Sexual-Health Supply Chain Is Broken	News article in <i>The Atlantic</i>	Anna Louie Sussman (journalist, writer)
*08.06.2020	COVID-19 is pushing girls to marry early and drop out of school	News article on Posibl.	

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
---------------------------	---------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------

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

Suggested citation

Quak, E. (2020). *COVID-19 Demography Evidence Summary No.6*. K4D Evidence Summary. Brighton, UK: Institute of Development Studies.

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).

This evidence summary was prepared for the UK Government's Department for International Development (DFID) and its partners in support of pro-poor programmes. It is licensed for non-commercial purposes only. K4D cannot be held responsible for errors, omissions or any consequences arising from the use of information contained in this health evidence summary. Any views and opinions expressed do not necessarily reflect those of DFID, K4D or any other contributing organisation.



© DFID - Crown copyright 2020.