

The Demographic Effects of Covid-19: Any Hope for Working Populations?

Chidi N. Olunkwa¹, Juliet I. Adenuga²
Mohammed Bashir Salaudeen³, Ekundayo P. Mesagan⁴

Abstract

This study investigates the demographic effects of COVID-19, by focusing on the global working population. The study was done on a continental level, by looking at countries that were highly hit by the novel coronavirus pandemic, and the age range most affected by the pandemic. The findings of the study show that the ageing population is the worst hit in most of the regions, while in countries like Russia, Germany, Mexico, Iran, Ecuador, Pakistan, Brazil, Chile, and New Zealand, the active working population is mostly affected. Again, of the most COVID 19 deaths, a larger percentage were males with lesser females. Hence, the government at all levels should endeavour to give adequate health care attention to the ageing population especially in the area of providing required drugs at an affordable price. Also, there is a silver lining in the post-COVID era in terms of employment generation since the active workforce in several countries are adversely affected by the COVID 19 pandemic.

Keywords: COVID-19 Pandemic, Demographic Effects, Working Population

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¹ Corresponding Author. Department of Economics, University of Lagos, Nigeria. E-mail: nolunkwa@gmail.com

² Department of Economics, University of Lagos, Nigeria. juliezenuga@gmail.com

³ Department of Economics, Lead City University, Ibadan, Nigeria. Email: salaudeenmohammed@gmail.com

⁴ School of Management and Social Sciences, Pan Atlantic University, Lagos, Nigeria. E-mail: profdayoms@yahoo.com

1. Introduction

The issue of the deadly coronavirus pandemic which has shrunk the global economy disdained the financial, social, and economic activities could be attributed to the trade war between the United States and China which have led to the emancipation of the conspiracy theory. The study by Evans (2019) on the effects of the US-China trade war and Trumponomics, revealed that the trade war is not only going to dispirit the US and China's economy but could proliferate to other economies of the world. This implies that the effect of the war could trickle down negatively, resulting in an increase in the price of items, which may directly or indirectly affect the wellbeing of the people. It could also result in extra cost for firms' export which could trigger nervousness among investors, and cause them to diversify away from trade to investment into bitcoin and other cryptocurrencies (Evans, 2020).

As noted in Mesagan & Adeniji-Ilori (2018), morbidity rates can be lowered if the environmental and health factors are improved to guarantee safe living conditions. However, as the world is busy battling with the global economic and financial meltdown coupled with the trade war between the United States and China, there seems to be less emphasis on global health, which can stagnate and cripple the global economic activities. Before the end of 2019, the world has experienced several health pandemics such as Spanish Flu from Spain, SARS from China, Ebola from Congo and MERS outbreak in South Korea, but was able to curtail them. The novel coronavirus was, however, handled with levity and was allowed to permeate across the globe. Today, the world economy is suffering from the negligence of Wuhan in China where the pandemic commenced and the inability of the World Health Organisation (WHO) and other world leaders to nip the Pandemic in the bud before it eventually boomeranged to its present state. Furthermore, a report from World Health Organisation (WHO, 2020) and CDC (2020) confirmed that over 5,303,393 people globally have been infected by the coronavirus and about 339,992 deaths recorded worldwide, while 2,158,510 people have recovered globally, prompting some countries to ease their lockdown rules. Besides, the recent coronavirus outbreak began in Wuhan, China on December 31st, 2019, as SARS-CoV-2, which is an infection that causes respiratory illness. The virus was later renamed on the 11th of February 2020, by the World Health Organisation (WHO) as COVID-19. However, the deadly pandemic has been reported in over 215 countries and territories around the continent except for Antarctica. The southernmost continent of the world surrounded by the Southern Ocean and with a total population of 1000 to 5000 people.

Since the inception of the novel COVID-19 pandemic, economies globally have witnessed socio-economic and financial downturn which has resulted to an unprecedented layoff of workers in most key sectors of the economy, especially in the Aviation, banking and transport sector, although the real sector was affected by the high cost of raw materials, which has triggered the cost of production. Aside from the loss of jobs, the pandemic has also prompted a total lockdown on all social and interactive activities by many countries by way of shutting down their borders,

suspending flights from highly infected countries, shutting down schools, worship centres, recreation and hospitality facilities like clubs and hotels, as well as restricting the inbound tourists and cancellation of festivities (World Bank Report, 2020).

In line with that, the World Bank further envisaged a tougher economic hardship after the pandemic, which could further deepen the economic hardship and further result in an economic recession which could be faced by nations especially those in sub-Saharan African and other developing economies globally. However, the report failed to take into consideration countries that may likely lose their active population to coronavirus, which could be disastrous to economic growth and development. Furthermore, the novelty in this study is that it is focused on the continental level to access the demographic effect of coronavirus on the active population, and to the best of the researcher's knowledge, no study has gone on this direction, both at the regional and continental level. Although, studies like Alon, Doepke, Rumsey & Terilt (2020), have looked at the economic implication of coronavirus on gender equality, while Sumner, Hoy & Ortiz-Juarez (2020) focused on the COVID-19 on global poverty, however, the closest study was the one done by Kurmann, Lale & Ta (2020) on the effect of COVID-19 on United States employment and hours of work. Thus, none of these studies was able to access the demographic effect of coronavirus on the active population.

In addition, data on the world's population according to United Nations Population Division cited by Leridon (2020), affirmed that the world population is 7.78 billion with over 23 million deaths with coronavirus contributing about 2.23% of the total global death this year. This suggests the fact that the post-COVID-19 era which some researchers have predicted to be doom, could be a silver lining for people in getting jobs rather than hunting for a job, as job vacancies emanating from COVID-19-induced impacts will abound.

Furthermore, some regions like the United States, Europe, and some parts of African are absolutely in need of health workers and volunteers who are willing to take up challenging health opportunities. Also, the post-COVID-19 period has opened up the possibility of virtual employment and task performance, as well as schooling. This might also have some silver linings with it in the form of more employment for people skilled in the provision of the facilities and services required for virtual learning and communication, as well as for new acquirers of such skills in the long run. However, this has further confirmed that the world is gradually pushing away from physical contact to virtual contact where the use of technology is seen as paramount. On this backdrop, this study focuses on the effect of the novel coronavirus on global population, and further postulate a turning point for skilled individuals globally. Section two of the study focuses on current empirical review on COVID-19, while section three presents the comparative trend analysis of the various countries and regions. Section four then suggests the way forward.

2. Literature review

Quite some studies have been done on the socio-economic impact of coronavirus, while others have beam searchlight on COVID-19 pandemic and economic crisis. For instance, Lee & Warner (2005) conducted a study on the effect of Severe Acute Respiratory Syndrome (SARS) on the Hong Kong economy by focusing on the hotel sector. The study used both primary and secondary data analysis. The result of the study affirmed that SARS has a negative impact on the Hong Kong economy and other related Asian countries. In the same vein, Ozili (2020) conducted a study on the Covid-19 pandemic and economic crisis by focusing on the Nigerian experience and structural causes. The study affirmed that the spillover of the Covid-19 pandemic into Nigeria coupled with declining global oil prices could result in external shocks which could trigger economic crisis immediately after the pandemic. Further study by Ozili and Arun (2020), on coronavirus and its effect on the global economy, affirmed that the spread of the virus encouraged social distancing which led to the shutdown of financial markets, corporate offices, businesses, and events, also the rate of proliferation of the virus has led to uncertainty and nervousness among consumers and investors. Nkengasong & Mankoula (2020) affirmed that the spread of COVID-19 pandemic which has affected the health experts in Africa is largely linked to trade volume and air traffic between Africa and China. However, the authors further suggest palliative to cushion the impending health challenges faced by most health workers in Africa and China. In the same vein, Gilbert et al (2020) in their study employed preparedness and vulnerability indicators to investigate the risk of importing and contracting the pandemic in highly vulnerable countries like Africa, where the health sector performance is porous. The study further identifies the highest risk countries and moderate-risk countries in Africa.

Considering the recent shock in the stock market, Baker et al (2020) investigate the economic impact of COVID-19 on the stock market in the U.S.A, which has affirmed that the outbreak of the pandemic had a negative and unprecedented effect on the stock market globally. The study further confirmed that news connected to the development of COVID-19 has overwhelmingly been the dominant driver of the daily stock market drops in the U.S. Besides, Wenham et al (2020) examine the impact of the COVID-19 outbreak on the gender challenges, noting that the response to COVID-19 seems the same with previous disease outbreaks on gender. The study further affirmed that the most affected of the pandemic are the health workers who are mostly in contact with the affected persons. A study by Bartsch et al (2020) brings to the limelight, a simple SIR model of the progression of COVID-19 in the United States over the period 12-18 months. SIR model is a Markov model of the spread of an epidemic in a population in which the total population is divided into categories of being susceptible to the disease (S), actively infected with the disease (I), and recovered (or dead) and no longer contagious (R). In line with the reviewed literature, the study, however, followed the resilience theory propounded by Van Breda (2018). The theory argued that amid adversity, misfortune, and frustration, there is a need to bound back. This implies that in the means of any pandemic that could result in an economic downturn, the

economy can rebound by putting all the machinery in places, such as investing health as well as technology.

3. Stylized Facts

Table 1 displays comparative information between the coronavirus cases and the world's population. Table 1 reveals the figures of selected countries that are mostly affected by the novel coronavirus. In this scientific enquiry, the study was fragmented into regions, to identify the countries that are worst hit and more so, ascertain the range of population that is affected the more. The justification for this is to critic studies that have justified that the post-COVID-19, will gravitate to unprecedented unemployment. This present study is viewing it from a positive aspect by focusing on the age range that was most affected by each country in the different regions more so, suggest to the government on the way forward in terms of resuscitating the health sector. In Europe, the United Kingdom, Italy, and France were the most hit countries, although most affected people are old people between the ages of 65 years and above. However, death could only reduce the ageing population that might contribute little or nothing to society. On the other hand, countries like Russia and Germany were mostly affected, the range of the recorded deaths fell between the working or independent population (20-49 years), and are seen to contribute efficiently to national growth and development. This implies that going forward, both Russia and Germany are expected to witness a shortage in labour supply. The reason is very simple because whatever inhibits the growth of the active workforce is expected to reduce the supply of labour in the long term. Therefore, more employment opportunities will be created to fill the positions vacated by the deceased. This is unlike the doom and gloom picture that has been created for the post-COVID era in the literature.

Table 1: COVID 19 Cases and World Population: A Comparative Trend

Continents	Worst-hit countries	Total confirmed Cases	No of Deaths	Total of Recovery cases	Active Cases	Population	The age range of people that died of COVID-19
Europe	Russia	654,405	9,536	422,931	221,938	142,122,784	45-48years
	UK	312,654	43,730	-	-	65,105,248	Above 65 years
	Spain	296,351	28,355	210,854	57,142	49,331,076	Above 65 years
	Italy	240,578	34,767	190,248	15,563	62,246,672	80-89year
	Germany	195,832	9,052	179,800	6,980	80,457,736	20-49 years
	France	164,801	29,843	76,274	58,684	67,364,360	75 and Above
	USA	2,727,996	130,123	1,143,490	1,454,383	329,256,480	75 and Above
	Mexico	226,089	27,769	134,957	63,363	125,959,208	50 and above

North America	Canada	104,204	8,591	67,594	28,019	35,881,660	Above 60 years
	Panama	33,550	631	15,745	17,174	3,800,644	-
	Dominican Republic	32,568	747	17,580	14,241	10,298,756	-
	Honduras	19,558	497	2,060	17,001	9,182,766	-
Asia	India	587,092	17,417	348,487	221,188	1,296,834,048	60-75 years
	Iran	230,211	10,958	191,487	27,766	83,024,744	48-89 years
	Pakistan	213,470	4,395	100,802	108,273	207,862,512	20-29 years
	Turkey	199,906	5,131	173,111	21,664	81,257,240	Above 60 years
	Saudi Arabia	85,261	503	62,442	22,316	33,091,112	50-59 years
	China	83,543	4,634	78,479	421	1,296,834,048	80 and Above
South America	Brazil	1,408,485	59,656	790,040	558,789	208,846,896	20-39 years
	Peru	285,213	9,677	174,535	101,001	31,331,228	Above 60 years
	Chile	97,846	3,334	42,073	52,439	17,925,262	35-54 years
	Colombia	28,236	890	7,121	20,225	48,168,996	Above 60 years
	Argentina	64,530	1,307	22,028	41,195	44,694,200	60-69 years
	Ecuador	56,432	4,527	27,594	24,311	16,498,502	Over 60 years,
Africa	South Africa	151,209	2,657	73,543	75,009	55,380,208	50-69 years
	Egypt	68,311	2,953	18,460	46,898	99,413,320	50-80 years
	Nigeria	25,694	590	9,746	15,358	203,452,512	61-70 years
	Ghana	17,741	112	13,268	4,361	28,102,472	50 and above
	Algeria	12,596	912	9,897	3,098	41,657,488	60 and above
	Morocco	12,596	228	8,978	3,390	34,314,128	-
Oceania	Australia	7,920	104	7040	776	23,470,144	70-89 years
	New Zealand	1,528	22	1,484	22	4,545,627	40-59 years
	French Polynesia	62	-	60	2	290,373	-
	New Caledonia	21	-	21	0	282,754	-
	Fiji	18	-	18	0	926,276	-
	Papua New Guinea	11	-	8	3	7,027,332	-

Source: Worldometers (2020), World Population data (2020), Centre for Disease and Control for each Country

Also, in Table 1, it is obvious that the North American region is the worst hit by the novel coronavirus. In the North American region, countries like the United States of America, Mexico, and Canada are well hit by COVID 19. In these nations, the ageing population between 60 years and above is the most affected. Although, it is slightly different for Mexico where its population of 50 years and above is the worst hit. The report by World Health Organisation (WHO, 2020), affirmed that most of the death in the United States are health workers, in this regard, the report suggests that more workers might be needed in the area of health to replace those that have died. It means that the post-COVID situation is similar to those in Russia and Germany in terms of increasing employment of health workers in the long-term. Moreover, in the Asian region, the ageing population is also mostly affected. Evidence from countries like India, Iran, Pakistan, and China, record the highest number of deaths, as shown in Table 1. It attests to the fact that the aged

population is mostly affected. For instance, the age range of the most deceased in China, Turkey, and India is 60 years and above. Although in Iran and Pakistan, the working population was more affected, the fact remains that in general, the aged Asians are mostly affected. Therefore, the situation in both Iran and Pakistan is similar to what obtains in the United States. It means that the demand for employment of labour in the post-COVID era could be huge in both countries. Furthermore, in the South American region, Brazil recorded the highest death rate, while the age range that was affected was between 20 to 39 years, implying that the working population was most affected. This also signifies that the demand for labour could high in the post-COVID era in a similar fashion with the cases of the US, Russia, Germany, Iran, and Pakistan. However, Peru and Argentina had more death spanning 60 years and above, while Chile had more of its COVID 19 deceased population from the age range 35-54 years. The situation in Ecuador where most deaths emanate from people of 60 years and above is close to that in Peru and Argentina. Although, the age range of 20-49 years contracted coronavirus more than others in Ecuador. Therefore, since Brazil and Chile had more people deceased in their active workforce, it means that more employment potentials could be created in the post-COVID 19 eras. Furthermore, in Africa, Egypt and South Africa witnessed the highest death count, although this spans from 50 years to 80 years. Table 1 also affirms that the age range between 30 to 49 years in South Africa recovers faster. However, in Nigeria and Algeria, most people that died of the novel coronavirus are within the age range of 61 years and above. Specifically, in Nigeria, young people between 31-40 years of age are the most vulnerable to COVID-19, according to the Nigeria Centre for Disease Control (NCDC, 2020). Table 1 attests to this fact since the age of 31-40 years has the highest number of confirmed cases. More so, in Ghana people within the ages of 50 years and above died of the deadly coronavirus, implying that the working population is marginally affected and demand for labour might be done based on skills and techniques the individual has or has acquired. Although there is no sufficient data for the age range of COVID 19 deceased people in Morocco, as presented in Table 1, the country still ranks very high in the African region. Lastly, for the Oceanian region, Australia and New Zealand were mostly affected in terms of COVID-19 deaths recorded. Available evidence from Table 1 shows that those that the recorded deaths from COVID 19 in Australia fall with the age range of 70 to 89 years with males having the highest count, while it is 40-59 years' age range in New Zealand. The New Zealand figure is also synonymous with those of the United States, Russia, Germany, Iran, Pakistan, Brazil, and Chile, where the active workforce is mostly affected. Furthermore, countries like French Polynesia, New Caledonia, Fiji, and Papua New Guinea recorded no case of COVID-19 death, although there are few cases of COVID-19 in French Polynesia and Fiji Island.

4. Policy Implication and Way Forward

Data from World Health Organisation and individual country's Centre for Disease Control affirmed that most people that died of the novel coronavirus are the men, while the women had a lower percentage of death, implying technically that population of male globally could reduce drastically, based on the report. The findings from the study revealed that most affected people are the ageing population, however, few other countries had their working population affected the more. The implication is that economic activities might seriously be affected as well as social activities. In this regard, countries that had a working population affected, especially those that are health specialist and those the contribute immensely to the growth and development should be replaced based on skill and techniques. The finding further affirmed that countries that had a high number of dead spanning from 60 years and above, shows that no adequate health care provision for the ageing population. The implication is that the old could be vulnerable to any attack once they attain the age of retirement. The findings serve as an eye-opener to the government, to invest in caring more for the ageing population.

5. Policy Prescription

Based on the findings, the study suggests that the government at all levels should endeavour to give adequate health care attention to the ageing population especially in the area of providing required drugs at an affordable price. More so, massive investment should be done on the health sector globally and the government on their part should endeavour to cut the cost of governance. Also, the attitude of travelling abroad for a medical check-up should be curtailed and those monies should be channelled to revamping and resuscitating the health sector. Furthermore, to curb the increasing deaths of the aged population, the welfare of the ageing population must receive top priorities. The government can do this by building well-ventilated homes for aged people and then employ caregivers to take care of them. Authorities can also develop caregivers' app-based technology to detect when any of them contracts the virus or any other kind of disease that could be disastrous to their health.

On the aspect of employment, countries like Germany, Iran, Brazil, Russia, Chile, Ghana, Brazil, Ecuador, and New Zealand might be willing to demand more labour, depending on their current rate of unemployment. Similarly, countries like the United States, the United Kingdom, and Spain, which lost most of their health workers to coronavirus could be willing to recruit more in the post-COVID 19 eras. The current search for the Covid-19 vaccine should generate future opportunities coupled with the need to replace the lost active workforce and create more economic opportunities to redress the current global meltdown.

Furthermore, since more of the jobs today are done virtually, it is paramount that the government invests massively on technology especially in the aspect of research and development. Also, professional cybersecurity staff should to trained, academic staff should be trained since few

schools have implemented virtual learning that requires skills as well as training Covid-19 testers as most factories and offices will be reopening and will require the services of technologists which could be relevant in places like airport, sports centres, schools as well as restaurants. If all of these are properly harnessed, there could be a post-COVID 19 silver lining for the world economy that could bring back hope for job opportunities for the active working population.

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