

Advancing Health Security and Public Health Capacities in Egypt: Role of Healthcare System Preparedness

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Disclosure

- No financial interests or relationships to report
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Health Security

- First use was in 1980s
- Growing utilization of the concept and term of health security since 2001
- Various, incompatible, and no universally agreed definition
- Major differences in understanding and use of the concept in different settings (inconsistent use within the UN agencies)
- Miscommunication and mistrust
- Recommendations to avoid the term “security”
- Consensus in the ME to use the term "أمان" و ليس "أمن"

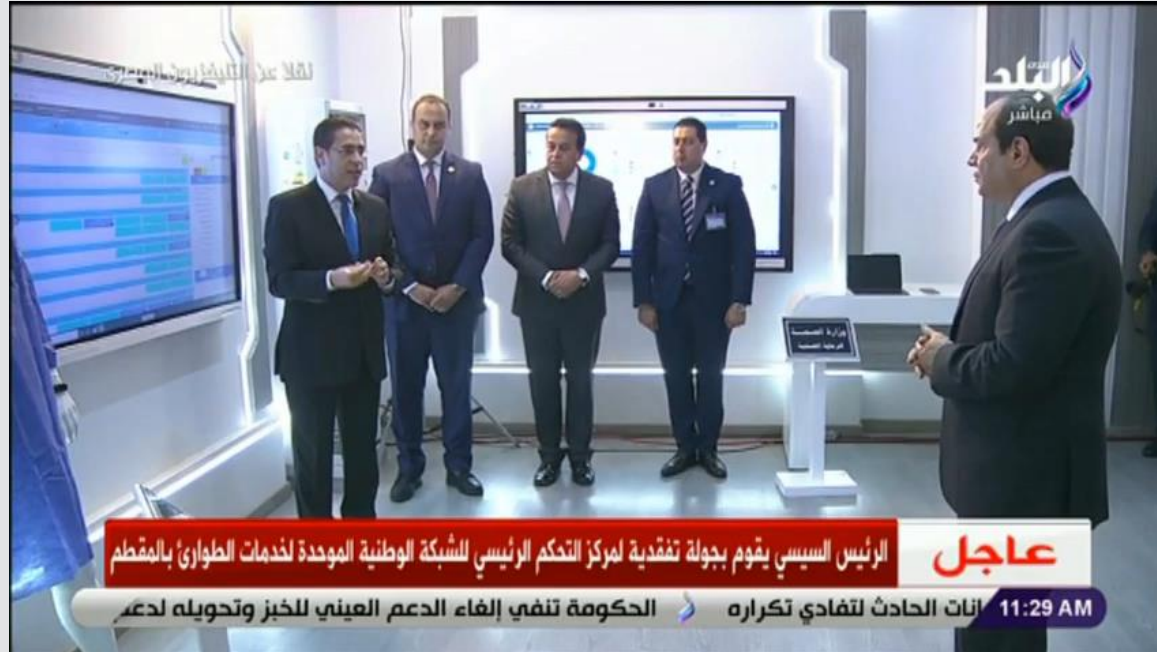


Health Security

Health Security Act was introduced in 1993

Besides universal coverage and a basic benefit package, provisions included health insurance reform, regional alliances for structuring competition among health insurance plans, consumer choice of health plans, and provisions for Medicaid beneficiaries.

Health Security



الرئيس السيسي يقوم بجولة تفقدية لمركز التحكم الرئيسي للشبكة الوطنية الموحدة لخدمات الطوارئ بالمقطم

عاجل

11:29 AM أنات الحادث لتفادي تكراره الحكومة تنفي إلغاء الدعم العيني للخبز وتحويله لدعم



Health Security

World Health Organization defines global public health security as:

Activities required, both proactive and reactive, to minimize the danger and impact of acute public health events that endanger people's health across geographical regions and international boundaries

Health Security

Advancing global health security

from commitments to actions



WHO high-level meeting on Advancing global health security in 2016, Bali, Indonesia:

- 1- From assessment to national planning
- 2- Implementing national preparedness plans
- 3- Sustainable funding for national preparedness planning and implementation

“ *The bedrock of outbreak and emergency preparedness and response is a functioning, resilient national health system – with financing, human resources, infrastructure, information and supply management systems capable of detecting and responding to public health events.* ”

Many frameworks support countries as they prepare for health emergencies. These include the Pandemic Influenza Preparedness (PIP) framework; the Sendai Framework for Disaster Reduction; the Sustainable Development Goals (SDGs) and Universal Health Coverage (UHC); the Global Health Security Agenda (GHSa); the Ise-Shima Health Agenda and other G7 initiatives; the One Health approach; Integrated Disease Surveillance and Response (IDSR); the Asia Pacific Strategy for Emerging Diseases (APSED); EURO 2020; the Essential Public Health Functions in support of Universal Health Coverage (UHC) resolution (WHA69.1); the Integrated People Centred Health Services Framework; and the International Health Partnership for UHC 2030.



US National Health Security Strategy

U.S. National Health Security actions protect the nation's physical and psychological health, limit economic losses, and preserve confidence in government and the national will to pursue its interests when threatened by incidents that result in serious health consequences whether natural, accidental, or deliberate.

As our nation's health threats evolve, the way governments and stakeholders work together and carry out missions must evolve as well. **Ensuring a health-secure nation is a collective responsibility among federal, state, local, tribal, and territorial (SLTT) governments and public and private partners, non-governmental organizations, academia, professional associations, communities, volunteers, families, and individuals.** The National Health Security Strategy (NHSS) provides a vision for strengthening our nation's ability to prevent, detect, assess, prepare for, mitigate, respond to, and recover from 21st century health security threats.

Health Security



CDC defines global health security as:

The existence of strong and resilient public health systems that can **prevent, detect, and respond** to **infectious disease threats**, wherever they occur in the world

NAACHO defines national health security as

A state in which the nation and its people are **prepared for, protected from, and resilient** in the face of incidents with health consequences. Local health departments play a key role in achieving national health security by preparing their communities for disasters, responding when emergencies occur, and lending support through the recovery process



Health Security

Preparedness activities related to any internal or external biological events that can lead to public health emergencies

Public Health Emergency Preparedness (PHEP)



Full range of prevention, mitigation, response and recovery activities, including operational capabilities, to reduce risks and the short and long-term impacts of all-hazards emergencies on population health

Public Health Emergency Preparedness (PHEP)



- Building and sustaining resilient communities
- Enhancing the use of medical countermeasures and non-pharmaceutical interventions
- Ensuring situational awareness to support decision-making
- Enhancing public health, healthcare, and emergency management systems
- Strengthening global health security
- Building all-hazards preparedness planning

Public Health Emergency Preparedness (PHEP)



- Most country-specific PHEP frameworks were developed in the US
- The ECDC adapted a US model for the European Union
- The WHO considers health systems globally and emphasizes national, subnational and local connections
- The UN Sendai Framework takes a whole-of-society approach

These frameworks highlight the importance of national action and global collaboration to improve health system preparedness and reduce disaster risks



Why it is Important: Outbreaks

- HIV/AIDS epidemic in 1982: 76 million affected. Since 2000 about \$526 million overall care, treatment, and prevention, \$42 billion spent of research
- Severe Acute Respiratory Syndrome (SARS) in 2003
- Influenza in 2006 and 2009
- Middle East Respiratory Syndrome (MERS) in 2012
- Ebola in 2014
- Zika in 2015
- Corona in 2019: > 614 million confirmed cases, > than 6 million dead, global economic impact ~\$28 trillion

International Situation



Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

Global Health Protection and Security

Across the globe, dangerous gaps in public health systems still exist

About 70% of the world's countries report that they are not fully prepared for an outbreak



World Health
Organization

Pandemics, health emergencies and weak health systems not only cost lives but pose some of the greatest risks to the global economy and security faced today

<https://www.cdc.gov/globalhealth/healthprotection/ghs/about.html>

https://www.who.int/health-topics/health-security#tab=tab_1



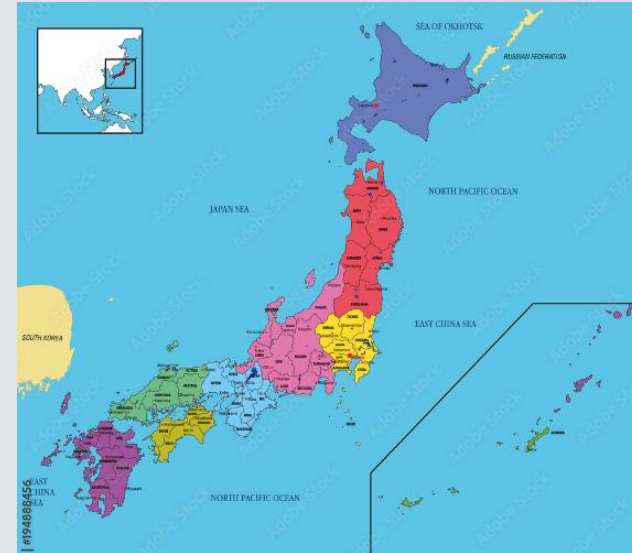
International Models

	People's Republic of China	The United States of America	Republic of Maldives	The People's Republic of Bangladesh	The Federal Democratic Republic of Ethiopia
Highest Governing Charter	Emergency Response Law of the People's Republic of China	Homeland Security Act (Public Law 107-296)	Maldives Disaster Management Act	Disaster Management Act (No. 34)	National Policy and Strategy on Disaster Risk Management
Year Enacted/Issued	2007	2002	2006	2012	2013
Impetus for Developing or Improving the Law or National Plan	2003 SARS outbreak	The 9/11 terrorist attacks on the US	The 2004 Indian Ocean Tsunami	Economic and developmental goals	Severe droughts that critically affect the national food security
Managing Authority	Ministry of Emergency Management	Federal Emergency Management Agency (FEMA)	National Disaster Management Authority (NDMA)	Ministry of Disaster Management and Relief (MoDMR) (falls organizationally under the Inter-Ministerial Disaster Management Coordination Committee (IMDCC))	Ministry of Emergency Management

International Models

Japan:

- 1961 Disaster Countermeasures Basic Act (with its subsequent revisions) formulates a comprehensive and strategic disaster management system for Japan
- 1998 Infectious Disease Control Act
- 2012 Special Measures Act for Pandemic Flu and New Infectious Diseases Preparedness and Response
- Japan has a sophisticated legal framework for public health emergencies
- Both for pandemic and disaster risk preparedness, clearly define the roles and responsibilities of ministries, prefectures and municipalities
- It establishes the primary responsibility for emergency response at the local level



Regional Frameworks

- League of the Arab States
- Gulf Cooperation Council (GCC)
(No mention about health security/public health (emergencies) in their charters)



<https://www.gcc-sg.org/en-us/AboutGCC/Pages/StartingPointsAndGoals.aspx>

<http://www.lasportal.org/ar/Sectors/sectorhome/Pages/default.aspx?SID=6&imglib=Socialphoto>

Egypt Frameworks

- 41 laws and decrees
- Law 22/2020 (law 162/1958)
- Law 152/2021

٢ الجريدة الرسمية - العدد ١٨ مكرر (أ) في ٦ مايو سنة ٢٠٢٠

قانون رقم ٢٢ لسنة ٢٠٢٠

بتعديل بعض أحكام القانون رقم ١٦٢ لسنة ١٩٥٨

في شأن حالة الطوارئ

(٢١) إلزام كل أو بعض المستشفيات الخاصة والمراكز الطبية التخصصية والمعامل ، في حالات الطوارئ الصحية ولمدة محددة ، بالعمل بكامل أطقمها الفنية وطاقتها التشغيلية لتقديم خدمات الرعاية الصحية بصفة عامة أو لحالات مرضية مشتبه في إصابتها بأمراض محددة ، وذلك تحت الإشراف الكامل للجهة الإدارية التي يحددها رئيس الجمهورية ، وتحدد هذه الجهة أحكام التشغيل والإدارة ، والاشتراطات والإجراءات التي يتعين على المستشفيات الخاصة والمراكز الطبية التخصصية والمعامل الالتزام بها وآليات مراقبتها في تنفيذها .

٢ الجريدة الرسمية - العدد ٤٧ مكرر (أ) في ٢٩ نوفمبر سنة ٢٠٢١

قانون رقم ١٥٢ لسنة ٢٠٢١

بشأن إجراءات مواجهة الأوبئة والجوائح الصحية

مادة (٢)

تشكل لجنة عليا تسمى "اللجنة العليا لإدارة أزمة الأوبئة والجوائح الصحية" برئاسة رئيس مجلس الوزراء ، وعضوية الوزراء المختصين بشؤون الصحة والسكان ، والعدل ، والدفاع ، والداخلية ، والتنمية المحلية ، والسياحة ، والمالية ، والتموين والتجارة الداخلية ، والتربية والتعليم والتعليم الفني ، والتعليم العالي والبحث العلمي ، والتضامن الاجتماعي ، ورئيس هيئة الدواء المصرية ، ورئيس الهيئة المصرية للشراء الموحد والإمداد والتموين الطبي وإدارة التكنولوجيا الطبية ، ويشمل إليها في هذا القانون باللجنة .

ولرئيس اللجنة أن يضم من يراه إلى عضويتها ، كما يكون للجنة حق الاستعانة بمن تراه من الخبراء والمختصين .
ويحدد رئيس مجلس الوزراء نظام عمل اللجنة .

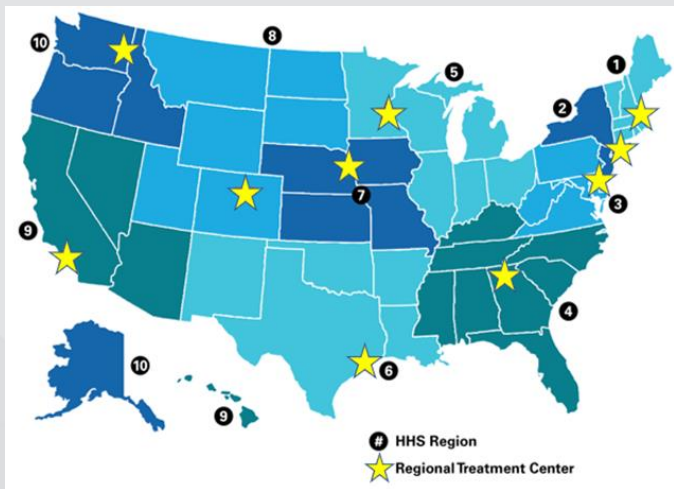
٢٤- فرض الرقابة على أعمال المختبرات العلمية والبحثية والمعملية فيما يتعلق بالتعامل مع المواد البيولوجية ، وتشدّد الإجراءات على حيازتها واستخدامها ونقلها ، وكذا على الأجهزة المعملية التي تستخدم في ذلك ، وتحديد ضوابط التخلص من المخلفات والنفايات البيولوجية .



The US Experience

- Prior to the 2014 West Africa Ebola outbreak
 - Nebraska Biocontainment Unit (NBU) 10 beds
 - Emory Serious Communicable Diseases Unit (SCDU) 2 beds
 - No specialized quarantine spaces

Special Pathogens Network



Tiered hospital network to deliver safe and effective care to patients with Ebola virus disease (EVD) and other special pathogens.



The National Emerging Special Pathogens Training and Education Center



- Mission: is to set the gold standard for special pathogen preparedness and response across health systems in the U.S. with the goals of driving best practices, closing knowledge gaps, and developing innovative resources
- IPC on steroids
- Three activities:
 - Readiness Consultation (hospital, EMS, and LTC assessment)
 - Education and Training (and online repository)
 - Special Pathogens Research Network (SPRN)



NETEC: Readiness Consultation (RC)

- Hospital HLIUs
- Hospital Special Pathogens Operational Readiness Self-Assessment (SPORSA) tool comprised of:
 - 13 Domains
 - 36 Capabilities
 - 377 Items/questions

Domain	Total Items
Physical Infrastructure	37
Environmental Infection Control	31
Personal Protective Equipment	42
Training and Exercise	44
Emergency Management	20
Pre-Hospital	23
Intake and Internal Transport	32
Treatment and Care	29
Personnel Management	14
Laboratory	38
Waste Management	33
Decedent Management	16
Research	18
Total	377



NETEC:RESPTC Readiness Scorecard

Tool that can provide real time reporting on operational readiness to support decision making on where to admit a patient confirmed to have a special pathogen when requested by ASPR.

All critical factors operational and without conditions (e.g., ready and available within 8 hours)

Any critical factor that is ready with conditions. Factor that is not currently ready but can be fixed and available within 12 hours is YELLOW

Any critical factor that is not ready and cannot be fixed or available within 12 hours is RED

- 7 critical domains
- Separate adult and pediatric scorecards
- Evaluates capability to admit 1 patient
 - Currently evaluating strategy to evaluation maximum number of patients RESPTC can admit in “x” amount of time

Mapping of Global High-Level Isolation Units



WHO Region	Established HLIUs	HLIUs in Development	Countries with HLIUs
European Region (EUR)	27	3	<u>11</u>
Region of the Americas (AMR)	12 (15)	-	<u>2</u>
Western Pacific Region (WPR)	5	-	<u>4</u>
Southeast Asian Region (SEAR)	None found	1	<u>1</u>
Africa Region (AFR)	None found	-	None found
Eastern Mediterranean Region (EMR)	None found	-	None found
Total	44 (47)	4	<u>18</u>



EMS: Readiness Assessment

- Any EMS agency, specially those working with RESPTCs (22,000 agency)
- EMS Special Pathogens Operational Readiness Self-Assessment (SPORSA) tool comprised of:
 - 11 Domains
 - 192 Items/questions

Domain	Total Items
Education, Training and Exercises	19
PUI and Confirmed Case Management	11
Communications and Coordination	14
Infection Prevention and Control	17
Hospital/clinic Interface	5
Treatment and Care	14
Personnel Management	22
Patient Movement	19
Emergency Operating Procedures	10
Special Considerations	29
Pandemic	32
Total	192



LTC: Readiness Assessment

- Any LTC facility
- LTC Special Pathogens Operational Readiness Self-Assessment (SPORSA) tool comprised of:
 - 12 Domains
 - 103 Items/questions

Domain	Total Items
Environmental Infection Control	28
Education, Training and Exercises	4
Personal Protective Equipment	9
Emergency Operations	7
Pre- Facility Transportation	4
Internal Transfer	4
Treatment and Care	5
Personnel Management	9
Laboratory Specimen Collection	12
Waste Management	12
Decedent Management	5
Research	4
Total	103



Recommendations

- Its OK to use the term “health security”
- Advance national health security and PHEP
- Develop “special pathogens” programs within public and private systems
- The need to develop a supporting comprehensive legal framework for public health emergencies/events
- The need for a more comprehensive and strategic public health (all hazards) preparedness system
- Clearly define the roles and responsibilities

Thank you.

Questions?



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