A Review of the Public Health Act in Malawi: A Case for Reform and Consolidation

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Abstract

Laws and regulations make powerful contribution in addressing multitudes of public health concerns. We examined the Public Health Act (PHA) in Malawi to understand its relevance to the ever-growing and changing threats posed by infectious and non-infectious diseases. The current Public Health Act of Malawi came into effect in 1948 to protect and preserve public health. The Act has undergone several amendments, the last one being in 1975. It draws much of its inspiration and standards from the 19th century British laws on insanitary housing, poor ventilation, and drainage. Such laws are silent on emerging major public health concerns including non-communicable diseases (NCDs) such as cardiovascular diseases and diabetes as well as road traffic injuries. This makes the Act outdated and ill equipped to address the 21st century public health concerns. Although supplementary legislation such as the HIV/AIDS Act and Mental Treatment Act have recently been enacted, they are yet to be consolidated into the Public Health Act. Consequently, existing policies and strategic plans that are meant to address gaps in public health and ensure coordinated effort lack support of laws and regulations. The Act also places great emphasis on mandatory vaccinations, quarantine and isolation against smallpox, a disease that has long been eradicated. Furthermore**,** although the Public Health Act outlines powers, duties and penalties, it fails to reinforce acceptable behaviour due to the insignificant penalties for noncompliance. There is a need for immediate and prompt revision and restructuring of the Public Health Act based on scientific evidence. Such laws require adequate consultation and interaction with key experts and stakeholders from a wide range of disciplines.

Keywords: Infectious Diseases; Non-Communicable Diseases**;** Public Health Act; Laws and Regulations; Malawi

Background

The emergence and re-emergence of infectious and non-infectious diseases remain a serious problem for public health. Although the advent of globalization and trade has eased connectivity, and the free movement of people and goods, it has led to an increase in the transmission of infectious diseases, bioterrorism, violence, injuries and human conflict [1]. The global health emergencies arising from threats posed by human epidemics such as influenza, Ebola and Zika virus disease, have prompted renewed interest in strengthening capacity of health systems, reinforcing surveillance and preventative strategies [2]. The recent introduction of the International Health Regulations (IHR) has made it clear that epidemiological and medical approaches alone are not enough in addressing the ever-growing and changing threats posed by social and economic determinants of health. The World Health Organization (WHO) has since called upon its Member States to develop or revise their regulatory frameworks to support public health security, in alignment with international law [3]. Outdated laws pose threats to laws set out in the IHR to formulate a unified front in preventing and eradicating public health problems.

Despite the recognition of laws and regulations as a powerful medium for addressing a multitude of public health concerns, many countries are yet to develop laws or reform outdated ones to support the contemporary public health goals. Most existing public health laws are drawn from 19th century understanding of diseases thereby making them outdated, inconsistent and ineffective in advancing population health [4]. The rise of tension and disputes, and the struggle to balance public health decisions between what is best for the individual and society, including how to allocate scarce resources fairly to those that need them given the competing interests between individuals and society, regenerate the need for laws that draws a fine line between conflicting interests. Such laws create standard expectations, behaviours and societal norms that are

acceptable by individuals and society. Laws provide a public health expression of cultural values and cultural norms through powers, duties and penalties framed at yielding acceptability of behaviour [5].

While governments are expected to formulate legislation that enforces standards of operations in every sector that has the potential to pose a threat to the health and wellbeing of its people [6], little is known about the public health laws in Malawi. We reviewed the public health laws in Malawi with an intention of evaluating them in light of evidence-based approaches in epidemiology, public health and human rights. We further aimed to determine whether the provisions in the laws were valid and appropriate in securing local and global health.

We searched online including the WHO [7], FAOLEX Database [8] and the Global Database on Occupational Safety and Health Legislation [9] for the availability of the Malawi Public Health Act or similar legislation regarding the preservation of the public health in Malawi. We further contacted the Ministry of Justice and Constitutional Affairs and the Ministry of Health in Malawi for the existence of any public health law and regulations. Broadly, public health laws are best defined as laws that are intended to provide the right of everyone to have access to health care services. It guides health interventions through the stipulations of the powers, duties and boundaries of health agencies and systems, and laws that have an impact on health [10].

Brief history and present status of the Act

Malawi, formerly known as Nyasaland, has laws on public health that were inherited from British rule in 1889-91 when the British first assumed political control of what was then known as the British Central Africa Protectorate. In later years, some of the laws were retained, repealed or replaced. The Epidemic and Contagious Disease Ordinance and Diseases of Animals Ordinance

were first consolidated in the PHA in 1903 and has remained in operation since then [11] The Medical Practitioners Registration Ordinance was later consolidated into the PHA in 1906 and remained in operation to ensure practitioners practicing medicine, surgery, and midwifery were fully qualified [11]. The Vaccination Ordinance and Infectious Diseases Notification Ordinance was consolidated into the PHA in 1908 soon after the country was renamed to Protectorate of Nyasaland. The consolidated PHA was an attempt to protect, promote and respond to infectious diseases such as smallpox, cholera and measles as well as threats from animal diseases. The PHA including other laws of the protectorate were revised and consolidated in a single document in 1913 by Charles J. Griffin, a commissioner for the revision of the protectorate laws, and judge of His Majesty's High Court, of Nyasaland [11]. After gaining independence from Britain in 1964, Malawi continued to apply the Public Health Act of 1948 [12] to protect and preserve public health. The Act has undergone several amendments with the last one in 1975

Albeit numerous attempts to come up with a Public Health Act that is up to date, Malawi currently operates under a Public Health Act that was passed in 1948. Notwithstanding its several amendments, it remains inadequate and uninformed by current evidence on the eradication and prevention of diseases. Such historical laws are frequently referred to as antiquity, outmoded in ways that directly reduce their effectiveness and conformity with modern standards [4]. Popular and deadly infectious diseases such as HIV/AIDS, Ebola and severe acute respiratory syndrome (SARS) that have taken centre stage on a global forum in the past few years are yet to be reflected in the public health law.

Outdated laws and regulations are a threat to public health

The overall PHA is outdated and not reflective of the needs of public health in Malawi. The current Act was drafted for 19-century infectious diseases that were often facilitated by poor sanitation, water, housing and sewerage. Since 1975 when the laws were last reviewed, new ways of thinking about diseases as well as modern techniques of prevention have emerged. The current Act overwhelmingly focuses on infectious diseases and pays no attention to NCDs, traffic injuries, and substance and alcohol misuse. Yet the above mentioned emerging public health issues together with mental health conditions are becoming increasingly prevalent in Malawi[13, 14]. In Malawi, NCDs are estimated to account for 12% of total Disability Adjusted Life Years (DALYs) and are the second leading cause of death in adults after HIV/AIDS [15].

The outdated laws and regulations undermine legal powers needed to establish interventions and policies that could promote public health standards. Failure to recognise legal interventions and public health strategies may lead to injustices thereby affecting effective public health practice [16]. If the law is to be effective, it has to be accepted as a discourse of prescribing principles and rules. Furthermore, it must not be a universal norm but rather contextual in nature and based on empirical contribution of science. The need to include provisions in the PHA that mandates powers and duties to control NCDs is because we are now knowledgeable of the risk factors attributed to NCDs such as smoking, excessive alcohol intake, unhealthy diets including high sugar and salt intake by the population. In the absence of laws to address such issues that expose the population to varying health risks, unacceptable behaviours are reinforced. Consequently, people normalize unhealthy lifestyles and practices such as smoking in public spaces, eating or advertising junk food, biking without helmets and driving without a driver's license, all which are common occurrences in Malawi. In its revisions, the Act can consider raising taxes on tobacco; junk foods, foods with high sugar and salt content; using poly unsaturated fats instead of trans-fats in the

production of food; and ban smoking in public, misleading branding, advertising and product labelling. , These are known effective measures, or "best buys" in controlling the burden of NCDs per WHO [17].

Inconsistency and discrepancy

Health is a complex and dynamic subject, and as such, different countries may use different legal frameworks to promote, protect and improve public health. Nevertheless, there is an expectation that legislation within countries must be consistent and reflect uniformity in operating standards across sectors and jurisdictions. We came across a number of irregularities in the Act. Fines and penalties were displayed in foreign currencies i.e. UK sterling and Shillings interchangeably with the Malawi Kwacha (MK), displaying a lack of consistency in the Act. In most cases, a penalty of £5 was demanded from offenders which was an equivalent of MK 4,600, too little to effect a positive change in behaviour in the population. In order to discourage unacceptable behaviour tough penalties have to be in place and enforced [18]. To make it an effective intervention, the behaviour required by the legislation should be unambiguous; easily monitored, policed and enforced; be within the competence of the intended individual; have a clear rationale understood by the public; have a severe and multi-faceted penalty for non-compliance; and have an associated high probability that non-compliance will be detected [18].

There is a redundancy in a number of definitions, methods and age in the Act with other layers of laws such as the HIV/AIDS Act (2018) and Mental Treatment Act (MTA), 1948. For example, the definition of "Guardian" in the PHA (1948) is inconsistent with the definition found in the MTA (1948). Guardian in the PHA was defined as "any person having by reasons of the death, illness, absence or incapacity of a parent or any other cause, the custody of a child". The same Act defined

a child as a person who is under or appears to be under the age of 18 years. However, the MTA defines "guardian" in relation to a person under the age of 16, any person having the charge of the person under 16. Further discrepancies exist between PHA and the HIV/AIDS Act as far as disease reporting is concerned. In the PHA, penalty for deliberate exposure of infectious diseases to others is£15 and 3 months imprisonment whilst in the HIV/AIDS Act, conviction of spreading the disease attracts a fine of MK5,000,000 (equivalent of £5000) and imprisonment of 5 years. Moreover, an HIV infected person has the right to privacy and confidentiality with regard to information concerning his or her status as stipulated in the HIV/AIDS Act, but similar rights are impermissible in the PHA thus creating discrepancy of the Act in relation to other Acts.

Section 122 of the PHA permits the Secretary for Health to grant practicing licenses to nursing homes, maternity homes and all other nurse or midwife led services. Nevertheless, the regulations provided for by the PHA are inconsistent with the Nurses and Midwives Council of Malawi (NMCM) under the Nurses and Midwives Act of 1966, regarding regulation of the nursing home industry in the country. The PHA provisions require notification of infectious diseases to authorities in order for them to provide a public health response that mitigates or stop the spread of the disease to others. While a list of important infectious diseases are listed in the Act, most diseases of Public Health Emergency of International Concern (PHEIC) such as the viral haemorrhagic fever diseases including Ebola and SARS, are excluded. The list of infectious diseases in the Act are inconsistent with the disease list advocated by the International Health Regulation 2005. The laws on notification of infectious diseases rely heavily on information provided by the household owners, business and institutional managers, and failure to notify authorities about the disease attracts a fine of £5, and up to £100 for failure to notify officials of a suspected plague. It is not clear whether such households or school managers would require

education or training to identify the signs and symptoms of the disease in order to distinguish reportable and non-reportable diseases. In many instances, such diseases may require a laboratory examination to confirm the causative agent. There is a need for clarification of the laws to provide clarity and coherence to legal regulation that would reduce the opportunity for politically motivated disputes [4].

Feasibility of the Act

Largely, the current laws place heavy emphasis on environmental factors in settings where people live and punish unbecoming individual characteristics and behaviours with fines and penalties. Other determinants of health including the social and economic environment are not considered reflecting the limitations in understanding and knowledge of diseases of the law drafters. The PHA is yet to be amended to reflect the new knowledge in disease causation thus it is inefficient to address the current public health concerns. In addition to not being feasible and outdated concerning current knowledge of epidemiology, the language used in the PHA is unacceptable. For example, persons with mental health are referred to as “invalids”. The term “invalids” as referenced in the definition of a nursing home in Section 122 (1) is considered derogatory [19] in the current era and should therefore be replaced with a more inclusive term. Through the application of this Act without proper articulated goals or target groups, government impedes on the nation’s right to information and hinders public understanding of the document’s legitimacy.

Most of the designated interventions in the Act remain impractical. The majority of the provisions on accessibility to sewerage and drainage systems only refers to designated buildings in few towns and its prohibitions of incorrect disposal of certain matters into the public sewer drains. Although people are given the right to connect to these public sewers, the majority of the owners of buildings

and houses utilize pit latrines, which are loosely regulated. Where they are private septic latrines, it is almost impossible to connect to a public sewer due to proximity and access. Some sections of the Act assume residency in formal settlements. However, the majority of people live in informal settlements where enforcement of the PHA laws would be difficult if not impossible. Section 94 (1) offers loans through a local authority to help owners or occupiers of any premises that are unable to connect their drainage system to a public sewer. While it is an interesting concept, it is not clear how this would work, or disseminated to people through civic education.

There are numerous examples in the Act that offer solutions to public health but are not feasible. For example, Section 26 (2) stipulate an offence to keep a dead body in the same room in which food is kept or keep the body for 24 hours in any room in which any person lives other than a mortuary. While notification of deaths and quick removal of dead bodies is best practice in public health to prevent diseases, mortuaries are non-existent in certain areas, and where available, are often full. If the law is to be followed, individuals living in a one-room house will have to either place a dead body outside the house or bury the body within 24 hours. Both of these options are against cultural practices. Reporting the death in a timely manner as stipulated in the law might pose a challenge for some due to proximity to reporting authority as well as lack of access to timely modes of communication such as mobile phones or email facilities.

Mandatory vaccination

Mandatory vaccination in the Act is prominent and often restricted to smallpox. It gives the Minister powers to declare compulsory vaccination in areas that are a threat including vaccinating the unprotected persons unless deemed unfit to be vaccinated. A renewable certificate certifying successful vaccination including unfit for vaccination is given to adults or children. Anyone failing

to present these certificates as evidence to authorities may attract a fine and in case of children, they may be prohibited from attending schools. In addition, the Act gives the Minister the power to make further rules for the purpose of regulating or enforcing vaccination anytime during an epidemic. This includes vaccinating persons in declared areas of the disease including those entering the country at border posts, inmates at prisons and schools. This type of intervention has led successfully to eradication of smallpox in part because each country around the world had included a law that supported mandatory vaccination against the disease [20].

The recent outbreak of measles in Europe and America has heighted debate on whether vaccination policies must be a legal requirement. Although it has been shown that mandatory vaccination improves vaccination rates which in turn prevent unnecessary deaths, the subject continue to be controversial [21, 22]. In some States in America, there is a mandatory vaccination requirement for children to enroll into daycare or school, and exemptions are on a case-to-case basis and the procedure is stringent. However, some argue that forcing vaccines on people by imposing sanctions on personal liberties will drive vaccine deniers (and their behaviours) underground, which will lead to more harm [23, 24]. They cite inequalities and penalties fuel anti vaccine activism [23]. Such laws equally discourage children of parents who are illegally in the country from getting a shot, who otherwise, would have contributed to head immunity.

Applying legal interventions has been proven an effective means of changing behavior as evidenced by the eradication of smallpox. It is important though to ensure that vaccines are made available and easily accessed especially by populations living in hard to reach areas. Furthermore, measures must be in place to ensure enforcement, measurable compliance as well as tough penalties for non-compliance. The public must also be sensitized and informed to increase their vaccine knowledge to cultivate trust necessary for public acceptance and compliance [18]. Public

interventions that have imposed mandatory laws, for example seatbelt use, wearing helmets and smoking in designated spaces are successful because they applied a holistic approach that has financial incentives, and persuasive methods in addition to the legal aspect of the intervention. Currently, the IHR only considers polio and yellow fever for mandatory immunization [25] However, countries are free to expand this list to include other vaccines of interests to meet their public health needs.

Policies and strategic plans outside the legal framework

Public health laws must be integrated with other interventions including policies to ensure effectiveness. Equally, laws are effective when there are framed on evidence drawn from public health law research [5] Policies and strategic plans often emanate from science and play a significant role in triggering and supporting law reforms for public health. We came across numerous policies and strategic plans outside the legal framework that are guiding public health interventions with a clear mandate to protect and promote the health of the population. For example, a "National Nutrition Care, Support, and Treatment (NCST) Operational Plan 2018-2022", which aims to improve access and coverage of quality nutrition services among the vulnerable groups [26]. The "Malawi Health Sector Strategic Plan II 2017-2022" whose goal is to move the country towards Universal Health Coverage (UHC) to achieve quality, equitable and affordable health care is up and running [15]. The "National Water Policy that is geared towards providing water of acceptable quality and of sufficient quantities, and ensure the availability of efficient and effective water and sanitation services [27]. Recently an Ebola policy was published as a means to prevent Ebola transmission through the country's borders as well as within. We further found the avian communication plan designed to promote awareness and knowledge about

prevention against avian influenza although it is outdated [28]. Under the Ministry of Health are various policies such as the comprehensive multi-year plan (cMYP) to guide the Expanded Programme on Immunization in its efforts to mobilize adequate resources and improve the quality of the immunization services over a period of time [29]. Under the same Ministry, a nursing and midwifery policy was launched aimed at improving services delivered by nurses and midwives in the country. While many other policies may exist, such policies provide an opportunity of addressing the existing gaps in public health and in coordinating the work on health not covered by laws and regulations. The policies help to establish institutional structures and formal processes upon which laws are formulated. As it is, these policies seem to be uncoordinated and aligning these together require consideration of a comprehensive legal framework.

Parallel laws, regulations and rules

We found various portions of successive legislation on various topics relating to public health that have been built up over the years but are not included or consolidated into the present Public Health Act. This is particularly problematic if any goals are to be achieved. A study in America where multiple and successive layers of the law have been built up increasingly show that such accumulation undermine the law effectiveness [4]. Multiple layers of the laws create undue complexity and inconsistency to other statute laws in a manner they are interpreted. There is a need for a common language of the law, including repealing the old laws where necessary to avoid a chain of outdated laws to be used against the goals of public health.

Some free standing laws that exist in Malawi (see [8]) include the Occupational Safety, Health and Welfare Act, 1997, HIV/AIDS Act, 2018; Road Traffic Act, 1998; Mental Treatment Act, 1948; Nursing Act, 1966, Pesticide Act, 2002; Pharmacy, Medicines and Poisons Act, 1988; Public

Health (Condensed Milk) Rules, 1940; Milk and Milk Products Regulations, 2012; Disaster Preparedness and Relief Act, 2012; Water Resources Act 1969; Environment Management Act, 1996; Consumer Protection Act, 2003 and Biosafety (Management of Genetically Modified Organisms) Regulations, 2012.

In addition to local regulations and rules in relation to health, Malawi is a signatory to some major international treaties such as the WHO International Health Regulations, 2005; UN Sustainable Development Goals (SDGs) and UN Human Rights. However, there are no international agreement or local legislation to regulate tobacco consumption, advertisement and warning of the health hazards in the country. The Tobacco Act of 1989 only regulates tobacco growing, processing and placing on the market. Currently, Malawi and Mozambique are the only two Tobacco growing countries and are not a signatory to the WHO Framework Convention on Tobacco Control (WHO FCTC) policy [30].

Dis-regards individual human rights

On many occasions, the Malawi public health law disregards individual human rights. For example, Section 17 of the Act passes the costs to the owner of the premises for cleansing and disinfection without warning or regard for other alternatives. According to the definition of 'health', all health laws are required to meet the physical, mental and social needs of populations, as health is not merely the absence of disease or infirmity [31]. However, laws that adversely affect fundamental rights and freedoms create significant burdens on human rights [32]. To assess this impact therefore, Gostin and colleagues suggest that a meticulous impact assessment should be done to identify and balance the potential benefits of particular laws to the health of the community and its impact on human rights [33].

In every intervention, human rights need to be protected as they are inherent and all human beings are entitled to them [34]. The rights stipulated in the International Bill of rights include the right to equality, non-discrimination, information and culture, housing, food, life, dignity, social security, work, health, education, gender equality and an adequate standard of living. In view of this, it is highly likely that as a legal document that should protect the health and wellbeing of the country's citizens, the PHA may exacerbates poor health outcomes by creating obstacles to effective treatment and prevention of ailments. For example, putting into quarantine HIV patients or criminalizing sex workers as a precautionary measure to prevent the disease would not only be considered as discriminatory but also unethical undermining treatment and prevention efforts.

Policy makers and the government therefore need to progressively realise how the current state of the PHA influences human rights and possibly integrate emerging health issues and human rights therein to be able to provide optimal health status for its citizens. A good balance between a national, regional and international approach through consultation and intimate involvement of experts from these three entities has the potential to achieve this goal. It is important to recognize the impact that health laws and practices have on human rights, as well as how violation of human rights affects health. Human rights and health are inseparable [35]. It is noted that the laws in the current Act delegates the demolition of unfit residential premises and quarantining of suspected infectious individuals without detailed alternative interventions or laws to safeguard the rights of these people. Furthermore, laws appear to be very intrusive, inconsiderate of the local cultures and beliefs, a notion that is contrary to the right to non-discrimination and equality. It is stipulated in the International Covenant on Economic, Social and Cultural Rights (ICESCR) treaty 1966, that rights can be limited on condition that a person is a threat to national security, public order, public health and freedoms of others. Laws that emphasise detaining infected persons, protects the

public's right to a safe environment and health but at the same time violates patients' rights to privacy, dignity, freedom of movement, self-determination and even safe environment. It is therefore important that these practices are assessed and evaluated to identify alternatives that will minimise such violations of human rights.

Sexual and Reproductive Health and Rights

One key area that the current Act does not address is the issue of Sexual and Reproductive Health and Rights (SRHR). Malawi developed a National Reproductive Health Policy whose overall goal is to enhance the reproductive health status for all Malawians. Amidst such an encompassing policy, inequalities in access to reproductive health services remain a pressing challenge especially among vulnerable and key populations including, the youth, sex workers and Lesbian, Gay, Bisexual, Transgender and Intersex (LGBTI) community [36]. Consequently, these population groups are left at the mercy and the will of the health workers concerning access to adequate health services. Often times, they are ill treated, humiliated and discriminated against when they present at health facilities to seek health care. This has brewed an atmosphere of fear that robs them of their human rights and discourages them from seeking and adhering to HIV/AIDS prevention, treatment, and other health services. Therefore, there is a need for laws in the Act that prohibits discrimination and maltreatment of people by health workers based on age or sexual orientation in order to reduce inequalities in access to sexual reproductive health and other health care. This is also in line with the WHO recommendation that countries should enact laws and policies that ensure that comprehensive sexual and reproductive services are accessible by every single section of the population [37].

In addition to the hostile environment in accessing SRH services by adolescents' schools could be an alternative sphere from where they can access SRH information and services. However, the Ministry of Education's policies prohibit provision of SRH services in schools and within one hundred meters radius from school campus. This leaves the youth lacking for SRH services and thereby turn to indulgence in unsafe sexual practices, which fuels sexually transmitted infections including HIV, teenage pregnancies and maternal complications. This calls for a "health in all policies" approach to make sure those policies and regulations in all sectors are in harmony to promote health and well-being of the people. The PHA begins to do this.

Conclusions

There is a need for immediate and speedy revision and restructuring of the Public Health Act to reflect the public health problems in the country. Such revisions require sufficient consultation and interaction with key experts and stakeholders from a wide range of disciplines, to address the gaps that we have identified. One important area to be considered for incorporation into the act is the use of herbal medicines. Despite the many benefits offered by herbal medicines there is a need to use them with caution and under supervision, especially if used by people with certain health conditions such as pregnant women [38]. Informed by evidence on environmental health determinants, it is crucial to include laws on safe disposal of waste. There is a need to promptly address or introduce recycling laws to prevent pollution of plastics from blocking limited drainage systems that exists and poisoning the aquatic fish in lakes and rivers and other animals with plastic ingestion [39].

The Act ought to reflect Malawi sovereignty by referencing to local currency appropriately as punitive measures to deter non-compliance. We further recommend the monitoring and evaluation

of the Act once it is revised to ensure that laws are implemented fairly without impinging on basic human rights, and maintain a good balance between the civil liberties and population health. Ongoing evaluations may also assist in identifying which of the laws are working and which ones are not, keeping in mind that some of the laws are adapted from an international framework and may not be applicable to the Malawian population if they interfere with human rights.

Abbreviations

AIDS: Acquired immunodeficiency syndrome

cMYP: Comprehensive Multi-Year Plan

DALYs: Disability Adjusted Life Years

FCTC: Framework Convention on Tobacco Control

HIV: Human Immunodeficiency Virus

ICESCR: International Covenant on Economic, Social and Cultural Rights

IHR: International Health Regulations

LGBTI: Lesbian, Gay, Bisexual, Transgender and Intersex

MK: Malawi Kwacha

MTA: Mental Treatment Act

NCD: Non-Communicable Diseases

NCST: National Nutrition Care, Support, and Treatment

NMCM: Nurses and Midwives Council of Malawi

PHA: Public Health Act

PHEIC: Public Health Emergency of International Concern

SARS: Severe Acute Respiratory Syndrome

SDGs: Sustainable Development Goals

SRHR: Sexual and Reproductive Health and Rights

UHC: Universal Health Coverage

UK: United Kingdom

WHO: World Health Organization

Declarations

Ethics approval and consent to participate

We analyzed publicly available data; as such, no formal ethical review is required.

Consent for publication

Not applicable because there are no individual details, images and videos in this study.

Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

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Contributions

EZS conceived the study. EZS, GA, PM, EM and CSW reviewed the PHA and commented on the analysis. EZS wrote the manuscript and all the authors contributed to shaping of the argument of the article, and participated in the manuscript writing. All the authors read and approved the final manuscript.

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