IFMSA Policy Document
Health Emergencies

Proposed by Team of Officials
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Policy Statement

Introduction:

Although there isn’t a single and clear definition for Health Emergencies, it includes pandemics, water-borne diseases, zoonoses, chemical disasters, radiological emergencies and natural hazards. In fact, Health Emergencies are acute, high impact events which threaten the health of populations and therefore demand a coordinated approach, involving local, national and international actors. Due to increasing global connectedness, countries are increasingly impacted by each other’s preparedness and response strategies, emphasizing the importance of a global collaborative strategy.

IFMSA position:

The IFMSA believes that the prevention of Health Emergencies is essential to minimize the health, social and economic impact of any crisis. Furthermore, we also highlight the importance of the continuous investment in strengthening health and public health systems that can detect and rapidly respond to any acute health incident. Health Emergencies cannot be handled by any single group, profession or organization, but instead require nations to work together to efficiently and swiftly save as many lives as possible, while minimizing the immediate and post-crisis impact.

Call to Action:

The IFMSA calls on National Member Organizations to:

- Raise awareness amongst medical students and the general public on the importance of health emergency preparedness and response and the investment on health systems;
- Advocate for improved compliance with the International Health Regulations (IHR) and WHO Guidelines locally, nationally and internationally;
- Collaborate with other health student organizations, governmental departments, national public health institutes, faculties, media, and relevant organizations to build capacity focused on Health Emergencies, including but not limited to prevention and response strategies, while promoting health literacy among communities;
- Advocate for the adequate protection of the healthcare workers and medical students during outbreaks, ensuring they can serve their countries with appropriate biosecurity measures;
Advocate for the attainment of Universal Health Coverage (UHC) emphasizing the imminence of health security and the need for better emergency preparedness;

Empower medical students to work closely with their governments, non-governmental organizations (NGOs) and international bodies in regards to health matters, not only by volunteering but by actively engaging in decision-making.

The IFMSA calls on Governments to:

- Invest and strengthen the Health and Public Health Systems, ensuring strong diagnostic and rapid-response capabilities with clear chains of communication in the event of a health emergency, while complying with the IHR;
- Openly share data about health emergencies with aid agencies, non-state actors, researchers and health care professionals, while maintaining a continuous intersectoral communication to facilitate public health emergency preparedness and responses;
- Invest in the preparedness, empowerment and support of the Health Workforce, providing adequate training, equipment and protection to ensure their safety at all time, while maximizing the mental, physical, and spiritual wellbeing of workers;
- Cooperate with all countries and governing bodies to provide or receive specialist medical, logistical and/or security assistance in the event of major health emergencies;
- Develop strategies to disseminate culturally and linguistically appropriate health emergency protocols and evidence-based information to appropriate audiences and engage them to play a role in emergency management and combating misinformation
- Commit to achieving UHC by providing dignified and non-discriminatory healthcare services, with a focus on removing barriers of access for vulnerable and marginalised populations;
- Develop recovery plans to support the most vulnerable populations including but not limited to migrants, people with low socioeconomic status, unemployed and homeless people;
- Include healthcare students in the decision-making process, such as, but not limited to the development and implementation of health emergency protocols and preventive strategies;
- Maintain healthcare facilities in times of Health Emergencies and ensure the provision of comprehensive healthcare services and essential medicines especially to patients that need continuous monitoring, such as those with chronic diseases;
- Invest in a national plan and an emergency fund to be used in response to Health Emergencies, building towards the attainment of UHC.
- Support the work of the WHO in Health Emergencies and mobilize sustainable funding.

The IFMSA calls on the World Health Organization (WHO) to:

- Collaborate with non-state actors, member-states, non-governmental and youth-led organizations, universities, influencers and media to establish a comprehensive, inclusive and joint collaborative strategy focused on minimizing the impact of the Health Emergency;
- Advocate for all countries to strengthen their Health Emergency Preparedness and Response Strategies and provide technical assistance, particularly through regional and country offices, while implementing the International Health Regulations;
- Develop capacity-building modules focused on the Health Workforce preparedness, promoting human resources empowerment at a local, national and international level;
• Constantly update and share data and risk communication in a clear, simple, accessible and equitable way with optimal social media use to promote health literacy and combat misinformation;

Position Paper

International Health Regulations and Health in All Policies

Throughout history, there were a number of situations where human beings had to face health threats at an international and global scale, such as the 1918 H1N1 Influenza pandemic (1,2) and the 1986 Chernobyl nuclear incidence (3). In fact, there is no single and clear definition for Health Emergencies, but the general agreement is that they encompass a number of health threats, such as pandemics, water-borne diseases, zoonoses, chemical disasters, radiological emergencies and natural hazards to communities lives. (4)

Early this year, humankind was once again put to test when on March, 11th 2020, the World Health Organization and its General Director, Dr Tedros Adhanom Ghebreyesus, declared SARS-Cov2 (COVID19) as a pandemic, a global health threat to our communities and to the fabric of our societies. In order to tackle Health Emergencies and preparedness, Member States need to work together to develop, maintain and strengthen core capacities for surveillance and response (5). To bring about a change, the International Health Regulations (IHR) were adopted in 2005, with a view to prevent, protect against, control and provide a public health response to the international spread of diseases and restrict public health risks, without unnecessary interference to the international trade and traffic (6,7).

The IHR 2005 introduces the concept of a “public health emergency of international concern” (PHEIC) (8). A PHEIC is “an extraordinary event which is determined to constitute a public health risk to other States through the international spread of disease and to potentially require a coordinated international response”. Any event that affects the public health of more than one WHO Member State may qualify as a PHEIC. This definition implies a situation that is serious, sudden, unusual or unexpected; carries implications for public health beyond the affected State’s national border, and may require immediate international action (9). This would include a chemical discharge in a river, the atmospheric release of a hazardous agent and the contamination of food crossing borders.

As previously mentioned, Health Emergencies affect several sectors in our society, highlighting not only the impact to our Health Systems, but also to mobility and travel, business and commerce, education, industry and energy. With this said, when talking about this intersectoral strategy, one important concept is the “Health in All Policies”, an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity (10).

Consequences of Health Emergencies

As mentioned, the International Health Regulations were designed to tackle Public Health Emergencies of international concern, to address its implications and to better coordinate a global response. In fact, Public Health Emergencies have a number of direct and indirect consequences, the most obvious ones being the injuries and deaths that can be attributed to the disaster itself, but other indirect consequences
are enormous economic, social and health impact in every country. In the “Shared Responsibility, Global Solidarity: Responding to the socio-economic impacts of COVID-19” UN Report, it highlights a number of implications of the COVID-19 pandemic, but also a set of measures countries should adopt not only to tackle this pandemic but also to strengthen and prepare the health, social and economic systems for future Health Emergencies (11).

**Health Consequences of Health Emergencies**

Varying on mortality and morbidity, Health Emergencies put to test our communities and the strength of the public health system in place prior to the disaster (12). In the case of pandemics and infectious diseases, with no vaccine to protect against the infection, most measures include isolation, quarantine and limitations of public gatherings, which can by itself have a number of other consequences. Healthcare facilities if not adequately prepared are overwhelmed by the sudden influx of patients and may not be adequate to meet the demand, in material and human resources. Furthermore, in case of an infection and contagious disease, if they don't have in place measures that can control the spread, they can amplify the epidemic, infecting patients, the health workforce and visitors (13). It’s also worth mentioning that in some cases emergencies and crisis can also result in the destruction of health infrastructure, which will weaken the health system as a whole and the ability to deliver health services (14). Health Emergencies have also a significant impact on populations’ mental health and most people will experience some level of distress (“e.g. feelings of anxiety and sadness, hopelessness, difficulty sleeping, fatigue, irritability or anger and/or aches and pains”). This can be due to pre-existing conditions that are aggravated during emergencies or emergency-induced in the case of family separation, lack of safety, loss of livelihoods, disrupted social networks, lack of income and resources, grief, harmful use of alcohol and drugs, depression and anxiety (15). Finally, Health Emergencies also have a direct and indirect impact on chronic illness management: from one side, patients with chronic diseases and comorbidities will be more vulnerable to the health threat and from another side, due to the lack of resources and the strain on Health Systems, chronic illness management is overlooked, which in turn can have an adverse long-term impact on the overall morbidity and mortality rates and to the quality of life (16,17). During Health Emergencies, health services can be partially or completely disrupted in many countries. In fact, during the COVID-19 pandemic, a survey from the WHO implemented in 155 countries, showed that more than half (53%) have partially or completely disrupted services for hypertension treatment; 49% for treatment for diabetes and diabetes-related complications; 42% for cancer treatment, and 31% for cardiovascular emergencies (18). Reasons for this discontinuing or reducing services vary between countries, such as cancellations of planned treatments, decrease availability in public transport, lack of health workers that were reassigned to support COVID19 services and shortage of medicines, diagnostics and other technologies.

**Economical Consequences of Health Emergencies**

The COVID-19 pandemic is an obvious example whose consequences should be thoroughly analyzed in order to assess what can be done differently in the future and how we can minimize the impact of pandemics alike. This crisis has triggered an unprecedented set of measures to contain its spread and reduce the loss of human life from social distancing to general lockdowns, which in turn had a number of economical, social and health consequences (19). According to the International Labour Organization, disruption in trade and global supply chains had negative effects on developing economies (20) and we can see the loss of between 5 million and 25 million jobs and labour income in the range of USD 860 billion to USD 3,4 trillion.
The effects on business, jobs and incomes have severe economical consequences, with countries reporting an unprecedented reduction in economic activity and working time (21) and record unemployment rates. In fact, mass unemployment events have an adverse impact on the health, financial and social circumstances of workers, families, and communities, exacerbating the indirect impact Health Emergencies have in all sectors of society (22). The transient disruption of supply chains and consequently stockpiling can have an enormous impact on the prices of food with deleterious effects on the nutrition of the most vulnerable (11). Furthermore, the loss of life due to Public Health Emergencies reduces the workforce and lowers human capital all over the world.

Social Impact and Vulnerable groups
Vulnerability can be described as “the characteristics and circumstances of a community, system or asset that make it susceptible to the damaging effects of a hazard (23). For children, with school closures, we see a wide range of adverse impact, including interrupted learning and forgone human interaction, which is essential to social and behavioural development. Furthermore, sustained disruption of education could lead to a rise in child labour and child marriage, placing a further brake on developing countries growth. With this said, when schools close, many children lose the meals provided at school and a zone of safety which leads to increasing malnutrition cases (11). For the poorest population, Health Emergencies have an even bigger impact, that push households below the poverty line and may increase inequality in poor households. Furthermore, studies show that people with HIV/AIDS are more likely to suffer long-term poverty (24) and may never recover their initial income because of lost family members and sales of assets to pay health care costs (25, 26). Another highly vulnerable population is the elderly, that not only are in a worse situation for obvious health reasons but with the overall economic impact, are more likely to be less capable of supporting themselves in isolation. Homeless people, because they may be unable to secure and find a safe shelter, are in a highly vulnerable situation, being exposed to every kind of danger a Health Emergency can present. Persons with disabilities could be left without vital support during emergencies and persons in prisons, migrant detention centres or in mental health institutions could face higher difficulties due to the confined nature of the premises and the shift in health professionals priorities’ that are focused on managing the crisis (11). Moreover, health crises can exacerbate gender inequality and exacerbate the feminization of poverty as lockdowns can see an increase in vulnerability to violence, with countries highlighting increased indicators related to domestic violence during the COVID-19 pandemic lockdowns (11, 27, 28).

Health Emergencies Preparedness

The World Health Statistics for 2018 (29) shows and confirms that there is a gap between the health emergency preparedness and the IHR capacity of low-, middle- and high-income countries. Moreover, a report (30) by the International Working Group on Financing Preparedness, established by the World Bank, showed most countries are not adequately prepared for outbreaks. The data confirmed that many countries do not invest enough in preparedness and prevention of disease outbreaks, in spite of the fact that the cost for preventive mechanisms being significantly lower than that of pandemics (31). Effective action can, in fact, avoid an escalation of the possible impact of the pandemic itself, such as loss of live and socio-economic disruption, however, it calls for the development of collaborative and coordinated strategies between governments, non-governmental organizations, voluntary and private agencies (23).
Protective equipment and preventive measures

Protective equipment (PPE) is the cornerstone of infection control and emergency management, contributing to the protection of the patients, the workers, the community as well as the nation’s economy in the long run. In the case of infectious diseases, lack of protective equipment increases healthcare-associated infections (HAI), which leads to longer hospital stays, inflated medical bills and increased mortality and morbidity (32). This also contributes to surgical site infections that are highly prevalent in low- and middle-income countries, which affects 11% of patients who undergo surgeries. Furthermore, even in high-income countries there is an additional cost in the order of millions of euros due to an increased length of hospital stay, which will in turn have an effect in morbidity and health systems spending (33). Appropriate equipment can prevent the spread of infections and will contribute additionally to the fight against antimicrobial resistance (AMR) (34). The Healthcare Workers (HCW) are not excluded from the consequences of HAIs and can contract a wide variety of pathogens such as Tuberculosis, Hepatitis C, Hepatitis G, Varicella, Methicillin-resistant Staph Aureus, Influenza and Pertussis among others while treating and caring for patients (35). During the COVID-19 pandemic in 2020, as an example, Spain recorded on March 25th that 13.6% of all of its COVID-19 cases are HCWs and on April 15th of the same year the UK noted that nearly 16.2% of all infected cases are critical key workers in the NHS and other sectors (36).

A key factor in these high percentages of infected HCWs is the global shortage of PPEs (37). Protective equipment is not only imperative in healthcare settings, but also to ensure the protection of the community as a whole, especially in public spaces. Masks are a primary garment that has to be widely available in health emergencies, however, specific types have to be provided depending on the pathogen: for example, the use of N95 masks with airborne pathogens (38). Failing to prepare a complete arsenal as a means of prevention before the occurrence of Health Emergencies can lead to disastrous effects, not only on the health of the population, but on the economic status of the country. Indeed, “HAIs in US acute-care hospitals lead to direct and indirect costs totalling $96-$147 billion annually” (39) and the lack of preparedness for the COVID-19 pandemic is expected to lead to a loss of more than $8.5 trillion in output over the next two years (40).

As mentioned, Health Emergencies don’t only refer to pandemics and the same follows protective equipment and preventive measures. To address the water-borne diseases, zoonoses, chemical disasters, radiological emergencies and other natural hazards, several guidelines and measures have to be implemented, one of them being the WHO/UNICEF’s Water, Sanitation and Hygiene (WASH) initiative. This project highlights the importance of handwashing, because unfortunately, we are still witnessing more than 800 children dying every day from preventable diseases caused by poor water, lack of sanitation and hygiene (41). According to the CDC, “handwashing education in the community reduces the number of people who get sick with diarrhoea by 23-40%, reduces diarrheal illness in people with weakened immune systems by 58% and reduces respiratory illnesses, like colds, in the general population by 16-21%” (42). The CDC has also compiled a library of guidelines for the use of PPEs designed to reduce the transmission of infections between patients and healthcare professionals (43), stressing the importance of stockpiling protective equipments in the preparedness for influenza pandemics (44) with other sources providing a calculation system for effective implementation (45). However, it was noted that only 1% of the needed face masks for US medical workers to properly face the COVID-19 were available at the start of the pandemic, partly explaining the toll this virus has had on the US so far (46) and highlighting the lack of preparedness of the country. Another example is the UK, with almost 80% of respirators in the national pandemic stockpile out of date when coronavirus hit the country (47).
The importance of planning for Health Emergencies has been clearly depicted in several documents, with the US’s Public Health Service detailing in 2010 how the federal government should plan for potential pandemics (48). However, the lack of proper global preparedness measures in anticipation of COVID-19 was evident, pushing the WHO’s Executive Board meeting in February 2020 to discuss a much-needed strengthening of health emergency preparedness and calling all member states to implement International Health Regulations (49).

**Emergency funds**

Preparedness to Health Emergencies is not limited to protective equipment, but to the institution of emergency funds to protect the World’s economy during such times. The “Contingency Fund for Emergencies (CFE) gives WHO the resources to respond immediately to disease outbreaks and humanitarian crises with health consequences” (50) and WHO’s COVID-19 Response Fund allows the buying of needed material, the development of a vaccine and/or cure, the development of public guidance and the on-the-ground support as needed (51). Such funds, if installed at country level, would support healthcare centres, first-line responders, awareness spreading and allow the release of economic stimulus packages. Furthermore, this funds can be used to better develop and equip healthcare infrastructures that include beds, units, equipment and vehicles among others as per the WHO’s Hospital Safety Index guide (52). Moreover, countries could also dedicate funds to proper capacity building of HCWs in preparation of Health Emergencies, taking into consideration the recommendations of the WHO’s Health Cluster, that stresses the need for acquiring technical skills, operational efficiency and proper coordination on a local, regional and global level (53).

Emergency funds are also needed to spread awareness during a health emergency in a fast and massive way. This includes media investments, project planning, material costs, guides and booklets development among others. Indeed, case studies have shown the importance of mass media campaigns in changing health behaviour, not only when it comes to tobacco, alcohol or illicit drugs, but also on the prevention of heart disease, HIV infection, cancer screening and prevention, nutrition and physical activity (54). In Health Emergencies, and more specifically in case of an infectious disease outbreak, it was found that public awareness is a key player in the fight, mainly by showing the signs and symptoms to be alert and how to prevent the spread of the infection (55).

**Universal Health Coverage**

When it comes to Health Emergencies Preparedness, it is worth noting that the ultimate way to prepare for Health Emergencies is by achieving Universal Health Coverage (UHC), leaving no one behind (56). UHC promotes equitable access to health services in all areas of medicine and highlights the importance of healthcare workers, appropriate leadership, governance and adequate financing to health systems (57, 58, 59, 60). In Health Emergencies, major challenges arise primarily because of weak UHC building blocks and a lack of an appropriate health system prior to the emergence of the crisis. In the case of COVID-19, the World Bank reaffirmed that UHC is “absolutely fundamental to make sure that everyone, no matter who they are or where they live, has access to the free-of-charge testing” also noting that with COVID-19, UHC is “what will make the difference to each country’s response”. Furthermore, it highlights that no one should face any kind of financial, geographical, linguistic, religious and cultural barriers that prevents anyone from accessing dignified, confidential, quality health-care services and that specific actions are taken to recognize and address the diverse needs in the general population. This includes the needs of vulnerable populations including but not limited to older people, migrants, marginalised populations, and those with underlying health conditions (61). Thus, a robust health system is necessary to ensure a proper response to health emergencies, especially during pandemics.
**Health Workforce Capacity Building, Planning and Empowerment**

The capacity of the health workers, public health and health-care officials, communities and individuals is fundamental to prevent, protect against, quickly respond to, and recover from health emergencies. Aside from coordination, preparedness involves continuous planning and implementation that relies on measuring performance and taking corrective action (62, 63). Epidemic preparedness reflects the capacity of institutions, public health authorities, health systems and emergency response bodies to detect, report and respond to outbreaks (64). While preparedness for Public Health Emergencies is typically considered in terms of surveillance, response and health capacity, these functions, in turn, rely on a broader set of institutional, financial and infrastructural factors (65). The Ebola crisis demonstrated how our Workforce was so unprepared in incapacity and response while facing such a complex infectious-disease (66, 67). Therefore, there is the need for continuous emergency response training of health professionals, especially those cases typically under-represented in the health workforce, such as epidemiologists and mental health professionals. Furthermore, it is fundamental that we strengthen our local health workforce in primary health care centres, while developing effective and high-performing national, subnational and regional Emergency Medical Teams, in line with WHO classification (68).

During Health Emergencies, Health Systems and communities demand a rapid and urgent action through a clear emergency response, able to mobilize and deploy trained professionals. In fact, some countries are suffering from eroding health systems and severe workers shortage after successive crises, where they were unable to recover. In such a setting, counting on professionals alone is not practical and it may hinder the quality and the effectiveness of the response. The best way to gather workers during a Health Emergency will be through mobilizing and empowering not only health professionals but also the available community health workers, traditional workers and associate professionals (69).

The WHO recognizes the vital role of both motivated, skilled, well-trained and well-resourced health workforce and the community health workers in the Health Emergency Preparedness. (49). Moreover, a workforce with the necessary mix of competencies, knowledge and skills to manage Health Emergencies is one of the requirements under the International Health Regulations (IHR). The Health Workforce requires sufficient capacity and training in order to become trusted professionals, able to respond to a variety of threats, such as natural disasters, be able to recognize diseases, carry out laboratory tests to track the spread of communicable diseases and support populations during health emergencies, performing optimally, while under stressful circumstances.

There are a number of ways to build capacity in our health workforce, such as face-to-face and online training, curriculum development, simulation exercises and through meetings and workshops on topics such as mass casualty incident management training, public health emergency management, infection prevention and control and laboratory services (70). Besides the importance of training our Health Workforce, Leadership also plays a crucial role in the empowerment of the Health Workforce. Jurisdictions are responsible for developing and sustaining Public Health Emergency preparedness capabilities rather than just managing the response to emergent events (71).

**Collaboration and Partnerships**

Part of a comprehensive preparedness strategy is the collaboration with relief agencies, different governments as well as non-government agencies in order to build capacities of the health workforce, communities, and individuals to prevent, protect against, quickly respond to, and recover from Health Emergencies (72). These partnerships are not developed during a Health Emergency, but should be
fostered prior to the crisis itself, facilitating communication and immediate response if needed (73). More than collaboration with organizations and institutions, a key stakeholder are communities itself, taking into consideration their cultural considerations and local experiences. For example, community health workers (CHWs), who comprise the village health teams, should be trained on standardized clinical and community case definitions, reporting of any unusual events, and surveillance activities to enable early reporting from the community level to their respective attachment health facilities. Planning that takes an inclusive approach and engages the public promotes common understanding of risks, assets and values, and can facilitate transparency between public health agencies and the community (74).

**Investment in public health systems in the context of communicable diseases**

Effective public health systems are vital for early detection, mitigation and management of infectious disease outbreaks. (68) This requires the health institutions have the capacity to access and monitor the entirety of the geography and population. Once an epidemic is underway, the healthcare and public health systems must be able to identify, investigate, monitor and manage abrupt surges in cases through the mobilisation of personnel and resources (75). Properly functioning public health systems depend deeply on general institutional capacities such as effective systems for planning, management, resource allocation and expenditure, as well as policy formulation, coordination and implementation. These and other attributes of governance and bureaucratic structures are important determinants of whether health risks and capacity building priorities are identified and prioritised, whether appropriate plans and sufficient resources are put in place and whether inputs (including human and financial capital) are effectively translated to health system outputs (76).

Systemic deficiencies in national public health systems and preventive medicine, especially the lack of functional disease surveillance and response systems, were key contributors to the length and severity of Health Emergencies, such as the Ebola outbreaks in Guinea, Liberia, and Sierra Leone (65). However, this is not a problem unique to low-income nations and the recent outbreaks of severe acute respiratory syndrome (SARS) (77), Middle East respiratory syndrome (MERS) and COVID 19 demonstrated that even advanced economies are often unprepared to deliver an effective and timely response to public health emergencies. The importance of investing in strong public health systems was globally recognized following the SARS outbreak in 2002–2003 (78) and the emergence of avian influenza H5N1 in 2003–2004 (79). These outbreaks exposed weaknesses in detection, reporting, and response similar to deficiencies revealed by the Ebola outbreak. In response, the World Health Organization (WHO) member states agreed to implement the 2005 revisions of the IHR, committing to develop core capacities for detection, assessment, notification, and reporting of events to respond to public health risks and emergencies (80). This binding agreement also emphasizes the importance of containing emergencies locally. Although there are many technical and resourcing challenges in investing in public health systems, in many countries the fundamental impediments revolve around political commitment and governance. Government leaders need to recognize the importance of the overall health system, and public health in particular, to the nation's human and economic security, and to translate this recognition into budget priorities and concrete plans. Sustained political commitment at the highest levels is essential to devise policies and pass legislation to facilitate the implementation of core capacities, including the establishment of national focal points (NFPs), development of laboratory networks and surveillance systems, and provision of adequate financial resources. Outbreaks cannot be effectively contained if they are not detected promptly. National public health systems must have the capacity to identify an outbreak and establish an alert system to trigger response and, if needed, seek support from regional and global levels. Plans to reinforce public health infrastructure and capabilities will need to combine
tactical actions delivering short-term improvements with more strategic initiatives to build capacity over the longer term. Effective investment in health care delivery and public health is essential, because outbreaks are typically first detected through primary health care, and because the health care delivery system is critical to executing a response strategy (81).

Health Emergencies Response

The United Nations has three interlocking strategic plans to tackle the COVID-19 outbreak, which includes the Strategic Preparedness and Response Plan (SPRP) with a Strategy Update released on April 2020 according to the new discoveries about the virus transmission, the Global Humanitarian Response Plan for COVID-19 (GHRP) and the Framework for the immediate socio-economic response. Moreover, the WHO has released the Operational Planning Guidelines to support the response to the COVID-19 crisis in the country level, so that they can adapt their own national plans across the major pillars of preparedness and response. In fact, these pillars can be broadened to include future Health Emergencies Response Plans, focusing on topics such as country-level coordination, planning and monitoring, as well as interministerial engagement (health, education, travel, tourism, environment, social welfare, agriculture). Furthermore, they highlight the importance of community engagement to easily transmit the changes and updates done regarding preparedness and response, as well as to inform about what is being discovered about the specific health emergency. Focusing on surveillance, rapid response teams and case investigation, these guidelines highlight the importance of preparing all the possible logistic arrangements to support incident management and operations, as well as supply chains. Finally, another key pillar is maintaining essential health services and systems to prevent any possible indirect morbimortality of the Health Emergency due to diminished or discontinued healthcare attention to other preventable or treatable illnesses. During the implementation of these plans, it is recommended to appoint a leader to coordinate the national action plan and the multiagency plan, continuously mapping the preparedness and response capacities to identify gaps according to the actions outlined in the guidelines. In fact, monitoring is essential to track processes according to indicators as well as conducting regular operational reviews to reevaluate the need to adjust the national plans (82).

Fighting misinformation and raising awareness

Misinformation hinders the way of educating the public and therefore raising awareness on Public Health issues (83). When it comes to health emergencies, misinformation can be a tremendous obstacle in developing a timely and catalytic response of the public. In order to combat this phenomenon, it is of vital significance to maintain an updated situation report and continuously communicate to the public with all the latest evidence-based information, ensuring that communities know how to tackle the Health Emergency. Furthermore, any changes to preparedness and response interventions should be introduced and clearly explained to the public through accessible and trusted channels of communication, with community-based networks and key influencers corresponding and establishing a trustworthy relationship with communities (82, 84)

One way of fighting misinformation and announcing all the public health and social measures is through campaigns, however, it is always important to take into account the perspective, feedback, social and cultural background and experiences of communities (85). Throughout this process, it is important to establish evaluation procedures aiming at tracking the perception of the community towards the measures, addressing any concerns, fears and rumours, which will allow us to identify and rapidly counter any means of misinformation (82). The usage of a two-way communication targeting the provisioning of trustworthy information and promoting the discussion of community actions and solutions, through hotlines, platforms and even media with the contribution of healthcare professionals and well informed/trained medical students could possibly decrease the influence/impact of
misinformation and raise awareness (82, 86). Moreover, the development of a software that can locate sources of misinformation and monitoring rumours can be helpful to form consistent, rapid and evidence-based factual information and guidance (82).

**Youth Involvement in Health Emergencies**

Crises and disasters cannot be avoided, but their consequences can be mitigated by planning and preparedness strategies. Although major events affect the whole society, their impact on vulnerable groups is more evident. Children and youth belong to this category and need to be considered for special planning and education.

According to the United Nations Development Programme, it’s acknowledged that the definition of youth ages between 15–24 (87). Young people not only need to understand the nature of society's response to Health Emergencies, but also how to react to reduce the risks for these events. In this perspective, theoretical knowledge is not enough and a practical approach should also be included. Young people should be educated in a way that offers them adjusted knowledge and develops their capacity for crisis management and preparedness, while ensuring their readiness for future emergencies. Although youth are considered as a risk group in a disaster due to the fact that they may not know how to deal with the emergency, an educational initiative may make them an important resource for the future emergency preparedness. There is a need for new educational initiatives in the field of emergency and disaster management for youth. Such education aims to increase emergency preparedness in schools and universities, enhance individual skills, increase the understanding about the involved authorities’ actions and responsibilities and provide support and opportunities for young people to take responsibility in emergency situations (88). Depending on the age, youth can have different roles in managing Health Emergencies: rescuing, saving and caring for younger children, developing solidarity initiatives such as collecting and distributing food and rations, educating others, increasing communities health literacy and caring and supporting injured people (89).

During the COVID-19 crisis, young people are proactively combating the spread of the virus and working to mitigate and address the pandemic’s impacts. Young people were combating misinformation, discrimination and stigma related to the crisis, raising awareness on the importance of following public health guidelines, such as physical distancing to stop the spread of the virus. Furthermore, they developed initiatives that can provide support to the most vulnerable in their communities, including persons with disabilities, older persons, migrants, refugees and those living in slums and informal settlements. Finally, even in light of shortages of protective equipment, young health professionals and students risked their lives on the front lines of the pandemic (90).

Youth can also have a role in the Health Emergencies post-management, finding creative ways to successfully plan the future of their communities after a crisis. Young people should be able to actively participate in shaping responses and need to be meaningfully included in all aspects and phases of the response. When facing Health Emergencies, the most efficient solutions are always those who take advantage of everyone’s collective strengths and contributions. With this said, Young people should be recognized, trusted and included in the decision-making process, helping design the strategies that will guide the world after the crisis.

**Healthy Recovery Plans**

From pandemics to zoonoses, chemical disasters to radiological emergencies, Health Emergencies highlight the interconnected relationship between people, animals, the environment and plants. After a crisis, to minimize the health, social and economic impact, nations need to devise plans that not only
can assure a recovery, but should also adopt measures to prevent any future similar situations. When communities want to “go back to normal”, world leaders have to push the agenda even further and take advantage of a deeply troubling and impactful situation, to commit to a positive and healthy recovery that can improve everyone’s lives in the future. First, it is important to preserve and protect a common aspect in all health emergencies, our environment. Humankind has for decades used and abused the planet’s natural resources (deforestation, intensive agricultural practices, pollution and unsafe management of wildlife), which have a number of consequences on its own. Furthermore, nations need to invest in basic and essential services, such as water and sanitation that can, in fact, be instrumental in managing a health emergency, being a pandemic or a chemical disaster. While it is easily understood the economic impact of any Health Emergency and the rush to come back from the financial hardship, we shouldn’t do it at the cost of our health and should in fact invest in the implementation of renewable cleaner and healthier energy sources, preventing the deaths of millions of people due to air and water pollution. Health Emergencies also have an enormous effect on food supply chains, which should highlight the importance of reviewing our agricultural practices and livestock management and making sure that we develop strategies that can minimize our environmental impact while ensuring that everyone in the world has access to healthy, nutritious and sustainable diets (91). With this said, using the COVID-19 pandemic as an example, there is an imperative need to ensure that health is placed at the centre of all social and economic stimulus packages, so that post-COVID investments led by the different governments are integrated to protect health and achieve equitable socio-economic recovery. (92).

Finally, it’s unquestionable the tremendous health, social and economic impact Health Emergencies have on communities worldwide, however, it is our duty to develop strategies that can ensure we recover from any crisis in a healthier and sustainable way that we were before.

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