



SETTING THE AGENDA FOR A GLOBAL HEALTH CRISIS BEYOND COVID-19

Lead Authors:

**Terna Paise
Agba**

Affiliation:

Department
of History
and
Diplomatic
Studies.
Federal
University of
Kashere.
Nigeria



Abstract

Epidemics and pandemics have constituted a clog in the development process in man's history arising from their dynamics such as high mortality and morbidity rates and severe disruptions of social, political and economic lives that exacerbated poverty conditions. These pushed humanity into huge debilitating health, economic and social conditions which called for investments in both human and other resources to seek solutions to their damaging consequences. Although this paper is not a study of hindsight, it has however, generally extrapolated from experiences of previous pandemics particularly the Spanish flu (1918-19), and the current COVID where it found out that the efforts made by man so far in checking both the emergence and handling of epidemics and pandemics has remained grossly inadequate. Again, from hind and in sight(s) of the global health crises landscape, the paper has argued that the emergence of epidemics and pandemics in a post-COVID era should be anticipated and as such mitigation should also be pursued in anticipation. This is achievable by playing roles by governments, non-governmental organizations and individuals alike across the globe, that are targeted at achieving environmental and human health, and economic and socio-political protection of humanity. Data and information for the execution of the paper were sourced from published texts and from the cyberspace.

Keywords: Epidemic, Pandemic, COVID-19, Preparedness, Human development, Post COVID.



Co-Authors

Mathew Oga Agbo. Department of History and Diplomatic Studies.
Federal University of Kashere. Nigeria.

². **Joseph Ezekiel Obuje.** Department of History and International
Studies. Federal University of Lafia. Nigeria.

⁴. **Raymond Iornenge Aernyi,** Department of Sociology, Alex Ekwume
Federal University. Ndufu-Alike, Ikwo. Nigeria

Introduction

Diseases are inherent in human life and have been with human beings as old as man's known history (Burnet & White, 1972; Hays, 2005; Jarus, 2020). Two poles have emerged concerning the causes of disease. First, is the theory that a disease is ordained by God, or the machinations of evil forces, the second is that diseases is caused by germs, bacteria, parasites, pathogens etc. (Hays, 2005).The fulcrum of this paper is on the second perspective. Disease dynamics such as mortality, morbidity and incapacitation are sources of deprivation which can lead to severe poverty. A disease may occur in a family, community or region regularly and will be difficult to get rid of. Under such condition it will be said that that disease is endemic in that family, community or region. For example, malaria is endemic in the tropics regions. In other situations, a disease may erupt and would have wide geographical spread and the incidence of its infection level will be on the rise. Such a disease situation is described as an epidemic, which is most often used interchangeably with pandemics. However the underlying difference between the two is that while an epidemic is a disease which erupts and has wide geographical coverage and high rising incidence at a given time, a pandemic is simply a large epidemic that has global coverage (Hays, 2005; Mc Millen, 2016; Madhav et al, 2018, p. 315).A pandemic is a global health crisis as it is an epidemic with very wide coverage crossing international boundaries, and affects a large number of people.

Man's advancement in technology, his surging population, burgeoning urbanization, ever increasing environmental interaction/exploitation, and his sustained competition which in some cases has manifested in warfare involving the use of chemical and biological weapons, has heightened his exposure to the risks of diseases. A documentation of diseases since the 4th Century B.C.(Hays, 2005) revealed that epidemics and pandemics have ravaged humanity at different points in time , and the later ones have demonstrated more huge catastrophe both in terms of spread, speed of spread and mortality rate. Among the pandemics was the deadliest Spanish flu pandemic which emerged at the turn of the 20th



Century (1918-1919), and claimed +50 million lives globally. Humanity has also faced other epidemics and pandemics both in the 20th and 21st centuries at the expiration of the Spanish flu, among which include HIV/AIDS pandemic, Ebola epidemic and currently the COVID pandemic which emerged in Wuhan, China in December of 2019. Within less than two months from when it evolved, the COVID got spread to every continent of the globe, and within a matter days, all countries of the globe had incidences of the diseases. Modern transportation means, increased international and local commerce, increased globalization arising from diminishing or “vanishing” borders facilitated the fast spread of the COVID. Jones et al (2008) and Morse (1995) rightly argued that increased commerce, globalization, urbanization and changes in land use and greater exploitation of the natural environment has exposed humanity to greater risk of epidemics and pandemics. Meanwhile, the desire of human beings to have good lives have made man to be continuously engaged in acts that has the potentials to expose him to disease and such acts have taken ever increased levels. The implication therefore is that epidemics and pandemics will continue to emerge even as they no doubt have serious catastrophic consequences on human’s socio economic and political lives. As noted by Jefferson (2015) it is impossible to state that epidemics and pandemics will cease to occur in human history. In this seeming reality, this paper is meant to set the agenda for a more mitigation impact-effect on humanity to any post postcovid era epidemics and pandemics.

Theoretical Framework

A mono theoretical exposition will not foreground this paper as its theme is multidimensional in nature. The paper is therefore developed a complex theoretical perspective that is built around development, disease, and politics.

The classical conception of development entailed increase in gross national product (GNP), per capita income and physical infrastructure in a given society. However, the most fundamental trajectory of development is socio-economic development (Wezel, Ronald, & Hans-Dieter, 2003) which has been described as a set of closely linked changes including technological innovation, productivity growth, improved health and life expectancy, increased incomes, rising levels of education, growing access to information and increased social complexity (see Lewis 1955; Rowstow 1961; Seers, 1970; Bell 1973; Chirot 1986; Perkin 1996; Estes 1998; Hughes 1999; Sen 2001; among many others). This notion of development is termed human development and is more concerned with the level of human access to the basic needs such as food, clothing, shelter, source of income, education, health service, security of lives and property, justice and



elimination of poverty for sustainable livelihood. While the pillars of human development include longevity, literacy, and income (Seers 1970), its core values and objectives include sustenance-measured in terms of basic livelihoods requirements; self-esteem (to be a person)-measured in terms of the attainment of justice, human dignity, respect for *being*-human life irrespective of the social, economic and political status; and freedom from servitude-measured in the ability of the individual to have the freedom to choose from many opportunities in social, economic and political lives, and freedom from servitude and all forms of insecurity. Thus, Todara and Smith (2011, p21) explained that "human development is measured in a society by its individuals' ability to meet basic needs (sustenance), self-esteem (to feel like a human being), and freedom from servitude- ability to make independent choices".

Disease impinge human development in all aspects of life as it in many circumstances affect an individual's productive capacity and access to the essential needs of livelihood including food, shelter, education, and water etc. Similarly, it affects income, hygiene, physical strength and exposes the individual to greater vulnerability. Claeson, et al. (2002) rightly expressed this when they asserted that ill health is a reason why households end up in poverty, or sink further into it if they are already poor. Ill health propelled poverty is demonstrated in the following: ill health leads to incapacitation which can cause loss of income that can lead to deprived access to food and nutrition, education and other goods and services culminating to poverty. Poverty is also a cause of ill health as the poor most often lack the capacity to access food, safe water, housing, clothing, education and other key inputs to producing good health. Ill health and poverty therefore feeds into and reinforces each other.

The state and global governance institutions are critical stakeholders in promoting human development as they have the mandates of providing the needed infrastructure and level-playing field for the citizens both at the states and global levels to exercise their legitimate capabilities. While different perspectives on the state exist with regards to the essence and nature of its existence (Johari, 2003); the dominant perspective on modern states is the welfare state. In addition to the role of protecting its own existence and the lives and property and liberty of her citizens, the welfare state use its powers deliberately to modify the social, political, and economic forces in order to cause access to a wide range of services for improved living standards. Aside the state, other global governance organizations for instance the United Nations, African Union etc. are also engaged in different strategies in causing human development among societies across the globe. For a sustainable socio-economic development to evolve, investments must be made in the core areas of human development



which include food, health, education, income, environmental and security of lives and property. These components may seem to be disparate, they are in reality intertwined as each enhances and compliments the other.

While nations across the globe have huge natural and human resources, a huge number of global population is clutched in the Bottom Billion¹, arising from extractive political institutions hence extractive economic institutions (Acemoglu and Robinson, 2012). These are products of extractive capitalism and have caused fierce competition among states, businesses and individuals. Extractive political institutions along with extractive economic institutions have ensured the emergence of a small number of wealthy countries and people to control political and economic resources for their self gain; pervert justice and cause deprivation, environmental degradation, human debasement, all of which form strong stimuli in evolving diseases. Extractive political and economic institutions in many states across the globe have negated the principles of welfare state and have thrown millions of people into poverty and diseases and vice versa. The fulcrums of extractive political and economic institutions are anti democratic vices including corruption, unaccountability, untransparency, impunity, and insensitivity among others. These have the potentials of causing the emergence of disease, derailing stoppage of the emergence of disease or impinging the prompt and efficient management of disease upon its emergence.

An Overview of Epidemics and Pandemics

A study by Hays (2005) among other historiographers of diseases contend that Ancient Greeks had experienced epidemics even before the 4th B.C.E, as has been pointed out by Greek scholars including, Thucydides, who lived between 465-395B.C.E, and suffered from the plaque of Athens that took place between 430-427B.C.E. According to him "people in good health were all of a sudden attacked by violent heats in the head, and redness and inflammation in the eyes, the inward parts, such as the throat or tongue, becoming bloody and emitting an unnatural and fetid breath"(Crawley,1914). He conclude that between 25 and 35 percent of the Athenian population may have died during that epidemic but maintain that the cause of the epidemic was uncertain. Modern bio medics are however of the idea that the epidemic was probably chickenpox or measles (Hays, 2005). During the 5th Century B.C.E, ancient Rome suffered malaria epidemic which was endemic in many regions with seasonal outbreaks beginning from July to December. The malaria epidemic had far reaching implications on the demography of Rome as it increased the mortality levels and sharply reduced life expectancy across all ages in Roman society (Sallers, 2002). Whereas



the cause of the Athenian plague was not known, the malaria epidemic was known to be caused by the *plasmodium falciparum* virus which was produced and carried by the anopheles mosquito. Another pandemic in ancient Rome was the plague of the Antonines, 165.C.E, caused by smallpox, and was "endemic in Rome for about fifteen years and claimed about 5 million people" (Hays, 2005, p.18).

Other noted epidemics of the later years included the first plague pandemic or Justinian plague which was endemic between 541-747 C.E. in the Mediterranean Islands adjoining West Asia including Egypt, Palestine, and Europe. This was caused by *yersinia pestis* micro organism and carried by wide rodents. Similarly, Japan was grasped by small pox epidemic between 735 and 737 C.E (Wayne, 1985; Bowman, 1987). Modern Europe, in about 1000 and 1350, was infected with leprosy epidemic, and the second plague pandemic also known as black death or the plague, between 1346-1844 (Richard, 1982), that was estimated to have claimed 50 (fifty) million European lives (Benedictow, 2004; Richard, 1982). In the Americas, epidemics which ranged from smallpox, influenza, syphilis, chicken pox, gonorrhoea etc between 1493 and the Sixteenth Century, claimed millions of lives (See Jarus, 2020; Hays,2005; Woodrow & Cook, 1963).While Italy suffered from a plague between 1630 and 1631 (Hays, 2005), Chinese cities including Southwest Beijing, Hebei, Shanvi, and the Yangtze Delta were entangled in diseases from 1604 to1644, claiming "countless deaths" or "deaths beyond reckoning" (Elvin, 1973,p.311).

London and its suburbs suffered from a bubonic plague between April 1665 and January 1666 which disseminated the lives of between 75,0000 to 100,000 people (Hay, 2005; Moote & Moote, 2003; Champion, 1995). During the eighteenth century, Europe for many years suffered from smallpox epidemic (1710; 1719; 1723; 1736; 1746; 1752; 1763; 1779; 1781 and 1796)(see Jarus,2020;Porta 2014; Hays,2005;Evans,1988;Baldwin,1999).Although "no reliable estimates of the disease's toll exist, but the deaths certainly numbered in millions as it was claiming 400,000 European live a year, at a time when the population of the continent was less than 200 millions"(Hays, 2005,p.151).

India was struck by a cholera pandemic from1817 to 1824 and reappeared between 1827 and 1835, and is historically referred to as the second pandemic (Metcalf & Metcalf, 2002). The cholera pandemic originated from Bengal, India, and then spread to other parts of Asia: Afghanistan and Persia; Europe-Russia, Kazan, Archangel, Vienna, Hamburg, England, France etc.; the Americas; and Africa: Sudan, Egypt, Ethiopia and Somalia, etc. The second cholera pandemic was followed by a third, between 1839 and1856 which also originated from India and had similar morbidity and



mortality impacts on a wide scale as was with the 1st and 2nd cholera pandemics (Hays, 2005; David, 1993; Evans, 1988).

Other disease of global significance in the 19th Century include the following: fevers and the great famine in Ireland, 1846-1850 (Geary,1995);typhoid fever in cities, 1850-1920 (Galishiff, 1988); yellow fever in New Orleans, 1853 (Humphreys,1993); fourth Cholera pandemic,1863-1875(Baldwin, 1999); carrions disease in Peru, 1870-1871;smallpox in Europe, 1870-1875; and fifth cholera pandemic,1881-1896. Others were the influenza pandemic in Europe, 1889-1890; cholera epidemic in Hamburg, 1892; third plague pandemic, 1894; and sixth cholera pandemic 1899-1923(Hays, 2005).

During the twentieth and twenty first centuries, diseases that either had a global touch or effect include sleeping sickness in East Central Africa,1901-1905; cholera epidemic in Naples,1910-1911; poliomyelitis in the USA,1916; the Spanish flu(influenza pandemic), 1918-1919; lung cancer in the USA in the mid twentieth century; poliomyelitis in the USA, 1945-1955; seventh cholera pandemic, 1961-2005(Hays, 2005); HIV/AIDS pandemic, 1980 to present; Ebola epidemic in West Africa, 2014 to present; and the most recent corona virus diseases, popularly known as COVID-19 pandemic, December 2019 to present. The dynamics of these diseases were huge morbidity and mortality rates as well as severe socioeconomic disruptions of human endeavours. While the ravage of the COVID is still ongoing, the Spanish flu seems to have remained the most devastated global diseases in modern history.

Spanish influenza.

The Spanish flu also known as Spanish influenza or third influenza pandemic by various historians swept the World in three waves, beginning with the first in March 1918, in Kansas, USA, from where it spread to Western Europe in April, and then to China and India in May and in June, then to Northern Europe, Australia, Southeast Asia and Germany. The second wave began in August 1918, which saw the pandemic reappearing in France, and then spread to Boston, USA, and to the west coast of West Africa where it hit Freetown, Sierra Leone in August 31st; Accra, Ghana on September 2nd; and Lagos on September 14th. Between September and October, most of Europe and South and Southeast Asia were affected, and by November, the pandemic reached every interior areas of the globe including Siberia and the Islands of the Specific. The third wave of the pandemic began in late November and spanned to February 1919, and by January 1919, when Australia was re-infected in the second wave only "very few habited places on earth remained untouched" (Hays, 2005,p.386) .



Both the morbidity and mortality rates that resulted from the pandemic were very huge. The disease was estimated to have affected as many as 500 million people around the world, which represented one-third of the global population at that time, and the 50 million people who were believed to have died from the virus was an underestimation (Bristow,2016). By the end of October 1918 not less than 200,000 Americans had died from it, and the pandemic killed over 675,000 Americans in total such that in 1918, American life expectancy was reduced by 12 years (Bristow, 2016).Similarly, deaths in selected European cities show that, London had 23,000; Western Samoa, 8,500; and Wales 170(Hays, 2005,p.387).In India, “rivers became clogged with corpses because firewood was lacking for the cremation of Hindus”(Mills,1986,p.35-36), and India's mortality rate reached 50 deaths per 1,000 people (Live Science, 2020). The flu killed about 500,000 people in Nigeria out of her population of 18 million, in less than six months, and between 50 and 80 percent of the population was infected (Brand, 2020; Ohadike, 1991;Public Records Office, 1919).“Some parts of Asia and Africa including Belgium Congo, Ghana, and the Netherlands and East Indies suffered catastrophic mortality rates” (Hays, 2005, p.387). The horrendous impact of the Spanish flu on humanity has been aptly summed thus: “In 1918, a strain of influenza virus known as Spanish flu caused a global pandemic, spreading rapidly and killing indiscriminately. Young, old, sick and otherwise-healthy people all became infected, and at least 10% of patients died... it is thought to have infected a third of the world's population and killed at least 50 million people, making it the deadliest pandemic in modern history”(Live Science, 2020).

The Covid-19.

The COVID-19 pandemic has its origin in China when on 31st December 2019, the Chinese authorities reported to the World Health Organization (WHO) of the outbreak of an unknown virus in Wuhan, China. The virus manifested in several cases of unusual pneumonia among the workers of Huanan Seafood Wholesale Market in Wuhan city. On January 1st 2020, the virus had infected more than forty people. On January 7, the virus was identified and dubbed as SARS-CoV-2-(Shortage Acute Respiratory Syndrome-Corona Virus-2) belonging to the corona virus family, which includes Shortage Acute Respiratory Syndrome (SARS) and the common cold, was officially named as COVID-19(Corona Virus Disease-2019) by the WHO, later in February 11th.

From China, the COVID spread to Thailand when on 13 January 2020, a case was reported by the World Health Organization (WHO) as being the first outside of China, by a woman who had arrived from Wuhan. In a few days later, the US, Nepal, France, Australia, Malaysia,



Singapore, South Korea, Vietnam and Taiwan confirmed cases in their territories, even as the WHO said that the outbreak did not yet constitute a public emergency of international concern and there was "no evidence" of the virus spreading between humans outside of China. It was not until when the virus had spread to all 31 provinces of China in the third week of January and by the week's end resulted to 304 deaths amid 14,380 infections, that the WHO on 30th January declared corona virus a global emergency. Within a few days in the third week of January, the COVID-19 cases were confirmed in India, Philippines, Russia, Spain, Sweden and the United Kingdom, Australia, Canada, Germany, Japan, Singapore, the UAE and Vietnam. By 12 July 2020, not less than 183 countries across the globe were infected by the virus, with over 12.5 million infections and over 560,500 deaths (Jefferson, 2020, p.1).

Mitigations of the Spanish flu and COVID-19.

The Spanish flu and COVID-19 share some features and at the same time show striking differences from each other. The understanding of these will go a long way in enhancing response to and management of the ongoing COVID-19 and how to respond to and manage an eventual pandemic in the future. In the first instance both pandemics were caused by viruses (H1N1 and SARS-CoV-2 strain corona viruses respectively) and not spirits. Both were contractible by human to human contact also with contacts with surfaces that had been contaminated by the viruses. Both were believed to originate from animals. They were viruses that spread to every corner of the globe arising from the failure of humanity to strictly employ adequate preventive measures. They were source of infliction, incapacitation, mortality and panic and adversely affected the productive capacity of individuals globally (Roser, 2020). While the flu could not respond to any vaccine, those who were infected by it either died or developed immunity against the virus (Jimoh, 2015). The COVID however seemed to respond to vaccines, however, the vaccines had no guarantee of preventing the virus' infection. The most assured ways used to prevent both the Spanish flu and COVID included social and physical distancing measures: quarantining of suspected and established cases, avoiding mingling in crowds, keeping reasonable distances from people even when interacting, staying indoors, maintaining personal hygiene including washing of hands regularly with soap and running water, applying hand sanitizers, avoiding touching surface especially in public spaces, wearing surgical mask, avoiding handshakes and hugging, sneezing in an handkerchief and a distance from people around etc. Public arenas including schools, flight terminals (airports), markets, places of worship, cinemas, sporting events/arenas, funeral and burial functions etc. were also closed down (Ayinla, 2020). Other methods include clinical, pharmaceutical



and dieting measures which involve access to medicines and other medical services and facilities, and adequate food and nutrition by those who were infected by the diseases. Testing kits were used to test people who were suspected of contracting the viruses just as quarantine facilities were used to quarantine persons with either infections or suspected to have been infected by the diseases.

The above mitigations faced challenges across the globe in tackling first the Spanish flu and now the COVID as many societies lacked the necessary infrastructure that could enhance these mitigation processes. In Nigeria for example where illiteracy rate far outweighed literacy level, millions of people were uninformed and ignorant of the transmission and prevention of the COVID. Presently, humanity is engrossed in the Bottom Billion and another billion is at the verge of falling into it. The abject poverty of the Bottom Billion impinged effective mitigation of disease in a number of linkages. Inadequate access to water for example prevented best hygienic practices, lack of income hampered access to clinical and pharmaceutical mitigation measures, lack of food implied both starvation and inadequate diet and impinge nourishments-antigens, which would both prevent and fight diseases. Most societies across the globe lacked testing kits and other therapeutic interventions such as oxygen ventilators, quarantine facilities, and clinical facilities including medicines for the Spanish flu and the COVID. Research facilities into medicines and diseases were grossly inadequate and proved less capable in dealing with the diseases as promptly as desired.

Implications of the pandemics on human development.

One major feature of the mitigation dynamics of both the Spanish flu and COVID was the restriction of movements and physical interaction of human beings- lockdown policy, a non-pharmaceutical intervention which involved keeping physical distance between people in order to reduce the number of times people came into close contact with each other so as to prevent the spread of a contagious disease (Hensley, 2020). The lockdown stalled movement of all means of transportation and human movements which impacted on humanity in numerous ways including the disruption of the food system (Agba & Asooso, 2022), economic production, access to education and health services, religious and other socio-cultural and political obligations, and as well induced high costs of goods and services. These also exacerbated hunger, unemployment, lack of income, lack of access to goods and services including education and health services and thereby exposed humanity to poverty.

Again, the lockdown guaranteed insecurity as hoodlums, armed robbers and miscreants took advantage of the absence of people on



the street and broke into the homes and business premises of others, vandalized, looted and robbed people of their belongings without the fear of being repelled through community and family policing. Those who were disposed of their property in this manner, no doubt, were deprived of their production assets and were therefore exposed to poverty.

The closure of markets, and business premises and ban on travels had untold difficulties on the consumption capacities of people. It deprived humanity access to goods and services that enhanced quality lives. The schools of learning were similarly locked down which led to deprived access to education, extended the learners academic programmes, and additional time and monetary costs to the students. Religious worship centres including Churches and Mosques were similarly locked down. On the whole, the lockdowns led to severe socio-economic disruptions which in turn impinged human development and exacerbated human poverty.

The agenda for future pandemics.

Diseases are enemies of man and do not respect him irrespective of status. Accordingly, it affect the rich and poor, the weak and the most powerful, the young and the elderly, farmers and gun wielding herdsmen, the hapless electorates and the lying and conniving politicians (Jibunoh, 2020). Hindsight and insights of the Spanish flu and current COVID-19 have equipped humanity with knowledge that a pandemic is generally characterized by huge morbidity and mortality rates and the attempt at arresting its spread amount to severe socio-economic and political cost. The greatest of pandemics in human history within the past century was the Spanish flu which occurred between 1918 and 1919; one hundred years after it came and went, the COVID-19 emerged with similar devastating impacts. Humanity seemed to be hopeless in tackling the flu, just as she is in the face of the COVID. Humanity should therefore brace up to tackle any post COVID global health crisis should it emerge. As it is today, the COVID has hampered even the gains that have been made in the global agenda of sustainable development goals (SDGs). There is a more inclination now than ever that sooner or later in the history of humanity; another pandemic can evolve after the COVID. This is due to the fact that humanity has become engaged in increased exploitation of the environment, her population is exploding, is involved in high globalization levels and urbanization, and the ever increasing economic competitions among groups and states which has manifested in wars of lethal weapons including biological and chemical weapons. Should there emerge a pandemic in the post COVID-19 era, it is how prepared we are (now) in the present that the (future) pandemic will be adequately tackled.



Accordingly, therefore, in order to tackle the current COVID and any of its post era pandemic, humanity in the various divisions-sovereign states, should be focused on promoting environmental security, peace, security of lives and property, justice, and economic security of the human race; all which will in translate to human development. Those saddled with the responsibility of governance and development administration at various layers of society should strive to provide responsive, sensitive, accountable and transparent governance. Poor governance is the source of corruption which hurt development in a number of ways. Corrupt governance affects social interests and economic priorities in the course of allocating public resources. For instance, "capital intensive projects may offer more opportunities for kickbacks than, say, spending on primary education or primary health... spending on operations and maintenance may also be squeezed in favour of new projects for similar reasons, leaving existing roads, hospitals, and other public infrastructure to decay. At the same time, expenditures allocated may never reach the intended recipients-a major source of underdevelopment" (Garishankar et al., 2002, p.273).Governance should respond to the positive social, economic and political needs of the generality of the masses, and also address issues of environmental sustainability. Governance should be embracive and provide an enabling environment for all citizens to thrive, irrespective of their political, cultural, social, gender and physical standing in their legitimate forms of lives. Such governance should be guided, guarded and propelled by the tenets of equality, justice in all its ramifications, and strong nationalism to the state against other cleavages. Democratic norms and values including zero tolerance to corruption should be the guiding blocks of governance. Democracy should inculcate the principle of the welfare state, were the state in addition to ensuring the security of lives and property of her citizens create both economic and social infrastructure such as health and education facilities among others that would facilitate good living standards of the citizens. Consequently, therefore governance should be aimed at empowering the people, improving their capabilities, providing economic opportunities, and providing security of lives and property.

It is imperative that governments across the globe should be concerned with human development which involves creating social protection and empowerment measures, health and nutrition, population management and education facilities. Social protection and empowerment intervention involves actions that can assist individuals, households, and communities to better manage risk and also actions that provide support to the critical poor (World Bank, 2000). It is important for the governments to invest in massive empowerment of her citizens through gainful employments that entails good pay, provision of entrepreneurship and skills acquisition



opportunities etc. This will go a long way in facilitating access to funds which will promote access to food, health and education etc and by extension healthy life. Other forms of social protection actions include labour-market interventions, pensions, social safety nets, disability programmes, child labour reduction programmes etc. (Coudouel et al., 2002, p.165). The major approaches of achieving social protection strategy is to diagnose risk and vulnerabilities, identify major sources of risk and affected groups, and then the application of the most suitable social protection activity.

Investment in health should be bolstered. This requires the establishments of more health facilities and expansion and upgrade of existing facilities. The condition during the Spanish flu and currently under the COVID where most societies lacked access to adequate medical personnel, testing centres for the COVID, hospitals to manage COVID infected persons, masks, gloves, and ventilators in hospitals to manage patience among other weaknesses is totally unacceptable and should be addressed adequately. Investment in health should ensure that health facilities are adequate and physically accessible, health human and material resources are available, health services organizational quality is good, the health services products are relevant, health services delivery are delivered on time in a continuous manner, services are of high technical quality, social accountability in service delivery and a framework for diagnosis and action.

Governments can do much to improve the education of their populations as inadequate education is one of the most powerful determinants of human underdevelopment including health poverty. Education helps a society to reduce deprivation and vulnerability as it facilitates to lift earning potential, expands labour mobility, promotes health of the people. Education can promote better resources and environmental management; it is also fundamental to the production of the critical mass of scientists and skilled workers to service humanity in her diverse survival needs. Governments can focus on achieving the following in order to provide sustainable education to her populations: expand supply of education through lowering costs and creating schools in communities that lack a facility; improving quality of education by ensuring teacher quality, teaching quality, quality instructional materials, tighter accountability and institutional strengthening; stimulating demand and relieving household constraints by promoting the girl child education through eliminating all obstacles to girl education; creation of post basic and tertiary educations; and eliminating adult illiteracy(Aoki et al., 2002,p.251-263).

Universities and other research institutions should be adequately funded by governments to enable robust and dynamic researches



that would generate knowledge whose application would go a long way in tackling health, environmental, and socio-economic challenges that may confront humanity. So much ignorance was exhibited about the COVID. While many believed that it (is) was an elitist illness, others didn't believe the reality of the COVID due to ignorance, which was a manifestation of lack of modern educations. This category therefore failed to take precautionary measures against the disease and therefore exposed not only themselves, but others too, to the dangerous virus.

Environmental conditions arguably are responsible for a fraction of the percent of the burden of diseases. Governments should therefore invest in environmental protection for sustainable environmental health. Environmental protection should be geared towards eliminating activities that prevents health risk through control of human exposure to biological agents-bacteria, virus and parasite; chemical agents-heavy metals, particulate matter, pesticides, and fertilisers; diseases vectors-mosquitoes, flies and snails; physical and safety hazards-extremes of heats and cold, noise, and radiation, and deforestation and land degradation (Listori & Doumani, 2001; Lvovsky et al., 1999 cited by Bojo et al., 2002,p.378). Investment in the environment should be targeted at achieving sustainability in the following environmental concerns health, economic opportunity, security, empowerment (Bojo et al., 2002, p.386-87). Similarly, water and sanitation has been noted to be responsible for a significant percent of the burdens of diseases (Hughes, Dunleavy & Lvovsky, 1999). Governments should therefore invest in water supply and sanitation for their populations. Adequate intake of safe water is an antidote to many potential health problems just as adequate domestic water supply facilitates keeping the environment clean and aid in truncating breeding and spreading of germ, bacteria and parasites that is capable of causing illness. The calls to improve the scientific basis for readiness of pandemics (Quammem, 2013, p.513) should be taken seriously, and should encompass not only natural zootonic spread of diseases to humans but also bioterrorism (Oldstone, 2010; Quammem, 2013, Quick & Fryer, 2018; Snowdon, 2019).

There is the need for collective efforts by both governments across the globe and international organizations especially those that are saddled with the responsibility of public health leadership, for instance the World Health Organization (WHO) to step up their watch, plan, preparation and execution to prevent a future global health crisis. The wealthiest nations in the world should ensure to and as well assist the poor countries to develop critical health research and infrastructure such as masks, gloves, and ventilators, etc. to fight a global pandemic.



Governments across the globe should develop accurate statistics of the human development statuses of their populations; this will facilitate identifying and targeting vulnerable groups and environments whose needs should be met through policy. For instance, the criteria of an individual having less than five thousand Naira in his/her bank account as a qualification for vulnerability as defined by the Nigerian government as the yard stick for qualifying the vulnerable is not realistic. A larger percentage of the vulnerable persons in Nigeria do not have bank accounts neither do they know banking operations. The absence of a clear statistics then hampered efficient distribution of palliatives and medicines that the federal government, world donors, nongovernmental organizations, corporate institutions and individuals provided in the fight against the COVID.

Conclusion.

Humanity's history is replete with epidemics and pandemics which has had severe socio-economic implications. Within the 20th and 21st centuries alone, humanity has been ravaged by the Spanish flu, HIV/AIDS and currently COVID-19 pandemics aside other epidemics, where both the morbidity and mortality rates of each ran into millions. Population explosion, increased urbanization, and exploitation of the environment have been some of the major factors that exposed humanity to the health risks. However, the quest by man to access better life has exposed him to increased indulgence to the things that exposes him to diseases, and there is no possibility that man will stop from engaging in these activities, implying that epidemics and pandemics are inherent in humanity's existence. It is in this light that this paper makes an agenda for the mitigation of the current COVID and to get humanity prepared for the future task of tackling a pandemic should any emerge in the post COVID era. Humanity does not need to wait until a pandemic evolves before the fight against it will begin, rather certain measures should be put in place in anticipation. As argued, "Past epidemics and pandemics should serve humanity as moments that allow her to unravel chains of transmission, searching for weak links, missing links and unusual links. The moments that let us look back, to work how outbreaks really happened in the past, then look forward, to change how they happen in the future"(Kucharski, 2020, p.266). Some of the measures which humanity should embrace in fighting against future epidemic and pandemic should include the provision of qualitative and quantitative social and economic infrastructure, environmental governance, and empowering the citizens. In the current situations where +1billion people across societies in the globe are extremely poor- uneducated, lack the basic necessities of life including access to safe water, safe environments, food and sustainable incomes, and health facilities, the



world cannot be able to adequately respond to any emergent health crisis. The lockdown, pharmaceutical and therapeutic prescriptions that were adopted to mitigate the Spanish flu and COVID-19 were inadequate to curtail their spread and impact in a short possible time as desired. The synergy of the previous mitigation approaches with these current prescriptions, which are human development oriented, would surely provide a best safeguard for a post COVID-19 epidemic or pandemic.

Endnote

1. *Bottom Billion* is the catch phrase referring to the world's billion people that is extremely poor and could barely access the minimum requirements of livelihoods such as food and nutrition, water, shelter, security, education, health care, and clothing etc.

References

- Acemoglu, D. & Robinson A.R. (2012). *The origins of poverty and prosperity: Why nations fail* (London, Profile books, 2012).
- Agba, T. P. & Asooso A. (2022). "COVID-19 lockdown and Nigeria's food systems: Connecting the dots." *Humanus Discourse* 2 (2), 1-12.
- Aoki, A., Barbara Bruns, Michael Drabble, Mmantsetsa Marope, Alain Mingat, Peter Moock, Patrick Murphy, Pierella Paci, Harry Pantrinos, Jee-Peng Tan, Christopher Thomas, Carolyn Winter, and Hongyu Yang.(2002). "Education". In Jeni Klugman. Editor. *A source for poverty reduction strategies Vol.2.Macro and sectoral approaches* (pp.231-275), Washington D C., World Bank.
- Ayinla, M. (Wednesday March 25, 2020). COVID-19: "Lagos shuts markets, traces 1,800 contacts". *New Telegraph*, (p.7).
- Baldwin, P. (1999). *Contagion and the state in Europe 1830-1930*. Cambridge, Cambridge University Press.
- Bell, D. (1973). *The coming of postindustrial society*. New York: Penguin.
- Benedictow, O. J.(2004).*The black death, 1346-1353: The complete history*. Woodbridge, England, Boydell.
- Bojo, J., Julia Bucknall, Kirk Hamilton, Nalin Kishor, Christiane Kraus, and Poonam Pillai. (2002). "Environment". In Jeni Klugman. Editor. *A source book for poverty reduction strategies, Vol. 1. Core techniques and cross-cutting issues* (pp.386-387), Washington DC., World bank.
- Bowman, Jannetta Ann.(1987). *Epidemics and mortality in early modern Japan*. Princeton NJ, Princeton university press.

-
- Brand, Spur . (2020). "Throwback: How influenza killed 500,000 out of 18 million Nigerians in 1918". Retrieved on <https://brandsprung.com> . Accessed 12th April 2020.
- Bristow, Nancy. (2016). *American pandemic: The lost worlds of the 1918 influenza epidemic*, Oxford, Oxford university press.
- Burnet, M., & White D.O. (1972). *Natural history of infectious disease*. Cambridge: Cambridge university press.
- Champion, J.A.I.(1995). "London's dreaded visitation: The social geography of the great plague in 1665". *Historical research series*. NO.31, London centre for metropolitan history.
- Chirot, D. (1986). *Social change in modern era*. Orlando, FL: Harcourt Brace Jovanovich.
- Claeson, M., Charles C.G., Timothy A.J., Mildred.M., Agnes L.B.S., Adam W., and Abdo S.Y.(2002). "Health, nutrition, and population". In Klugman Jeni. Editor. *A sourcebook for poverty reduction strategies vol. 2 Macro and sectoral approaches*, (pp.201230-199), Washington D C., World Bank.
- Coudouel, A., Kene Ezememari, Margaret Grosh, & Lynn Sherburne-Benx. (2002). "Social Protection". In Klugman Jeni. Editor. *A sourcebook for poverty reduction strategies vol. 2 Macro and sectoral approaches*, (pp.163- 199), Washington D C., World Bank.
- Crawley, Richard. (1914). *The history of the Peloponnesian war*. London, Dent.
- David, A. (1993). *Colonizing the body: State medical and epidemic diseases in nineteenth century India*. Berkeley, University of California Press.
- Elvin, Mark .(1973). *The pattern of the Chinese past*. Palo Alto, CA: Stanford university press.
- Estes, R.J.(1988). Trends in world social development. *Journal of Developing Societies* **14**(1):11-39.
- Evans, Richard J. (1988). Epidemics and revolutions: Cholera in nineteenth century Europe. *Past and Present*, 120:123-146.
- Galishiff, Stuart.(1988). *Newark: the nations unhealthiest city, 1832-1895*. New Brunswick, NJ: Rutgers university press.
- Geary, Lawrence M. (1995). "Famine, fever and the bloody flux". In Cathal Poirteí. Editor. *The great Irish famine*. Cork, Merier.
- Girishankar, N., Linn Hammergren, Malcom Holmes, Stephen Knack, Brian Levy, Jennie Litvack, Nicholas Manning, Richard Messic, Jeffrey Rinne, & Helen Sutch. (2002). "Governance". In Jeni Klugman. Editor. *A source book for poverty reduction Vol 1. Core techniques and cross-cutting issues* (pp.269-299). Washington DC: World bank.
- Hays, J.N.(2005). *Epidemics and pandemics, their impact on human history*. Santa Barbara, California, and ABC-CL10.
- Hensley, Laura. (2020). "Social distancing is out, physical distancing is in-here is how to do it". *Global news*. Corus entertainment inc.

-
- Retrieved on <https://globalnews.ca/news/6717166/what-is-physical-distancing/>
- Hughes, B.B. (1999). *International futures*, 3rd edn. Boulder, CO:Westview.
- Hughes, G., Meghan, D. & Lvovsky, K. (1999). *The health benefits of investment in water and sanitation: A case study of Andhra Pradesh, India*. Washington D.C., World Bank.
- Humphreys, M. (1993). *Yellow fever and the South*. New Brunswick, University press.
- Jarus, Owen. (2020). *20 of the worst epidemics and pandemics in history*. Retrieved on <https://www.livescience.com/worst-epidemics-and-pandemics-in-history.html>
- Jefferson, M. (2015). "A global energy assessment: WIRES energy environ". <https://doi.org/10.1002/wene.17915>
- Jefferson, M. (2020). "COVID-19: "The lessons we should learn from existing literature". *Biophysical Economics and Sustainability* 5, p.13. <https://doi.org/10.1007/s41247-020-00079-y>
- Jibunoh, Newton .(April 2, 2020). "Corona virus and president's 10 year plan to take 100million Nigerians out of poverty". *Daily Sun* (p.21)
- Jimoh, Mufutau Oluwasegun. (2015). "Managing epidemic: The British approach to 1918–1919 influenza in Lagos". *Journal of Asian and African studies* DOI: 10.1177/0021909615587367 jas.sagepub.com
- Jones, K E., Patel N.G., Levy M.A., Storeygarg A., & Bulk D. (2008). "Global trends in emerging infectious diseases". *Nature* 451 (7181):990-93.
- Kucharski, A.(2020). *The rules of contagion: Why things spread-and why they stop*. London, Profile.
- Lewis, W.A. (1955). *The theory of economic growth*. Homewood, NJ: Richard D. Irvin.
- Listori, James & Fadi Doumani. (2001). "Environmental health: Bridging the gaps". *Discussion paper*. No. 433. Washington DC. World Bank.
- Live Science .(2020). "Spanish flu: The deadliest pandemic". Retrieved on <https://www.livescience.com/spanish-flu.html> . Accessed 10th April 2020.
- Lvovsky, K., Gordon Hughes, David Maddison, Bart Ostro, & David Pearce cited in Bojo Jan, Julia Bucknall, Kirk Hamilton, Nalin Kishor, Christiane Kraus, and Poonam Pillai.(2002). "Environment". In Jeni Klugman. Editor. *A source book for poverty reduction strategies, Vol. 1. Core techniques and cross-cutting issues* (p.378), Washington DC., World bank.
- McMillen, Christain W. (2016). *Pandemics: A very short introduction*. Oxford, Oxford university press.
- Metcalfe, B. D. & Metcalfe, T. R. (2002). *A concise history of India*. Cambridge, Cambridge university press.

-
- Mills, D. (1986). "The 1918-19 influenza pandemic: The Indian experience." *Indian Economic and Social Review* 1 (23), pp.1-40
- Modhav, N., Ben, O., Mark., G., Prime, M., Edward, R., & Nathan, W. (2018). "Pandemics: risks impacts and mitigation". In Dean, J. Jamison, Helen Gelband, Susan Horton, Prubhat Jha, Romonan Laxminarayan, Charles N. Mock & Rachel Nugent. (Editors). *Diseases control priorities: Improving health and reducing poverty*, 9. Third Edition. International bank for reconstruction and development/The World bank group, World bank, Washington D C.
- Moote, L. A., & Moote, D C. (2003). *The great Plague: The story of London's most deadly year*. Baltimore, John Hopkins university press.
- Morse, S.S. (1995). "Factors in the emergence of infectious diseases". *Emerging infectious diseases* 1 (1): 7-15.
- Ohadike, D. C. (1991). "Diffusion and physiological responses to the influenza Pandemic of 1918-19 in Nigeria." *Elsevier, Social Science Medicine*, Vol.32, Issue (12), pp. 1393-1399.
- Oldstone, M.B.A. (2010). *Viruses, plagues and history: Present, past and future*. Oxford, Oxford university press.
- Perkin, H. (1996). *The third revolution*. London: Routledge.
- Porta M. (2014). Editor. *A Dictionary of epidemiology*. 6th ed. Oxford: Oxford university press.
- Public Record Office (PRO). (5th September 1919). CO583/77 London.
- Quammem, D. (2013). *Spillover: Animal infections and the next human pandemic*. London, Vintage.
- Quick J. & Fryer B. (2018). *The end of pandemics: The looming threat to humanity and how to stop it*. New York, Saint Martins press.
- Richard, P. (1982). "The church, leprosy and plague in medieval and early modern Europe". In W. J. Shiels. Editor. *The church and healing*. Oxford, Basil blackwell.
- Roser, M. (2020). "The Spanish flu (1918-20): The global impact of the largest influenza pandemic in history". Retrieved on <https://ourworldindata.org/spanish-influenza-pandemic-in-history>. Accessed 4 April 2020.
- Rowstow. W.W. (1961). *The stages of economic growth*. Cambridge: Cambridge university press.
- Sallares, R. (2002). *Malaria and Rome: A history of malaria in ancient Italy*. Oxford. Oxford university press.
- Seers, D. (1970). *The meaning of development*. Brighton, England, Institute of development studies at the university of Sussex.
- Seers, D. (1973) "The meaning of development". In Wilber, C. K. Editor. *The political economy and underdevelopment*, (pp. 124-144) (New York, Radom House, 1973).
- Sen, A. (2001). *Development as freedom*. New York: Alfred Knopf.
- Snowdon, F.M. (2019). *Epidemics and society: From the black death to the present*. New Haven. Yale university press.



- Todaro, P. M. & Steven C. S. (2011). *Economic development*. Ninth edition. England: pearson.
- Wayne, F. William. (1985). *Population, diseases and land in early Japan, 645-900*. Cambridge M A, Harvard University press.
- Welzel, C., Ronald I., Hans-Dieter, K. (2003).The theory of human development: A cross-cultural analysis. *European Journal of Political Research*42,(3), pp.341-379
<https://doi.org/10.1111/1475-6765.00086>
- Woodrow, B. & Cook, S.F.(1963). *The aboriginal population of central Mexico on the eve of the Spanish conquest*. Barkeley, University of California press.
- World Bank. (2000, February). *Social risk management: A new conceptual framework for social protection, and beyond*. Revised draft. Washington, D C., World Bank.

Corona viruses are a large group of viruses known to cause respiratory illnesses in humans with symptoms ranging from mild to severe diseases. Seven corona viruses can produce infection in people