

THE AFRICAN FORESTS IN THE FACE OF THE CORONAVIRUS (COVID 19) PANDEMIC

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Abstract

Extant studies particularly lessons and notes of medical historians have established that man in his quest to dominate and take over his environment has in the course altered the original arrangement of the earth crust and its components, thereby disturbing the original configuration of ecosystem. In this process, other organisms were exposed, resulting in health risk, disease, epidemic and later pandemics. In the case of Africa, it has been established that man over the years have been able to bring this disease under control through the use of trees, roots and herbs (traditional medicine). However, despite records of proven efficacy and efficiency of Africa's roots and herbs, the West, World Health Organisation and their allies still show disdain to Traditional Medical practices and their products and as such there exist some form of hostility harboured by the modern medical practitioners against the use of traditional medicine. This in the opinion of this research could prevent Africa and Africans from contributing meaningfully to the fight against COVID 19 pandemic in modern history. This research is, therefore, an attempt at counting possible economic and health losses the world would incur by neglecting herbs and roots products of Africa traditional medical system during this period of Coronavirus (Covid 19) Pandemic. From the perspective of Economic History, data obtained from primary and secondary sources were deployed to carry out the study with an analytical and narrative historical approach (evidence gathering). The primary source for this research is based on field investigations conducted in the area and surrounding territories. Among other things, the data collection process includes semi-structured interviews with individuals. The research also uses historical documents from the national archives, relying on previous research conducted on issues of the history of disease and spread, in addition to documentary data taken from newspaper accounts, diaries, letters and verbal reports.

Keywords: COVID 19, Traditional Medicine, Africa, Health, Forests

Introduction

Lessons of history have established that man in his quest to dominate and take over the environment has in the course altered the original arrangement of the earth crust and its components, thereby disturbing the original configuration of ecosystem. In this process, other organisms were exposed, resulting in health risk called diseases. Thus, it is safe to argue that the history of disease (and later epidemics) is as old as man¹. It is in light of this that scholars have argued that infectious and communicable diseases existed during humankind's hunter-gatherer days, but the shift to agrarian life 10,000 years ago created communities that made epidemics more possible. The spread of disease is associated with Man's quest for community life and expansion associated with civilized livings, expansions of settlements, building cities and forging trade routes to connect with other cities, and waging wars with them², leading to pandemic situation.

In the case of Africa, it has been established that man has been able to bring this disease under control through the use of roots and herbs, hence the reference to Africa's Forests in the title of this paper.

Historicizing World Pandemic and its Impact on World Economy: A Brief Reflection.

The earliest of such recorded in history is associated with the city of Athens in 430 B.C, during the Peloponnesian War³. There was also the Antonine Plague of 165 to 180 AD, also known as the Plague of Galen. The total death count has been estimated at 5 million, and the disease killed as much as one third of the population in some areas and devastated the Romans⁴.

Similarly, between the end of 249 and 250 A.D, the world experienced the emergence of Cyprian Plague⁵. In 444 A.D., it hit Britain and obstructed defense

¹ Akubor E .Osewe, (2012) The Role of Esan Traditional (Herbal) Health System in Attaining the Millennium Development Goals: A Neglected Theme, in Ukago V and Akubor, E.O (2012) A Diminishing Past-A Rescued Future: Essays on the Peoples, Traditions and Culture of the Esan of Southern Nigeria: Goldline and Jacobs, New Jersey. Pp 107-122

² Muhammad Ahmedullah (2014), Ibn Khaldun and Karl Marx: Five Centuries of History and Two Civilisations Apart, Yet Remarkably Similar; <https://alochonaa.com/2014/10/21/ibn-khaldun-and-karl-marx-five-centuries-of-history-and-two-civilisations-apart-yet-remarkably-similar/>

³ Cartwright, Frederick C. (2014), Disease and History, Sutton Publishing, 2014; Dobson, Mary (2007), Disease: The Story of Disease and Mankind's Continuing Struggle Against It, Quercus, 2007.

⁴ Chester G. Starr, A History of the Ancient World (Oxford, 1991) 328; Smith, Christine A. (1996). "Plague in the Ancient World". The Student Historical Journal.

⁵ Kyle Harper (1 November 2017). "Solving the Mystery of an Ancient Roman Plague". The Atlantic. Retrieved 2 December 2017; Kyle Harper (2017). "Chapter 4: The Old Age of the World". The Fate of Rome: Climate, Disease, and the End of an Empire. Princeton University Press. ISBN 978-0691166834.

efforts against the Picts and the Scots, causing the British to seek help from the Saxons, who would soon control the island⁶.

In the year 541 A.D, there was the Plague of Justinian, which continued to recur until the middle of the 8th century. Extant studies opined that first plague pandemic was one of the deadliest pandemics in history, resulting in the deaths of an estimated 25–100 million people during two centuries of recurrence, a death toll equivalent to as much as half of Europe's population at the time of the first outbreak⁷. In the 11th Century, A.D, the world was to officially witness symptoms of what later became known as Leprosy. Till date, leprosy (Hansen's disease), is still ravaging that world afflicting tens of thousands of people yearly⁸.

There was the emergence of the Black Death in 1350, argued to have its origin in Asia and was declared the second largest outbreak of the bubonic plague. Over the next five years, the Black Death killed more than 20 million people in Europe—almost one-third of the continent's population⁹. In 1492, the world was confronted with The Columbian Exchange. Research in 2019 even concluded that it claimed some 56 million people mostly Native Americans.

In 1665, it was The Great Plague of London, argued to have killed an estimated 100,000 people—almost a quarter of London's population—in 18 months¹⁰. In 1817, the world also experienced what historians have described as the first of seven cholera pandemics over the next 150 years. It is on record that since it first emerged, seven cholera pandemics have occurred in the past 200 years, with the first pandemic originating in India in 1817¹¹. The casualty figure is estimated at 150,000 people. A vaccine was created in 1885, but pandemics continued. The Third Plague Pandemic was to emerge in 1855, claiming 15 million victims. There was also the Fiji Measles Pandemic of 1875, which is associated with expansion

⁶ Ibid

⁷ Maugh, Thomas. "An Empire's Epidemic". www.ph.ucla.edu. Retrieved 20 March 2020; Rosen, William (2007). *Justinian's Flea: Plague, Empire, and the Birth of Europe*. New York City: Viking Adult. p. 3. ISBN 978-0-670-03855-8; The Plague of Justinian". *History Magazine*. 11 (1): 9–12. 2009.

⁸ Singh, Kunwar Sahab; Pandey, Bam Deo (March 2012). "Leprosy—Hidden Disease?". *Science Reporter*. 49 (3).
...Ibid

⁹ Black Death...Ibid.

¹⁰ Ibid

¹¹ Tatem, A.J.; Rogers, D.J.; Hay, S.I. (2006). "Global Transport Networks and Infectious Disease Spread". *Adv Parasitol. Advances in Parasitology*. National Institutes of Health. 62: 293–343. doi:10.1016/S0065-308X(05)62009-X. ISBN 9780120317622. PMC 3145127. PMID 16647974

and conquest. At the end, one-third of Fiji’s population, a total of 40,000 people, died.

Table A: Other World Pandemics¹²

Date	Name	Description	Effect
1889	Russian Flu	The first significant flu pandemic started in Siberia and Kazakhstan, travelled to Moscow, then into Finland and Poland, where it moved into the rest of Europe. By the following year, it had crossed the ocean into North America and Africa	By the end of 1890, 360,000 had died
1918	Spanish Flu	The flu was first observed in Europe, the United States and parts of Asia before swiftly spreading around the world. At the time, there were no effective drugs or vaccines to treat this killer flu strain. Wire service reports of a flu outbreak in Madrid in the spring of 1918 led to the pandemic being called the “Spanish flu.” By October, hundreds of thousands of Americans died and body storage scarcity hit crisis level. But the flu threat disappeared in the summer of 1919.	The avian-borne flu that resulted in 50 million deaths worldwide
1957	Asian Flu	Starting in Hong Kong and spreading throughout China and then into the United States, the Asian flu became widespread in England. A second wave followed in early 1958. In 1957 England lost (over six month), 14,000 people. By 1958, an estimated total of about 1.1 million deaths globally, with 116,000 deaths in the United States alone	An estimated 1.2 million people died of the disease between 1957 and 1958

¹² Compiled by author from various sources including Klein I. (1988), Plague, policy and popular unrest in British India., *Mod Asian Stud.* 1988;22(4):723-55. doi: 10.1017/s0026749x00015729.PMID: 11617732; Dobson, Mary (2007), *Disease: The Story of Disease and Mankind's Continuing Struggle Against It*, Quercus, 2007; Joseph P. Byrne (2008), (ed)*Encyclopedia of Pestilence, Pandemics, and Plagues*, Greenwood Press, 2008; Logan Clendening (1960), *Source Book of Medical History*, Dover Publications, 1960.

1981	HIV/ AIDS	AIDS destroys a person's immune system, resulting in eventual death by diseases that the body would usually fight off. AIDS was first observed in American gay communities but is believed to have developed from a chimpanzee virus from West Africa in the 1920s. The disease, spreading through certain body fluids, moved to Haiti in the 1960s, and then New York and San Francisco in the 1970s. Symptoms include fever, headache, and enlarged lymph nodes upon infection. When symptoms subside, carriers become highly infectious through blood and genital fluid, and the disease destroys t-cells.	An estimated 35 million people worldwide have died of AIDS since its discovery, and a cure is yet to be found.
2003	SARS	After several months of cases, Severe Acute Respiratory Syndrome was associated with bats, spread to cats and then to humans in China, followed by 26 other countries. SARS was seen by global health professionals as a wake-up call to improve outbreak responses, and lessons from the pandemic were used to keep diseases like H1N1, Ebola and Zika under control.	It infected 8,096 people, with 774 deaths.

In counting the economic losses, scholars have argued that apart from the direct loss of lives, these pandemics also hindered the spread of civilization and fast integrations of world civilizations. It must, however, be noted that it led to situations in which man had to interact meaningfully with the environment to develop the necessary vaccines and medicines to cure these epidemics turned pandemics¹³. This led to situations in which those that had the knowledge dominated those to whom they had to share such with. This in the view of the paper could be described as the first step to colonialization of different parts of the world. Thus apart from the physical use of forces through arms and ammunitions, knowledge has always ruled that world. However, oral testimonies exist in most African societies on how most of these plagues were countered using the forest resource of roots, leaves and herbs¹⁴.

Africa and the Emergence of COVID 19

¹³ Rodney Walter 1973, *How Europe Underdeveloped Africa*, Bogle-L'Ouverture Publications, London:8-10, see also Ukaogo V and Akubor E.O, (2012), ...Op.cit.

¹⁴ Ibid

Although towards the end of 2019, there were rumours of epidemic ravaging some parts of Asia with specific reference to Wuhan, China. The first reported case in China appeared November 17, 2019, in the Hubei Province, but went unrecognized. Eight more cases appeared in December with researchers pointing to an unknown virus. This epidemic was later identified as COVID 19, an abbreviation for Corona Virus 2019. To tackle this, the government of the affected area first converted an exhibition centre into a hospital in Wuhan, China's central Hubei Province. The epidemic then gradually gained popularity, when ophthalmologist Dr. Li Wenliang defied government orders and released safety information to other doctors. The following day, China informed WHO and charged Li with a crime. Li died from COVID-19 just over a month later. The inability of the World Health Organisation to curtail it and the lackadaisical attitude with which the world handled the case, led to a situation in which the virus escaped the Chinese border, such that by mid-March, it had spread globally to more than 163 countries. On February 11, the infection was officially christened COVID-19. However, on March 11, 2020, the World Health Organization announced that the COVID-19 virus was officially a pandemic after barreling through 114 countries in three months and infecting over 118,000 people.

The current Coronavirus Disease (COVID-19) is one of the largest respiratory disease outbreaks affecting several countries simultaneously and a novel strain of Coronavirus (SARS-CoV 2) has been identified as the causative agent. Sequel to the advice of the International Health Regulation Emergency Committee, the Director-General of WHO declared the COVID-19 outbreak a Public Health Emergency of International Concern (PHEIC) on 30 January 2020 and characterized it as a pandemic on 11 March 2020. Since the first recorded case, Africa has continued to experience an increase in the number of cases, which has spread across several countries in the continent. While majority of the initial cases were imported, most of the new cases have no travel history or contact with such people. In the case of Nigeria, as of 14 September, 2020, a total of 56,256 cases of COVID-19 were recorded in 34 of Nigeria's 36 states, as well as in the Federal Capital Territory (FCT), with Lagos state recording the highest figure. The total number of death was 1082, total number recovered 44,152, with 11,022 active cases¹⁵.

¹⁵ Adie V. O. (2020), "COVID-19: When a governor believes it's a hoax and ordinary flu" Leadership Style, Abuja, Jun 3, 2020

COVID 19, African in Cure and Disease Control: Forest Resources

As noted earlier, the history of diseases is as old as the history of human civilization. Thus, at various times in various ways, societies have been able to tackle these diseases based on the provision of the environment. In the case of Africa, the immediate environment has always provided the much needed cure as it has been established that Africa has forest and bush has about 30,000 medicinal recipe¹⁶. It is therefore not surprising that she has been able to control pandemic using resources from these forests. For instance, Okoduwa (2012) opined that some African societies south of the Sahara have engaged the natural resources of their forests to produce the necessary preventives and cures for diseases. On the Indigenous treatments, with specific reference to the Esan people of southwest Nigeria (West Africa). Okoduwa (2012) writes:

The Esan has rich vegetation made up of the moist deciduous forest. It has timber and other forest woods. In some parts of the plateau and the lowlands, forests were thickly wooded and inspired awe from the Esan people. the forest and its products were highly valued for their innumerable contributions to everyday living. The forest was vital to the life and culture of the Esan. There were medicinal preparations from the forest for leprosy, gonorrhoea, loose teeth, fevers, abscesses, black tongue, childbirth and purgatives ¹⁷.

Among the tribes in Zambia, the first principle is diagnosis followed by complex treatment procedures using plants from the bush, followed by many rituals, the ultimate aim being to cure disease ¹⁸. Serious or chronic illnesses require "chizimba," which means sealing a disease or illness away forever. In preparing the medicine, plants may be used singly or in combination with other plants. The plant parts are harvested fresh, pulverized, and left to dry first, then soaked in water or other solvents like local gin. Some plant materials are burnt as charcoal and used as powder. Scholars have identified six major types of treatment common to the 72 or more ethnic groups in Zambia include drinking, eating, drinking as porridge, making small cut on skin and applying, bathing with

¹⁶ Stanley, Bob (13 February 2004). "Recognition and Respect for African Traditional Medicine". Canada's International Development Research Centre. Retrieved 5 June 2020.

¹⁷ Ibid

¹⁸ Ezekwesili-Ofili J and Okaka, C, (2017), Herbal Medicines in African Traditional Medicine; Submitted: May 20th 2017Reviewed: July 17th 2018Published: January 30th 2019. DOI: 10.5772/intechopen.80348

herbs, dancing to exorcize spirits, and steaming with boiling herbs. The Zambian traditional healer is called *Nga'nga*¹⁹

In the case of the tribes in Ghana, scholars have argued that although a large percentage of the population fully accept modern science-based medicine, but traditional medicine is still held in high regard. They believe in the physical and spiritual aspects of healing. Herbal spiritualists collectively called “bokomowo” indulge in occult practices, divinations, and prayers and are common all over the country. Tribal vernacular names of traditional healers include “gbedela” (Ewe), “kpeima” (Dagomba), “odunsini” (Akan), and “isofatse” (Ga).

In some Ghanaian communities, especially in the Akan communities, traditional healers and practitioners are of the opinion that disobeying taboos is one of the ways that could lead to severe illness to the person(s) or community involved. In all cases, the major ingredient for the preparation of the medicines comes from the forests, basically roots, tree barks and leaves. Traditional medicine features in the lives of thousands of people in South Africa every day. In fact, it is estimated that 80% of the population uses traditional medicines that are collectively called muti. Muti is a word derived from medicinal plant and refers to traditionally sourced plant, mineral, and animal-based medicines. In addition to herbs, traditional medicine may use animal parts and minerals²⁰.

COVID 19 Pandemic, African and African Medicine: An Interrogation

Even before the emergence of Covid 19 pandemic in world health history, Africa's engagement in the medical science has been well documented by scholars, who believe that the major impediment to her development was colonialism, the introduction and manipulation of the doctrine of two major religions of the world, which demonised her adventure in the medical field. Documenting some of this, Adodo²¹ opined thus:

The very first scientist in recorded history was an African named Imhotep, who was an adviser to the Pharaoh Djoser of the 3rd dynasty, and builder of the world's first pyramid. The idea of a blood bank was pioneered by Dr Charles Richard Drew (1904-1950), an African born in America. His approach brought a great revolution in the medical world and saved millions of lives. The first person to operate on the human heart was

¹⁹ Ibid

²⁰ Ibid

²¹ Adodo Anslem (2017), *Integral Community Enterprise in Africa* Routledge

Daniel Williams (1856-1931) son of African slaves brought to America. Daniel Hale Williams made history by performing the first successful open-heart surgery in 1893. Long before the advent of colonialism, medicine was well advanced not only in Egypt but also in western and eastern Africa, especially in present-day Nigeria and South Africa and many others. Medical procedures such as vaccination, autopsy, limb traction and broken bone setting, bullet removal, brain surgery, skin grafting, filling of dental cavities, installation of false teeth, Caesarean section, anaesthesia and tissue cauterisation were performed in ancient Africa before they became known in Europe. An African, Garret Augustus Morgan invented the traffic light in 1923. Morgan was also the inventor of the gas mask. McCoy Elijah, (1843-1929) an African, invented the steam engine lubricator which allowed locomotive engines to be lubricated while in motion in 1872²².

Apart from the above, there are documents revealing the continent's success in Ancient Egypt and surrounding territories. In spite of the fact that history has continually pointed to Africa as the home of the development of medicine, the Western world has continued to deny this fact and this became even more glaring with the emergence of the Coronavirus Pandemic in 2019/2020. They have described Africa and her response to health issues in the modern times as unscientific, illogical and unacceptable. This could be seen in the various prediction that greeted Africa immediately the pandemic surfaced. There were specifically fears that Africa will be blown apart by the virus. World Health Organization (WHO) Director General Tedros, Adhanom Ghebreyesus issued a chilling warning to African countries: "The best advice for Africa is to prepare for the worst". Similarly, Microsoft founder, Bill Gates predicted it could claim about 10 million lives in Africa. His wife and co-chair of the Gates Foundation, Melinda Gates, added that without drastic actions, COVID-19 could lead to dead bodies lining the streets of Africa²³. Melinda Gates was quoted as saying, "I am worried.... I see dead bodies in the streets of Africa." Gates is not the only one to be predicting total doom in Africa. A report released by the United Nations Economic Commission for Africa (UNECA) in April stated: "Anywhere between

²² Ibid

²³ Paul Adepoju (2020), COVID-19: The Sky Hasn't Fallen Yet in Africa Health Policy Watch. Pandemics & Emergencies, Geneva Switzerland, <https://info@healthpolicy-watch.org>, 15/08/2020

300,000 and 3.3 million African people could lose their lives as a direct result of COVID-19."²⁴.

These predictions according to scholars were drawn from a racialized history of objectifying black bodies, and a despondency frame in which Africans are cast as defenseless victims, lacking autonomy and agency and needing a saviour. Thus, while the menacing spread of Covid-19 is treated with shock elsewhere, in Africa, the onslaught of Covid-19 is considered inevitable²⁵. Omanga and Ondigo (2020) argued that it was based on the thought that:

...There is no denying that sub-Saharan Africa would, given a full-blown pandemic, be overwhelmed. On the surface, the odds are stacked against the region. For a disease that often requires treatment in intensive care units (ICUs), many sub-Saharan African countries lack the capacity to deal with a surge in cases. In Kenya, for instance, there are only about 518 ICU beds countrywide. The Central African Republic (CAR) has only eight. Uganda has only fifty-five ICU beds, while Nigeria has less than 500. Meanwhile, vast populations are thought to be immunocompromised with a host of ailments²⁶.

On the confusions in the prediction, Okereke et al argued thus:

While there have been multiple projections in regards to the number of COVID-19 deaths that the African continent will see, the recent estimate from the UNECA might be the most confusing. This is especially because the prediction of millions of COVID-19 deaths in Africa is difficult to reconcile with the present growth rate and the reality on the ground. As of publication time, there were a total of 50,996 COVID-19 cases on the continent and 1,998 deaths reported. To put this into perspective, based on the lowest projection from UNECA and at the present growth rate, African nations would need to see at least 7.6 million confirmed infections to be

²⁴ Caleb Okereke, Kelsey Nielsenby Caleb Okereke & Kelsey Nielsen (2020), The problem with predicting coronavirus apocalypse in Africa; OPINION /CORONAVIRUS PANDEMIC, © 2003 - 2020, Al Jazeera Media Network Live, 07 May 2020 GMT+3

²⁵ Duncan Omanga and Bartholomew Ondigo, (2020)COVID-19 AFRICA: Sub-Saharan Africa Will Most Likely Ride Out the Covid-19 Storm, Kujenga Amani (ed) Social Science Research Council, Brooklyn, NY 11201 • USA, May 14, 2020

²⁶ Caleb Okereke, Kelsey Nielsenby Caleb Okereke & Kelsey Nielsen (2020), The problem with predicting coronavirus apocalypse in Africa; OPINION /CORONAVIRUS PANDEMIC, © 2003 - 2020, Al Jazeera Media Network Live, 07 May 2020 GMT+3

able to reach 300,000 deaths; 84 million people will have to be infected continent-wide for the UNECA projected 3.3 million deaths to happen²⁷.

As it is presently, the progression of Covid-19 infections and fatalities in the region appear to be upsetting earlier epidemiological predictions and mathematical models. Africans are not dying in the streets, and the chances of widespread deaths are decreasing with time. Although the most optimistic scientists are cautious, the Covid-19 crisis on the African continent is more in the economic and political space. Not only are hospitals virtually empty, even the everyday emergencies and medical procedures that surgeons and physicians encounter are few and far between. Months after recording their first cases, we see images of clean and glossy makeshift isolation centers for sick Covid-19 patients in Addis Ababa, Lagos, Accra, Kigali, and other parts of sub-Saharan Africa still yawningly empty.

In South Africa, which has the most sophisticated health infrastructure in Africa and some of the highest infection rates, doctors have been waiting for gravely ill patients to present themselves in hospitals with flu-like symptoms for weeks. The expected torrent has been more of a trickle since the first case was reported on March 5, 2020. With low Covid-19 testing capacity, there is a high possibility that infections are far higher than reported, but few seem to require hospitalization. The two hardest-hit countries in continental Africa, Cameroon and South Africa, still have low ratios of both critically ill patients and fatalities. In Kenya, where there are over 700 infections, there are only a handful of critically ill patients, with most showing mild symptoms. Several countries, like Uganda, Namibia, Mozambique, Rwanda, and Burundi, have yet to record a single death. The data is still evolving, but the latest statistics show that, compared to other regions, sub-Saharan Africa has one of the lowest fatality rates, with the ratio of deaths per 1 million people in the minutest of decimals. In addition, South Africa has flattened its coronavirus curve and is already easing restrictions. The rates of fatalities do not reflect a crisis that even comes close to the usual killer diseases Africa faces, such as malaria. In 2018, for instance, malaria killed nearly 200,000 people in Nigeria, the Democratic Republic of the Congo, Uganda, Côte d'Ivoire, Mozambique, and Niger alone.

²⁷ Caleb Okereke, Kelsey Nielsenby Caleb Okereke & Kelsey Nielsen (2020), The problem with predicting coronavirus apocalypse in Africa; OPINION /CORONAVIRUS PANDEMIC, © 2003 - 2020, Al Jazeera Media Network Live, 07 May 2020 GMT+3

While Africa seems to enjoy some form of immunity against the disease, there have been records of severe casualty in the most advanced countries of the world. For instance, reports have linked a wave of infections and deaths of elderly people in Seattle to caregivers and staff who worked while sick at multiple long-term care facilities. In a similar facility in the Seattle area, residents began dying in late February from a coronavirus outbreak that would eventually take forty-three lives. In New York, the epicenter of the pandemic in the US, a 360-bed facility in an upscale section of Brooklyn listed over fifty-five deaths within a short time in March. Most nursing homes around the city recorded an average of forty deaths each. In Cranford, a small town in New Jersey, two-thirds of the deaths recorded were in one long-term care facility. Most of the infections are thought to have been from staffers who went to work sick.

The bias against Africa has also manifested in various attempts to silence the development of a vaccine. This has been the case of Madagascar, where the President Andry Rajoelina said that the WHO offered \$20m bribe to poison COVID-19 cure (the local African 'cure' for the virus), which the country had produced. The herbal remedy called COVID-19 Organics made from Artemisia can cure COVID-19 patients within ten days of infection. The remedy, COVID 19 Organics, is made from Artemisia, a plant imported into Madagascar in the 1970s from China to treat malaria. Artemisia has had proven success against malaria and related diseases including COVID 19.

Andry Rajoelina also raised the question that if it was a European country that had actually discovered this remedy, would there be so much doubt?. The president of Madagascar believes the only reason the rest of the world has refused to treat Madagascar's cure for the coronavirus with urgency and respect is that the remedy comes from Africa. Expressing his disappointment and bias against Africa, he argued that this stems from usual condescension toward Africans. He opined:

I think the problem is that (the drink) comes from Africa and they can't admit... that a country like Madagascar... has come up with this formula to save the world;...If it wasn't Madagascar, and if it was a European country that had actually discovered this remedy, would there be so much doubt? I don't think so;, What is the problem with Covid-Organics, really? Could it be that this product comes from Africa? Could it be that it's not OK for a country like Madagascar, which is the 63rd poorest country in the

world... to have come up with (this formula) that can help save the world?²⁸

Although the WHO has criticized such natural therapeutic measures against the coronavirus as blind faith, a host of other African countries including, Tanzania, Guinea-Bissau, DR Congo and Niger, have imported the Madagascan made recipe.

While the imperial capitalist world considers it right that Africans and their forest resources (fruits and herbs) cannot be part of the medical world, they have always seen that people and their region as guinea pigs for medical experimentation, resource exploitation, market for sub-standard goods as well as ideology. In early March 2020, as coronavirus cases began an exponential growth curve, some people asked why African countries were not recording higher numbers of COVID-19 cases. It was therefore not surprising that at the heat of the COVID 19 pandemic, a French doctor caused controversy when he proposed that vaccines for the COVID-19 pandemic be tried on Africans because they lack masks and other personal protective equipment. This according to scholars is nothing new as it is part of a trend that for generations has seen the dehumanising of some people because of the superiority complex of others. In response, Karsten Noko (2020) wrote:

The dehumanisation of people from the Global South was one of the driving forces behind the slave trade and colonialism. It is inconceivable that anyone could fathom the thought of trading in human beings unless they regarded that person as inferior.;...Joseph Conrad, in his book *Heart of Darkness* writing in 1899, grappled with the question of whether the people he had met in Africa were really human. He opines: "No they were not inhuman. Well, you know, that was the worst of it - this suspicion of their not being inhuman."...It is the naturalness of someone even posing such questions that cements these ideas; the acceptance of a "second-class humanity" that allows the dispossession and trade in human lives to be so easily explained away²⁹.

²⁸ "WHO Offered \$20M Bribe To Poison COVID-19 Cure" - Madagascar President Rajoelina; <https://www.zambianobserver.com/w-h-o-offered-20million-bribe-to-poison-covid-19-cure-made-by-madagascar-president-andry-rajoelina-claims/>

²⁹ Karsten Noko (2020), *Africa Coronavirus pandemic Health Colonialism slavery: Remarks about testing coronavirus drugs on Africans part of pattern where some bodies are dehumanised, others protected*© 2018 Al Jazeera Media Network, 08 Apr 2020 GMT+3

Similarly, in the 2014 West Africa Ebola outbreak, for instance, more than 250,000 blood samples were collected from patients by laboratories in France, the UK and the US among others - often with no informed consent - as patients underwent testing and treatment for Ebola, to help researchers create new vaccines and medicines. Today, South African, French and American researchers refuse to disclose how many of these samples they still hold, citing "national security" as an excuse. As one patient remarked, "They are using it to make research, make billions of dollars ... That medicine they produce will not be free. It will be something that you will sell." Because the affected communities are poorer and people lack the information that will help protect them from such researchers, their samples are taken, and used at will to produce medicine for people who will pay for treatment - often without their knowledge.

In the case of Nigeria, it is on record that in 1996, Kano State (Nigeria) was the epicentre of a huge meningitis outbreak. At the time, Pfizer, one of the largest research pharmaceutical companies in the world, decided to conduct clinical trials to test a drug it was developing. Pfizer neglected to acquire informed consent from the parents of the patients, who were, anyway, too stressed to make rational decisions. It was only in 2009 that Pfizer settled out-of-court and paid \$75 million to the Kano State government and \$175,000 to the parents of four of the children who had died during the outbreak and clinical trials. Although Pfizer argued in its legal defence that the children had been killed by the disease and not their drugs, the out-of-court settlement robbed the world of an opportunity to have the medical facts established before a court of law.

Similar trials and tests were conducted in Zimbabwe in 1994 with the drug AZT - projects funded by the US-based CDC and NIH resulted in adverse effects for patients. In Namibia in the early 1900s, sterilisation tests were done on Herero women by German doctors who sought to provide "scientific" backing to ban mixed-race marriages. In response to these cases, Karsten Noko opined:

Researchers know only too well that conducting such research in the Global North is more onerous and has too much red tape. In the Global South, big pharmaceuticals, often with the complicit support of bribed government officials, have it easy. As they chase huge profits, the lives of often uninformed patients are far from a main consideration. For many people from the affected communities, the work of researchers is clearly

meant to serve the financial interests of those who pretend to be kind-hearted or philanthropic³⁰.

Although the practice of using people as guinea pigs without their consents is common in Africa, but not peculiar to her. For instance, In 2011, the CIA, under the cover of an international NGO, collected DNA samples in Pakistan in a fake vaccination campaign as they trailed Osama bin Laden. The move had the impact of straining an already complicated relationship between the US and Pakistan, but it also had the much wider impact of providing proof to the sceptics who always suspected there was a hidden agenda in the delivery of medical services from the Global North³¹.

Africa in the face of COVID 19: Advantage of the Challenge for the Continent

The situation of the world presently and the imbalance in the field of medicine, should be seen as an advantage in the challenge as presented by the COVID 19 pandemic. This is because Africa cannot continue to depend on the West for all eternity, which has taken the form of neo-colonial dependency. For instance, it is obvious that treatments and vaccines for almost all diseases are developed outside Africa and take years to arrive in low-income countries, which cannot initially afford them. When they do arrive there may be other problems, such as lack of infrastructure to distribute the treatments and deliver vaccines and lack of skilled health workers to provide the care. The people in need may not take up the available services widely. Modern and traditional healthcare provision aren't always integrated in ways that enhance health-seeking behaviour.

In line with the above, history of pandemic or epidemic diseases is not encouraging. It shows that treatments and vaccines have been accessible to African countries only after the loss of millions of lives and typically years – sometimes decades – after developed nations have benefited from them. This is mainly because the treatments and vaccines for most diseases are produced in Western countries and are too expensive for African countries. This largely remains in place as the chief barrier to accessibility of treatments and vaccines. Some of the cases represented in the table below exposed this.

Table A: Vaccine Aid and Delay to Africa

Disease	Care/prevent	Year	Africa	Death in Africa
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³⁰ Karsten Noko (2020),

³¹ Ibid

	date	received treatments	
Mycobacterium tuberculosis (the bacteria that causes TB), 1882	TB treatment in the US and Europe was introduced in 1944	Early 1970s, nearly three decades later	By 2016, there were 2.5 million infections and 420,000 deaths.
BCG for babies	European and American babies started receiving it in the 1920s	South Africans had to wait more than 50 years	Several babies in Africa died because the vaccine was too expensive and international donors needed several years to rally support for political and economic reasons
HIV	A strategy of testing for and treating HIV was launched in the US in 2010, and only six years later in parts of Africa.	antiretroviral therapy (ART) for HIV came to Africa in the early 21st century, roughly a decade after it was available in the developed West	The death rate in the 1990s was 100-200 per 100,000 in Africa but only 5-10 per 100,000 in Europe. As of 2018, HIV infected 25.7 million and killed 0.47 million Africans. Test-and-treat programmes are still not available in all African countries because of poor infrastructure, shortage of trained professionals and other reasons. ART is still expensive for African countries but has been supported by international donors.

While it is true that African countries are making their own efforts to fight the pandemic, this seems not to be enough. For example, the Democratic Republic of Congo (DRC) is building on its Ebola response to tackle COVID-19; Namibia is working hard on a “test-isolate-treat” strategy; and Nigeria is turning hospitals into COVID-19 treatment centres and calling on volunteer nurses to close the gap in health professionals, there is the need to look inward for salvation.

Traditional Medicine and African Forest/Bush: The Route to Health and Economic Recovery

By the World Health Organisation (W.H.O) definition, traditional medicine is the sum total of all knowledge and practices, whether explicable or not, used in

diagnosis, prevention and elimination of physical, mental or social imbalance and relying exclusively on practical experience and observations handed down from generation to generation, whether verbally or in writing³². With these descriptions, various forms of medicines and therapies such as herbal medicine, massage, homeopathy, mud bath, music therapy, wax bath, reflexology, dance therapy, hydrotherapy, mind and spirit therapies, self-exercise therapies, radiation and vibration, osteopathy, chiropractic, aromatherapy, preventive medicine, radiant heat therapy, therapeutic fasting and dieting spinal manipulation, psychotherapy, etc. are a few elements of traditional medicine³³. It does show that a large continent of the size of Africa, with diverse cultures and traditions, should be rich in traditional medicine and should have eminent and respected traditional healers to take care of the teeming population³⁴.

Extant studies have established that Herbal medicine is a part and parcel of and sometimes synonymous with African traditional medicine and it is the oldest and still the most widely used system of medicine in the world today. It is used in all societies and is common to all cultures. Herbal medicines, also called botanical medicines, vegetable medicines, or phytomedicines, as defined by World Health Organization (WHO) refers to herbs, herbal materials, herbal preparations, and finished herbal products that contain whole plants, parts of plants, or other plant materials, including leaves, bark, berries, flowers, and roots, and/or their extracts as active ingredients intended for human therapeutic use or for other benefits in humans and sometimes animals

Herbal medicine is a special and prominent form of traditional medicine, in which the traditional healer, in this case known as the herbalist, specializes in the use of herbs to treat various ailments. Their role is so remarkable since it arises from a thorough knowledge of the medicinal properties of indigenous plants and

³² World Health Organisation (W.H.O 1976)

³³ Adegoke, E.A., A. Akinsanya and S.H.Z. Nagvi, 1968. Studies of Nigeria medicinal plants IA: Preliminary survey of plant alkaloids. *J.W. African Sc. Assoc.*, 13: 13-33; Daodu, Tunde, 2000. Aloe Vera, The Miracle Healing Plant. Healthfield Publication, Ilesamaja, Lagos; Omorodion F (1993) The socio-cultural context of health behaviour among Esan communities, Edo State, Nigeria in *Health Transition Review* Vol. 3 NO. 2 1993; Omorodion, F.I. 1990. Socio-cultural factors affecting production of rice by Esan women, Bendel State, Nigeria, *Benin Journal of Social Sciences*, 5, 1. Okoegwale, E.E. and J.U. Omezezi, 2001. Some herbal preparations among the people of Isoko Clan of Delta State, Nigeria. *J. Appl. Sci.*, 4: 2350-2371; Oliver, B., 1990. Medicinal plants in Nigeria. 2nd Edition, University of Ibadan Press Ltd; Ibadan, pp: 305; Osifor, N.G.A., 1988. System of traditional health care. Volume 1. Ethiopie Publishing limited, Benin-City, Nigeria; Sofowora, A., 1993. Medicinal Plants and Traditional Medicine. WHO, Document No. 30.

³⁴ World Health Organisation (1976),

the pharmaceutical steps necessary in turning such plants into drugs such as the selection, compounding, dosage, efficacy, and toxicity. The use of herbal medicines appears to be universal in different cultures. However, the plants used for the same ailments and the modes of treatment may vary from place to place. The plants used for medicinal purposes are generally referred to as medicinal plants, i.e., any plant in which one or more of its organs/parts contain substances that can be used for therapeutic purposes, or in a more modern concept, the constituents can be used as precursors for the synthesis of drugs.

The traditional Health Care system in Oto Esan revolves around what the author refers to as Herbalism. This is a system where by the practitioner (herbalist) cures mainly with plants which he gathers fresh or dry. When seasonal plants have to be used, these plants are collected when available and are preserved usually by drying to eliminate moisture. Such herbal preparations may be offered in the form of (i) powder, which could be swallowed or taken with pap (cold or hot) or any drink, (ii) powder, rubbed into cuts made on any part of the body with a sharp knife, (iii) preparation, soaked for some time in water or local gin, decanted as required before drinking; the materials could also be boiled in water, cooled and strained (iv) preparation pounded with native soap and used for bathing; such "medicated soaps" are commonly used for skin diseases, (v) pastes, pomades or ointments, in a medium of palm oil or shea-butter, or (vi) soup which is consumed by the patient³⁵.

COVID 19 and the Voice of African Traditional Medicine: Practical Examples

Although the World Health Organization (WHO), claimed that there is currently no treatment specifically approved for COVID-19 as treatments and vaccines are currently under study, however, the emergence of COVID 19 as a world pandemic has led to the reinvigoration of the Traditional Health Services in most African states, with African traditional medical practitioners arguing that the area and its forest has the capability of producing the needed drugs for curing the pandemic. For instance, during this period Pax-herbals developed a novel drug, called CVD PLUS specifically for the treatment of COVID-19. The drug "contains herbs and active phytoconstituents with documented scientific evidence based on clinical reports of their efficacy and safety³⁶. It was developed by working with scientists from other institutions of higher learning, including

³⁵ Ibid

³⁶ Jude Atemanke (2020) How a Nigeria-based Catholic Medical Centre is Responding to COVID-19 Search for Cure, ACI Africa Newsletter, 02 May, 2020 / 7:09 AM (ACI Africa)

those from the University of Benin, the University of Lagos and Irrua teaching hospital in Nigeria's Edo State. Making further clarity on the safety and efficacy of the drug, the establishment wrote:

To enhance its research capabilities, Paxherbals created a research team, bringing together exogenous (pharmacists, botanists, pharmacologists, microbiologists, laboratory scientists and plant scientists) and the indigenous (traditional birth attendants, bone setters, local taxonomists, village historians, and chemists). These herbs have been used in several therapeutic formulations of Paxherbals over the past 25 years for the treatment of hepatitis C, Tuberculosis, HIV/AIDS, Bronchitis, Pneumonia, and Malaria," "Some bioactive constituents of CVD PLUS are potential antiviral agents and immunomodulatory agents that can stimulate antibody production against Coronavirus related diseases³⁷.

This drug was celebrated by Nigerians and Africans especially when it got the backing of the National Agency for Food, Drug Administration and Control (NAFDAC). Acting on pressure from World Health Organisation, NAFDAC later distances itself from the claims. In reaction to the position of the nation's drug control agency, Adodo opined thus:

... every country should look inwards to find solution to their problems. They do not need WHO's validation. I still find it difficult to understand why African countries are always looking to international agencies to validate everything they do, in economics, agriculture, politics and health. Have you ever seen the EU or USA waiting to get validation from African countries on any topic? That is why I like what is happening in Madagascar. They said they have discovered a cure, based on their own knowledge and validation system. And they are making use of what they have discovered³⁸.

Before the Pax Herbal Covid 19 drug was made public, earlier on March 30, Seyi Makinde, Governor of Oyo State tested positive for coronavirus, though he was asymptomatic. After spending five days in isolation, the governor came out on

³⁷ Jude Atemanke (2020) How a Nigeria-based Catholic Medical Centre is Responding to COVID-19 Search for Cure, ACI Africa Newsletter, 02 May, 2020 / 7:09 AM (ACI Africa)

³⁸ Tony Agbugba (2020), We Must Look Inward For Solutions To Our Health Challenges; Rev. Fr. Anselm Adodo of Pax Herbal Centre, Ewu, Interviews, NEWS, © 2020 Catholic Diocese of Warri Catholic Diocese of Warri. May 10, 2020

April 5 and tested negative. He claimed to have taken a mixture of black-seed and honey (herbs and roots). He declared

My body temperature is 36.4 degrees. My very good friend and brother, Dr Muyideen Olatunji. He is the one in charge of the Primary Healthcare for Oyo State. He came to me and said, look, I am going to send to you this blackseed oil, it boosts immunity so I mixed it with honey and take one teaspoon in the morning and one in the evening. So, there are local solutions to boost immunity. So, our people should not fret. They shouldn't fret. Just as I have been able to get the virus out of my system, so will it be for majority of our people.

Testifying further the governor argued that there are other reported cases of patients who recovered from the deadly virus after the use of herbs. People began to wonder why despite heavy funding on alternative medicine, the government is yet to explore its potentials.

Similarly, Joseph Akpa, a professor and Provost of Luminar International College of Alternative Medicine, Enugu, also claimed to have a cure for the deadly coronavirus. The Nigerian professor who challenged health institutions and agencies to bring any known case of Covid-19 to him and see how it would disappear in days claimed that he had already made energy health medicines superficially meant to boost the human immune system and others meant to directly attack the virus to ensure 100 percent successful cure³⁹.

In a related development, the traditional ruler of Ile-Ife, also disclosed that he was currently working with a popular Nigerian herbal doctor, Yem Kem international for packaging and distribution around the world of herbal solutions for the cure of COVID 19⁴⁰. He explained in the videos, how to put the elements together as well as mentioning their local and botanical names:

The elements to be mixed together include: Ewe-akoko (boundary tree, botanical name: *Newbouldia laevis*), Dogoyaro (nim tree or Indian lilac, botanical name: *Azadirachta indica*), Alubosa (Onion ,botanical name: *Allium cepa*), Ogirisako (Forest anchomanes/Blume, botanical name:

³⁹ Samad UTHMAN (2020), REPORT: Why alternative medicines may offer cure to Covid-19, International Center for Investigative Reporting, On Apr 15, 2020

⁴⁰ Samad UTHMAN (2020), REPORT: Why alternative medicines may offer cure to Covid-19, International Center for Investigative Reporting, On Apr 15, 2020

Anchomanes difformis), Aidan (Aridan fruit, botanical name: Tetrapleura tetraptera), Eeru or Erinje (African pepper, Guinea pepper, botanical name: Xylopia aethiopica), Ewuro (Bitter leaf, botanical name: Vernonia amygdalina), Iyin ojo (Sulfur)⁴¹.

Although, sceptics saw the solutions of the traditional ruler as unrealistic, but among the Esan people of Edo state, the traditional medical practitioners have been able to catalogue herbs and their uses for various ailments. These are found in the table below.

Table: Herbs and their usage⁴²

Specie	Local Name	Part Use	Tradition use	Application
Abrus precatorius	Empo	Leaf	Cataract	Leaf extract is applied on the eyes
''	''	''	Asthma	Leaf is chewed
Acacia sieberiana	Alughan	Leaf	urinary tract disorder	Consumed orally
Aframomum melegueta	Uriema / Usiedo	Seed	low sperm count	Seed is chewed during breakfast.
''	''	Fruit	menstrual pain	Fruits with the seeds are chewed together
Ageratum Conyzoidess	Okhekhe	Leaf	dressing wound	applied on wound surface
''	''	Root	For rheumatism	Orally

⁴¹ Samad UTHMAN (2020), REPORT: Why alternative medicines may offer cure to Covid-19, International Center for Investigative Reporting, On Apr 15, 2020

⁴² Traditional Medicine World Health Organisation Fact Sheet, No. 134, December 2008, Omorodion F (1993) The socio-cultural context of health behaviour among Esan communities, Edo State, Nigeria in Health Transition Review Vol. 3 NO. 2 1993; Omorodion, F.I. 1990. Socio-cultural factors affecting production of rice by Esan women, Bendel State, Nigeria, Benin Journal of Social Sciences , 5,1;Otite O, (1977)'Historical Aspect of the sociology of Bendel State of Nigeria'' in JHSN, Vol 9;Okoegwale, E.E. and J.U. Omefezi, 2001. Some herbal preparations among the people of Isoko Clan of Delta State, Nigeria. J. Appl. Sci., 4: 2350-2371. Oliver, B., 1990. Medicinal plants in Nigeria. 2nd Edition, University of Ibadan Press Ltd; Ibadan, pp: 305;Osifor, N.G.A., 1988. System of traditional health care. Volume 1. Ethiope Publishing limited, Benin-City,Nigeria.

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''	''	Leaf	Skin rashes	Leaf extract is applied on affected parts
Alchornea latiflora	Obieyba	Leaf	For stopping vomiting	The leaf is blended with pepper and taken orally
Azadirachta indica	Dogoyaro	Leaf, and Bark	Malaria	taken orally or bath with
Boerhaavia diffusa	Ebe-Ukpokodo	Leaf	For fertility	Leaf is used for making soup which is taken orally.
		''	For menstrual pain	Leaf is pounded with pepper (Capsicum annum), salt is added and taken orally.
Bryophillum pinnatum	Ogbodogho	Leaves	For cough	Leaves are passed over the fire for a minute, fluid produced is taken orally
Caesalpina pulcherrima	Eko-omode	Leaf/bark	As purgative	taken orally
		Seed	For nervous ailment	Seed powder is taken orally
Cajanus cajan	Olene	Root	Frequent stooling	Root is grinded and taken orally
		Leaf	Toothache and chicken pox	extract is used as mouth wash and is taken orally
Calotropis procera	Tofiafia	Leaf	stomach pain	Leaf extract is taken orally
Cocos nucifera	Uvin	Bark/Root	For scabies, uterine diseases,	Taken orally

			urethritis, bronchitis, liver ailment and dysentery	
Dityandra involucrata	Ebeughegbe	Roots	For bone fractures	Scrapings from the outer covering of the roots are mixed with ground fruits of <i>Xylopia aethiopica</i> , oil added, the mixture is made warm over the fire. It is applied on affected area.
Elaeis guineensis	Udin	Kernel oil	As anticonvulsant	The extract is applied all over the body
Ficus exasperata		Leaves	For boils	Leaves are ground and applied directly on the boil.
Garcinia kola	Adu	Root bark	For asthma	taken orally after food
„	„	bulb/seed	For tuberculosis	„
Gongronema latifolium	Utezi	Leaf	Diabetes	Eaten raw or as vegetable in soup as spice
Musa sapientum	Oghede- nikhere	Leaf	For eczema	The leaves are burnt, and the ashes are rubbed in the affected area
Nicotiana tabacum	Itaba	Fresh leaf	For epilepsy	taken orally
Phyllanthus	Ikekeebe	Whole	For bleeding	taken orally

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amarus		plant		
Saccharum officinarum	Uriekhue	Matured stem	For typhoid fever	Juice extract is taken orally
Talinum triangulare	Ebodondon	Tuber	For schistosomiasis	Tuber extract is taken orally
''	''	Leaf	For scabies and fresh cuts	Leaf extract is taken orally.
Triumfetta rhomoboidea	Uwerientan	Leaf	To induce fertility and make womb receptive to implantation of foetus	Infusion is taken orally
Xylophia aethiopica	Erierie	Fruits	For bone fractures	Fruits are mixed with scrappings from the outer roots of Dityandra involucrate and oil. Then mixture is made warm over fire and applied on the fractured site.
Zingiber officinale	Agio	Rhizome	For tuberculosis	taken orally

Even with the above, there still exist some sceptics as the traditional system has been demonized by most people, who would ordinary have sought ways of modernizing it. Internationally, it has been established that both traditional medicines and methods of social control were making great advances before the colonial invasion of Africa. The traditional medicines have been proven even in present day world to be so efficacious that the World Health Organization (WHO) is virtually begging Africans to encourage researchers into traditional medicines and their uses. According research, the

traditional health system has been so effective that the Regional Director of World Health Organisation in 2004, posited African traditional medicine is an integral part of the people's culture, and that it can only be developed in a way that is best suited to the African people⁴³. The Regional Director also argued that, contemporary medical science should enhance and enrich the traditional health culture so that the people can feel comfortable with it. The table below which is an outcome a field survey from four Esan communities, namely, Ekpoma, Egoro- Naoka, OkhuEsan and Ubiaja shows that despite the existence of modern medical facilities a lot of people would still prefers to administer traditional (herbs) to cure some ailment⁴⁴.

Types of treatment preferred first for certain types of conditions

Treatment preferred

Condition	Traditional	Modern
Convulsions	85	15
Tetanus	75	25
Pneumonia	65	35
Vomiting	11	89
Diarrhoea	10	90
Measles	14	86
Fever	5	95
Miscarriage	91*	65*
Heamorrhage	70*	50*
Obstructed Labour	68*	46*

Adds to more than 100 because many women believed in both types of treatment simultaneously

The position of result of the research is that although there seems to be low patronage in some area of tradition medicine, this does not imply that traditional treatment has been abandoned. Rather, as Table shows, traditional treatment is more often employed as a first step in treating children. For example, palm

⁴³ Anyacho E.O and . Ugal David B (n.d) Modernization and Traditional Methods of Social Control in Southeastern Nigeria F.C.E.,Obudu, C.R.S and Dept of Sociology, University of Ibadan, Nigeria

⁴⁴ Omorodion, op.cit.

kernel oil with herbs are often given to children orally to cleanse either the stomach or the circulatory system. Such medication is less expensive than modern medicines. Scholars have also argued that since modern drugs are made out of roots, leaves and other forest resources, Africa should be given the opportunity and world recognition to pursue this noble course. Ezekwesili-Ofili J and Okaka, C, specifically noted thus:

The curative properties of herbal medicine are validated through scientific investigations, which seek to understand the active chemistry of the plants. The therapeutic activity of a plant is due to its complex chemical nature with different parts of the plant providing certain therapeutic effects. Chemical components or phytochemicals found in plants that are responsible for the various therapeutic effects include alkaloids, glycosides, tannins, acids, coumarins, sterols, phenols, etc. Many modern pharmaceuticals have been modeled on or were originally derived from these chemicals, for example, aspirin is synthesized from salicylic acid derived from the bark of *Salix alba* and the meadowsweet plant, *Filipendula ulmaria*. Quinine from *Cinchona pubescens* bark and artemisinin from *Artemisia annua* plant are antimalarial drugs. Vincristine and vinblastine are anticancer drugs derived from Madagascar periwinkle (*Catharanthus roseus*), used for treating leukemia. Morphine and codeine, derived from the opium poppy (*Papaver somniferum*), are used in the treatment of diarrhea and pain relief, while digitoxin is a cardiac glycoside derived from foxglove plant (*Digitalis purpurea*). Medicinal plants are also important materials for the cosmetic industries⁴⁵.

Despite the above and records of proven efficacy and efficiency, the West, World Health Organisation and their allies still show disdain to Traditional Medical practices and their products and as such there exist some form of hostility harbored by the modern medical practitioners against the use of traditional medicine. An example is found behind the card of the Edo State Hospitals Management Board in which it warns its patients in these words: *“Attend the clinic REGULARLY, and follow our advice. Do not use any Native Medicine”*⁴⁶.

⁴⁵ Ezekwesili-Ofili J and Okaka, C, (2017), Herbal Medicines in African Traditional Medicine; Submitted: May 20th 2017 Reviewed: July 17th 2018 Published: January 30th 2019
DOI: 10.5772/intechopen.80348

⁴⁶ Edo State Hospitals Management Board Patent Card

This is not encouraging and does not in any way suggest further and future collaboration between modern medicine and traditional health system. It is rather ironical, that while the medical system demonise herbal medicine, the same people go about patronizing Chinese herbal pest like *Tianshi, Ever-living Products* among others, which have been established to be herbs refined overseas and imported into the country.

COVID 19, Traditional Medicine and the Way Forward: Experts Views

In line with the above, scholars have argued that one major impediment to Africa's rise against COVID 19 and its eventual cure, is the fact that most of her leaders have shown little or no will in implementing the recommendation proffered by experts despite its huge financial commitment and heavy funding on research on alternative herbal medicine, especially considering the fact that the government has sponsored research teams to Ghana and the United Kingdom on herbal medicine studies. Emphasizing this point, Elujoba opined:

Ghana now has a parallel unit in some general hospitals in their country where all they do is to prepare herbal medicine for the patient there,"; ... in Ghana, when a patient comes to the general hospital, he will make a choice of whether going for herbal medicine treatment or orthodox medicine. That started around 2012 and it is still in practice till date in Ghana.

He continued:

The Nigerian government has what it takes to try herbal medicine, because the government has also committed funds into the study and use of herbal medicine. For example, there is a book we call Pharmacopoeia. The book contains drugs that can be used safely in any country. This government has committed funds to bring it out. ...In 2008, that book now is an official book, and medicinal plants that are inside are official. Many of these plants can cure what we call malaria today. The Pharmacopoeia book, contains names of plants that can cure respiratory problems and they (the plants) are immune system modifier. This particular book contains immune stimulant that can now be formulated for people that have the virus to boost their immune system, to cure their fever, diarrhea and many other symptoms we have seen of the virus. The government is spending money to keep us, the members of the committee each time we meet. There are two other committees that came up recently and we have met. The second one is what we call medicinal plant drugs that are approved to be used, we are compiling that now as essential plant drugs that can be used in the

hospital. This same Federal Government has set up a national committee. This committee contains experts, both traditional healers and intellectuals in medicinal plant science and ... are recommending medicinal plants for different diseases that can be made official that people can use to compose medicine to finished product level which can be listed by NAFDAC and be used by our people. The Committee also deliberated on Covid-19 and how much herbal medicine can do to reduce a lot of importation. The Committee have gotten several areas of traditional medicine that can be made use of sometimes better than orthodox. There are herbal medicines that can 'cure' and challenge the symptoms of the present pandemic.

Analysis of figures of COVID 19 patients worldwide and the rate of recovery, seems to suggest that the situation in Africa is not as terrible as found in countries with high technological medical facilities. Although not yet proven, the argument in the case of Africa which has the worst modern health facilities, but with the least number of casualty, seems to indicate the effectiveness of the use of roots and herbs. This was because in most parts of the developing world it has been established that once COVID 19 was established as pandemic, there was serious rush towards the traditional methods of healing.

Table C: COVID 19 Casualty Figures from Selected Countries of the World

	Total Case	Total Death	Total Recovery	Active Cases
World	29,219,034	929,086	21,046,705	7,243,243
Benin	2267	40	1942	285
Brazil	4,330,455	131,663	3,573,958	624,834
Britain	368,504	41,628	NA	NA
Cameroun	20,167	415	18,837	915
Chad	1,084	80	938	66
China	85,194	4,634	80,415	145
Egypt	101,009	5,648	84,161	11,200
France	381,094	30,916	89,059	261,119
Ghana	45,434	286	44,342	806
India	4, 850,887	79,784	3,780,107	990,996
Italy	287,753	35,610	213,634	38,509
Japan	75,218	1,439	66,899	6,880
Spain	576,697	29,474	NA	NA
Niger	1180	69	1104	7

Nigeria	56,256	1082	44.152	11,022
South Africa	649,793	15,447	577906	56,440
U.S.A	6,710,588	198,542	3,975,154	2, 539. 892

Source: World Meter, September 14, 2020

Summary: COVID-19 situation update worldwide, as of 16 September 2020⁴⁷

Since 31 December 2019 and as of 16 September 2020, **29 611 395 cases** of COVID-19 (in accordance with the applied case definitions and testing strategies in the affected countries) have been reported, including **935 767 deaths**.

Cases have been reported from:

Africa: 1 366 884 cases; the five countries reporting most cases are South Africa (651 521), Egypt (101 340), Morocco (90 324), Ethiopia (65 486) and Nigeria (56 478).

Asia: 8 795 234 cases; the five countries reporting most cases are India (5 020 359), Iran (407 353), Bangladesh (341 056), Saudi Arabia (326 930) and Pakistan (303 089).

America: 15 141 313 cases; the five countries reporting most cases are United States (6 606 293), Brazil (4 382 263), Peru (738 020), Colombia (728 590) and Mexico (676 487).

Europe: 4 275 413 cases; the five countries reporting most cases are Russia (1 073 849), Spain (603 167), France (395 104), United Kingdom (374 228) and Italy (289 990).

Oceania: 31 855 cases; the five countries reporting most cases are Australia (26 738), Guam (1 927), New Zealand (1 451), French Polynesia (1 109) and Papua New Guinea (511).

Other: 696 cases have been reported from an international conveyance in Japan.

Deaths have been reported from:

Africa: 33 056 deaths; the five countries reporting most deaths are South Africa (15 641), Egypt (5 679), Morocco (1 648), Algeria (1 632) and Nigeria (1 088).

⁴⁷ European Centre for Disease Prevention and Control: An agency of the European Union, <https://www.ecdc.europa.eu/en/geographical-distribution-2019-ncov-cases>. 15/09/2020

Asia: 166 906 deaths; the five countries reporting most deaths are India (82 066), Iran (23 453), Indonesia (8 965), Iraq (8 166) and Turkey (7 186).

America: 519 539 deaths; the five countries reporting most deaths are United States (195 937), Brazil (133 119), Mexico (71 678), Peru (30 927) and Colombia (23 288).

Europe: 215 379 deaths; the five countries reporting most deaths are United Kingdom (41 664), Italy (35 633), France (30 999), Spain (30 004) and Russia (18 785).

Oceania: 880 deaths; the five countries reporting most deaths are Australia (816), Guam (27), New Zealand (25), Papua New Guinea (6) and Fiji (2).

From the table and summary chart, the part of the world (Africa), that was considered not ready for the pandemic, had lesser figures, compared to those who were considered well prepared. To most analysts and observers, this could not be completely divorced from the roots and herbs which even most of the hospitals eventually turned to when they could not get the necessary help from the western world⁴⁸. This achievement by Africans and Africa have been commended, because they made choices for medical plurality (disregarding prescriptions of the western world) and against irresponsible government (by resisting government impositions) and a global medical system (by affirming right to medical plurality) that has dehumanized them⁴⁹.

Forest Resources, Medicine and the Economic Gains: Lessons from the Asians

From the discourse, it is clear that African continent has great potentials and can contribute meaningfully to the development of modern world medicine if she looks inward especially her forest resources and that it could fetch the country millions of dollars and foreign currencies to boost her reserve. There is no need for Africans to shy away from what could lead to her recognition in world development, especially in the medical field. This is because the western medicine and other parts of the world had their medical practice from a traditional cradle but as technology progressed; they were so prudent to have

⁴⁸ Oduntan O.B, (2020), The COVID-19 Pandemic in Africa's Cultural Cross-Road. World History Bulletin, Vol. XXXVI: No. 1, Spring/Summer 2020: 23-25

⁴⁹ ⁴⁹ Oduntan O.B, ...Ibid

moved very fast with the development of technology. Thus, western medicine can be referred to as a traditional or orthodox medicine because almost all the terms used are their traditional terms. This is obvious from that fact that one major synergy between the African Medicine and that of the West is the use of herbs for medicine.

In line with the above, Africans have a lot to learn from the Chinese since the practice of Traditional medicine is not peculiar to Nigeria alone. It is universal just that some nations are more developed technologically in practice than the others. In the case of China, Chinese history states unequivocally that the origin of medicine was coeval with the foundation of their empire as Castiglioni observed that:

The Chinese established a medical system, which according to tradition, is as ancient as the monarchy. They have drawn the whole [of medical] science from the experience of the ancients. To SHIN-NUNG the DIVINE HUSBANDMAN, is the honor ascribed of having laid the foundation of this useful art. He [taught] that heaven had created herbs to remedy diseases. He therefore examined their qualities and communicated the result of his researches to the people. It has been justly inferred that the remedies invented by him must have been excellent. According to ancient legends, the origin of Chinese medicine is attributed to the Emperor Shin-Nung He is said to have taught his subjects . . . compiling an herbal, in which more than a hundred remedies are mentioned⁵⁰

From this stage, the Asians have taken traditional medicine to international level, through which they also benefit economically. For instance, it is a known fact that while countries in Africa, Asia and Latin America use traditional medicine (TM) to help meet some of their primary health care needs, China sales of products totalled US\$ 14 billion in 2005. It is also on record that although up to 80% of African population uses traditional medicine for primary health care, most of these have been repackage and imported into the continent by the Asians, specifically Chinese.

Similarly, in industrialized countries, adaptations of traditional medicine are termed “Complementary” or “Alternative” medicine-CAM⁵¹, and they are used

⁵⁰ Castiglioni Arturo, *A History of Medicine* (New York: Alfred A. Knopf, 1958), 99.

⁵¹ MacDonald Idu, *The Plant called Medicine*. An Inaugural Lecture (Benin City: University of Benin, 2009), 40-52

side by side with modern medicines. Moreover, medical historians and research work on global use of traditional medicine have revealed that in some Asian and African countries, 80% of the population depend on traditional medicine for primary health care. In many developed countries, 70% to 80% of the population has used some form of alternative or complementary medicine (e.g. acupuncture). Herbal treatments are the most popular form of traditional medicine, and are highly lucrative in the international marketplace. Annual revenues in Western Europe reached US\$ 5 billion in 2003-2004. Herbal medicine revenue in Brazil was US\$ 160 million in 2007⁵². Similarly, it has been established that in China, traditional herbal preparations account for 30%-50% of the total medicinal consumption.

It is also important to noted that although in Nigeria, Ghana, Mali and Zambia, the first line of treatment for 60% of children with high fever resulting from malaria is the use of herbal medicines at home, yet governments have not given much recognition to such, leaving the trade open for foreigners who rank in billions of dollars annually to the home countries and private pockets. In Europe, North America and other industrialized regions, over 50% of the population has used complementary or alternative medicine at least once. In San Francisco, London and South Africa, 75% of people living with HIV/AIDS use TM/CAM; In Germany, 90% of the population has used a natural remedy at some point in their life. Between 1995 and 2000, the number of doctors who had undergone special training in natural remedy medicine had almost doubled to 10 800. In the United States, 158 million of the adult population use complementary medicines and according to the USA Commission for Alternative and Complementary medicines, US \$17 billion was spent on traditional remedies in 2000. In the United Kingdom, annual expenditure on alternative medicine is US\$ 230 million. The global market for herbal medicines currently stands at over US \$ 80 billion annually and is growing steadily⁵³.

Conclusion

⁵² Gill, L.S. and H. Siakpere, 1990. Ethnobotanical studies of Urhobo People (Agbarho Clan) Ughelli Local Government Area, Delta State, Nigeria. In S.A. Adesanya (Ed.). Proceedings Workshop on Nature Products. OAU Press, Ife, Nigeria, Gill, L.S. and O. Akporhonor, 1988. Medical Practices of Urhobo People, Agbarho Clan. *Herba Hungarica*, 27: 141-147, Gill, L.S., H.G.K. Nyawuame, E.I. Esezobor and S. Osagie, 1993. Nigeria Folk Medicine: Practices and Beliefs of Esan People. *Ethnobotany*, 5: 129-142, Gill, L.S. and C. Akinwumi, 1986. Nigerian Folk Medicine. Practices and Beliefs of the Ondo People. *J. Ethnopharmacology*, 18: 257-266. Gill, L.S., 1992. Ethomedical Uses of Plants in Nigeria. University of Benin Press, Benin-City.

⁵³ Ibid

Countries in Africa must be able to compete meaningfully to make the traditional medical system both functional and recognised world-wide especially as the world tackles the COVID 19 scourge. This will help the continent prevent the type of embarrassment and fraud which the actions of Tanzania government would have been subjected to by the WHO and their western allies. What has been termed the Madagascar controversy has erupted days after Tanzania kicked out WHO after Goat and Papaya samples became COVID-19 positive. With the rise in false Coronavirus cases, the Tanzanian President John Magufuli growing suspicious of the World Health Organization (WHO), decided to investigate the claims himself. He sent the WHO samples of a goat, a papaya and a quail for testing. After all 3 samples became COVID-19 positive, the Tanzanian President is reported to have kicked out WHO from the country. Following the Tanzanian lead Burundi also kicked out entire WHO Coronavirus Team from the country for interference in internal matters. In a letter addressed to WHO's Africa headquarters, the foreign ministry says the four officials must leave the country⁵⁴.

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⁵⁴ <https://www.zambianobserver.com/w-h-o-offered-20million-bribe-to-poison-covid-19-cure-made-by-madagascar-president-andry-rajoelina-claims/>

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