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International Cooperation in the Fight Against Infectious Diseases in Africa: A Case for legal Epidemiology in Kenya

'An action that is to affect constitutional rights must be based on the law and be limited by the principle of proportionality' –
Eddy N. O Orinda

As of May 21, more than 323,256 people worldwide have died and counting of COVID-19, the highly infectious respiratory disease caused by the coronavirus. The number of people, who have tested positive for COVID-19, has exceeded 4.9 million and counting, according to data compiled by the World Health Organization (WHO).

The coronavirus disease 2019 (COVID-19) outbreak in the WHO African Region has rapidly evolved over the past few weeks, as reflected by the significant upsurge in the number of cases, and the rapid geographical expansion of the disease. Since the last situation report by the Johns Hopkins University on 18 March 2020 (External Situation Report 3), 11 new countries in the WHO African Region including Angola, Cape Verde, Chad, Eritrea, Niger, Madagascar, Mali, Mauritius, Mozambique, Uganda, and Zimbabwe have confirmed 1 371 and counting COVID-19 cases. As of 25 March 2020, a cumulative total of 1 716 confirmed cases have been reported across 38 countries in the region, bringing the total number of reported deaths to 30, which corresponds to a case fatality ratio of 1.8% among reported confirmed cases.

The most affected countries in the WHO African Region are: South Africa (5647 cases and counting), Algeria (4006 cases and counting), Burkina Faso (645 cases and counting), Senegal (933 cases and counting), Cameroon (1832 cases and counting), and Cote d'Ivoire (1275 and counting) [13].

This paper seeks to lay a theoretical foundation for a broader intellectual discourse on the emerging challenges presented by pandemics while discussing and examining how law as a social determinant of health and a factor in the cause, distribution and prevention of disease and injury in populations within Africa and Kenya in particular can be utilized in understanding trends in health laws, study the impact and effectiveness of laws in health, informing and supporting best practices and developing an evidence base of what works in the prevention of infectious diseases and in particular COVID – 19 in Africa (Kenya).

Keywords: Legal epidemiology, World Health Organization (WHO), International Health Regulations (IHR), COVID-19, Pandemics, African Union (AU).

Стаття має на меті закласти теоретичну основу для більш широкого інтелектуального дискурсу щодо викликів пандемії. Обговорити та вивчити, яким чином право як соціальний детермінант здоров'я може бути використане для розуміння тенденцій законодавства про охорону здоров'я, вивчення впливу та ефективності законів у галузі охорони здоров'я, інформування та підтримки передового досвіду та аналізу у галузі профілактики інфекційних захворювань, зокрема COVID – 19 в Африці (Кенія).

Ключові слова: правова епідеміологія, Всесвітня організація охорони здоров'я (ВООЗ), Міжнародні стандарти охорони здоров'я, COVID-19, Пандемія, Африканський союз (АС).

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1.0. Introduction

COVID-19 is an infectious disease caused by a newly discovered coronavirus. Infectious diseases are a major practice area of contemporary public health. Laws that govern infectious diseases are peculiar and have certain characteristics. For instance, the public health actions undertaken to control infectious diseases collide with individual rights.

Legal measures to control infectious diseases may curtail basic human rights. The personal rights and freedoms affected include personal autonomy, the right to privacy, the right to personal liberty, the freedom of movement, the freedom of religion, profession and occupational exercise and further, challenges presented by non legal state interventions that exploit legal lacuna in public health laws and policy interventions. In the light of the legal importance of these rights, it is imperative that public health actions must rely on the law hence legal epidemiology. This is to the effect that such actions need legal authorization and prior procedural, and substantive legal balancing. *An action that is to affect constitutional rights must be based on the law and be limited by the principle of proportionality. To this end, concerns must be raised on the increased powers wielded by chiefs and local administration at the expense of Counter government roles.*

2.0. International law

The International Health Regulations, or IHR (2005), represent an agreement between 196 countries including all WHO Member States to work together for global health security.

Through IHR (2005), countries have agreed to build their capacities to detect, assess and report public health events. WHO plays the coordinating role in IHR (2005) and, together with its partners, helps countries to build capacities. IHR (2005) also includes specific measures at ports, airports and ground crossings to limit the spread of health risks to neighboring countries, and to prevent unwarranted travel, and trade restrictions so that traffic, and trade disruption is kept to a minimum. In particular article 5, 6 and 7 on surveillance, notification and consultation of the IHR (2005).

As a member state to the WHO and in extension as a party to the IHR (2005), Kenya is bound by the requirements under the IHR (2005). Significantly, the WHO – Kenya 2008–2013 cooperation strategy indicates that providing technical assistance in strengthening Kenya's ability for early detection, diagnosis, management, and control of communicable diseases, including strengthening the country's capacity to prevent and respond to major epidemics, and pandemic-prone disease, is one of the main areas of cooperation [4].

In a bid to promote international surveillance as well as cooperation between the WHO and Kenya, Kenya enacted the Public Health Act (PHA), the primary legislation applicable to matters of public health crises. The PHA authorizes public health authorities, particularly the Minister of Health, to take various actions pursuant to the IHR (2005) during public health crises, including declaring an infectious disease a "notifiable infectious disease" or a "formidable epidemic, endemic or infectious disease," and taking the necessary prevention, and suppression measures to fight the disease. Specific powers accorded to health authorities for the purpose of prevention and suppression of an infectious disease include search, seizure, and detention powers; the power to designate any place as a quarantine area, including ships and aircraft; and the power to restrict or ban immigration into the country [7].

3.0. Regional & domestic law

Kenyan, regional and international laws impose certain transparency requirements on the country's government. Chief among these are the requirement under the PHA to periodically publish information regarding infectious diseases in Kenya, neighboring countries, and around the world, and the obligation under the International Health Regulations to report any public health emergency to the World Health Organization (WHO).

3.1 Regional Strategy for Integrated Disease Surveillance and Response 2020–2030

African health ministers, on the 21st day of August 2019 during the 69th session of the WHO Regional Committee for Africa, in Brazzaville, the Republic of Congo, took up a 10-year regional strategy with the aim of not only strengthening surveillance and response of integrated diseases but also mitigating the calamitous impact for outbreaks such as what has been experienced in the past with the dreaded Ebola [11]. The fact that Africa has recorded more outbreaks than any region in the world (with these outbreaks being those that could be prevented or controlled through proven public health interventions) is the reason African countries should embrace legal epidemiology in the first place [11].

According to an analysis made by WHO, more than 80% of the public health emergencies in the WHO African Region between 2016 and 2018 were due to infectious diseases [12]. The aforementioned forms the basis as to why the WHO African countries deemed it fit to embrace the said strategy, which will in turn see to it, that countries will be able to respond towards major outbreaks and other health emergencies with immense efficacy. The strategy encompasses among other features, an effective surveillance system that will assist in tracking of common diseases and setting off alarms for the timely curbing of disease epidemics or

pandemics, or for early apprehension and investigation of any bizarre grouping of cases, or deaths of a new event.

In drawing an analogy from the foregoing, it is irrefutable that with the current outbreak of the new COVID - 19, the reason the entire globe stands endangered is attributed to failure, to adhere, to the strict guidelines under the IHR (2005) and a systematic national surveillance and reporting system that ought to have been maintained by both WHO and China. Intact, legal epidemiology at a national level would not only give effect to the provisions of IHR (2005), but also provide an opportunity for a more meaningful and systematic analysis of the country reporting obligations under international law. Essentially, such important obligations would not be at the discretion of individual states. *Legal epidemiology provides inbuilt intelligence for complementarity nationally (between counties) and internationally (between countries).*

There are certainly foreign policy implications on failure to seriously consider legal epidemiology as a strategy for achievement and realization of the IHR (2005). Based on this, a complaint has been filed before the International Criminal Court by Freedom Watch Inc., a Washington DC based company in the matter of crimes against humanity and genocide by development of outlawed biological warfare weapons by the People's Republic of China [1; 2]. In the said complaint, the Complainant is seeking that the Prosecutors Office of the International Criminal Court opens an investigation to determine where the COVID-19 virus originated from and its likely release from the Wuhan Institute of Virology [1; 2].

Further, that an investigation should be conducted concerning the Defendants willful interference with attempts to fight the spread of the disease and develop treatments, tests and a vaccine and that once all the facts alleged in the complaint are confirmed, criminal war crimes prosecutions be conducted to try, convict and sentence to life imprisonment the defendants therein, which include: The President of China together with members of the Chinese politburo, the official military of China, the Wuhan Institute of Virology together with its Director and the Major General of the official Chinese army. Some of the complaints include: the Defendants' failure to prevent the Wuhan Institute of Virology's personnel from becoming infected with the bioweapon and then carrying the virus out into the surrounding community and proliferation into the United States, the Defendants' violation of international treaties and international law and obligations by withholding medical information on the spread of the COVID-19 virus, resulting in thousands of avoidable and unnecessary deaths and illnesses and massive world economic damage caused by the delay in sharing medical information about the spread of the virus and that since biological weapons have been outlawed since at least 1925, including by China's membership in treaties, these illegal weapons constitute and are terrorist-related weapons of mass destruction of population centers.

Though China is not a party to the Rome Statute, which establishes the International Criminal Court (ICC), it has the jurisdiction to try the said matter. The ICC determined in *Appeal No. ICC-02/17 OA4* as well as other cases, that a country's accession to the Geneva Conventions provides jurisdiction. In the case at hand, China has ratified the Geneva Conventions and as such is bound by the jurisdiction of the ICC. Some of the other key conventions ratified by China that binds it to the ICC include; The Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, and The Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare. It would in this case be safe to opine that the complaint holds water to the extent that China acted negligently and did not uphold its duty of care to its citizens, other members/state parties to the various ratified legal instruments.

To this end, it is critical that African countries and Kenya in particular do es not find itself in the precarious situation that China will likely be in if it is not already.

3.2 The Constitution of Kenya 2010

The right to health is a fundamental human right guaranteed in the Constitution of Kenya. Article 43 (1) (a) of the Constitution provides that every person has the right to the highest attainable standard of health, which includes the right to health care services, including reproductive health care. Article 58 of the Constitution of Kenya 2010 provides that a state of emergency may be declared by the President, when the state is threatened by war, invasion, general insurrection, disorder, natural disaster or other public emergency [3]. The Public Health Act Cap. 242 was enacted to give effect to Article 43 (1) (a) of the Constitution of Kenya, 2010.

3.3 The Public Health Act Cap. 242

The primary law on infectious diseases in Kenya is the Public Health Act Cap 242, Laws of Kenya. The Act places a mandate on health authorities to take all possible lawful actions in a bid to prevent or deal with an outbreak or the prevalence of any infectious, communicable or preventable disease, to safeguard and promote the public health as well as to exercise powers and perform the duties in respect to the public health [8]. The PHA establishes the Central Board of Health, whose main function is to advise the Minister of Health on all matters affecting public health, which includes issuance of advice on the prevention of infectious diseases

from reaching Kenyan borders and the prevention, limitation or suppression of infectious, communicable or preventable disease within Kenya (sections 3, 8 & 10).

A Medical Department tasked with amongst other duties: guarding against the introduction of infectious disease into the country, promoting suppression of the said diseases and promoting and carrying out researches in relation to matters affecting public health is also established by the Act (section 10). Further to this, the department is mandated with obtaining information concerning the infectious disease in Kenya as well as neighboring countries and periodically publishing the same (section 10). Section 17 of the said Act empowers the Minister by a gazette notice to make a declaration of any infectious disease. Section 36 further empowers the Minister of Health to make rules as are necessary for the prevention of an infectious disease.

For purposes of reporting, prevention and suppression of an infectious disease, it should be declared a Notifiable Infectious Disease (NID). With a requirement of a report made to a medical practitioner on any case of a (NID), the medical practitioner is mandated to inform the nearest health medical officer as well as those, who live within the proximity of the said patient of the same as well as any precautions, that need to be taken to prevent spread of the infectious disease (section 18). Notably, failure to issue the said notices is an offense under the Public Health Act Cap. 242 (section 10).

Upon fulfillment of the reporting requirements, the medical officer has powers to: search a premises or medically examine any person found there if they have reason to believe a person exposed to or suffering from an infectious disease is or was on the premises (section 21), having the said premises cleaned and disinfected, destroying building, bedding or other articles, moving an infected person to a hospital or putting an exposed person in isolation by an order of a magistrate (sections 22, 23, 26 & 27).

On the one hand, the act provides that certain costs related to suppression or prevention of the infection disease, compensation of the destroyed property of the patient, disinfecting premises and other articles should be borne by the health authority (sections 23 & 24). On the other hand, the cost of isolating the said patient should be borne by the local authority, where the person resides (section 27). As a deterrent factor, the Act criminalizes acts of willfully spreading an infectious disease by the infected person and/or a person tasked with caring for them and places a fine of up to Kshs. 30,000 and/or up to a three-year prison term (section 28).

The Cabinet Secretary has the mandate to declare any infectious disease a Formidable Epidemic, Endemic or Infectious Disease (FEEID) (section 35). It is in the interest of the international community to have epidemics and endemics suppressed in order to avoid the outbreak of pandemics. Where any part of Kenya has been declared to be under a threat of an FEEID, the following measures should be put in place including; quarantining infected areas and preventing anyone from leaving the area without first going through the applicable precautionary measures put in place, conducting a medical examination, disinfection, or spending time in an observation camp/station; removing infected persons and anyone with whom they have been in contact; removing corpses; and destroying or disinfecting buildings and any other articles that may have been exposed to the infectious disease (section 36). The procedure for making a report and issuing notifications in case of an FEEID is the same where there is a case of an NID (sections 40, 41).

In necessary circumstances, the Cabinet Secretary may prohibit communication between anyone on board an aircraft or sea vessel with any individual at the shore until pratique is granted (section 58). Only authorized persons can approach or board the vessel or aircraft (section 58). Broad powers are bestowed upon Kenyan health authorities when it comes to dealing with vessels seeking entry into the country. The port health officer is authorized to board a vessel, inspect any of its sections, and examine and/or ask any person on board any question for the purpose of establishing the existence of an infectious disease (section 60). Where there is suspicion of the existence of an infectious disease, the health officer may deny pratique, grant conditional pratique or quarantine the vessel (section 58, rules 22, 62). Any person removed from the said vessel or aircraft may be isolated or put on medical surveillance subject to medical testing upon arrival into Kenya (section 58, rules 7, 8, 66, 68). Lastly, the person in charge of a vessel or aircraft suspected of carrying an infectious disease may be required to provide a passenger and cargo manifest as well as a crew list (Rule 14).

The Cabinet Secretary has the authority to regulate immigration into the country in order to prevent introduction of infectious disease and in so doing, issue an order prohibiting, restricting or regulating immigration or importation of any person, animal or anything likely to expose Kenya, to an infectious disease (sections 63, 71).

To this end, Kenya should have closed its borders at the earliest opportunity in order to mitigate the effects of the pandemic.

Once a particular disease is categorized as a Notifiable Infectious Disease (NID) through a ministerial order, the same should be published in the Gazette; reciprocal information based upon an agreement with another country on infectious disease, outbreaks should also be published in the Gazette (section 17). To add

on, where a medical practitioner's attention is brought to the fact that a patient has a notifiable infectious disease, they are mandated to inform those who may have in one way or another been exposed to the infection (section 18). In a bid to promote international surveillance, a notification is required to be sent to the WHO by Kenya within twenty-four hours of detection, as regards any event within the country that might amount to an international public health emergency.

The Public Health Act must necessarily be amended to not only give effect to the IHR (2005) but also in the context of devolution in order to ensure a coordinated and uniform response regarding interventions towards epidemics and pandemics. In particular, legal epidemiology would ensure uniform surveillance, reporting and interventions within counties and with the national government through the Ministry of Health.

4.0. Political & economic dimensions (A Marxist perspective)

"All philosophers have interpreted the world in various ways. However, the point is to change it" Marx wrote in Thesis on Feuerbach. This was the fundamental premise of the philosophical pursuit of Marx and his lifelong companion Friedrich Engels. They analyzed human existence, the relationship between human beings and nature, and the ways in which production take place.

Eventually, there may be a universal vaccine to overcome the crisis caused by the coronavirus pandemic. However, the question is whether the post – COVID 19 world will be the same as before or change, and whether the capitalist order will become more inhuman and exploitative. It is irrefutable that the pandemics are made worse as a result of structural violence being an inherent component of capitalist system. *Shouldn't the rule of law play a crucial role in prioritizing the interests of capital under a liberal democratic system? Will the logic of capital being profit allow for a more objective approach to addressing the sociological perspectives to a safer healthier society in which certain classes in are not predisposed to infectious diseases based on social inequalities?*

While asserting that "labour is the source of wealth and prime basic condition for human existence," Marx and Engels analyzed the dialectics of nature. They pointed out how the harmony among people, land, water and air leads to changes. In Capital, Marx explained that "labour is in the first place a process in which both man and nature participate". Marx went on to explain that labour process was nothing but the production process. He showed how labour is the source of wealth and how labour power keeps producing surplus value. In the same work, he explained how under capitalism, surplus value is appropriated by capitalists, who are the owners of the means of production. He also explained how this appropriation of surplus value leads to accumulation of wealth at one pole and the pauperization of the working people at another. Such inequality is reflected in the miserable working and living conditions of the working people [10].

While analyzing the housing question of the society, especially how the bourgeoisie solves the housing question, Engels pointed out "the poor districts in which the workers are crowded together are the breeding places of all those epidemics which from time to time afflict out towns. Cholera, typhus, typhoid fever, smallpox and other ravaging diseases spared their germs in the pestilential air and the poisoned water of these working class quarters". This explains why the poor and the migrant workers of all countries, including Kenya, are facing unimaginable difficulties and becoming victims of infectious diseases. Legal epidemiology can play a critical role in mitigating the effects of pandemics in this respect.

5.0. Policy & practice: A Comparative Analysis between Kenya and Nigeria (with respect to legal instruments establishing surveillance in relation to legal epidemiology)

Legal epidemiology is the scientific study of law as a factor in the cause, distribution and prevention of disease and injury. Laws and policies are essential to public health issues. In the wake of COVID -19, legal epidemiology informs how the law can be utilized as a tool for better health outcomes. Public health law focuses on what the law says and legal epidemiology focuses on what the law does. So, what are the next steps that ought to be taken? We need to have better sewerage systems, better housing and so on. What should be done in the event that obligations towards these are not met by the relevant authorities.

Notably, the basis of legal epidemiology is largely founded on surveillance of these infectious diseases. So, how can the law be used to control the COVID -19 pandemic? As has been illustrated herein above, Kenya can implore various restrictions and measures in a bid to have better health outcomes.

This segment is going to consider a comparison in the legal instruments that have been put in place between Kenya and Nigeria with regards to surveillance of infectious diseases and in extension, legal epidemiology.

With a population of about 200 million people as at 2019, Nigeria stands as one of the most vulnerable states, when it comes to attacks from infectious diseases based on its large population [6]. Nonetheless Nigeria, just like Kenya has embraced surveillance of infectious diseases through domestic as well as international legal instruments and regulations. Whereas Kenya has in place the following instruments: The Constitution, The Public Health Act, The Public Preservation Security Act as its domestic instruments and the International Health Regulations of 2005 as the International legal instrument, Nigeria has about five total instruments that regulate the issue of surveillance. These include:

a) The quarantine act: this legislation has been and still is in force for the purposes of governing public health emergencies in Nigeria. Just like in the Kenyan Public Health Act, there is also a deterrent factor in this act where a penalty of N200 or six months jail term is imposed for being in contravention of the Act [9].

b) The national policy on IDSR and technical guidelines for IDSR: Being the most recent and comprehensive legal instrument reinforcing disease surveillance in Nigeria, the IDRS policy of 2005 was adopted (with a note to be reviewed every five years or as the Minister of Health in consultation with the National Council on Health deemed fit) in a bid to replace the Disease Surveillance and Notification System established after the 1986/87 yellow fever outbreak [5]. This policy is connected with the International Health Regulations of 2005 which Nigeria is also a party to. The technical guidelines not only listed the 41 diseases and conditions of importance to be tracked in Nigeria but also contained samples of the forms to be used in tracking infectious diseases in the country [5].

c) The national health act: The National Health Act is not focused on disease surveillance but provides some further support towards the implementation of the National Health Management Information System [5].

National health information system policy: The policy prescribes a health data governance structure for the country with the Minister as the chair of the National Health Data Governance Council (NHDGC) [5]. It also proposes the creation of State Health Data Governance Councils to be chaired by the Honorable Commissioner of Health in each state with similar representativeness of members across the data generating units in the State. The policy was designed to drive a good coordination and governance of the health information system.

Based on the foregoing, it is clear that, while a comparison is made with regards to Kenya and Nigeria, the legal instruments in Nigeria do not directly cater for surveillance and hence appears to be weak in terms of serving their surveillance functions. Though this paper did not delve into the specifics of the various instruments, the weakness was depicted from the purpose of the establishment of those instruments, which is majorly governance of a health information system, which can only support surveillance but cannot act as a driver of surveillance of infectious diseases. Therefore there is need to strengthen laws on surveillance of infectious diseases in Nigeria.

6.0. Conclusion

Kenya cooperates with the WHO a great deal with regard to matters relating to public health crises. As a member state to both the WHO and the International Health Regulations (IHR), Kenya is bound by the requirements under the 2005 IHR, an international legal instrument aimed at preventing the spread of disease. Among other things, the IHR require that Kenya “develop, strengthen and maintain the capacity to detect, assess, notify and report” outbreaks of infectious diseases. Accordingly, Kenya has put in place systems for early detection through what is known as an Integrated Disease, Surveillance and Response Strategy (IDSR). The objectives of this strategy are to:

- Strengthen capacity for effective capacity[;]
- Improve use of surveillance information[; and]
- Improve laboratory involvement in epidemic detention.

According to the WHO, the IDSR is “the backbone for communicable disease prevention and control in Kenya” and the WHO provides technical support in its development and expansion. Significantly, the WHO – Kenya 2008 – 2013 cooperation strategy indicates that providing technical assistance in strengthening Kenya’s ability for early detection, diagnosis, management, and control of communicable diseases, including strengthening the country’s capacity to prevent and respond to major epidemics, and pandemic-prone disease, is one of the main areas of cooperation.

In conclusion, failure to consider legal epidemiological approach may in fact not only continue to diminish the country’s capacity (both resource and technical) but also expose it to greater debt obligations and negative foreign policy implications as has been the case with China.

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