

FORUM:	World Health Assembly
ISSUE:	Measures to Implement Dynamic Plans for Building Clinical Care Capacity during Health Emergencies
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Introduction

The global outbreaks of pandemics, natural disasters, and other tragic events further outline the critical need for flexible clinical care capacity. Healthcare demand rapidly impacts beyond current capacity in the case of emergencies, causing challenges to provide quality care to people in need. This therefore calls for flexible and dynamic plans that can rapidly increase the clinical care capacity dynamic plans that will rapidly increase to meet the surges in demand resulting from such issues.



Patients fill a temporary field hospital in Madrid, Spain

A structured emergency health care plan holds critical importance as it directly impacts the safety and health of people. Effective measures for increasing the capacity for clinical care can save lives, reduce morbidity, and prevent excessive burdens on healthcare systems. For example, the COVID-19 pandemic exposed gaps in healthcare infrastructures worldwide and underscored the need for urgent strategies to ensure that sufficient medical resources, personnel, and facilities are immediately available.

Background

The healthcare systems of the world have been put to test several times by pandemics, natural disasters, and other crisis, which have required quick and appropriate responses to the sudden demand for in accessibility and increase in complexities of patient care. These type of health emergencies hold valuable lessons in how organizations and communities can respond to global challenges. Inadequate response plans can lead to an immense cost of human lives.



The COVID-19 pandemic brought into focus around the world to the risks infectious diseases place upon core health systems, placing both medical supplies and workforce, as well as beds, in short supply. The 2009 H1N1 flu (swine flu) outbreak and natural disasters such as the earthquake in Japan in 2024 and the tsunami in the Indian Ocean in 2004, hit the health-care system and emphasized the importance of emergency plans in building temporary medical facilities. The COVID-19 epidemic showed how easily infectious illnesses overwhelm our healthcare systems. In Brazil, hospitals in Rio de Janeiro and São Paulo reached near 100% ICU occupancy rates in mid-2020, leading to severe resource constraints. Similarly, India faced a significant shortage of oxygen cylinders, with demand rising by 700% in some areas during the peak of the crisis in 2021.

Different global efforts and structures have been established to address these needs. The World Health Organization's (WHO) Health Emergency and Disaster Risk Management (DRM) Framework emphasizes risk evaluation, engaging communities and integrating emergency prepared state into health strategies. The International Health Regulations (IHR) promote prevention, recognition, and response to public health emergencies. The Global Health Security Agenda (GHS) and the Coalition for Epidemic Preparedness Innovations (CEPI) demand to improve capacities and advance vaccine development.

These are just some of the events and connected organizations that clearly highlight the need for increased and improved flexible healthcare, efficient allocation of resources, technological integration, and reinforcement in international collaboration. This necessitates building modular health facilities, efficiently distributing medical supplies, the increased use of digital health technologies, and reinforcement of partnerships between countries to build and maintain resilient healthcare systems.



Healthcare professional conducting a COVID-19 PCR test on a patient

Problems Raised

Inadequate Health Infrastructure

One of the major problems revealed in the 2020 pandemic was underdeveloped and inadequate medical infrastructures. Obviously, there is need for a dynamic plan designed for clinical efficiently rolled out for all subsequent emergencies. While most healthcare systems around the world had to contend with weak links that had always been in the system, this became clarified during the COVID-19 pandemic. In fact, during the pandemic's peak in 2020, most primary hospitals in New York,



United States and Lombardy, Italy were overloaded, with Intensive Care Units (ICUs) at roughly 100 percent occupation. A situation that has forced health providers, according to the WHO, into triaging life and death decisions. WHO added that over 90 percent of countries reported disruptions to essential health services due to COVID-19. Both expendable and adaptive health infrastructure is desperately required to meet the needs of emergency health crises. This includes needs such as hospital beds, ICU, ventilators, medicines, and sufficient medical staffing. This problem is exacerbated in less developed nations due to poor/limited, basic health facilities, thereby exacerbating the magnitude of the crisis. In nations like Nigeria and India, hospitals were not even prepared to handle this sort of patient influx. Many were without ventilators or ICU beds, which contributed to an increased death count. Equally, health systems in most parts of Sub-Saharan Africa were constrained by a lack of medical supplies and skilled health personnel, limited testing capacity, and a host of other issues, underscoring the enhanced urgency for the formulation of all-inclusive health policies at the national level and multilateral aid aimed at hardening these developing nations' health infrastructure.

Medical Workforce and Supplies Shortages

Another critical issue is the shortage of medical personnel and necessary supplies during a health emergency. As the Covid Pandemic exponentially spread throughout the world, alarming shortages occurred in health care providers, doctors, nurses, and support staff. For example, early in the pandemic, Italy experienced a serious shortage of health workers because over 20% of health workers in Lombardy were reportedly infected, further reducing an already strained workforce. Furthermore, estimation by the International Council of Nurses (ICN) that over 1,500 nurses have decreased due to COVID-19 by October 2020 worldwide, which further reflects how healthcare personnel have been affected.

Additionally, there were acute shortages of personal protective equipment (PPE), ventilators, and other first-aid-related apparatuses. In a 2020 WHO survey, 67% of countries reported disruptions to the availability of PPE. Such shortages did not only endanger health care professionals but also impacted delivering appropriate services to patients whose health condition was diminishing due to delayed care. The inability to procure medical supplies in time and to distribute them with the required speed



Empty shelves due to medical supply shortage

in emergencies underlines the requirement for effective supply chain management and strategic resource accumulation is essential for dynamic healthcare capacity planning.



Communication and Information Sharing for Health Emergencies

Effective communication and information sharing is essential for managing public health emergencies and building capacity around clinical care. Past events, including the Ebola outbreak during 2014-2016 and the COVID-19 pandemic, have reflected back on the adverse impact ineffectiveness in the communication process and inconsistency in sharing of information and resources. Such delays and gaps in the distribution of critical data fueled prolonged outbreaks and overburdened the health care systems. Further complicating this cohesive response were inconsistent data reporting, concerns over confidentiality, and technological challenges. To this effect, global health initiatives in areas of standardizing reporting and enforcing collaboration are mirrored by the WHO's Global Outbreak Alert Response Network (GOARN) and International Health Regulations (IHR). Advancements in technology, particularly in the field of digital health platforms and big data analytics, further offer advanced capability for real-time information exchange and decision-making. Greater integration and responsiveness from the global health system are needed, and this requires the strengthening of coordination mechanisms and building trust among stakeholders. This calls for addressing the challenges of communication and information sharing for effective preparedness and control of future health emergencies.

International Actions

WHO Health Emergency and Disaster Risk

Management Framework

WHO has developed a framework for Health Emergency and Disaster Risk Management Framework (EDRM), which is a resource to strengthen countries' capacity to respond to health emergencies by providing detail and conclusive guidelines over risk management, readiness, and response processes. It calls for the integration of the management of emergencies within national health policies and plans.



The logo of the World Health Organization

The two major components of the Health EDRM framework involve developing national action plans, establishment of emergency operation centers, strengthening of disease surveillance systems, and training of health workers on emergency preparedness and response. Facing COVID-19, the framework availed structured coordination of foreign assistance in utilizing essential medical supplies, including PPE. By following the Health EDRM regulations, governments can build resilient health systems capable of quickly adapting to increases in demand during an emergency.

Global Health Security Agenda (GHSA)

The Global Health Security Alliance (GHSA), established in 2014, aimed to increase global capacity for infectious disease prevention, detection, and response. GHSA sets the targets in the critical areas of surveillance, laboratory, workforce development, and response operations, which strengthens country preparedness. It encourages sharing of best practices, expertise, and resources among member countries. The GHSA also provided, during the West African Ebola outbreak, the support by member countries in terms of medical personnel and laboratory testing, which played a major role in containing this outbreak. Moreover, it has managed to arrange regional centers of excellence in training healthcare workers to ensure the availability of skills in case such health emergencies do occur. Its focus on international cooperation and capacity building in enhancing the capacity for clinical care and ensuring a coordinated global response in case of a health crisis is very important.

Key Players – List the parties involved in the issue and their views towards the issue

World Health Organization (WHO)

World Health Organization is the world's leading authority on global public health concerns. WHO plays a vital role in the management of health emergencies through the provision of guidelines, coordination of efforts from other countries, and support to countries looking to strengthen their healthcare systems. Through initiatives like the Health EDRM Framework and the IHR, WHO works with nations to prepare, respond to, and recover from health crises. WHO, with its approach of risk assessment, preparation, and scaled response strategies, plays a significant role in enhancing clinical care capacity during emergencies around the world.



*The logo of United States
Centers for Disease
Control and Prevention*

United States Centers for Disease Control and Prevention (CDC)

The CDC is one of the primary contributors to health not only in its base in the United States, but also in collaboration with other countries health frameworks. The CDC provides technical assistance, training, and support in strengthening health systems globally. On GHSA commitment, CDC continues to engage with other countries in strengthening their preparedness and emergency response capacity. Ongoing activities include the strengthening of disease surveillance and laboratory capacity structures linked with health workforce training conducted by the CDC. Its proactive approaches and resources make the CDC an important entity in the development of dynamic plans targeted at building clinical care capacity in the case of health emergencies.



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European Centre for Disease Prevention and Control (ECDC)

The European Centre for Disease Prevention and Control was founded as a European Union institution tasked with strengthening Europe's defenses against infectious diseases. During such health emergencies, the ECDC plays an important role in enabling the exchange of information, integrating response tactics, and facilitating in the quick deployment of health resources. Activities by ECDC are oriented toward strengthening disease monitoring, outbreak response, and healthcare system resilience within Europe. Its collaborative efforts with national public health institutes are contributory to enhanced clinical care capacity to respond to a wide range of events that may arise necessitating targeted healthcare responses.

Possible Solutions

Strengthening Healthcare Infrastructure

To effectively implement dynamic plans for building clinical care capacity during health emergencies, it's crucial to improve healthcare infrastructure. This means investing in adaptable facilities that can be rapidly expanded or modified in a crisis. Governments and international organizations should focus on funding for modular hospitals and mobile medical units that can be quickly deployed where they are needed most. This can be achieved by governments establishing particular emergency funds and pre-negotiating contracts for modular initiatives that can be utilized immediately. The assurance of technical proficiency from international businesses and cross-border collaboration could possibly be maintained, as well as a worldwide stockpile of mobile units and critical equipment for quick implementation. Additionally, increasing the supply of essential medical resources at existing hospitals will help them better manage sudden surges in patient numbers. A strong and flexible healthcare infrastructure is key to a successful emergency response, allowing for swift and efficient care during crises.

Enhancing Workforce Training and Deployment

Another important solution is to improve the training and deployment of healthcare workers to ensure to have a skilled and flexible workforce during health emergencies. This means setting up detailed training programs that focus on emergency response, infection control, and



Training session for health workers



crisis management for healthcare staff. Governments and health organizations should create rapid response teams made up of trained professionals who can be quickly sent to areas in need during contingencies. Additionally, international cooperation and exchange programs can help standardize training and make sure that countries are equally prepared. By investing in ongoing education, like online training module and protocol, and readiness for healthcare workers, we can build a strong workforce that's ready to handle health emergencies and keep providing care.

Glossary

Global Health Security Agenda (GHSA)

More than 70 nations, international organizations, non-governmental organizations, and private sector businesses are collaborating to accomplish the goal of a vision of world safe and secure from infectious diseases.

Intensive Care Unit (ICU)

It is a specialist hospital department that provides treatment and monitors people who are very ill.

Global Outbreak Alert and Response Network (GOARN)

WHO network that provides international public health resources to combat epidemics and public health emergencies across the world.

International Health Regulations (IHR)

It was developed to assist governments decide if a case should be reported, ensuring quick and coordinated worldwide responses to public health crises.

Health Emergency and Disaster Risk Management (Health EDRM)

It is an extensive approach to managing health-related emergencies and disasters that includes risk assessment, preparation, response, and recovery measures.



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