

BACKGROUND GUIDE

# World Health Organization (WHO)



Property of Lagos Model United Nations

Background Guide: World Health Organization (WHO)

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## Letter from USG

Dear delegates,

Welcome to the Lagos Model United Nations 2022, the 7th session. It is my pleasure to welcome you all to this conference which allows individuals from different parts of the world to engage in recent international problems and create solutions. LMUN as an experience will improve your problem-solving skills, public speaking skills, teamwork, confidence, leadership skills, and life connections. LMUN will continue to be life-changing. I cannot wait for you to experience this too.

The staff for the World Health Organization (WHO) are Ayooluwa Adekoje (Under-Secretary-General); Olabimpe Adedamola (Chair); Dolapo Alabi (Vice-Chair); Kehinde Ajewole (Researcher); Bolanle Alade (Researcher).

**Ayooluwa** is in his 4th year, studying law at the University of Lagos. His LMUN journey began in 2019 when he won the distinguished delegate award in the Assembly of African Union(AAU). In 2020, he won the outstanding delegate in the General Assembly. These experiences led to him serving as the vice-chair of FAO in 2021. Ayooluwa is passionate about international relations, Tax and international law. **Olabimpe** is a 400-level student in the Faculty of Law University of Lagos. She was a delegate of Germany in UNICEF, LMUN in 2021, where she won the Position Paper Award, Outstanding Delegate Award and Most Likely to be Secretary-General peer-to-peer Award. She is passionate about the safety of women and the LGBTQ+ community. **Dolapo** is a 400-level student of the Faculty of Law, University of Lagos. Her passion for creating a safer and healthier environment around the world made her participate in her first MUN in 2019, where she served as a delegate for the General Assembly 2. She is passionate about the healthcare system for both developed and 3rd world countries. **Kehinde** is a 300-level student of the Faculty of Law, University of Lagos. His passion for sustainable development goals and hope to broaden his horizon facilitated his entry as a delegate of China in the FAO, LMUN 2020, where he won an Honourable mention Award. He is intrigued about matters and rising issues concerning world health and security, as well as how these issues can be tackled. **Bolanle** is a 400-level student of the Faculty of Law, University of Lagos. Her passion for nutrition and health for all, mainly that no one should be left hungry, led her to sign up as a delegate of the Food and Agricultural Organization Committee, LMUN 2021. That year, she won an honourable mention award at the end closing ceremony of the conference. She is enthusiastic about people and the need for people to live well and thoroughly.

WHO promotes health and ensures that individuals worldwide have an equal chance at a safe and healthy life. It is in charge of coordinating international health globally and has three primary objectives. These drive impact at the country level, enable the organisation's full potential and leverage the global community.

The topics to be discussed by the committee are:

- I. Establishing Prevention Protocols for Pandemics and Epidemics
- II. Occupational Health: Promoting the Physical, Mental and Emotional Health of the Employed

The Background Guide will form the basis to begin your research on your topics at LMUN. Regardless, it is not to be a stand-in for undertaking the extensive research required of you as individuals. The Further Research, Annotated Bibliography and Bibliography will serve you well and aid in your research. Additionally, the Delegate Prep Guide and the

Rules of Procedure will provide you with guidance for the conduct expected and procedure of the conference. These documents are available on the LMUN website- [www.lmun.ng](http://www.lmun.ng).

Every delegate is expected to submit a position paper by a later communicated date after registration and assignment of country and committee, in accordance with the position paper guide which is on the LMUN website.

Any enquiries or concerns during your preparation for the committee or the Conference should be directed to the USG at – [usgdevelopment@lmun.ng](mailto:usgdevelopment@lmun.ng) or at the committee at [who@lmun.ng](mailto:who@lmun.ng).

We anticipate your presence at the conference!

**Ayooluwa Adekoje**

USG Development, LMUN 2022.

## Abbreviations

<b>ACHPR</b>	African Charter on Human and Peoples' Rights
<b>CDC</b>	Centre for Disease Control
<b>CIS</b>	International Occupational Safety and Health Information Centre
<b>CRPD</b>	Convention on the Rights of Persons with Disabilities
<b>DWA</b>	Decent Work Agenda
<b>FAO</b>	Food and Agricultural Organisation
<b>GPEI</b>	Global Polio Eradication Initiative
<b>GPMB</b>	Global Preparedness Monitoring Board
<b>IAV</b>	Influenza A Virus
<b>ICAO</b>	The Worldwide Civil Aviation Organisation
<b>ICESCR</b>	International Covenant on Economic, Social and Cultural Rights
<b>ICOH</b>	International Commission on Occupational Health
<b>IDSR</b>	Integrated Disease Surveillance and Response framework
<b>IHRs</b>	International Health Regulations
<b>ILI</b>	Influenza-like Illness
<b>ILO</b>	International Labour Organisation
<b>IMO</b>	International Maritime Organisation
<b>LAC</b>	Latin America and the Caribbean
<b>MDG</b>	Millenium Development Goals
<b>NAI</b>	Neuraminidase Inhibitors
<b>NGO</b>	Non-governmental organisations
<b>OIE</b>	World Organisation for Animal Health
<b>PHC</b>	Primary Health Care
<b>PHEIC</b>	Public Health Emergency of International Concern
<b>PIACT</b>	Programme developed by the International Labour Organisation for improvement of occupational health and safety.
<b>PPE</b>	Personal Protective Equipment

<b>PHC</b>	Primary Health Care
<b>SARS</b>	Severe Acute Respiratory Syndrome
<b>SPRP</b>	Strategic Preparedness and Response Plan
<b>UDHR</b>	Universal Declaration of Human Rights
<b>UNGPs</b>	UN Guiding Principles on Business and Human Rights
<b>UNICEF</b>	United Nations International Children's Emergency Fund
<b>UN</b>	United Nations
<b>WHO</b>	World Health Organisation



## Committee Overview

### Introduction

The World Health Organisation (WHO) is the United Nations (UN) Agency charged with promoting health and serving the vulnerable in order to ensure that people have an equal chance at a safe and healthy life.<sup>1</sup> It was established in 1948<sup>2</sup> and its Constitution was drawn up and came into force on the 7th of April, 1948, a date now celebrated annually as World Health Day.

As a UN agency, the WHO has the authority to coordinate and direct international health globally.<sup>3</sup> Through the WHO, the UN ensures that the world at large is kept safe and can attain the highest possible standard of health.<sup>4</sup> The current goal of the Organisation is to “ensure that a billion more people have universal health coverage, to protect a billion more people from health emergencies, and provide a further billion people with better health and well-being.”<sup>5</sup>

As an organisation tasked with the constant improvement of health and wellbeing globally, partnerships are a significant part of the work the WHO does. This ensures easy reach of WHO programmes to remote countries and areas and helps the WHO support national health systems.<sup>6</sup> The WHO works with governments of various countries, individual experts who provide “scientific, technical and strategic advice on specific health issues,”<sup>7</sup> non-governmental organisations (NGO) and goodwill ambassadors.

During times of great global health concerns, such as the recent COVID-19 pandemic, the WHO takes the forefront to proffer help and solutions. The Organisation in 2021 built the *Strategic Preparedness and Response Plan 2021* (SPRP2021) which entailed all the

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<sup>1</sup> WHO, “About”

<sup>2</sup> Working for Health: An Introduction to the World Health Organisation by the World Health Organisation 2007

<sup>3</sup> *Ibid.*

<sup>4</sup> *Supra*

<sup>5</sup> WHO, “What We Do”

<sup>6</sup> WHO, “Collaboration”

<sup>7</sup> WHO, “Collaboration”

knowledge gathered about the virus, how the Organisation has responded since 2020, its achievements, challenges and its strategy for combating the rapid spread of the numerous variants of the virus.<sup>8</sup> In 2020, the WHO shipped over two million personal protective equipment to 133 countries and shipped over a million diagnostic tests to 126 countries.<sup>9</sup> Furthermore, WHO provided free online courses relating to COVID-19 on its new and interactive online learning platform OpenWHO.org.<sup>10</sup> and the platform has 6.2 million enrollments across 131 topics.<sup>11</sup>

The Organisation has also played a major part in controlling other epidemics. Though cholera is often seen as a disease of the past, developing countries still face threats of cholera outbreaks.<sup>12</sup> Preparedness for cholera outbreaks often involves Interagency Diarrhoeal Disease Kits (IDDK) and the composition of these kits were reviewed by WHO and its partners in 2015 and again in 2020 in order to ensure a reduction in the impact of cholera cases.<sup>13</sup> The Organisation also deployed over 50 mobile teams to over 500 locations around the world to ensure the vaccination of hundreds of people against the terrible disease and this was evident in Somalia, Northeastern Nigeria and South Sudan.<sup>14</sup>

During the 2013 Ebola epidemic, WHO and 11 other African countries came together to formulate an Outbreak Response Plan to combat the spread of the virus.<sup>15</sup> The Organisation also provided laboratory services, contact tracing, vaccination, training and infection control to countries that experienced the outbreak.<sup>16</sup> Though the Ebola epidemic has been declared over, the WHO still maintains surveillance for the possibility of the disease spreading again and has developed detailed advice on the disease's prevention and control.<sup>17</sup>

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<sup>8</sup> WHO, "Coronavirus Disease (COVID 19): "Strategy and Planning"

<sup>9</sup> UN News, "5 Reasons the World Needs WHO to Fight the Covid-19 Pandemic", April 2020

<sup>10</sup> OpenWHO, "About Us"

<sup>11</sup> OpenWHO, "Marking 2 years of pandemic learning response on OpenWHO.org", January 2022

<sup>12</sup> WHO, "Supporting Cholera Outbreak Response"

<sup>13</sup> WHO, "Cholera Kits 2020"

<sup>14</sup> WHO, "Prevention for a Cholera Free World"

<sup>15</sup> Centre for Public Impact, "The WHO's Ebola Virus Disease Outbreak Response Plan"

<sup>16</sup> WHO, "Ebola Virus Disease"

<sup>17</sup> *Ibid.*

The 44th World Health Assembly adopted a resolution in 1988 to ensure the worldwide eradication of poliomyelitis (polio) and this decision kickstarted the Global Polio Eradication Initiative (GPEI).<sup>18</sup> The strategies created by the WHO for the eradication of polio work when they are fully implemented and currently, 80% of the world's population live in certified polio-free regions.<sup>19</sup>

The WHO has a transformation goal which entails three major objectives. They include driving impact at the country level, enabling the full potential of the organisation and leveraging the global community.<sup>20</sup> The Organisation continues to work towards the actualisation of its different goals and prioritising the health of humans all over the world.

### Governance and Structure

The Organisation is governed through the World Health Assembly and its Executive Board. The World Health Assembly is the decision-making body of the WHO<sup>21</sup> and is held annually in Geneva, Switzerland. It is attended by delegations from all 194 WHO Member States. The primary functions of the Health Assembly are to appoint a new Director-General, review and approve the proposed budget, and determine the policies of the Organisation.<sup>22</sup> The Executive Board of the Organisation consists of 34 qualified members elected for three-year terms and exists to implement and give effect to policies of the World Health Assembly.<sup>23</sup> Members of the board also meet twice a year in January and later in May to agree on the agenda of the World Health Assembly and to follow up on the Assembly.<sup>24</sup>

The activities of the Organisation are governed by the Constitution of the WHO, which was adopted by the International Health Conference, signed on the 22nd of July, 1946 and

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<sup>18</sup> WHO, "Poliomyelitis"

<sup>19</sup> *Ibid.*

<sup>20</sup> WHO, "Transformation"

<sup>21</sup> WHO, "Governance"

<sup>22</sup> *Ibid.*

<sup>23</sup> WHO, "Executive Board"

<sup>24</sup> *Ibid.*

entered into force in April 1948.<sup>25</sup> The Organisation is fully and firmly committed to the principles set out in the preamble of its constitution.

The Director-General heads the organisation and is appointed by the World Health Assembly on the nomination of the Executive Board.<sup>26</sup> The Director-General acts as the Organisation's chief technical and administrative officer and is elected for a five-year term which can be renewed once.<sup>27</sup> The current Director-General of the Organisation, Dr Tedros Adhanom Ghebreyesus, was elected at the Seventieth World Health Assembly in May 2017 and was reelected in May 2022 which means his term will come to an end in 2027.<sup>28</sup> The Headquarters of the Organisation is led by the Secretariat which includes the Deputy Director-General, the Chef de Cabinet, 11 Assistant Directors-General and four Special Advisors to the Director-General.<sup>29</sup> The Director-General also works closely with the Regional officers who all have country offices. WHO's member states are divided into six regions which include Africa, the Americas, Eastern Mediterranean, Europe, South-east Asia and Western Pacific.

### **Mandate, Functions and Powers**

*Article 2* of the WHO Constitution is widely accepted and seen as the mandate of the Organisation. It mandates that the Organisation “furnish appropriate technical assistance and, in emergencies, necessary aid upon the request or acceptance of Governments.”<sup>30</sup> This article serves as the foundation for the Organisation's work in preparing for and responding to health disasters.<sup>31</sup> It is important to note that the above-mentioned quote from *Article 2* is only a small part of the Organisation's functions as the article has 22 sub-sections which cut across different fields of health, such as mental health,<sup>32</sup> maternal

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<sup>25</sup> WHO, “Constitution”

<sup>26</sup> *Supra*

<sup>27</sup> *Ibid.*

<sup>28</sup> WHO, ‘Biography: Dr Tedros Adhanom Ghebreyesus’

<sup>29</sup> WHO, “WHO Headquarters Leadership Team”

<sup>30</sup> WHO, “WHO's Mandate”

<sup>31</sup> *Ibid.*

<sup>32</sup> Article 2(m), WHO Constitution

and child health<sup>33</sup> and even teaching, training and research in the health and medical professions.<sup>34</sup> The article further expands WHO's functions to include proposing conventions and recommendations on international health matters<sup>35</sup>, promoting the improvement of housing, nutrition, sanitation and working conditions globally<sup>36</sup> and generally taking all necessary action to ensure the achievement of its objectives.<sup>37</sup>

The Eleventh General Programme of Work 2006-2015 of the WHO outlines the core functions of the organisation. These include monitoring the health situation and addressing health trends, providing leadership on matters critical to health, shaping the research agenda and stimulating the generation and dissemination of valuable knowledge, articulating ethical and evidence-based policy options, providing technical support, catalysing change, and building sustainable institutional capacity.<sup>38</sup>

In monitoring the health situation, the Organisation maps out public health risks and also provides a global surveillance system for both communicable and non-communicable diseases.<sup>39</sup> The Organisation also has annual documents which provide data on the state of global health on a country by country basis and this ensures that the Organisation is constantly in the know of any emerging health trends.<sup>40</sup> Some of these documents include the World Health Report, the Weekly Epidemiological Report and the World Health Statistics.

*Section 94 of the General Programme of Work* clearly states that the Organisation will continue to lead in the drafting and adaptation of international legal instruments to protect global health and solve global health problems. This section reinforces WHO's

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<sup>33</sup> Article 2(l), WHO Constitution

<sup>34</sup> Article 2(o), WHO Constitution

<sup>35</sup> Article 2(k), WHO Constitution

<sup>36</sup> Article 2(i), WHO Constitution

<sup>37</sup> Article 2(v), WHO Constitution

<sup>38</sup> Eleventh General Programme of Work, 2006-2015, A59/25, 24 April 2006

<sup>39</sup> Page 30, The Eleventh General Programme of Work 2006-2015, A59/25, 24 April 2006

<sup>40</sup> *Ibid.*

function to provide leadership on matters which are critical to the state of health in the world.

It is stated in *Sections 100-102 of the General Programme of Work* that WHO will continue to support activities that strengthen the research process and use existing knowledge from reviewed existing research findings to enhance equitable access to quality health products and services.<sup>41</sup> Furthermore, WHO will continue to provide technical support to countries during emergencies and post-conflict situations, provide evidence-based policy recommendations to guide the development of health systems, and set norms for areas of public health based on the most complete and reliable scientific evidence available.<sup>42</sup>

The WHO has the power to declare a public health emergency of international concern (PHEIC) during which the Director-General can make temporary recommendations on how to combat the problem at hand.<sup>43</sup> Furthermore, on the powers of the Organisation, *Article 23* of its constitution gives the Health Assembly the authority to make recommendations to member states concerning any matter within the competence of the Organisation. *Article 66* also provides that in the territory of each member state, the WHO shall enjoy such legal capacity as may be necessary for the fulfilment of its objectives and the exercise of its functions.

### **Recent Sessions and Priorities**

In November 2021, the World Health Assembly held a special session which was the second of its kind in the history of WHO.<sup>44</sup> This special session was called in respect of a decision adopted by the Member States in the 74th World Health Assembly, Decision WHA74(16) 2021.<sup>45</sup> The agenda for the session was the consideration of developing a WHO Convention, agreement or other instruments on pandemic preparedness and the

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<sup>41</sup> Sections 103-111, The Eleventh General Programme of Work 2006-2015, A59/25, 24 April 2006

<sup>42</sup> *Ibid.*

<sup>43</sup> WHO, "Emergencies: International health regulations and emergency committees"

<sup>44</sup> WHO, "Special session of World Health Assembly 29 November 2021 - 1 December 2021"

<sup>45</sup> *Ibid.*

establishment of an intergovernmental process to negotiate the drafting of such a document.<sup>46</sup> It was a hybrid (physical and virtual) event due to limitations as a result of the ongoing pandemic. A document containing special procedures was also published by the organisation and the procedures set in the document were to ensure that WHO's work continues despite the pandemic and section 13 of the document clearly states that the procedures should not be considered as "setting a precedent for future Health Assemblies."<sup>47</sup>

The 75th World Health Assembly was held from the 22nd to the 28th of May 2022.<sup>48</sup> The theme for this year's Health Assembly was "health for peace, peace for health." The Assembly focused on the consequences of war, especially the conflict currently devastating several people in Ukraine in relation to the theme.<sup>49</sup> During this Assembly, the current Director-General who was running uncontested was also reelected for a second five-year term.<sup>50</sup> Furthermore, a restructuring of the WHO's financial structure was discussed as the current model has an over-reliance on voluntary contributions which, according to experts, poses a risk to the independence of WHO's work.<sup>51</sup> A gradual increase of membership dues was recommended to combat this issue.<sup>52</sup> Other topics and issues that were discussed included strengthening WHO's preparedness for and response to health emergencies, prevention of sexual abuse and exploitation and a Global Action Plan on epilepsy and other neurological disorders.<sup>53</sup>

Also in May 2022, the 151st session of the Executive Board was held. The Provisional Agenda released by the Organisation showed that the session discussed more effective and efficient ways the WHO could provide support to countries that need it; such as

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<sup>46</sup> *Ibid.*

<sup>47</sup> World Health Assembly Second Special Session, SSA2/2, 25 November 2021

<sup>48</sup> WHO, "Governance"

<sup>49</sup> United Nations Foundation, "The 75th World Health Assembly In Review: Renewed Leadership, Fresh Financing."

<sup>50</sup> *Ibid.*

<sup>51</sup> Pan American Health Organisation, "World Health Assembly agrees historic decision to sustainably finance WHO"

<sup>52</sup> *Ibid.*

<sup>53</sup> Pan American Health Organisation, "Seventy-fifth World Health Assembly to focus on "Health for Peace, Peace for Health" for recovery and renewal"

proposals for WHO to host formal partnerships, filling vacancies within the Organisation and making amendments to the financial rules.<sup>54</sup> The 150th session was held earlier in the year from the 24th to 29th of January. Some of the items on the agenda included WHO's implementation for Billion 3 (also known as the triple billion targets, Billion 3 involves three targets set by the WHO which are one billion more people benefitting from universal health coverage, one billion more people better protected from health emergencies and one billion more people enjoying better health and wellbeing),<sup>55</sup> maternal, infant and young child nutrition, poliomyelitis eradication, prevention of sexual exploitation, abuse and harassment, influenza preparedness and several others.<sup>56</sup>

The WHO outlined its leadership priorities which include universal health coverage, increasing access to medical products, the health-related Millennium Development Goals, non-communicable diseases including injuries, mental health, disabilities and violence, The International Health Regulations (2005), and social, economic and environmental determinants.<sup>57</sup> These leadership priorities give WHO's work direction and focus.

## Conclusion

The work of the WHO spans across continents and it exists to raise and maintain the standard of health all over the world. As the world currently struggles with a seemingly never-ending pandemic, the work of the Organisation has become much more obvious and important. It has ensured the shipping and delivery of vaccines and protective gear to several countries. It has also contained other health issues in other countries such as the development of a vaccine for malaria.<sup>58</sup> Such innovative solutions enable the WHO to provide help to Member States and contribute to the overall success of the Organisation.

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<sup>54</sup> WHO, "Provisional Agenda (Annotated)"

<sup>55</sup> WHO, "Triple Billion"

<sup>56</sup> WHO, "150th session of the Executive Board"

<sup>57</sup> WHO, "Leadership Priorities"

<sup>58</sup> WHO, "First-ever malaria vaccine recommendation now published in a position paper and in the WHO guidelines for malaria"



The WHO urges Member States to continue to cooperate and work with the Organisation to ensure the utmost standard of health for humans everywhere.

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[https://apps.who.int/gb/bd/pdf\\_files/BD\\_49th-en.pdf#page=6](https://apps.who.int/gb/bd/pdf_files/BD_49th-en.pdf#page=6)

*The constitution of the Organisation enumerates all the functions of the Organisation, duties and functions of the member states, the structure of the organisation and its budget, the Organisation's immunities and powers*

COVID-19 Strategic Preparedness and Response Plan (SPRP) Geneva: World Health Organisation 2021. Licence: CC BY-NC-SA 3.0 IGO. Accessed 5th March at:  
<https://www.who.int/publications/i/item/WHO-WHE-2021.02>

*This document contains all the knowledge WHO has gathered about the virus, its past responses since 2020, its achievements, old and new challenges and the strategy it aims to employ in combating the spread of the virus.*

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## Establishing Prevention Protocols For Pandemics And Epidemics

*“We are seeing the mechanisms of global health security spring into action to respond to the Coronavirus; the problem is that after years of underinvestment we, as a global community, are still not prepared for a “big one”. Even strong health systems may struggle, and where does that leave weak health systems across the global south?”*

**- Dr Clare Wenham, Assistant Professor of Global Health Policy Inu<sup>59</sup>**

### Introduction

Over hundreds of years, the world has struggled and battled various pandemics and epidemics which have, sadly, left a huge scar on the world's population and economy. Both phenomena, similar, yet different, have been a major cause of concern both nationally and internationally due to the numbers of sick persons and deceased it leaves behind. The International Epidemiology Association's Dictionary of Epidemiology defines a pandemic as an epidemic occurring worldwide, or over a very wide area, crossing international boundaries and usually affecting a large number of people.<sup>60</sup>

The Centre for Disease Control (CDC) refers to an epidemic as:

an increase, often sudden, in the number of cases of a disease above what is normally expected in the population in that area.” Similarly, an epidemic has been defined as “the occurrence in a community or region of cases of an illness... clearly in excess of normal expectancy.”<sup>61</sup>

Simply put, an epidemic is an outbreak of a virus or disease in and within the geographical area of a state or nation or country. A pandemic is defined as “an epidemic occurring worldwide, or over a very wide area, crossing international boundaries and usually affecting a large number of people. Pandemics cause a short-term fiscal impact and a long-term economic impact on the nations around the world. A pandemic is

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<sup>59</sup> Department of Health Policy, The London School of Economics and Political Science

<sup>60</sup> Porta, M. A Dictionary of Epidemiology (Oxford University Press, USA, 2008).

<sup>61</sup> Porta M, editor. 5th ed. New York: Oxford University Press; 2008. Dictionary of Epidemiology; pp. 78-9.

defined as an epidemic occurring over a very wide area, crossing international boundaries, and usually affecting a large number of people.<sup>62</sup>

Major pandemics and epidemics such as plague, cholera, flu, severe acute respiratory syndrome coronavirus (SARS-CoV) and Middle East Respiratory Syndrome Coronavirus (MERS-CoV) have already afflicted humanity greatly having a huge toll on nations with a great lesson to learn from them.<sup>63</sup> This covers a large spectrum of sectors from the economic sector to the health sector, to the educational sectors amongst others and causes disruption. Pandemics occurred over history due to the emergence of new viruses and their infectious nature. The health impacts of pandemics are disastrous. During the Black plague in 1347, 30–50% of the population of Europe was wiped out.<sup>64</sup> In the 1980s, 35 million people died due to HIV, AIDS, and Ebola in 2014, which caused 10,600 deaths in Guinea, Sierra Leone, and Liberia in West Africa.<sup>65</sup> The plague had large-scale economic and social effects.

Pandemic preparedness and disease surveillance are to be anchored in strong health systems that reach all people, especially the most vulnerable, which are crucial to ensure better protection from major disease outbreaks. Despite progress made since the West Africa Ebola crisis in 2014/15, a report notes how the COVID-19 pandemic has revealed a collective failure to take pandemic prevention, preparedness and response seriously and prioritise it accordingly<sup>66</sup>. The Global Preparedness Monitoring Board warned that epidemic-prone diseases like Ebola, influenza and SARS were increasingly difficult to manage in the face of prolonged conflict, fragile states, and forced migration. For instance, the recent COVID-19 pandemic resulted in a halt of many social activities and business ventures worldwide. The most effective way employed by the WHO and nations around the world was to employ the use of traditional quarantine measures and when it seemed

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<sup>62</sup> Last JM, editor. A dictionary of epidemiology, 4th edition. New York: Oxford University Press; 2001.

<sup>63</sup> Piret J and Bivin G (2021) Pandemics Throughout History. *Front. Microbiol.* 11:631736. Doi: 10.3389/fmicb.2020.631736.

<sup>64</sup> Shang Y, Li H and Zhang R (2021) Effects of Pandemic Outbreak on Economies: Evidence From Business History Context. *Front. Public Health* 9:632043. doi: 10.3389/fpubh.2021.632043

<sup>65</sup> Perry J, Sayndee TD. Social Mobilization and the Ebola Virus Disease in Liberia. Rowman & Littlefield (2016).

<sup>66</sup> The World Bank Group

to be insufficient as the numbers still rose despite taking this action, the world was forced into a compulsory worldwide shutdown with limited movement. The recent COVID-19 virus outbreak shows that infectious diseases spread easily due to open economies and threaten the nation's economic stability. This viral outbreak has made humanity understand its need for serious preparedness for any future pandemic or epidemic outbreak.

### International and Regional Framework

Pandemics and epidemics throughout history have led to the loss of millions of human lives, each causing dents in human health worldwide and widespread mortality - and in opposition to the right of everyone across countries and borders to the highest attainable standard of health. *Article 12(1) ICESCR* recognizes this right, with *Article 12(2)* enjoining state parties to take steps to ensure the attainment of standard physical health for everyone: including steps necessary for the prevention, and treatment of epidemic diseases in *Article 12 (2)c*). As regards regional framework, *Article 11 of the European Social Charter* stipulates the right to protection of health; *Article 16 ACHPR* - right to health; *Article 24, Convention on the Rights of the Child* specifically provides for and recognizes the need for children to have the best health care possible - including clean water to drink and clean environment, basic measures which has been regarded by experts as a way to prevent, control and generally, to adequately prepare and respond to pandemics and epidemics, this will be explained subsequently.

*Article 21, WHO Constitution* stipulates that the health assembly has full authority to adopt regulations regarding and related to the “international spread of diseases” - a term which embodies the definition of pandemics and epidemics; it also rules with respect to health, public health practice, and diagnostic procedures for international use.

*The International Health Regulations of 2005* is a regulation that sums this up: it exists to ensure maximum security against the global spread of diseases with minimum



interference with world traffic; it came into force in 2007. Before this, the *Ottawa Charter* was the first international Charter on health promotion, “a response to growing expectations for a new public health movement around the world,” as WHO calls it. While *The Declaration of Alma-ata 1978* emerged as a significant milestone focusing on primary health care; 40 years later, *The Declaration of Astana*, unanimously endorsed by all WHO member states, was a new global commitment refocusing on primary health care for all.

Before all of the specific international framework in the preceding paragraph, the “*International Sanitary Convention 1892*” had come into existence to address common measures for protecting public health during cholera epidemics, without disruptions to commercial activities. Following this, *The International Sanitary Regulations 1952* was a unified effort against the international spread of diseases including Cholera, plague, yellow fever and typhus - revising and consolidating all the previous international provisions on all of these diseases since the 19th century. And in 1995, *The Sanitary and Phytosanitary Measures Agreement* entered into force, setting out basic rules for countries to build food safety and security measures upon, and to set standards for preventing the spread of diseases among plants and animals.

By the 21st century, various new diseases had emerged as epidemics and pandemics; one of such epidemiological diseases was Influenza and to tackle it, the *Pandemic Influenza Preparedness Framework* was pioneered in 2011 to improve global preparedness and response against the influenza pandemic. Subsequently, the *Framework for Strengthening National Preparedness and Response for Ebola Virus Disease in the Americas* was designed in 2014 as a measure for tackling the Ebola disease which broke out in 2014 and became a global epidemic within months.

Meanwhile, in Africa, as far back as 2002, the *Integrated Disease Surveillance and Response Technical Guidelines 2002* had been adopted by countries in Africa following the realization that there is a linkage between disease surveillance and response. Later,

due to the emergence of new diseases, epidemiological events and the IHR, the technical guidelines were revised, and the *IDSR Technical Guidelines 2010* was developed.

### **Role of the International System**

The role of the international system in preparation for pandemics and epidemics started to gain traction and be paid attention to only in recent times. The neglect is visible in the light of the very few laws, agreements and regulations that have been made that touch on that issue. Although, there have been attempts in this regard, as envisaged in instruments such as the African Charter on Human and Peoples' Rights, European Social Charter, and Influenza Pandemic Preparedness Framework, including efforts by the WHO and the UN in general as it relates to assuaging the effects of Pandemic and ensuring the protection of rights during pandemics. There has not been any effort directly capturing preparation for pandemics and epidemics, which has global connotations. Due to the global problems posed by infectious diseases in recent times, for instance, the worldwide mortality rate and economic loss owing to the Covid-19 pandemic, there has been a need to create an international agreement beyond the International Health Regulation that has had its efficacy undermined due to member states' non-compliance and there been no inadequate authority to sanction such disobedience; also, the IHR does not provide for Zoonotic threats when many emerging infectious diseases like Coronavirus, Ebola have a zoonotic origin.

So, there has been a need to create an international agreement and law that will directly touch on pandemic preparedness, also lessen the ghastly, fatal effects pandemics and epidemics usually birth in regions and the entire world at large; as there is currently no global agreement on epidemic and pandemic preparedness. Thus, the World Health Assembly in December 2021, kick-started the process to birth such an agreement that will strengthen preparedness and response to pandemics. Because history has taught us that

pandemics and epidemics are inevitable - "all of this has happened before, and it will all happen again."

### Examining Prevention Protocols on Pandemics and Epidemics Over History

As David Heymann, Executive Director for Communicable Diseases at the WHO stated, "The past provides a prologue for any discussion of emerging infectious diseases, whether that discussion concerns the biological origins of a potential pandemic or its social repercussions"<sup>67</sup>. For centuries, the implementation of public health measures such as isolation, quarantine and border control helped to contain the spread of infectious diseases and maintain the structure. Novel technologies for rapid diagnostic testing, contact tracing, drug repurposing, biomarkers of disease severity as well as new platforms for the development and production of vaccines are needed for an effective response in the case of pandemics<sup>68</sup>. There have been numerous outbreaks of viruses both regionally and internationally throughout history. The largely known pandemics that have greatly affected the world's population and other sectors can take its fast-spreading attribute from the ineffectiveness and essential instruments to ascertain curbing the spread of viruses and epidemics. Focusing primarily on major pandemics that occurred in the past decade, Severe Acute Respiratory Syndrome (SARS), the Ebola Virus and the recent COVID-19 virus, we'll be able to examine the spread of the viruses that eventually led to an outbreak, how they were controlled and protocols put in place to eradicate the viruses at the time.

In the early 2000s, the SARs virus was first recorded in China, its outbreak can be attributed to a few actions and inactions of its government. First off, it was reported that the Chinese government withheld information on this virus from the public and when

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<sup>67</sup> Institute of Medicine (US) Forum on Microbial Ethical and Legal Considerations in Mitigating Pandemic Disease: Workshop Summary, Washington (DC): National Academies Press (US); 2007. 1, Learning from Pandemics Past

<sup>68</sup> Piret J, Boivin G. Pandemics Throughout History. *Front Microbiol*. 2021 Jan 15;11:631736. doi: 10.3389/fmicb.2020.631736. PMID: 33584597; PMCID: PMC7874133.

rumours about it surfaced (some rumoured the virus to be a bird flu)<sup>69</sup>, the government's response was that the virus was tentatively contained and under effective control. Furthermore, there were period gaps in information dissemination to the public about the nature and all-round update of this virus as the government controlled the information to be put out. So also did the Chinese government share little information with the WHO until April 2002, which in turn did not give the WHO enough resources to ascertain the danger of this virus. Another important factor that can be attributed to the spread of this virus was the Law on Prevention and Treatment of Infectious Diseases, 1989.<sup>70</sup> First, provincial governments are obliged to publicize epidemics in a timely and accurate manner only after being authorized by the ministry of health<sup>71</sup>. Second, typical pneumonia was not listed in the law as an infectious disease under surveillance, and thus local government officials legally were not accountable for reporting the disease.<sup>72</sup> While the law allows for the addition of new items to the list, it does not specify the procedures through which new diseases can be added.<sup>73</sup> Scientists and civilians were faced with these issues before there was proper awareness and establishment of instruments to effectively curb the virus with prevention protocols.

Nowadays, the plague should be considered a neglected human threat due to its rapid spread, its high fatality rate without early treatment and its capacity to disrupt social and healthcare systems.<sup>74</sup>

The Ebola virus that took over Africa in 2014 was the next virus in the past decade that got the attention of international bodies and governments. The 2014 outbreak of Ebola virus disease in West Africa was the "largest, most severe and most complex Ebola epidemic" in

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<sup>69</sup> Huang Y. *The Sars Epidemic And Its Aftermath In China: A Political Perspective*. In: Institute of Medicine (US) Forum on Microbial Threats; Knobler S, Mahmoud A, Lemon S, et al., editors. Learning from SARS: Preparing for the Next Disease Outbreak: Workshop Summary. Washington (DC): National Academies Press (US); 2004.

<sup>70</sup> Huang Y. *The Sars Epidemic And Its Aftermath In China: A Political Perspective*. In: Institute of Medicine (US) Forum on Microbial Threats; Knobler S, Mahmoud A, Lemon S, et al., editors. Learning from SARS: Preparing for the Next Disease Outbreak: Workshop Summary. Washington (DC): National Academies Press (US); 2004.

<sup>71</sup>ibid

<sup>72</sup> ibid

<sup>73</sup> Venzuulli, L., Baker-Austin, C., Kirscher, A., Pruzzo, C., and Martinez-Yrtaza, J. (2020). Global emergence of environmental non-O1/O139 *Vibrio cholerae* infections linked with climate change: a neglected research field? *Environ. Microbiol.* 22, 4342-4355. doi: 10.1111/1462-2920.15040

<sup>74</sup> Kathryn Reid, (2020) 2014 Ebola virus outbreak: Facts, symptoms, and how to help; world vision (website)

history, according to the WHO.<sup>75</sup> More than 28,000 people were infected, and over 11,000 people died before the international public health emergency ended in June 2016<sup>76</sup>. Most of the cases occurred in three countries: Guinea, Sierra Leone, and Liberia. Without an effective early-warning system, the virus spread rapidly within the region, revealing the failures of disjointed and under-resourced healthcare systems<sup>49</sup>. Initially, public health officials assumed these outbreaks were a single event associated with an infected person who travelled between the two locations. However, scientists later discovered that the two outbreaks were caused by two genetically distinct viruses: Zaire ebolavirus and Sudan ebolavirus. After this discovery, scientists concluded that the virus came from two different sources and spread independently to people in each of the affected areas<sup>77</sup>.

Ebola virus is believed to spread at low rates among certain animal populations. Occasionally people become sick with Ebola after coming into contact with infected animals, which can then lead to Ebola outbreaks being spread person-to-person<sup>78</sup>. Medical services in West Africa weren't well enough staffed or equipped to handle the disease, and people didn't at first want to trust their sick loved ones to medical care<sup>79</sup>. Without early diagnosis and notification, the international medical community was delayed in providing resources to curb the spread of the outbreak<sup>80</sup>. The effects of the epidemic were worst in Sierra Leone in terms of the total numbers of cases and the numbers of cases per capita<sup>81</sup>. The country's health system was fragile and short of healthcare workers, shortcomings dating from the civil war that ended a decade before<sup>82</sup>. In response to this viral outbreak, the WHO started by maintaining surveillance for Ebola virus disease and supporting at-risk countries to develop preparedness plans. Furthermore, the WHO developed detailed advice on Ebola infection prevention and control such as " Ebola and Marburg virus disease epidemics: preparedness, alert, control

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<sup>75</sup> ibid

<sup>76</sup> ibid

<sup>77</sup> Kathryn Reid,(2020) 2014 Ebola virus outbreak: Facts, symptoms, and how to help; world vision(website)

<sup>78</sup> ibid

<sup>79</sup> Ibid

<sup>80</sup> ibid

<sup>81</sup> Ibid

<sup>82</sup> Supra

and evaluation”<sup>83</sup> and “infection prevention and control guidance for care of patients with suspected or confirmed Filovirus haemorrhagic fever in health-care settings with a focus on Ebola”<sup>84</sup>. The Ebola Epidemic was recorded in 2016 to be effectively curbed. This is mainly attributed to the CDC, working with U.S. and international partners, mounting a concerted response to end the unprecedented epidemic of Ebola virus disease (Ebola) in West Africa. The CDC's response, which was the largest in the agency's history, was directed simultaneously at controlling the epidemic in West Africa and strengthening preparedness for Ebola in the United States<sup>85</sup>.

Moving to the recent pandemic, COVID-19, the prevention protocols put in place has to be one of the most extreme means governments and international bodies had to do to curb the spread of the virus. It is challenging to control the pandemic because of the high epidemic potential of the disease and the lack of potent vaccines to ramp up the herd immunity of populations<sup>86</sup>. When the spread of COVID-19 began, the virus appeared to be contained within China and the cruise ship “Diamond Princess,” which formed the major clusters of the virus<sup>87</sup>. However, as of April 2020, over 210 countries and territories are affected by the virus, with Europe, the USA, and Iran forming the new cluster of the virus<sup>88</sup>. Similarly, the UK has also managed to maintain a low curve of the graph by implementing similar measures, though it was not strictly enforced.<sup>89</sup> The WHO recommended that simple personal hygiene practices can be sufficient for the prevention of spread and containment of the disease. Practices such as frequent washing of soiled hands or the use of sanitiser for unsoiled hands help reduce transmission<sup>90</sup>. Covering of mouth while sneezing and coughing, and disinfection of surfaces that are frequently touched, such as

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<sup>83</sup> WHO 2014. Licence CC BY-NC-SA 3.0 IGO

<sup>84</sup> WHO 2014. Licence: CC BY-NC-SA 3.0

<sup>85</sup> Bell BP, Damon IK, Jernigan DB, Kenyon TA, Nichol ST, O'Connor JP, Tappero JW. Overview, Control Strategies, and Lessons Learned in the CDC Response to the 2014-2016 Ebola Epidemic. *MMWR Suppl.* 2016 Jul 8;65(3):4-11. doi: 10.15585/mmwr.su6503a2. PMID: 27389903.

<sup>86</sup> Adebawale, A.S., Fagbamigbe, A.F., Akinyemi, J.O. et al. The spread of COVID-19 outbreak in the first 120 days: a comparison between Nigeria and seven other countries. *BMC Public Health* 21, 129 (2021).

<sup>87</sup> Keni R, Alexander A, Nayak PG, Mudgal J and Nandakumar K (2020) COVID-19: Emergence, Spread, Possible Treatments, and Global Burden. *Front. Public Health* 8:216. doi: 10.3389/fpubh.2020.00216

<sup>88</sup> Ibid

<sup>89</sup> Yao H, Lu X, Chen Q, Xu K, Chen Y, Cheng L, et al. Patient-derived mutations impact pathogenicity of SARS-CoV-2. *medRxiv.* (2020). doi: 10.2139/ssrn.3578153

<sup>90</sup> Keni R, Alexander A, Nayak PG, Mudgal J and Nandakumar K (2020) COVID-19: Emergence, Spread, Possible Treatments, and Global Burden. *Front. Public Health* 8:216. doi: 10.3389/fpubh.2020.00216 (keni R)

tabletops, doorknobs, and switches with 70% isopropyl alcohol or other disinfectants are broadly recommended<sup>91</sup>. It is recommended that all individuals afflicted by the disease, as well as those caring for the infected, wear a mask to avoid transmission<sup>66</sup>. Healthcare workers are advised to wear a complete set of personal protective equipment as per WHO-provided guidelines.<sup>92</sup> Fumigation of dormitories, quarantine rooms, and washing of clothes and other fomites with detergent and warm water can help get rid of the virus.<sup>93</sup> Parcels and goods are not known to transmit the virus, as per information provided by the WHO, since the virus is not able to survive sufficiently in an open, exposed environment.<sup>94</sup> Quarantine of infected individuals and those who have come into contact with an infected individual is necessary to further prevent transmission of the virus<sup>95</sup>. Quarantine is an age-old archaic practice that continues to hold relevance even today for disease containment. All of these practices helped reduce the spread of the virus and in 2021 the COVID 19 vaccine was made available to the public. And according to “Our World In Data” 64% of the world population has received at least one dose of a COVID-19 vaccine.<sup>96</sup> 11 billion doses have been administered globally, and 16.69 million are now administered each day<sup>97</sup>. Only 14.4% of people in low-income countries have received at least one dose<sup>98</sup>. And according to the WHO, The impact of COVID-19 vaccines on the pandemic will depend on several factors. These include the effectiveness of the vaccines; how quickly they are approved, manufactured, and delivered; the possible development of other variants, and how many people get vaccinated.

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<sup>91</sup> *Ibid.*

<sup>92</sup> *Ibid.*

<sup>93</sup> *Ibid.*

<sup>94</sup> *Ibid.*

<sup>95</sup> *Ibid.*

<sup>96</sup> Mathieu, E., Ritchie, H., Ortiz-Ospina, E. et al. A global database of COVID-19 vaccinations. Nat Hum Behav (2021)

<sup>97</sup> *Ibid.*

<sup>98</sup> *Ibid.*

## The Inefficiency or Otherwise of Health Laws

Jan Beagle, International Labour Organisation Director-General stated that “good governance and the rule of law are central to managing the COVID-19 crisis and promoting recovery in all countries.” The extraordinary cost of COVID-19 in human lives, social disruption and economic distress reveal a weakness in the existing global health security architecture, the core of which is the International Health Regulations (IHRs). According to the document, the IHRs has a purpose and scope to “prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade.”<sup>99</sup> However, the question put forward is to what extent is the provision of this regulation to the countries that are signatories to the WHO. The intention of the IHR is that countries should not take needless measures that harm people or that disincentivize countries from reporting new risks to international public health authorities<sup>100</sup>. The past decade has revealed an urgent need to improve the IHR’s text, but failing to effectively implement the regulations has become far a huge issue and thus seem the document to be ineffective and inefficient. Despite various improvements to the IHRs, significant gaps and challenges exist in global pandemic preparedness.<sup>101</sup> Progress toward meeting the IHR has been uneven, and many countries have been unable to meet basic requirements for compliance.<sup>102</sup> Multiple outbreaks, notably the 2014 West Africa Ebola epidemic, have exposed gaps related to the timely detection of disease, availability of basic care, tracing of contacts, quarantine and isolation procedures, and preparedness outside the health sector, including global coordination and response mobilisation.<sup>103</sup> These gaps are especially evident in resource-limited settings and have posed challenges during relatively localised epidemics,

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<sup>99</sup> World Health Assembly. (2006). *International health regulations (2005)*. Geneva: World Health Organisation.

<sup>100</sup> Tejpar A. Hoffman SJ Canada's violation of international law during the 2014–2016 Ebola outbreak. *Can Yearb Int Law*. 2017; 54: 366-383)

<sup>101</sup> Madhav N, Oppenheim B, Gallivan M, et al. Pandemics: Risks, Impacts, and Mitigation. In: Jamison DT, Gelband H, Horton S, et al., editors. *Disease Control Priorities: Improving Health and Reducing Poverty*. 3rd edition. Washington (DC): The International Bank for Reconstruction and Development / The World Bank; 2017 Nov 27. Chapter 17. doi: 10.1596/978-1-4648-0527-1\_ch17

<sup>102</sup> Fischer and Katz 2013; WHO 2014.

<sup>103</sup> Moon and others 2015; Pathmanathan and others 2014)



with dire implications for what may happen during a full-fledged global pandemic.<sup>104</sup> Public leadership, not only political but also health-related, is presented as a key element in improving the management of the pandemic.<sup>105</sup> The legal architecture related to these obligations has, however, various shortcomings and States have largely failed to implement the required measures.<sup>106</sup> Only recently has some practice been developed by the WHO to address these deficiencies, and further action is still required to finally implement this (neglected) cornerstone of the global health system.<sup>107</sup> The 2005 IHR encapsulates this perspective, particularly through *Articles 5 and 13*, and Annex 1 which oblige States to develop predefined core capacities in order to be better prepared for health emergencies.<sup>108</sup> However, such obligations, some of which are among the most innovative elements of the 2005 IHR, suffer from various shortcomings, and approximately two-thirds of States parties to this instrument have failed to implement relevant measures due to low or moderate levels of national preparedness.<sup>109</sup> Furthermore, they are not supported by a systematic monitoring system and have been generally neglected by scholars.<sup>110</sup> The recent focus on such issues by the WHO and other fora has resulted in the development of some additional initiatives and new instruments by WHO to support their implementation, but ultimately these were too little and too late.<sup>111</sup>

The 2005 IHR are the final result of a long series of attempts made by States to cope with the international spread of diseases.<sup>112</sup> After the SARS pandemic, the need to review the IHR became evident due to its limiting content for certain diseases that would call for a public emergency. In particular, the material scope of application of the 2005 IHR has been substantially modified: the existing exhaustive list of relevant diseases was abandoned in favour of a dynamic and all-encompassing approach aimed at addressing

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<sup>104</sup> Glenn J, Chaumont C, Dintrans PV. Public health leadership in the times of COVID-19: a comparative case study of three countries. *Int J Public Leader*. 2020;17(1):81-94.

<sup>105</sup> *Ibid.*

<sup>106</sup> *International & Comparative Law Quarterly*, Volume 70, Issue 1, January 2021, pp. 233 - 250

<sup>107</sup> *Ibid.*

<sup>108</sup> Bartolini, G. (2021). THE FAILURE OF 'CORE CAPACITIES' UNDER THE WHO INTERNATIONAL HEALTH REGULATIONS. *International and Comparative Law Quarterly*, 70(1), 233-250. doi:10.1017/S0020589320000470

<sup>109</sup> *Ibid.*

<sup>110</sup> Bartolini, G. (2021). THE FAILURE OF 'CORE CAPACITIES' UNDER THE WHO INTERNATIONAL HEALTH REGULATIONS. *International and Comparative Law Quarterly*, 70(1), 233-250. doi:10.1017/S0020589320000470

<sup>111</sup> *Ibid.*

<sup>112</sup> *International & Comparative Law Quarterly*, Volume 70, Issue 1, January 2021, pp. 233 - 250

all events amounting to a public health emergency of international concern, regardless of their origins.<sup>113</sup> Of course, the IHR is far from perfect. For example, the IHR only governs countries, not corporations and other non-governmental actors. Thus, some countries are finding themselves with de-facto travel restrictions when airlines stop flying to places affected by COVID-19.<sup>114</sup> Additionally, the IHR does not have robust accountability mechanisms for compliance, enforcement, oversight, and transparency.<sup>115</sup> But the IHR is the legally binding system for protecting people worldwide from the global spread of disease.<sup>116</sup> With more than 2.5 billion people travelling between about 4000 airports every year, 15 future outbreaks are inevitable.<sup>117</sup> Responses that are anchored in fear, misinformation, racism, and xenophobia will not save us from outbreaks like COVID-19.<sup>118</sup> Upholding the rule of international law is needed now more than ever.<sup>119</sup> Countries can start by rolling back illegal travel restrictions that have already been implemented and by supporting WHO and each other in implementing the IHR.<sup>120</sup>

### Enforcing Sanitation and Hygiene as a Major Means of Pandemic And Epidemic Preparedness

One of the most cost-effective strategies for increasing pandemic preparedness, especially in a world where a quarter of the world's countries are poor, with over one billion people multidimensionally poor<sup>121</sup> is investing in hygiene and sanitation systems and infrastructures<sup>122</sup>. Good waste management practices, good washing practices, good water treatment and storage practices and so on, applied continuously and stringently,

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<sup>113</sup> *Supra*.

<sup>114</sup> Roojin Habibi, Gian Luca Burci, Thana C de Campos, Danwood Chirwa, Margherita Cinà, Stéphanie Dagron, Mark Eccleston-Turner, Lisa Forman, Lawrence O Gostin, Benjamin Mason Meier, Stefania Negri, Gorik Ooms, Sharifah Sekalala, Allyn Taylor, Alicia Ely Yamin et al., "Do not violate the International Health Regulations during the COVID-19 outbreak" *the lancet* 29 February–6 March 2020

<sup>115</sup> Ottersen T Hoffman SJ Groux G Ebola again shows the International Health Regulations are broken: what can be done differently to prepare for the next pandemic?. *Am J Law Med.* 2016; 42:

<sup>116</sup> *Supra*.

<sup>117</sup> Bartolini, G. (2021). The Failure Of 'Core Capacities' Under The WHO International Health Regulations. *International and Comparative Law Quarterly*, 70(1), 233-250. doi:10.1017/S0020589320000470

<sup>118</sup> *Ibid*.

<sup>119</sup> *Ibid*.

<sup>120</sup> Roojin Habibi, Gian Luca Burci, Thana C de Campos, Danwood Chirwa, Margherita Cinà, Stéphanie Dagron, Mark Eccleston-Turner, Lisa Forman, Lawrence O Gostin, Benjamin Mason Meier, Stefania Negri, Gorik Ooms, Sharifah Sekalala, Allyn Taylor, Alicia Ely Yamin et al., "Do not violate the International Health Regulations during the COVID-19 outbreak" *the lancet* 29 February–6 March 2020

<sup>121</sup> Andrea Peer and Sevil Omer, Global Poverty Facts and how to help: FAQ - Worldvision.org 2021.

<sup>122</sup> BRIEF APRIL 6, 2020 WASH (Water, Sanitation & Hygiene) and COVID-19 - Worldbank.org.

offer a good barrier against human-to-human transmission of pathogens which is necessary if pandemics and epidemics were to occur. Therefore, it is pertinent that these practices be adopted across homes, schools and all public institutions.<sup>123</sup> For instance, during the COVID-19 pandemic, enforcement of proper and continuous handwashing across communities, cities and countries was termed as essential to preventing and protecting health during all infectious disease outbreaks, including coronavirus disease 2019 (COVID-19), “The majority of people in the least developed countries are at immediate risk of COVID-19 infection due to a lack of hand hygiene facilities...we cannot overstate the threat....if we are going to control COVID-19, we have to make hand hygiene accessible to all.”

This was stated in a Joint statement by Henrietta Fore, Executive Director UNICEF, and Dr Tedros Adhanom Ghebreyesus, Director-General of the WHO, at the launch of the ‘Hand Hygiene for All’ joint initiative<sup>124</sup>.

The main routes of transmission of SARS-CoV-2 – the COVID-19 pathogen subtype are respiratory droplets and direct contact. Any person who is in close contact with an infected individual is at risk of being exposed to potentially infective respiratory droplets<sup>125</sup>. Droplets may also land on surfaces where the virus could remain viable, in health care facilities, at least one study has found RNA fragments on surfaces including the floor and bed rails, recent experimental evidence indicating that SARS-CoV-2 survival on surfaces is similar to that of SARS-CoV-1 (24), the virus that causes severe acute respiratory syndrome (SARS); thus, the immediate environment of an infected individual can serve as a source of transmission<sup>126</sup>. The same study also found that effective inactivation could be achieved within one minute using common disinfectants, such as 70% ethanol or 0.1% sodium

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<sup>123</sup>*Ibid.*

<sup>124</sup> Statement: “To control COVID-19, we have to make hand hygiene accessible to all” – UNICEF and WHO on 26 June, 2020 at [unicef.org](https://www.unicef.org).

<sup>125</sup> “Advice for the public: Coronavirus disease (Covid-19)”, [who.int](https://www.who.int) - updated 21 Oct, 2021

<sup>126</sup> “Water, sanitation, hygiene, and waste management for SARS-CoV-2, the virus that causes COVID-19”, [who.int](https://www.who.int) on 29 July, 2020.

hypochlorite<sup>127</sup>. Like that, efficient cleaning practice can help in controlling the spread of pandemic pathogens.

The majority of Influenza-like Illness (ILI) is caused by many different agents that are not clinically distinguishable from one another. Nevertheless, handwashing with soap and hand rubbing behaviour before eating, after using the bathroom and after coming back home was protective against ILI at all levels. A study showed that the duration of time was termed significant where the participant who spent five to ten seconds of handwashing with soap and hand rubbing got influenza-like illness more frequently in comparison to those who washed their hands for long periods<sup>128</sup>. Also, that handwashing with soap and rubbing after handshaking was an independent protective habit against frequent ILI<sup>129</sup>. This finding emphasises the importance of washing hands before and after any action. What we would call good hygiene habits also offers an avenue of protection against infections during pandemics. Therefore, based on the aforementioned, there can hardly be any effective preparation protocol against pandemics unless good sanitation and hygiene practices like handwashing are adopted by all persons across communities and societies as a personal practice and behaviour. Hence, this should be considered a significant point when preparing health promotion activities and materials. Some people don't spend enough time performing proper hand hygiene because they are not used to it. Therefore, soap companies should invent soaps that take less rubbing time to kill bacteria, and subsequently may maximise compliance.

Polio is a highly infectious viral disease, which can cause paralysis<sup>130</sup>; and in some cases, death. It has been widely given the epidemic status<sup>131</sup>. The poliovirus enters the body through the mouth, multiplies in the oropharynx and the small intestine and exits in the faeces from which it can spread rapidly through a community, especially in areas with

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<sup>127</sup> *Ibid.*

<sup>128</sup> Do various personal hygiene habits protect us against influenza-like illness? Amro K. Bin Abdulrahman et al - open access research article on BMC public health and sourced from [globalhandwashing.com](http://globalhandwashing.com).

<sup>129</sup> *Ibid.*

<sup>130</sup> Fact sheet on who.int, "Poliomyelitis" published on 29 July, 2019.

<sup>131</sup> "Polio through history" published on [Brittanica.com](http://Brittanica.com); "History of Polio" published on [History Of Vaccines.org](http://HistoryOfVaccines.org).

poor hygiene and sanitation<sup>132</sup>. Few diseases frightened parents more in the early part of the 20th century than polio did. Polio struck in the warm summer months, sweeping through towns in epidemics every few years. Though most people recovered quickly from polio, some suffered temporary or permanent paralysis and even death. Many polio survivors were disabled for life. They were a visible, painful reminder to society of the enormous toll this disease took on young lives<sup>133</sup>. Now, both immunisation and sanitation have been employed all over the world to tackle and almost completely eradicate poliovirus – with India which accounted for nearly half of all cases of polio in the world till as recently as 2009 and was considered one of the most difficult places in the world to eradicate Polio now a wild, poliovirus, disease-free country<sup>134</sup>. Since immunisation protects against both the wild poliovirus and vaccine-derived polioviruses, full vaccination of 80-85% of the children can confer herd immunity and stop polio transmission. And improved sanitation can prevent the emergence of infectious vaccine-derived poliovirus strains which have recently been on the rise, another form of polio that can spread within communities<sup>135</sup>.

## **Understanding Zoonotic Spillovers for Pandemic Prevention, Control and Preparedness**

Zoonotic spillover refers to when pathogens that emerge in animals are transferred to humans, through increased contact with these animals; the growing human population, increasing globalisation and environmental trepidation, generally human behaviour, contributing to the transmission and spread of the zoonotic pathogens at the fastest pace human history have never before recorded<sup>136</sup>.

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<sup>132</sup> The problems with Polio: Toward Eradication by G Lien · 2013 published by NCBI.

<sup>133</sup> "History of Polio" published on History Of Vaccines.org.

<sup>134</sup> "World Polio Day: India is not truly free from Polio until it beats the vaccine derived virus" published on firstpost.com on 25 Oct, 2019

<sup>135</sup> Adequate immunisation and improved sanitation together protect against infection from both wild and vaccine-derived poliovirus on healthfeedback.org - 4 Sept, 2020

<sup>136</sup> Published October 6, 2021 on nationalgeographic.com and written by Sharon Guynup

Recently, epidemic diseases have been occurring as a result of Zoonotic spillovers; for instance, coronaviruses circulate in nature in various animal species, same as influenza viruses<sup>137</sup>.

Observing, studying and thereafter recognizing the various epidemiological instances and circumstances will be pivotal to predicting future pandemic risks; as the zoonotic transmission of pathogens from animals to humans is a pivotal mechanism by which emerging infections have afflicted humans throughout history<sup>138</sup>. There is thus a need to implement surveillance programs to rapidly detect the emergence of pathogens with a potential for zoonotic transmission at the animal-human interface<sup>139</sup>.

And that will in turn heavily contribute to establishing systems and laws that will enable the human race to be better prepared in the case of pandemics and epidemics.

Over one billion cases of human zoonotic diseases are estimated to occur annually, with novel emerging zoonoses already causing the death of millions coupled with billions of dollars in economic loss.<sup>140</sup> About 60% of the deadliest diseases causing death in humans originate in animals,<sup>141</sup> Coronavirus is one of many, other diseases that involve zoonotic transmission include smallpox, cholera and influenza, among others, many experts argue that disregarding thorough study and forgetting the lessons from past epidemiological circumstances have allowed zoonotic transmissions to keep occurring. There cannot be pandemics and epidemics due to zoonotic diseases without the transmission of the pathogens from humans to animals – close contact as a result of encroaching into wild systems, selling and consuming wild animals, deforestation, breeding of a variety of animals, trading of animal-based foods, wet markets, exotic pet trades and so many other

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<sup>137</sup> Rodriguez-Morales AJ, Bonilla-Aldana DK, Balbin-Ramon GJ, Rabaan AA, Sah R, Paniz-Mondolfi A, Pagliano P, Esposito S. History is repeating itself: Probable zoonotic spillover as the cause of the 2019 novel Coronavirus Epidemic. *Infez Med.* 2020 Mar 1;28(1):3-5. PMID: 32009128.

<sup>138</sup> "Pandemics Throughout History" written by Jocelyn Piret and Guy Bolvin, 15 Jan, 2021 and published on *Frontiers in Microbiology*.

<sup>139</sup> *Ibid.*

<sup>140</sup> Karesh WB, Dobson A, Lloyd-Smith JO, et al. Ecology of zoonoses: natural and unnatural histories. *Lancet.* 2012;380(9857):1936-1945. doi:10.1016/S0140-6736(12)61678-X

<sup>141</sup> A Special Volume of UNEP's *Frontiers Report Series* titled "Preventing the next pandemic: Zoonotic diseases and how to break the chain of transmission" © 2020 United Nations Environment Programme ISBN No: 978-92-807-3792-9

human activities<sup>142</sup>. Basically, the origin of these transmissions has been summed up as a shift from hunter-gatherer driven societies to agrarian societies, and all the subsequent expansion in trade, travels.<sup>143</sup> There are stages involved in the evolutionary transfer of pathogens from animals into full-blown pandemics and epidemics which will be discussed below.

There are five stages in the evolutionary transformation of an animal pathogen into a pathogen of animals leading to pandemics and epidemics<sup>144</sup>. In the first stage, the pathogen only exists in animals like bats as the initial hosts of the pathogen that causes Ebola<sup>145</sup>; in non-human primates hosts including monkeys, baboons, chimpanzees, the transmissions further maintained by Aedes mosquitoes, particularly in the forests of Asia for dengue fevers<sup>146</sup>. At that first stage, there was no transmission to humans from the agents, the pathogens infect animals exclusively. In the second stage, the pathogen is transmitted from animals to humans; here, there is only a primary infection, the pathogen is transmitted from animals to humans through direct contact with the animals but it has not been transmitted between humans<sup>147</sup>. In stage 3, there are limited outbreaks due to limited transmission from animals to humans and between humans. By stage 4, there is a longer sequence of transmission between humans without the involvement of animal hosts<sup>148</sup>; although the primary transmission from animals to humans still exists but the greater spread is among humans. At the fifth stage, the pathogen becomes exclusive to humans, the transmission only among humans causing diseases like Measles, Syphilis<sup>149</sup>. This way, pathogens that are only able to infect animals spill over to humans when they

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<sup>142</sup> History is repeating itself: Probable zoonotic spillover as the cause of the 2019 novel Coronavirus Epidemic by AJ Rodriguez-Morales · 2020 and published on PubMed

<sup>143</sup> Wolfe ND, Dunavan CP, Diamond J. Origins of major human infectious diseases. *Nature*. 2007;447(7142):279-283. doi:10.1038/nature05775.

<sup>144</sup> Horby, Peter & Hoa, Ngo & Pfeiffer, Dirk & Wertheim, Heiman. (2014). Drivers of Emerging Zoonotic Infectious Diseases. *Confronting Emerging Zoonoses: The One Health Paradigm*. 13-26. 10.1007/978-4-431-55120-1\_2. ; Wolfe ND, Dunavan CP, Diamond J. Origins of major human infectious diseases. *Nature*. 2007;447(7142):279-283. doi:10.1038/nature05775.

<sup>145</sup> May 27, 2021 History of Ebola Virus Disease, Centre for Disease Control and Prevention - published on cdc.gov.

<sup>146</sup> Sylvia Xiao Wei Gwee, Ashley L. St John, Gregory C. Grey, Junxiong Pang, Animals as potential reservoirs for dengue transmission: A systematic review, *One Health*, Volume 12, 2021, 100216, ISSN 2352-7714, <https://doi.org/10.1016/j.onehlt.2021.100216>.

<sup>147</sup> *Supra*.

<sup>148</sup> *Supra*.

<sup>149</sup> *Supra*.

have access to explore similar parts of humans that they are prone to exploiting like the guts, bloodstream and so on.

It must be noted that the above only represents the stages involved if a successful crossover will be achieved, although whether or not a cross-over will occur will always only be a probability, there are certain conditions or circumstances that determine this which are not always clearly outlined and characterised but may usually include a blend of epidemiological and behavioural determinants of pathogen exposure, and the within-human intrinsic factors that affect susceptibility to infection, as well as nutritional and cultural factors, associated with foodborne zoonotic diseases and certain ecological systems that contribute to this process, especially in the later stages<sup>150</sup>; where the emergence of the diseases in humans is determined more easily based on changes to ecological and biological systems. For instance, urbanisation which refers to changing human sociocultural systems, a major driver of ecological change creates a diverse wildlife-livestock-human interface<sup>151</sup>. Another instance is that Viral and epidemiologic data suggest that Ebola virus existed long before these recorded outbreaks occurred. Factors like population growth, encroachment into forested areas, and direct interaction with wildlife (such as bushmeat consumption) may have contributed to the spread of the Ebola virus<sup>152</sup>. To create a clearer picture of zoonotic spillovers and the various factors involved, it is pertinent that certain pathogens that have morphed into epidemics and pandemics are brought into the spotlight, illustrated as a case study.

Influenza virus is one such pathogens with strong zoonotic potential. They are significant human respiratory pathogens that cause periodic, seasonal epidemics and endemics. The worst one was in 1918 which led to the death of 50 million people worldwide, the elderly, infants and people with chronic diseases were most affected at that period and through other periods, seasons of influenza virus.<sup>153</sup> There are four types of influenza virus but

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<sup>150</sup> History is repeating itself: Probable zoonotic spillover as the cause of the 2019 novel Coronavirus Epidemic by AJ Rodriguez-Morales · 2020 and published on PubMed.

<sup>151</sup> Hassell, James & Begon, Michael & Ward, Melissa & Fèvre, Eric. (2016). Urbanisation and Disease Emergence: Dynamics at the Wildlife–Livestock–Human Interface. *Trends in Ecology & Evolution*. 32. 10.1016/j.tree.2016.09.012.

<sup>152</sup> May 27, 2021 History of Ebola Virus Disease, Centre for Disease Control and Prevention - published on cdc.gov.

<sup>153</sup> 1918 Pandemic (H1N1 virus) published on cdc.gov.



influenza A and B are the most significant in light of the topic in discussion since they are the ones that not only infect humans and animals but also cause epidemics and pandemics<sup>154</sup>.

Influenza A possesses the greatest zoonotic potential as they infect various avian and mammalian animal hosts but transmission in humans has been reported sporadically<sup>155</sup>. For instance, since its widespread re-emergence in 2003, rare, sporadic human infections with this virus have been reported in Asia, and later in Africa, Europe, and the Middle East. Human infections with Asian H5N1 viruses have been associated with severe disease and death. Most human infections with avian influenza viruses, including HPAI Asian H5N1 viruses, have occurred after prolonged and close contact with infected birds<sup>156</sup>; and along with other subtypes, leading to thousands of deaths among humans. The diversity of the diversity of zoonotic influenza viruses that have caused human infections is alarming and necessitates strengthened surveillance in both animal and human populations, thorough investigation of every zoonotic infection and subsequent pandemic preparedness planning based on the investigation. Currently, WHO in collaboration with World Organisation for Animal Health (OIE) and the Food and Agricultural Organisation (FAO) closely and continuously monitors zoonotic influenza viruses, conducting surveillance at the human-animal interface, assessing the associated risks and coordinating commensurate responses<sup>157</sup>; thereafter, communicating the outcome and recommendation with member states to enhance preparedness. This is one path to ensuring pandemic preparedness and this path of understanding and surveilling zoonotic influenza viruses helps in other control and preventive measures. Those will be further explained below.

Although vaccination stands as the primary defence against the influenza virus and there are influenza vaccines available for both human and animal use, both reduce the chance

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<sup>154</sup> Influenza (Avian and other zoonotic) 13 November 2018, fact sheet by WHO published on who.int

<sup>155</sup> Influenza (Avian and other zoonotic) 13 November 2018, fact sheet by WHO published on who.int

<sup>156</sup> Highly Pathogenic Asian Avian Influenza A(H5N1) Virus, cdc.gov.

<sup>157</sup> The FAO-OIE-WHO Collaboration Sharing responsibilities and coordinating global activities to address health risks at the animal-human-ecosystems interfaces A Tripartite Concept Note April 2010.

of human infection with influenza virus with zoonotic potential. Periodically, the introduction of an exotic strain plus subsequent antigen mismatch when circulating strains mismatched vaccine strains can result in an endemic situation due to delayed disease recognition and diagnosis resulting in further spread of the infection.<sup>158</sup> Therefore, continuous surveillance, study and investigation of the various strains of influenza zoonotic pathogens is of utmost significance; so that vaccine production and stockpile can be updated in accordance with the available knowledge that is sufficient to control the spread of infections. Also, neuraminidase inhibitors (NAIs) which are influenza-specific antivirals have much to benefit from the study of influenza zoonotic pathogens. Although NAIs are presently effective in controlling infections by seasonal and zoonotic Influenza A Virus (IAV) strains, the emergence and global spread of NAIs-resistant IAV variants is a concern.<sup>159</sup> It is crucial that there be a continuous study of influenza virus strain to be able to envisage preparedness mechanism, also it is highly significant that future pathology studies be performed on autopsies of victims with fatal influenza infections, whether caused by endemic strains, seasonal strains, or zoonotic strains such as the recent H5N1 viruses.<sup>160</sup> Careful analysis of the changes will contribute to the understanding and enable us to prepare better in light of pandemics and epidemics.

Coronaviruses, like influenza viruses, circulate in nature in various animal species. Alpha-coronaviruses and beta-coronaviruses can infect mammals and gamma-coronaviruses and delta-coronaviruses tend to infect birds, but some of them can also be transmitted to mammals<sup>161</sup>. These zoonotic viruses, were not considered to be highly pathogenic to humans until the outbreak of severe acute respiratory syndrome (SARS-CoV) in 2002 and 2003 in Guangdong province, China, as the coronaviruses that circulated before that time in humans mostly caused mild infections in only a few people.

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<sup>158</sup> Sigrid Gouma et al., Potential Antigenic Mismatch of the H3N2 Component of the 2019 Southern Hemisphere Influenza Vaccine, *Clinical Infectious Diseases*, Volume 70, Issue 11, 1 June 2020, Pages 2432–2434, Oxford Academic.

<sup>159</sup> Nguyen HT, Fry AM, Gubareva LV. Neuraminidase inhibitor resistance in influenza viruses and laboratory testing methods. *Antivir Ther.* 2012;17(1 Pt B):159-73. doi: 10.3851/IMP2067. Epub 2012 Feb 3. PMID: 22311680.

<sup>160</sup> Taubenberger, J. K., & Morens, D. M. (2008). The pathology of influenza virus infections. *Annual review of pathology*, 3, 499–522. <https://doi.org/10.1146/annurev.pathmechdis.3.121806.154316>

<sup>161</sup> Rodriguez-Morales et al., History is repeating itself: Probable zoonotic spillover as the cause of the 2019 novel Coronavirus Epidemic. *Infez Med.* 2020 Mar 1;28(1):3-5. PMID: 32009128.

Ten years after, Middle East respiratory syndrome coronavirus (MERS CoV) emerged in Middle Eastern countries wild animals, such as bats, were incriminated as natural hosts of these viruses, which have also spilt over to humans, using as main intermediate hosts, civets and camels, respectively.<sup>162</sup> As regards the current novel COVID-19 outbreak, bats are the most probable initial source, apparently emerging from a wet market and crossing borders through international travel;<sup>163</sup> although, transmission modes also require specific studies and dedicated attention. As it has been suggested, not only is it the likelihood of common close contacts interacting with animals - a not uncommon scenario in such types of markets - but also the possibility of foodborne transmission from animal-derived matter which has recently been highlighted to influence the current epidemic.

Based on the aforementioned, people who have had contact with and currently are employed at work that involve contact with birds particularly wild birds should monitor their health for possible symptoms; these people should also be monitored for certain indications of zoonotic infections, this also applies to people in charge of other specific animals including primates and bats. Following this, prevention methods can then be adopted as preparedness protocols for pandemics and epidemics – including safe and appropriate guidelines for animal care in the agricultural sector to help to reduce the potential for foodborne zoonotic disease outbreaks, through foods such as meat, eggs, dairy or even some vegetables;<sup>164</sup> also, for certain subtypes of Influenza, the CDC recommends that travellers to countries with known outbreaks should avoid poultry farms, contact with animals in live food markets, and any surfaces that appear to be contaminated with faeces from poultry or other animals<sup>165</sup>. Generally, precaution and general, regular hygiene and sanitation practices should be practised across markets and farms that grow and trade animals in line with ongoing discoveries regarding zoonotic pathogens and how they spillover, spread and translate to diseases and subsequently pandemics and epidemics in humans.

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<sup>162</sup> Le Infezioni in Medicina, n. 1, 3-5, 2020 History is repeating itself: Probable zoonotic spillover as the cause of the 2019 novel Coronavirus Epidemic Alfonso J. Rodríguez-Morales et al.

<sup>163</sup> *Supra*.

<sup>164</sup> WHO fact sheet on zoonoses, published on who.int - 29 Jul, 2020.

<sup>165</sup> Highly Pathogenic Asian Avian Influenza A(H5N1) Virus, cdc.gov.

In addition to the above, a scientific assessment by UNEP documented in the Frontiers Report Series recommends ten policy response options to reduce the risk of future zoonotic pandemics and to 'build back better': (i) raise awareness of health and environment risks and prevention; (ii) improve health governance, including by engaging environmental stakeholders; (iii) expand scientific inquiry into the environmental dimensions of zoonotic diseases; (iv) ensure full cost financial accounting of the societal impacts of disease; (v) enhance monitoring and regulation of food systems using risk-based approaches; (vi) phase-out unsustainable agricultural practices; (vii) develop and implement stronger biosecurity measures; (viii) strengthen animal health (including wildlife health services); (ix) build capacity among health stakeholders to incorporate environmental dimensions of health; and (x) mainstream and implement One Health approaches.<sup>166</sup>

In conclusion, it should be noted that the epidemic of 2019nCoV, already reaching more than 8,200 cases at the end of January 2020, will not be the last one linked to zoonotic spillover events<sup>167</sup>. Yet, it should be seen as a good opportunity to assess again the impact of these phenomena and the importance to understand the needs for reaching a one health approach as envisaged by the FAO-OIE-WHO Tripartite Alliance which aims to unite stakeholders across medical, veterinary and environmental endeavours<sup>168</sup>; one which will help governments, businesses and cities and the world at large achieve enduring health for people, animals and even environments which bear an impact on human health.

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<sup>166</sup> A Special Volume of UNEP's Frontiers Report Series, PREVENTING THE NEXT PANDEMIC Zoonotic diseases and how to break the chain of transmission, 2020 United Nations Environment Programme ISBN No: 978-92-807-3792-9.

<sup>167</sup> *Supra.*

<sup>168</sup> *Supra..*

## The Role of Primary Healthcare in Pandemic and Epidemic Prevention, Preparedness and Response

A primary health care (PHC) approach is an essential foundation for building community and country resilience within health systems. It is a communal approach that seeks to address the broader determinants of health, such as community-level disease-prevention efforts, and to empower individuals, families and communities to be more involved in their health<sup>169</sup>. The concept of PHC has been reinterpreted and redefined through the years since 1978, leading to confusion about the term and its practice. A clear and simple definition has been developed to facilitate the coordination of future PHC efforts at the global, national, and local levels and to guide their implementation:

PHC is a whole-of-society approach to health that aims at ensuring the highest possible level of health and well-being and their equitable distribution by focusing on people's needs and as early as possible along the continuum from health promotion and disease prevention to treatment, rehabilitation and palliative care, and as close as feasible to people's everyday environment.

This was the definition provided in the United Nations International Children's Emergency Fund (UNICEF) and WHO document on a vision for primary health care in the 21st century: Towards UHC and the SDGs<sup>170</sup>.

Health, according to the WHO, is defined as a “state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”<sup>171</sup> By 1978, the member states of the UN with the Alma Ata Declaration began a process to translate this definition into reality by mandating PHC as the health policy for the Organisation<sup>172</sup>. Over the first 40 years, PHC had various iterations but in most settings focused on primary care

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<sup>169</sup> WHO Fact Sheet on Primary Health Care published on 1 Apr, 2021, who.int.

<sup>170</sup> A VISION FOR PRIMARY HEALTH CARE IN THE 21ST CENTURY, WHO/HIS/SDS/2018.15 © World Health Organization and the United Nations Children's Fund (UNICEF), 2018

<sup>171</sup> Presentation: “Designing the road to better health and well-being in Europe” at the 14th European Health Forum Gastein 7 October 2011, Bad Hofgastein, Austria ; WHO Constitution

<sup>172</sup> ifkin SB et al., Primary healthcare in the time of COVID-19: breaking the silos of healthcare provision BMJ Global Health 2021;6:e007721.

health services at the local level now linked to universal health coverage (UHC) which has proved most inadequate with the Covid19 pandemic<sup>173</sup>. The concept of PHC has the potential to aid in pandemic prevention, preparedness and response but it needs to be fully embraced in terms of the broad definition as stated above. Therefore, on the 40th anniversary of the Alma Ata Declaration in 2018, member countries of WHO signed the Astana Declaration. The declaration focuses on promoting PHC through (a) providing primary care services throughout the life course, (b) ensuring equity for healthcare, (c) addressing the social determinants of health, and (d) empowering citizens and communities.<sup>174</sup>

A PHC orientated health system supports resilience, which is the ability when exposed to a shock to resist, absorb, accommodate and recover from the effects of the shock in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.<sup>175</sup>

PHC has three interrelated and synergistic components: 1) primary care and essential public health functions as the core of integrated health services, 2) multisectoral policy and action for health, and 3) empowered people and communities.<sup>176</sup> Primary care can provide essential routine health services, identify and manage emergency cases, prevent disease outbreaks with effective public health measures and play a key role in disease surveillance<sup>177</sup>. Primary health care is particularly critical in making health systems more resilient to situations of crisis, systems can detect early signs of epidemics and thereafter be more prepared to act early based on surges in demand for certain services.

For instance, the current epidemiological situation associated with the COVID-19 pandemic has highlighted the urgent need to ensure continuous access to essential

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<sup>173</sup> *Ibid.*

<sup>174</sup> From Alma-Ata to Astana: Primary health care – reflecting on the past, transforming for the future Interim Report from the WHO European Region, Global conference on Primary Health care, WHO 2018.

<sup>175</sup> Terminology, undrr.org.

<sup>176</sup> Technical series on primary health care - WHO Brief on integrating health services.

<sup>177</sup> *Ibid.*

health services without which there is an increased indirect morbidity and mortality<sup>178</sup>; it highlighted weaknesses in healthcare systems in most countries. Showing that most countries do not have a thorough, adequate organisation of their health services system to enable it to address pandemics, and also lack investment in public health. Throughout the COVID-19 pandemic, primary health care (PHC) systems in the WHO European Region have met the unprecedented surge in needs, with several countries responding by accelerating long-standing reforms and showing different degrees of adaptation and transformation in PHC.<sup>179</sup> Also, the COVID-19 crisis has hit Latin America and the Caribbean (LAC) harder than any other emerging region in the world; it highlighted the failure to address the needs of those living in conditions of vulnerability who require access to both health and social support services,<sup>180</sup> Where primary health care is care for all at all ages, it is about how best to provide health care and services to everyone, everywhere – vulnerable or not, young or old. Thus, it is clear that Strengthening PHC systems can blunt the ongoing impact of COVID-19 on the health and wellbeing of millions, while also preparing countries for future anticipated health challenges to ensure the world can one day fulfil the promise of health for all.

Although the COVID-19 pandemic exposed the weakness of the health system, there have been instances that indicate that the option of PHC systems is of utmost importance.<sup>181</sup> The COVID-19 situation also presented an opportunity to learn lessons and improve health system resilience. Since the COVID-19 crisis, many countries have leaned on PHC to provide frontline information, screening and testing for COVID-19, also in distributing vaccines equitably in people's communities.<sup>182</sup> For instance, COVID-19 first arrived in Colombia, the country's robust PHC was able to effectively diagnose and triage COVID-19 cases, reducing the burden on hospitals by supporting less severe patients through

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<sup>178</sup> High-level event: The role of Primary Health Care in the COVID-19 pandemic response and leading equitable recovery 22 June 2021, WHO at [who.int](https://www.who.int).

<sup>179</sup> WHO on Primary Health Care at [euro.who.int](https://euro.who.int).

<sup>180</sup> COVID-19 in Latin America and the Caribbean: Regional socio-economic implications and policy priorities Updated 8 December 2020. OECD.org.

<sup>181</sup> Health systems resilience during COVID-19 56 Health Policy Series Edited by Anna Sagan et al. [who.int](https://www.who.int).

<sup>182</sup> Key Messages: COVID-19 and Primary Health Care, [phcpi - improvingphc.org](https://phcpi-improvingphc.org).

homecare or telecare.<sup>183</sup> In Sri Lanka, digital technology was leveraged to support flexible PHC delivery during the pandemic, including reducing health workers' exposure to COVID-19 and relieving pressure on health systems. Also, in India, PHC workers were trained to communicate key COVID-19 prevention strategies and also to respond to mental health crises and combat stigma and discrimination that prevented vulnerable populations from seeking care.<sup>184</sup> Also, Countries in the WHO Africa region relied on an Integrated Disease Surveillance and Response framework (IDSR).<sup>185</sup> Using this, PHC facilities are providing important data on population health and health system capacity as an entry point for identifying and responding to community transmission of COVID-19. Based on the aforementioned and more, it is clear that during pandemics people's need for primary health care is inevitable to controlling and responding effectively to the situation

There also exists many other numerous roles of primary health care both during pandemics and epidemics as a response mechanism and before as measures of prevention and preparedness, some of them will be explored below:

PHC is a health care system that involves care for all by equipping communities that stand at the root of the public health care system to provide sufficient, adequate care for all the people involved. The work in this instance is heavily dependent on **proactive engagement and appropriate, continuous communication**. Effective engagement enables the community and society at large to anticipate and identify events and reduces the impact of inevitable events like pandemics and epidemics when they occur, through developing appropriate and trusted systems before and during pandemics and epidemics; each event serving as a lesson and an opportunity to build precautionary measures that will be impactful because measures and protocols are instituted at the very root. Appropriate, continuous communication allows strong, enduring links with the

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<sup>183</sup> *Ibid.*

<sup>184</sup> *Ibid.*

<sup>185</sup> Integrated Disease Surveillance and Response Technical Guidelines, Booklet One: Introduction Section. Brazzaville: WHO Regional Office for Africa; 2019. Licence: CC BY-NC-SA 3.0 IGO.



communities which have the capacity to understand the environmental, social and cultural elements that affect health and therefore, capable of delivering appropriate care based on each case and circumstance, contributing immensely to preparedness and also through the pandemic and recovery from it.<sup>186</sup>

**Role of Primary health care workers as first responders:** In a typical scenario, PHC workers are usually the first point of contact for those seeking care for infectious diseases and other illnesses that have been associated with, associated with or are likely to lead to pandemics and epidemics.<sup>187</sup> This may involve disease-specific identification and appropriate infection or disease control procedures. If primary health care workers are adequately trained, and equipped in line with the purpose and meaning of primary health care, there will exist ample opportunity for controlling pandemics and epidemics when they do occur in light of them being referred to as “inevitable events”. Therefore, well-trained and equipped health workers can act as sentinels in the surveillance of disease outbreaks and play a major role in detection and early warning.<sup>188</sup> Also, primary care response to specific health emergencies such as cholera, influenza or emerging new conditions (for example, Zika) may include notification, disease surveillance and even preventative intervention;<sup>189</sup> analysing and combining this with other mechanisms will allow communities and societies at large to build preparedness protocols for pandemics and epidemics.

During pandemics and epidemics, there exists the need for comprehensive **Primary Health Care systems** which not only encompasses direct mechanisms for tackling the same but measures and services which support essential care and therefore serve to reduce morbidity and mortality, especially among vulnerable people across varying sections of the society; societies and countries with fewer resources are most affected by the disruptions to essential care. Therefore, there is a need to focus on the health system

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<sup>186</sup> Primary health care and health emergencies Brief - Technical Series on Primary Health Care on the occasion of the Global Conference on Primary Health Care who.int.

<sup>187</sup> *Ibid.*

<sup>188</sup> CDC Public Health Preparedness and Response Capabilities

<sup>189</sup> *Supra.*

as a whole; because while events, problems that directly relates to pandemics and epidemics have to be taken care of, at the same time, the resultant displacement and destabilisation which may have dire health, mortality consequences more than the outbreak also have to be taken care of. As the COVID-19 pandemic and past outbreaks have shown when health systems are overwhelmed, disruptions in care can have devastating health impacts.<sup>190</sup> For instance, an estimated 1.4 million fewer people received care for tuberculosis (TB) in 2020 than in 2019;<sup>191</sup> a reduction of 21% from 2019. People's need for comprehensive PHC continues – including reproductive, maternal and child health care; HIV/AIDS, TB, and malaria services; mental health care; routine immunizations; treatment for chronic diseases; palliative care and more.<sup>192</sup>

Primary health care does not serve as a single intervention, program or goal. Rather, it is an approach that takes into account a large number of medical, geographical, socioeconomic, environmental and political factors affecting health and well-being for all before, during and after pandemics and epidemics – and that is why it measures up as a preparedness mechanism for pandemics and epidemics that should be employed across countries. Therefore, governments should maintain and even increase investment in PHC, as a cost-effective 'best bet' for avoiding preventable deaths;<sup>193</sup> equipping all primary health workers with correct, current information, supplies, facilities, and knowledge needed to effectively carry out their jobs. If we are to ever achieve pandemic and epidemic preparedness, these primary health care systems need to be up and serving even day-to-day health situations.

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<sup>190</sup> Key Messages: COVID-19 and Primary Health Care, phcpi - improvingphc.org.

<sup>191</sup> *Ibid.*

<sup>192</sup> *Ibid.*

<sup>193</sup> *Ibid.*

## Conclusion

The various outbreaks of viruses and diseases through history and the means employed by nations and international bodies and laws to control its spread and how much pandemics and epidemics affect every sector in the world. Ensuring the early detection of a possible outbreak has been a major concern to the UN and it has created guidelines to ascertain its early detection. However, the recent Covid-19 is a catastrophic reminder of the need to strengthen the health system and bodies of both regional and international bodies. The efforts and contributions of the WHO and other international bodies and documents in the face of epidemics or pandemics have proven to be both sufficient and also insufficient.

## Further Research

Should states be mandated to report when they suspect they are dealing with a potential epidemic or pandemic? Is mandating vaccination an infringement of any right? What role has international law played in establishing prevention protocols regarding the spread of epidemics and pandemics? What lessons can be learned from the past pandemics and epidemics? Should trust funds and other similar measures be put in place to meet the effects of future pandemics and epidemics?

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## Occupational Health: Promoting the Physical, Mental and Emotional Health of the Employed

*“All people at the workplace, not only specific technical units, need to be included in assessing their safety and health risks proposing safer and healthier work environments.”*

**- Mr Shinichi Hasegawa, Regional Director of ILO Regional Office for Asia and the Pacific.<sup>194</sup>**

### Introduction

According to statistics from the ILO, an average of 2.3 million people are victims of work-related accidents or diseases every year.<sup>195</sup> These numbers paint a bleaker picture when one realises that work-related accidents are often grossly underreported. Furthermore, these numbers only centre on the physical injuries sustained by employees. Employees are often faced with the extreme mental and emotional strain which translates into physical health issues.

The 28th of April has been declared the World Day for Safety and Health at Work by the ILO since the year 2003. This began in order to stress the prevention of accidents and diseases at work.<sup>196</sup> The day serves as a campaign to raise awareness about how creating a culture of safety and health at the workplace can help significantly lower the number of work-related deaths worldwide.<sup>197</sup>

WHO has outlined its objectives regarding occupational health and they include maintaining and protecting the health of workers and working capacity, improving working conditions alongside the working environment, and developing work cultures which improve occupational safety and health.<sup>198</sup> These objectives serve to protect not just one aspect of the health of employees but rather, aim to maintain a high standard of health for workers in every aspect possible.

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<sup>194</sup> ILO, Opening Remarks at World Day for Safety and Health at Work 2005

<sup>195</sup> ILO, “World Statistic”

<sup>196</sup> UN, “World Day for Safety and Health at Work”

<sup>197</sup> *Ibid.*

<sup>198</sup> WHO, Health Topics, “Occupational Health”

Prioritising the health of workers serves to benefit workers, employers and society at large. It is however unfortunate that several workers are still subject to unhealthy and inhumane working conditions yearly. According to the WHO, in the year 2015, an average of 1.2 million deaths were attributable to the workplace and this totals 2.1% of total deaths in the general population.<sup>199</sup>

In a largely capitalist world such as ours, the importance of workers cannot be overstated as they serve as the backbone of our society. According to a fact sheet provided by WHO, work-related health problems result in an economic loss of 4-6% of Gross Domestic Product (GDP) for most countries.<sup>200</sup> Protecting the overall health of workers is also crucial to household income and economic development.<sup>201</sup> This is not to say that workers should be taken care of because of how they contribute to society but to highlight their importance.

Healthy places of work contribute to the health of employees as employees are much more likely to thrive in places that facilitate such growth and wellbeing. It is only rational and logical that healthy workplaces foster physical, mental and emotional occupational health. The WHO Regional Office for the Western Pacific defines a healthy workplace as:

a place where everyone works together to achieve an agreed vision for the health and well-being of workers and the surrounding community. It provides all members of the workforce with physical, psychological, social and organisational conditions that protect and promote health and safety. It enables managers and workers to increase control over their own health and to improve it, and to become more energetic, positive and content.<sup>202</sup>

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<sup>199</sup> Wolf J, Prüss-Ustün A, Ivanov I, Mudgal S, Corvalán C, Bos R et al. Preventing Disease Through a Healthier and Safer Workplace WHO, 2018

<sup>200</sup> WHO, "Protecting Workers' Health", 30 November 2017

<sup>201</sup> *Ibid.*

<sup>202</sup> Joan Burton, Healthy Workplace Framework and Model: Background and Supporting Literature and Practices WHO, 2010

In 1950, shortly after the formation of the WHO, a joint committee between the Organisation and the ILO was formed to foster occupational health.<sup>203</sup> The collaboration between these organisations on the issue of occupational health has continued to date. In February 2022, both organisations decided to further strengthen their collaboration to provide healthier and safer working environments, protect workers from occupational injuries, and prepare workplaces for future health emergencies.<sup>204</sup>

The World Health Assembly urges member states to develop national policies on occupational health, increase the coverage occupational and work-related diseases and injuries get, and collaborate with relevant national health programmes to promote and maintain the highest degree of physical, social and mental well-being of all workers across all occupations.<sup>205</sup> WHO continues to work towards its outlined objectives regarding occupational health.

### **International and Regional Framework**

Occupational Safety and Health (OSH) is generally defined as the science of the anticipation, recognition, evaluation and control of hazards arising in or from the workplace that could impair the health and well-being of workers, taking into account the possible impact on the surrounding communities and the general environment.<sup>206</sup>

The above statement underlines the ethos of various international treaties, conventions, Acts etc. aimed toward the recognition, evaluation, advancement and promotion of good occupational health. At different levels of governance, there has been an increase in global health responses as guidelines on the need to safeguard workers from illness, disease, and damage caused by their jobs have been established alongside various other advances in the legislative and policy landscape at the international, regional and national levels.

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<sup>203</sup> *Ibid.*

<sup>204</sup> ILO, "ILO-WHO step up collaboration to address health emergencies and promote healthier and safer working populations"

<sup>205</sup> *Supra*

<sup>206</sup> Fundamental Principles Of Occupational Health And Safety

The Universal Declaration of Human Rights, one of the foremost international frameworks on Occupational health and safety provides that everyone has the right to work... and to a just and favourable condition of work.<sup>207</sup> More so, policy resolutions of the international organisations, such as the WHO Global Strategy on Occupational Health for all 1996, Millenium Development Goals (MDGs) 2000, WHO Global Plan of Action on Workers' Health 2007 and the UN Sustainable Development Goals 2015 have emphasised the need for Occupational health services for all workers. The ILO Constitution also set forth principles aimed at the protection of workers from sickness, disease and injury arising from their employment. Nearly half of ILO instruments deal directly or indirectly with occupational safety and health issues, as it has adopted more than 40 standards specifically dealing with occupational safety and health, as well as over 40 Codes of Practice.

Key ILO Convention such as the Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187), Safety and Health in Construction Convention, 1988 (No. 167), Occupational Health Services Convention, 1985 (No. 161) and the convention on Occupational Safety and Health (No.155) have been designed to provide for the overarching push for a coherent and systematic treatment of occupational safety and health issues.<sup>208</sup> Also, the ILO launched the Decent Work Agenda (DWA) in 1999 for the development of conditions of work globally.<sup>209</sup>

Progress has also been made at the regional level, as the WHO regional offices have produced Regional Strategies for Occupational Health and implemented the GPA actions at the regional and country levels. At the national level, regulations and laws have been enacted to foster concern and awareness of the occupational health of workers in the country. For instance, in the United State, the Occupational Safety and Health Act of 1970

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<sup>207</sup> Universal Declaration of Human Rights

<sup>208</sup> "ILO,"Convention"

<sup>209</sup> ILO 2011. Growth, productive employment and decent work in the least developed countries: Report of the ILO for the Fourth UN Conference on the Least Developed Countries, Istanbul, 9–13 May 2011.

was enacted. In Nigeria also, the Factory Act was enacted in 2004 solely for the protection of the occupational safety and health of Nigerian workers. Furthermore, countries around the world have made comprehensive policies and collaboration to facilitate the participation of the national stakeholders in occupational health. A good example of global collaboration is the International Occupational Safety and Health Information Centre (CIS), which focuses on knowledge management to ensure that workers and all concerned with their protection have access to facts and information on risks of occupational injuries and diseases.<sup>210</sup>

Another framework that has added greatly to the protection of occupational health and safety are the ICOH's Cancun Charter on Occupational Health Services for All, 2012 and ICOH's Seoul Statement on the Development of Occupational Health Services for All, 2015. These frameworks provide for the right to health and safety at work, belonging equally to every working individual, provides for collaboration with national authorities to promote, follow up and support the implementation of once unanimously approved international instruments on occupational health, address the government to ratify international instruments and legislatures for occupational health amongst other things.<sup>211</sup>

### **Role of the International System**

Over the centuries people have exchanged information and experiences in many ways. Cooperation between countries, scientists and professional groups developed progressively over time, and by the beginning of the 20th century, it had become obvious that some issues such as those pertaining to occupational health and safety could be faced only collectively.<sup>212</sup> A myriad of actions through various initiatives, practices, legislations, and policies have been enacted towards the advancement, awareness and

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<sup>210</sup>“Regional Framework for Occupational health: “Fostering intersectoral collaboration and networking at all levels.”

<sup>211</sup> Cancun Charter on Occupational Health for All.

<sup>212</sup> “ILO,” International Cooperation in Occupational Health: The Role of International Organisations.

protection of occupational health. Each international organisation has directed its activities towards the fulfilment of this purpose. In the UN system, two specialised agencies i.e. the WHO and ILO which are directly concerned with occupational health and safety have established various Conventions, guidelines, regulations, and collaborations and engaged in various interventions and outreach when necessary in line with Article 23 of the UDHR.

Within the framework of the ILO's International Programme for the Improvement of Working Conditions and the Environment (PIACT), the ILO's headquarters and field institutions support member states' commitments and actions in occupational health and safety (ILO 1984). This program offers a wide range of consulting services as well as technical collaboration initiatives around the world. For instance, PAHO, the WHO regional office for the Americas was established in 1902. It facilitated the adoption of the resolution on workers' health vis a vis establishing guidelines for PAHO's programme and designated 1992 the "Year of Workers' Health in the Americas."

International organisations are also taking steps to safeguard and promote the Occupational health of workers around the world. Flowing from this, the ICOH has strategically responded to the call of the International Organisations to propose and undertake proper strategic and practical actions for the development of occupational health services. The ICOH has decided to contribute to these needs by collaborating in the production of estimates of the global burden of occupational diseases and injuries and surveying the current global situation of occupational health services, including their normative basis, human resources, content, activities, and development needs.<sup>213</sup> Also, as part of the corporate responsibility to protect and respect human rights outlined in the UN Guiding Principles on Business and Human Rights (UNGPs), entitlement to safe and healthy workplaces for workers is proposed to be reflected in the human rights due diligence approaches businesses conduct. The UN Global Impact alongside its guidelines

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<sup>213</sup> "Occupational Health For all. A global survey on the OHS in selected countries of ICOH members."

also stated that businesses need to pay particular attention to the workplace in countries with limited resources, weak frameworks, and inadequate enforcement and support functions.<sup>214</sup> More so, in hand with the International Labour Organisation, the UN global compact has identified nine business practices to improve safety and health through supply chains and the creation of a culture of prevention and protection.

In relation to the Transportation sector and industry, The Worldwide Civil Aviation Organisation (ICAO) has set international standards for aircraft operation and released a civil aviation medicine document that addresses issues of flying personnel's occupational health. Also, an International Convention on the Safety of Life at Sea was adopted by the International Maritime Organisation (IMO) (SOLAS). The WHO, the ILO and the IMO have collaborated to create an International Medical Guide for Ships, which is divided into sections and includes a timetable for the contents of a ship's medicine chest as well as a medical portion of the International Code of Signals. They have also collaborated on a medical first aid handbook for use in accidents involving toxic substances.

Profoundly, other issues such as the ecosystem, environmental hazards, economic system and developments have its effects on occupational health.<sup>215</sup> However, countries such as the United Kingdom,<sup>216</sup> Canada and Northern countries such as Sweden, Norway, Denmark<sup>217</sup> etc have implemented occupational health and safety policies and practices at the national level through a tripartite collaboration between government, employers and employees. Furthermore, actions and frameworks such as Technology transfer, need to support more innovation, guiding policies, focus on infrastructure, analysis on active working population and conditions in both urban and rural areas etc of the international organisations and countries of the world have been worked towards to affect the promotion and protection of workers' occupational health and safety.

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<sup>214</sup> UN Global Compact, "Human Rights Due Diligence".

<sup>215</sup> Springer Link, "Jennings, B. Environmental and Occupational Public Health. In Public Health Ethics: Cases Spanning the Globe. Public Health Ethics Analysis, vol 3."

<sup>216</sup> HSE, "PPE Regulations."

<sup>217</sup> ResearchGate, "Jacinto, Celeste. (2016). Re: What are the best countries considered as benchmarks for occupational safety and health improvement practice ?"



## The Impact of Mental Health on Work Rate

It has been rightly established that work is good for mental health, but a negative working environment can lead to physical and mental health problems. Likewise, records have shown that depression and anxiety have a significant economic impact; the estimated cost to the global economy is US\$ 1 trillion per year in lost productivity.<sup>218</sup> In relation to the aforementioned, it alludes that the mental status of workers significantly affects output, productivity and the global economy as a whole. Over 264 million people have been said to suffer from depression, one of the leading causes of disability, with many of these people also suffering from symptoms of anxiety. These are caused by the negative working environment such as job insecurity, overwork, and toxic work environment amongst others. This in turn has a domino effect nationally and globally.

Furthermore, mental illnesses such as depression are associated with higher rates of disability and unemployment. It is shown to reduce the cognitive performance of workers about 35% of the time as well as affect a person's ability to complete physical job tasks about 20% of the time.<sup>219</sup> To mention a few, poor mental health and stress have negatively affected employees in areas such as job performance and productivity, engagement with one's work, communication with coworkers and physical capability and daily functioning. Flowing from this, survey of more than 4,000 Americans reveals that nearly one-third suffer from headaches and more than one-tenth are regularly afflicted with migraines. 55 percent of these people have missed work in the last three months as a result of this mental health issue.<sup>220</sup> Also, according to the Journal of the headache and pain, migraines alone, due to absenteeism and diminished productivity from workers cost employers \$14.5 billion a year.<sup>221</sup>

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<sup>218</sup> WHO "Mental Health in the workplace".

<sup>219</sup> Centres for Disease Control and Prevention, "Mental Health Issues Affect Businesses and Their Employees."

<sup>220</sup> "Employees hide headaches, migraines from supervisors."

<sup>221</sup> *Supra.*

According to the Harvard Business Review, resignation rates for mid-level workers are on the rise.<sup>222</sup> This is due to the fact that workers tend to escape for greener pastures i.e. healthier workplaces. However, workplaces that encourage mental health and help persons with mental illnesses are more likely to reduce absenteeism, boost productivity, and reap the financial benefits that come with it.

The risk may be increased in situations where there is a lack of team cohesion or social support. However, in a bid to ease these risk factors to mental health, an important element is the development of governmental legislation, strategies and policies as highlighted by the European Union Compass work in this area. An academic report from 2014 suggests that interventions should take a 3-pronged approach: protect mental health by reducing work-related risk factors, promote mental health by developing the positive aspects of work and the strengths of employees and address mental health problems regardless of cause.

Moreover, effective steps to be taken by employers include the promotion of awareness about the importance of mental health. Workplace health promotion programs have proven to be successful, especially when they combine mental and physical health interventions. The Centre for Workplace Mental Health reports that while 6-7% of employees experience depression, only about half seek treatment.<sup>223</sup> This is because most employees are not open to the very need and benefit of good mental health hence the need for the inculcation of healthier company culture to improve employee well-being and productivity level. Likewise, mental health self-assessment tools are not made available to them.

Also, involving employees in decision-making, conveying a feeling of control and participation; organisational practices that support a healthy work-life balance;

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<sup>222</sup> Pathways, "How HR Can Improve Mental Health and Productivity in the Workplace".

<sup>223</sup> Pathways, "The Link Between Mental Health & Productivity and Performance at Work."

programmes for the career development of employees; and recognizing and rewarding the contribution of employees have been included as the interventions and good practices that protect and promote mental health in the workplace.

At the global policy level, the WHO's Global Plan of Action on Workers Health (2008-2017) and Mental Health Action Plan (2013-2030) outline implementation strategies to promote good mental health in the workplace. These principles and strategies include; addressing social determinants of mental health, such as living standards and working conditions; activities for prevention and promotion of health and mental health, including activities to reduce stigmatization and discrimination; and increasing access to evidence-based care through health service development, including access to occupational health services. WHO also is developing and testing IT-supported self-help tools to address common mental disorders, harmful use of alcohol and psychological distress in low-and middle-income countries

### **Disabilities in the Workplace**

Article 27 of The UN Convention on the Rights of Persons with Disabilities (CRPD) provides that 'States parties shall safeguard and promote the realisation of the right to work of persons with disabilities by taking appropriate steps'.<sup>224</sup> Appropriate steps such as ensuring that reasonable accommodation is provided to persons with disabilities in the workplace, protecting the rights of persons with disabilities, on the basis with others to just and favourable conditions of work etc.<sup>225</sup> It recognizes that every person with a disability has the right to work, should be treated equally and not be discriminated against, and should be provided with support in the workplace.

Relating to the above provision, it is worthy of note that people with impairments, especially women with disabilities, suffer significant psychological, physical, and

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<sup>224</sup> United Nations, "Article 27 of Convention on the Rights of the Persons with Disabilities (CRPD)".

<sup>225</sup> Article 27(1) (a) - (k)

informational impediments to fair employment prospects. They have higher rates of unemployment and economic inactivity than non-disabled people, and they are more vulnerable to insufficient social support, which is essential for lowering extreme poverty.<sup>226</sup> Record has shown that over a billion people with disabilities, or 15% of the world's population, are projected to exist. And around 80% of the population is working age. However, the right of people with disabilities to decent work is frequently denied.<sup>227</sup>

In lieu of the above statement, the ILO has taken a twin-track approach to disability inclusion; one for disability-specific programs or initiatives aimed at overcoming specific disadvantages or barriers, whereas the other track aims to ensure disabled people's inclusion in mainstream services and activities, such as skills training, job promotion, social protection schemes, and poverty reduction strategies. The WHO also has recently launched a new policy for disability, which commits to ensuring that people with disabilities are included and thrive within WHO. These policies and strategies seek to guide these organisations towards becoming an organisation that is truly inclusive of women and men with disabilities.

Furthermore, a report has shown that disabled people do not disclose their disability because they are often afraid of being sidelined and not given fair opportunity at their work place.<sup>228</sup> Mitchell discovered in her research that despite equality legislation, a quarter of those polled had hidden their condition from their HR department, and just 36% were upfront with their coworkers about their disability. She claims that it is difficult for employees to prove that they were passed over for a promotion or were denied a job because of a disability. And that due to factors like the lockdown, and remote work, people with disabilities could work without the fair of judgement. Nonetheless, employers need to work on giving people with disabilities a chance, as most skilled people with disabilities aren't given a chance whether or not they have experience. This is as provided for by section 2.1.2 (2) of the 2002 ILO Code of Practice on Managing Disability in the Workplace.

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<sup>226</sup> ILO, Disability and Work

<sup>227</sup> Supra

<sup>228</sup> Equality matters, "Cat Mitchell, a lecturer at University of Derby, UK, whose research focuses on the barriers disabled employees and job seekers face".

Also, the need for consideration of the health of those with disability vis a vis the structure of the workplace cannot be overemphasised. Many workers with disabilities are not able to work at the place of their choice due to inability to access the workplace. Article 2(b) of the ILO Code of Practice provides that there should be provision for equal opportunity for employees with disabilities.<sup>229</sup> Moreso, the supported employment including individual placement, enclaves, mobile work crews and small business arrangements which originated in the United States as an alternative to traditional rehabilitation programmes has been extended to various countries in different ways. However, the need for new legislation in various countries to widen the scope of employment in organisations, accessibility of companies and organisations to wide audiences is of crucial importance.

### **Provision of Occupational Health Services for the Employed**

It is important that a healthy workplace has a health program that should include health benefits and services.<sup>230</sup> Over 3 billion workers in the world have occupational health needs that can be met only through the provision of occupational health services.<sup>231</sup> Furthermore, only 15% of workers in the world have access to specialised occupational health services which means 85% do not.<sup>232</sup> The implication of these statistics is that billions of people are unable to afford the care essential to their health and have to rely on the possibility of their workplace providing some form of healthcare service for them.

The ILO Occupational Health Services Convention No.161 defines occupational health services as:

Services... responsible for advising the employer, the workers and their representatives in undertaking the requirements for establishing and maintaining a safe and healthy work environment which will facilitate optimal physical and

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<sup>229</sup> ILO, "Code of Practice on Managing Disability in the Workplace"

<sup>230</sup> Centres for Disease Control and Prevention, "Workplace Health Promotion"

<sup>231</sup> Jorma Rantanen, Suvi Lehtinen, Antonio Valenti, Sergio Iavicoli et al. Occupational health services for all: A global survey on OHS in selected countries of ICOH members,

<sup>232</sup> WHO, "Expanding Health Coverage to all Workers"

mental health in relation to work and the adaptation of work to the capabilities of workers in the light of their state of physical and mental health.

In the broad sense of the concept, occupational health services encompass the activities of all those involved in the protection and promotion of the health of workers and the improvement of the working environment and working conditions.<sup>233</sup> The functions of an occupational health service include but are not limited to monitoring the health of workers in relation to their work, identifying and assessing risks from health hazards in the workplace, the organisation of first aid and emergency treatments, and others.<sup>234</sup>

Occupational health services are often geared towards preventive measures ensuring the safety of workers. However, first aid services are of utmost importance as the first few minutes after certain accidents could determine if the worker lives or otherwise. It is the responsibility of the employer to ensure first aid services and personnel are available at all times and this should be part of the occupational services any workplace offers.<sup>235</sup>

A cost-effective method of providing occupational health services for workers is the involvement of primary healthcare services. This approach has been found effective especially in developing countries as it improves the access of workers to healthcare services.<sup>236</sup> Primary healthcare carried out by community-based doctors, nurses and other healthcare personnel is more accessible and cost-friendly for other workers.<sup>237</sup>

In the United States of America, efforts towards a healthy workplace have focused on workplace health promotion and in pursuit of this, many employers have taken on a significant role in providing or paying for the healthcare insurance of their workers.<sup>238</sup> This is also often referred to as employment-based health insurance and it provides certain free or heavily discounted healthcare services for the workers. However, only an estimated

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<sup>233</sup> Dr Igor Fedotov, Coordinator, Occupational and Environmental Health, ILO Programme on Safety and Health at Work and the Environment (SAFEWORK) , 2009

<sup>234</sup> Benjamin O. ALLI, Fundamental Principles of Occupational Health and Safety (Second Edition), ILO 2008

<sup>235</sup> *Ibid.*

<sup>236</sup> *Ibid.*

<sup>237</sup> *Ibid.*

<sup>238</sup> Joan Burton, Healthy Workplace Framework and Model: Background and Supporting Literature and Practices WHO, 2010

one-third of the global workforce is covered by insurance for occupational accidents and injuries.<sup>239</sup>

Several models of occupational health services exist and some include in-company models, group models, industry-specific models, and social security models.<sup>240</sup> The in-company model involves companies having a comprehensive occupational health service on their premises which provides a wide range of health services not only to workers but occasionally, even to the families of the workers.<sup>241</sup> Companies or industries too small to have their occupational health service are known to share and therefore adopt the group model.<sup>242</sup> The industry-specific model is similar to the group model except the former involves the joint use of an occupational health service by enterprises in the same industry.<sup>243</sup> The social security model involves occupational health services being provided by special units operated by the social security system.<sup>244</sup>

Occupational health services are generally inadequate all over the world and this leads to an increase in the mortality of workers globally. The ILO instruments on occupational health services, ILO Occupational Safety and Health Convention, 1981 (No. 155) and the Occupational Health Services Convention, 1985 (No. 161), provide an elaborate infrastructure for occupational health practice.<sup>245</sup> It is evident that more workers across the globe need to be provided with occupational health services to promote a safe and healthy work environment.

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<sup>239</sup> WHO calls for scaling up of workers' health coverage, 2014

<sup>240</sup> *Supra.*

<sup>241</sup> *Supra.*

<sup>242</sup> *Ibid.*

<sup>243</sup> *Ibid.*

<sup>244</sup> *Ibid.*

<sup>245</sup> *Ibid.*

## Addressing the High Rate of Work-Related Accidents and Deaths in the Industrial Goods Sector

"It's shocking to see so many people literally being killed by their jobs."<sup>246</sup>

The quote above reflects the worrisome reality of several hundreds of workers in the industrial sector as they suffer extra-long working hours, absence of proper working gear, constant exposure to dangerous materials and chemicals. The industrial market generally involves the production of other goods and services that are sold, rented or supplied to others.<sup>247</sup> Some of the major sectors making up the industrial market include mining, construction, agriculture, manufacturing and several others.<sup>248</sup>

In 2021 in the manufacturing sector of Great Britain, 16% of deaths over the same five-year period were classified as falls from a height.<sup>249</sup> Furthermore, the fatal injury rate of workers in that sector was around 1.5 times the entire industry rate.<sup>250</sup> The main kinds of accidents reported in the manufacturing sector include contact with moving machinery, falls from a height, slips and trips on the same level, injuries sustained while lifting, handling or carrying, getting struck by a moving vehicle, and getting struck by a moving object.<sup>251</sup>

According to World Statistics provided by the ILO, the construction industry has a disproportionately high rate of recorded accidents.<sup>252</sup> It has been further established that workers in the construction sector are 3-4 times more likely than other workers to die from accidents at work.<sup>253</sup> This can be attributed to the fact that a lot of workers in this sector work informally and on temporary contracts and are therefore in no position to challenge and reject unsafe working conditions.<sup>254</sup> This is evident in the ILO statistic

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<sup>246</sup> Dr Tedros Adhanom Ghebreyesus, WHO Director-General, WHO/ILO Joint Estimates of the Work-related Burden of Disease and Injury, 2000-2016: Global Monitoring Report.

<sup>247</sup> Monash Business School, "Marketing Dictionary: Industrial Market."

<sup>248</sup> *Ibid.*

<sup>249</sup> Health and Safety Executive, Manufacturing statistics in Great Britain, 2021

<sup>250</sup> *Ibid.*

<sup>251</sup> *Ibid.*

<sup>252</sup> ILO, "World Statistic"

<sup>253</sup> Francisco Comaru & Edmundo Werna, Working Paper No. 288: The health of workers in selected sectors of the urban economy: Challenges and perspectives, ILO 2013

<sup>254</sup> *Ibid.*



providing that a casual worker is 3 times more likely to suffer an occupational accident than one with a permanent contract.<sup>255</sup>

Furthermore, workers in the industrial goods sector are constantly exposed to asbestos which is a naturally occurring mineral consisting of flexible fibres which are heat, electricity and corrosion-resistant.<sup>256</sup> Asbestos is widely used in the construction sector as an insulator and is often added to cement, plastic and other materials to strengthen them.<sup>257</sup> Although these qualities make the material quite useful, exposure to it poses a serious risk of developing cancer.<sup>258</sup> Approximately 125 million people in the world are exposed to asbestos in their workplace<sup>259</sup> and WHO has established occupational exposure to asbestos as a risk factor to work for a handful of cancers which include ovary cancer, lung cancer, mesothelioma and larynx cancer.<sup>260</sup> In 2016, the inhalation of asbestos in working environments accounted for 11.1% of deaths in 183 countries.<sup>261</sup>

Article 3 of the ILO Promotional Framework for Occupational Safety and Health Recommendation, 2006 (No. 197) provides that the national system of member states provide appropriate measures for all workers especially workers in high-risk sectors to prevent occupational injuries, diseases and deaths. More countries must consider the health of their workers in their industrial sector due to the health risks they are constantly exposed to.

### **The Effect of Covid-19 on Healthcare Workers**

Generally, workers in the healthcare sector are often exposed to certain risks but these risks have multiplied due to the occurrence of the ongoing COVID-19 pandemic. As the

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<sup>255</sup> *Ibid.*

<sup>256</sup> The Mesothelioma Centre, "Asbestos"

<sup>257</sup> *Ibid.*

<sup>258</sup> *Supra.*

<sup>259</sup> WHO Fact Sheet, "Asbestos: elimination of asbestos-related diseases", 2018

<sup>260</sup> WHO/ILO joint estimates of the work-related burden of disease and injury, 2000-2016: global monitoring report, 2021.

<sup>261</sup> *Ibid.*

Director, Department of Environment, Climate Change and Health, WHO, Dr Maria Neira stated:

“Even before the COVID-19 pandemic, the health sector was among the most hazardous sectors to work in.”

As these workers are on the frontlines battling the spread of the virus, their physical, mental and emotional health is threatened daily. Some of the risks they face include psychological distress, exposure to toxins due to increased use of disinfectants, skin disorders from prolonged use of personal protective equipment (PPE), and of course, infections with the virus.<sup>262</sup>

According to numbers provided by WHO from January 2020 to May 2021, there were 6,633 reported deaths of healthcare workers.<sup>263</sup> However, the population-based estimate revealed far larger numbers as an estimated 115,493 healthcare workers lost their lives.<sup>264</sup> The staggering numbers which are likely higher go to show the risk healthcare workers face daily in the healthcare sector and how important it is that they are properly cared for and protected.

Aside from the physical impact of the pandemic on healthcare workers, at least 1 in 5 healthcare professionals report symptoms of depression and anxiety and about 4 in 10 experience problems sleeping or insomnia.<sup>265</sup> Due to the risk of exposure to the virus, several healthcare workers had to be isolated from their families to prevent further transmission of the virus. This negatively affected and still affects their mental and emotional health. A Chinese study showed high rates of distress, insomnia, anxiety and depression among healthcare workers treating patients with COVID-19.<sup>266</sup> Compared to the general population, the rate of depressive disorder in healthcare workers is also

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<sup>262</sup> COVID-19: Occupational health and safety for health workers, WHO and ILO, 2021

<sup>263</sup> The impact of COVID-19 on health and care workers: a closer look at deaths. Health Workforce Department – Working Paper 1. Geneva: World Health Organization; September 2021 (WHO/HWF/WorkingPaper/2021.1)

<sup>264</sup> *Ibid.*

<sup>265</sup> Sofia Pappa, Vasiliki Ntella, et al, Prevalence of depression, anxiety, and insomnia among healthcare workers during the COVID-19 pandemic: A systematic review and meta-analysis. Volume 88, August 2020, Pages 901-907.

<sup>266</sup> Lai J, Ma S, Wang Y et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Netw Open.* 2020; **3**e203976

significantly higher.<sup>267</sup> A survey conducted by Mental Health America showed that 76% of healthcare workers reported that they were exhausted and burnt out while an overwhelming 93% were experiencing stress.<sup>268</sup> 39% felt like they did not have adequate emotional support and nurses were even less likely to receive emotional support.<sup>269</sup>

Participants of a study conducted among healthcare workers in the cities of Khulna and Dhaka in Bangladesh revealed that PPE supplied to their hospitals were mostly of low quality or inadequate<sup>270</sup> and this problem is not uncommon. Still on the use of PPE, during the pandemic, healthcare workers have been forced to wear them for longer periods which causes skin damage such as contact dermatitis, acne and rashes.<sup>271</sup> It also exacerbates existing skin conditions and leads to heat stress such as heat stroke, fainting, muscle cramps and exhaustion.<sup>272</sup> According to a cross-sectional study conducted among 150 frontline healthcare workers in ICUs, the most common adverse reactions to the prolonged wearing of PPE included difficulty in breathing, headaches, and extreme sweating.<sup>273</sup> 76.64% of participants in the survey reported nasal bridge scarring while 66.42% reported indentation and pain at the back of the ears.<sup>274</sup>

Nursing professionals constitute a significant part of the healthcare workers around the world and judging by how rapid the spread of the virus was, the workload of these nurses doubled. A cross-sectional study involving 336 nurses working in inpatient wards with Covid-19 patients revealed that the mean workload score in the nurses was quite high.<sup>275</sup> The increase of patients due to the pandemic has also led to an increase in the pressure

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<sup>267</sup> Carlo Giacomo Leo et al. Burnout Among Healthcare Workers in the COVID 19 Era: A Review of the Existing Literature, *Front. Public Health*, 29 October 2021

<sup>268</sup> Mental Health America, "The Mental Health of Healthcare Workers in Covid-19"

<sup>269</sup> *Ibid.*

<sup>270</sup> Shaharior Raman Razu et al. Challenges Faced by Healthcare Professionals During the COVID-19 Pandemic: A Qualitative Inquiry From Bangladesh *Front. Public Health*, 10 August 2021

<sup>271</sup> *Supra.*

<sup>272</sup> *Ibid.*

<sup>273</sup> Jose S, Cyriac MC, Dhandapani M. Health Problems and Skin Damages Caused by Personal Protective Equipment: Experience of Frontline Nurses Caring for Critical COVID-19 Patients in Intensive Care Units. *Indian J Crit Care Med* 2021;25(2):134–139.

<sup>274</sup> *Ibid.*

<sup>275</sup> Ebrahimi, Hossein et al. 'The Effect of Workload on Nurses' Quality of Life with Moderating Perceived Social Support During the COVID-19 Pandemic'. 1 Jan. 2021 : 347 – 354.

on nurses to perform their tasks<sup>276</sup> and this indubitably leads to high rates of anxiety. The increased workload on healthcare workers generally with insufficient recuperation time can lead to decreased alertness, emotional blunting, impaired cognition and mood changes.<sup>277</sup>

In February 2022, the WHO and ILO published a new guide for the development and implementation of stronger occupational health and safety programmes for healthcare workers.<sup>278</sup> The guide further highlights the roles governments, employers and occupational health services need to play in ensuring the utmost wellbeing of health workers.<sup>279</sup> It is therefore important that member states recognise and honour the importance of their health workers by ensuring they are adequately provided for in every aspect of their health.

## Conclusion

Ensuring the provision of the highest attainable level of health for everyone is one of the reasons the WHO was created and the organisation has been consistent in its pursuit of this goal especially as it concerns workers all over the world. It cannot be denied that the overall state of health of employees has not been prioritised in several countries and this has led to an increased rate of death and accidents in some sectors, reduced access to health services, lack of proper accessibility for workers with disabilities, and severe mental and emotional distress for workers in every sector.

It has been established that workers are the backbone of society as they are essential for the workings of our sectors and the smooth sailing of our daily lives. Despite their obvious importance to society, workers are often viewed as disposable and as such subjected to terrible working conditions and employers who have little to no regard for their safety. It is

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<sup>276</sup> *Ibid.*

<sup>277</sup> *Supra.*

<sup>278</sup> WHO, "New WHO/ILO guide urges greater safeguards to protect health workers"

<sup>279</sup> *Ibid.*

the WHO's mission to ensure the safety and health of the world's population and this includes workers. The WHO and the ILO have continued to work together to educate governments and employers and they have continued to utilise their resources to ensure the situation changes.

### Further Research

Should Occupational Health be an established right in itself in Regional laws? What are the emotional and mental effects of poor working conditions and environment on women, vulnerable/disabled, and older employees at workplaces? Do employers need to take further steps in ensuring and creating a better working environment and ethics for their employees? Do sustainable workplaces have a major role to play in the promotion of occupational health? Do the millions of workers who provide healthcare to the population have access to good health care themselves? What role should the government be playing to ensure workers are protected health-wise?

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*This document, which is a publication by the WHO, details occupational hazards workers, especially health workers face, and it goes further to provide protective measures for the health of these workers.*

Francisco Comaru & Edmundo Werna, Working Paper No. 288: The health of workers in selected sectors of the urban economy: Challenges and perspectives, ILO 2013. Accessed 14 March 2022 from: [https://www.ilo.org/wcmsp5/groups/public/---ed\\_dialogue/---sector/documents/publication/wcms\\_208090.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/publication/wcms_208090.pdf)

*This ILO Working Paper focuses on OSH and details the working conditions of workers in specific sectors and the challenges they face as regards safe working environments. The Paper also provides for good practices which should be incorporated into occupational health.*

Joan Burton, Healthy Workplace Framework and Model: Background and Supporting Literature and Practices WHO, 2010. Accessed 8 March 2022 from: [https://www.who.int/occupational\\_health/healthy\\_workplace\\_framework.pdf](https://www.who.int/occupational_health/healthy_workplace_framework.pdf)

*This WHO document is comprehensive with regards to safe working environments as it defines what a healthy workplace is, explains how the health of an employee affects their physical and mental wellbeing. It also contains processes for building and creating a healthy workplace.*

WHO, "Protecting Workers' Health", 30 November 2017 [Website]. Accessed 7 March 2022 from: <https://www.who.int/news-room/fact-sheets/detail/protecting-workers'-health>

*This is a fact sheet provided by the WHO and it contains several statistics on the state of health of workers around the world. The fact sheet helps portray the problem with the lack of prioritisation of occupational health in different sectors and different countries.*

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