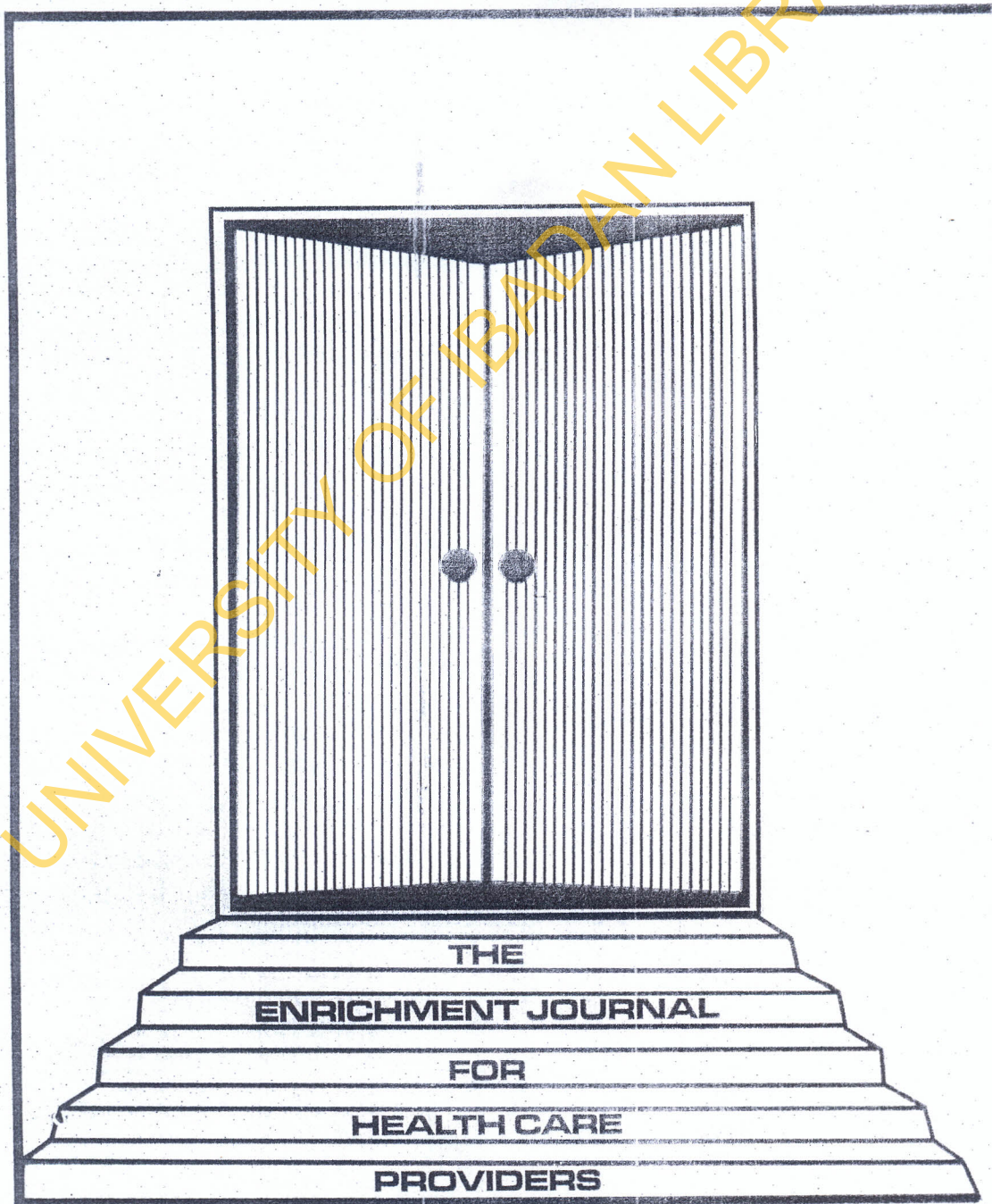


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Preparing For H1N1 Flu-Pandemic in Nigeria: Ethical Considerations for Health Care Workers

By

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Abstract

The 2009 swine flu (H1N1 influenza) has spread globally with unprecedented speed. Considering the ease of transmission of the zoonosis, and current efforts to curtail the virus, national and international efforts to prevent further transmission of the virus are imperative. In Nigeria, current preventive efforts have failed to consider the ethical challenges of disaster preparedness. It is imperative to consider; ethics of quarantine-deciding circumstances when public health trumps individual autonomy; as well as health workers' duty to care for H1N1 victims versus their right to refuse treatment to prevent contracting the highly contagious virus among others. The seriousness of the potential risk that healthcare workers could face during a swine flu outbreak brings to light unrealistic assumptions about duty and risk that informed the debate on duty to care in the early years of HIV/AIDS and SARS. These should be consistent with our values and peculiar needs, recognizing our shared vulnerability to disease and death. Altruism and heroism of individual healthcare workers may not be exclusive, but a synergy of health care planning and care provision in preventing another human scourge.

Key words: H1N1 Flu pandemic, ethical considerations, health workers, Nigeria, preparing.

Introduction

Swine influenza or H1N1 viruses usually infect pigs, but occasionally can cross species barriers to infect humans. In the past, cases of person-to-person transmission have been reported but have been confined to small outbreaks. The H1N1 virus represents a quadruple re-assortment of 2 swine strains, one human strain, and one avian strain of influenza. In late March and early April 2009, an outbreak of H1N1 influenza A virus infection was detected in Mexico, with subsequent cases observed in many other countries, including the United States. On June 11, 2009, the World Health Organization (WHO) raised its pandemic alert level to the highest level, phase 6, indicating widespread community transmission on at least two continents.

The characteristics of influenza-like illnesses (ILI) include; persistent fever

(temp. 37.8°C or greater), cough or sore throat in the absence of a known cause other than influenza; there are other definitions as highlighted by the United States Centre for Disease Control and Prevention.² While most H1N1-infected individuals experience mild symptoms, a proportion develop severe respiratory symptoms requiring prolonged stays in intensive care units and ventilator support. Intensive care units in countries in the Southern hemisphere, currently at the start of its flu season, are beginning to reach their capacity. There are concerns that increased numbers of cases will overwhelm resources during the upcoming flu season this fall and winter in the Northern hemisphere. Fatality is between 1% and 2% in developed countries; 4% and 6% in developing countries.³ There is also the risk that the virus will mutate to become more

pathogenic. Under these conditions, health-care providers and policymakers globally, including Nigeria are under significant pressure to make informed health-care and public health decisions based on scientific information. The pandemic was reported on September, 5, 2009 in Ghana,⁴ a neighbouring country to Nigeria. It is therefore time for Nigeria to prepare for a possible H1N1 virus epidemic.

Impact of H1N1 Virus Infection in the Global Community

The H1N1 pandemic is purely a health crisis, and it will be so for a while to come. The actual infection rate, however, may be in the millions because only a relatively small number of individuals have been tested for the virus.⁵ The American College of Emergency Physicians (ACEP) in 2009 also observed that since case rates are highest in school-aged children, school closures may be one of the first strategies employed. This would result in parents needing to remain home with their children and the consequent loss of workplace productivity. This would include healthcare workers, reducing the ability of emergency departments and hospitals to function at peak efficiency. An equally important community mitigation strategy is keeping people who are ill, even at the first sign, from entering the workplace and school; all aimed at social distancing. The combination of the effects of the disease and employing these measures could affect the business practices of all the critical infrastructure operators, possibly impeding their ability to maintain normal operations.⁶ At some critical point, operations of hospitals are affected, not only by the absence of its own workers, but by slowdowns in transportation of supplies and support services, the summary of which is the

inability to maintain normal operations, even for normal patient volumes.

In a typical seasonal flu season, 7% of adults and 30% of children in an affected community may become infected with flu virus, and much higher percentage in households with a person who is ill. Each year, in the United States, on average 36,000 people die from flu-related complications and more than 200,000 people are hospitalized from flu-related causes. Significant increases in those numbers would be expected if the peak incidence of the two virus strains overlap. There is also no assurance that antiviral medications will be effective for a virus that has undergone selection pressure in the interim. It is therefore prudent to focus preparations in hospital emergency departments and related service areas. While the precise effects on emergency departments to function cannot be predicted with confidence, contingency plans should be made for a challenging scenario.

The impact of the pandemic is being felt globally. An August 6, 2009 WHO document revealed that since the beginning of the epidemic the Americas recorded 102,905 cases and 1,274 deaths, South East Asia recorded 11,432 cases and 83 deaths, while the Western Pacific recorded 28,120 cases and 43 deaths.⁷ As of September 03, 2009, 22 countries have officially reported 5,559 laboratory confirmed human cases of the virus including 28 deaths in Africa, 20 of which occurred in South Africa.⁸ Worse still, a September 5, 2009 popular Accra based newspaper presented a Ghanaian official report confirming 10 swine flu cases,⁴ fuelling speculations of a major spread in West Africa.

The Problem

Even though the effect of the swine flu pandemic is being felt globally and appreciable degree of attention focused

on health education, screening, and commitment of huge millions of dollars to scientific inquiry and development of swine flu vaccines, there has not been any substantial effort to consider the ethical challenges inherent in preventing further spread of the infection and management of people infected with the virus within ethical and moral standards. Practically, very little is recorded about ethical guidelines in the area of H1N1 influenza pandemic in developed societies, let alone resource limited countries like Nigeria.

By way of historical reflection, the avian influenza ravaged many poultry farms in Nigeria with attendant blows to social and economic lives as well as the health of human and animal lives. Similarly, the severe acute respiratory syndrome (SARS) epidemic also had attendant surges in morbidity and mortality rates, especially in Asia and Canada. The world was poorly prepared to handle related ethical challenges. At the wake of these epidemics, there were ethical debates related to isolation of individuals suspected, health workers' dilemma related to duty to care, and resource constraints among others. However, there were no clear ethical guidelines to resolve the attendant ethical dilemmas in health care and research.

Similarly, the emerging H1N1 influenza pandemic has related ethical and legal challenges, potentially constituting ethical dilemmas. These issues include: hazardous duty by health care providers, resource allocation, vaccinations, maintaining patient and community confidentiality and civil confinement of suspects and cases.

The need for health care workers (HCWs) in Nigeria to apply ethical theories and principles in handling potential ethical dilemmas in the care of H1N1 virus patients cannot be over emphasized. Without this, the fragile and morbid framework for health care in a

country already over-stretched by extreme poverty and gross disparities in socio-economic indices could become comatose. Peculiar socio-economic and health indicators attest to poor living standards with the following characteristics; living standard below \$1/day,⁹ population of about 145 million,¹⁰ gross disparities in literacy levels ranging between 32.5% in northern states to 84.5% in Lagos, a South-western Nigerian state,¹¹ extremely dissimilar religious perception of social issues,¹² with Islamic extremism in the north with frequent fatal casualties,¹³ infant mortality rate of 95.74 deaths/1000 live births,¹⁴ 10% of global maternal mortality rate,¹⁵ high level of migration of qualified health workers to richer countries,¹⁶ and poor attitudes to vaccination,¹⁷ among others. These point to the need for greater ethical caution in planning and implementing health care policies in Nigeria, especially in the context of handling emerging, virulent and global epidemics like H1N1 virus outbreak.

Having recorded 10 H1N1 cases in the neighbouring country of Ghana, it is imperative to examine ethical issues concerning the prevention, treatment and rehabilitation of people that could possibly contract the H1N1 virus in Nigeria. This could be achieved through programmes focused on identifying inherent ethical and legal concerns, followed by careful assessment, prioritisation, planning, implementation and review of action steps.

Ethical Issues

Considering the foregoing, caring for H1N1 virus-infected people could present ethical challenges to health workers, patients, health authorities, communities and other stakeholders. Because of variations in values, dispositions and characteristics between individuals and

groups (in Nigeria and elsewhere), moral reasoning could vary, making consensual agreement and judgements difficult, yet decisions need to be made often quickly in public health emergencies such as during H1N1 virus epidemics. Nigeria is *ab initio* a society with compound socio-cultural values.¹² This probably explains the variations in the perception and attitude to social events, including health issues.

When there appears to be no clear consensus as to the "Right thing to do," conflicts ensue. These conflicts present problems requiring moral decisions, and necessitates a choice between two or more alternatives. What is understood to be morally right by an individual depends (at least in part) on that person's race, ethnicity, and culture. In the context of a possible H1N1 virus pandemic in Nigeria, some of the potential ethical issues that could arise include the following:

(i) *Hazardous Duty by HCWs*

The H1N1 virus is easily transmitted via the airborne route, and contact with products from the respiratory tract of infected individuals. The illiteracy and poor standard of living⁹ would likely co-exist with lower immunity and below average attention to hygiene. This increases the risk of transmission among hospital patients and HCWs.¹⁸ Additionally, family members of HCWs are at increased risk of contracting the virus through direct or indirect contact of HCWs with swine flu patients, thereby increasing the risk of family morbidity or mortality among HCWs.¹⁹ Under these conditions it may be necessary to ask questions such as; Are health workers under any obligation to care for patients with potentially fatal conditions at the expense of their valuable lives? Should our experienced and scarce health workers be lost to caring for a few individuals with a life threatening

condition at the expense of the larger number of patients with less risky health conditions? Is it justifiable to expose family members of health workers to the risk of contracting H1N1 virus, even though they have no direct responsibility or duty to care?²⁰

As the H1N1 pandemic escalates the workload of health workers, it also raises the debate of health workers' duty to care versus right to avoid H1N1 virus contact for self protection. As an emergency, there may be no prior provision for staff coverage.⁶ Yet, the needed staff-pt ratio is higher to render intensive care. Staff may be unwilling to render service, or may keep away to avoid contracting the virus. The question therefore arises: Considering the deadly nature of the virus, possible postings from areas of usual duty, possible extra duty demands, higher morbidity and mortality among HCWs, how should HCWs be adequately compensated for the extra job demands?

(ii) *Resource Allocation*

A H1N1 virus epidemic affects hospital human and material resource allocation. During past influenza epidemics, hospital staff have been confronted with a surge of inpatients,^{21,22} and modelling studies predict collapse of the healthcare system if resources are not allocated carefully.²⁴ To ensure the availability of healthcare during a pandemic, maintaining qualified staff capacity is crucial. Some pandemic preparedness plans therefore prioritize HCWs for preventive interventions, such as prophylaxis with antiviral drugs or vaccination,^{7,24} This may not be assured in Nigeria where politicians, bureaucrats and policy makers may seek their personal protection above that of HCWs; partly because of pervasive corruption on one hand and poor public accountability on the other.^{25,26}

Even if the Nigerian government subsidizes emergency care during a

possible H1N1 virus epidemic in the country, two problems could still emerge. Doubts exist that there will be enough spaces in the present Emergency Departments in Nigerian hospitals; added to these the number of required skilled HCWs to guarantee prompt and efficient H1N1 control may not be available. To illustrate this, despite the available resources in developed countries, the emergency departments in New York City experienced overcrowding in the spring of 2009 because of H1N1 influenza.²⁷ Yet studies repeatedly suggest that one half to two thirds of emergency department visits are potentially avoidable if there is timely access to high-quality primary care.²⁸

The ability of some critical infrastructures to continue normal operations depends largely on the attendance of its workforce. Others may have plans and procedures in place for tele-work or social distancing. The nation's just-in-time supply-chain could experience delays in supplying goods and services, and businesses who cannot survive operational interruptions may expand inventories of supplies. Hospitals are no exception to this. Pharmacies may not be able to get additional supplies from distributors or sources higher in the chain, domestic and foreign. Supplies of personal protective equipment (PPE) and other supplies may require stockpiling, and food services could encounter supply problems due to production and delivery.⁶ The challenge therefore is, which ethical or moral philosophical will be consensual, and what would be the *modus operandi* of adopted approaches considering Nigeria's peculiar diversities in socio-economic and psychological characteristics within the context of a public health emergency?

From a global perspective, the Kaiser Family Foundation (KFF) examines the Agence-France Press report on the debate over how much developed countries are

spending to fight the H1N1 virus. There is concern that as developed countries store away antivirals, face masks and vaccines to protect against the H1N1 (swine) flu virus, poor countries are being left empty handed. Some critics say the spending is so imbalanced that it amounts to health apartheid, protecting rich countries against H1N1 virus but leaving poor nations to fend for themselves. Others argue gargantuan sums are being spent on a disease that is no more lethal than seasonal flu, which is grotesquely disproportionate when thousands die each day of less media-friendly diseases,²⁹ such as malaria in Nigeria.

(iii) *Civil Confinement*

H1N1 influenza patients are often constrained to remain in isolation, until an appreciable remission is obtained. Someone might ask, in the true spirit of respect for persons, should H1N1 influenza patients not be allowed autonomous decision? Is the right of the individual subjugated under that of his community? Constraining an individual with H1N1 influenza to remain in isolation could also be perceived by others as stigmatizing and discriminatory. Autonomy is a cardinal principle in health care ethics. But when does the right of the public override individual rights?

In ethico-legal analysis, public health law affirms legal powers and duties of the state to assure the conditions for people to be healthy. It also empowers the state to constrain the autonomy, privacy, liberty, proprietary, or other legally protected interests of individuals for the protection or promotion of community health.³⁰ Reynolds points out that public health law focuses on the population rather than the individual.³¹

While law plays an important part in shaping the role of state action and intervention in the health of individuals and communities, the scope of these state

powers is shaped by a range of factors including: the nature and traditions of the legal system in the country in question; cultural understandings of the individual, the community and the state and of the relationships between them; and the wealth or poverty of the country and its people. Law and ethics, and indeed of health itself, are culturally and historically specific, requiring dialogue and cooperation for effective global responses to issues of common concern.³²

In sum it is advised that during epidemics and acute emergencies, it is necessary to restrict individual liberty in the interests of public health.³³ However, the principles to be applied in relation to quarantine and isolation include that they should be by the least restrictive means necessary to prevent the spread of disease. In addition, there is a provision that the needs of individuals who are isolated or quarantined shall be addressed in a systematic and competent fashion, including but not limited to, providing adequate food, clothing, shelter, means of communication with those in isolation or quarantine and outside these settings, and competent medical care.³²

(iv) *Maintaining Patient and Community Confidentiality*

The Online Citizen, a community of Singaporeans recently raised a protest, claiming that one of the country's prominent daily newspapers on 28 May, 2009 published the name, flight number and tribe of the first Singaporean girl who contracted the H1N1 virus. A debate ensued; some opined that it was unethical, claiming it must have caused damages to both the girl and her community.³⁴ Others felt that it was an act of sensationalism, characteristic of novel discoveries in journalism. Unauthorised disclosure could breach common ethical principles such as autonomy and non-maleficence.²⁰ Although adequate documentation is an

integral part of standard care in public health emergencies, unauthorised disclosure of patients' private health information could be a betrayal of patients' trust of HCWs; and potentially a source of litigations.

(v) *Ethics of Research in Public Health Emergency.*

The outbreak of novel epidemics like the H1N1 virus in 2009 presents the need for scientific inquiry to gain generalizable knowledge about the aetiology, prognosis and control of the disease. Many times a "quick-fix" approach engenders ethical blunders, with monumental consequences. The approach of Pfizer researchers to Trovan clinical trial during the outbreak of cerebro-spinal meningitis in Nigeria presents a typical case study.³⁵ There has also been the need to clarify the real meaning of research especially in clinical care during public health emergencies. An emergency response may have a research component if: 1) samples are stored for future use intended to generate generalizable knowledge or 2) additional analyses are conducted beyond those needed to solve the immediate health problem. When investigational new drugs are used or drugs are used off-label, the emergency response is almost always research. The same applies to medical devices. For emergency responses, whenever a systematic investigation of a non-standard intervention or a systematic comparison of standard interventions occurs, the activity is research.

The National Code for Health Research (NCHR) in Nigeria has specific regulations to guide researchers involved in local, country-wide and collaborative international researches, be it in emergencies or in normal situations.³⁶ The guidelines are in conformity with international regulations guiding research in emergencies. Conformity with the

Code is non negotiable, as it forms the guiding document for developing protocols for research ethics approval in accordance with the Code.

Conclusion

Now that ten swine flu cases have been recorded in Ghana, a country neighbouring Nigeria, it is imperative to urgently be more prepared than ever before for a possible spread to Nigeria. Apart from the extreme ease with which the H1N1 virus spreads, the risk for morbidity and mortality among individuals and groups at risk is scary. Current efforts at preventing the spread of the virus in Nigeria by the government include awareness programmes, ban on imported pigs, and directive that airports and seaports officials should screen passengers and luggage. There are also global efforts to curtail the spread. However, the degree of attention to ethical issues in the prevention and control efforts is grossly insufficient. Consideration of HCWs' duty to care, priority setting and resource allocation, patient isolation, patient confidentiality, and ethics of research in public health emergencies are some of the ethical issues discussed in this paper.

Added to basic programmes in primary disease prevention, efforts should be focused on strengthening the capacity of HCWs immediately to develop the competence to identify, prioritize, plan, implement and evaluate ethical issues and interventions.³⁷ before H1N1 virus cases are recorded in Nigeria. Recourse to ethical principles, development of clinical ethics committees, and adherence to local and international ethics guidelines would help HCWs in making ethically sound decisions. Additionally, the need to restructure the health system to accommodate specific programmes of controlling health emergencies and specifically H1N1 virus pandemic such

as; vaccination, triaging, isolation, and management of H1N1 cases are very critical and urgent. Nigeria is already ravaged by a population explosion, fatal religious disturbances, monumental corruption,³⁸ low scores on health indices, and poor standard of living despite her huge crude oil potential. An assault in the form of H1N1 pandemic, without adequate preparations would further reduce the quality of life of Nigerians and a possible source of escalating the H1N1 epidemic globally beyond the scope of current control efforts.

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