



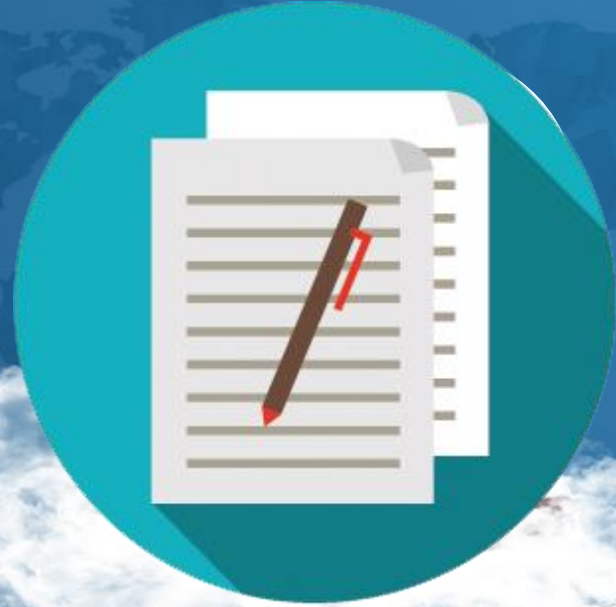
**Egypt**  
**Ministry of Health and Population**  
**Preventive Sector**  
**Department of Epidemiology and**  
**Surveillance (DES)**



# Participatory Surveillance In Egypt

**EIOS Global Meeting**  
**Luxor**  
**27-29 November 2022**

# Outline



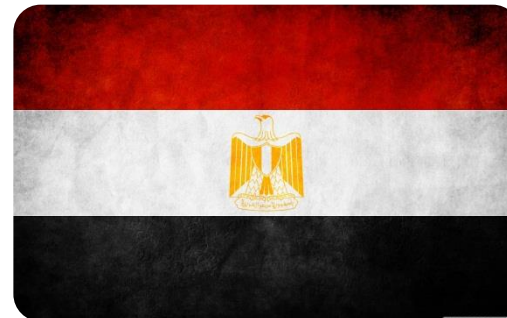
**1 Egypt profile**

**2 National Surveillance System**

**3 Phases of EBS Implementation**

**4 Near Future steps**

# Egypt Profile



Surface area: One million square km  
Population: About 103 million

Governorates: 27

Cities: 300 Villages: about 5000

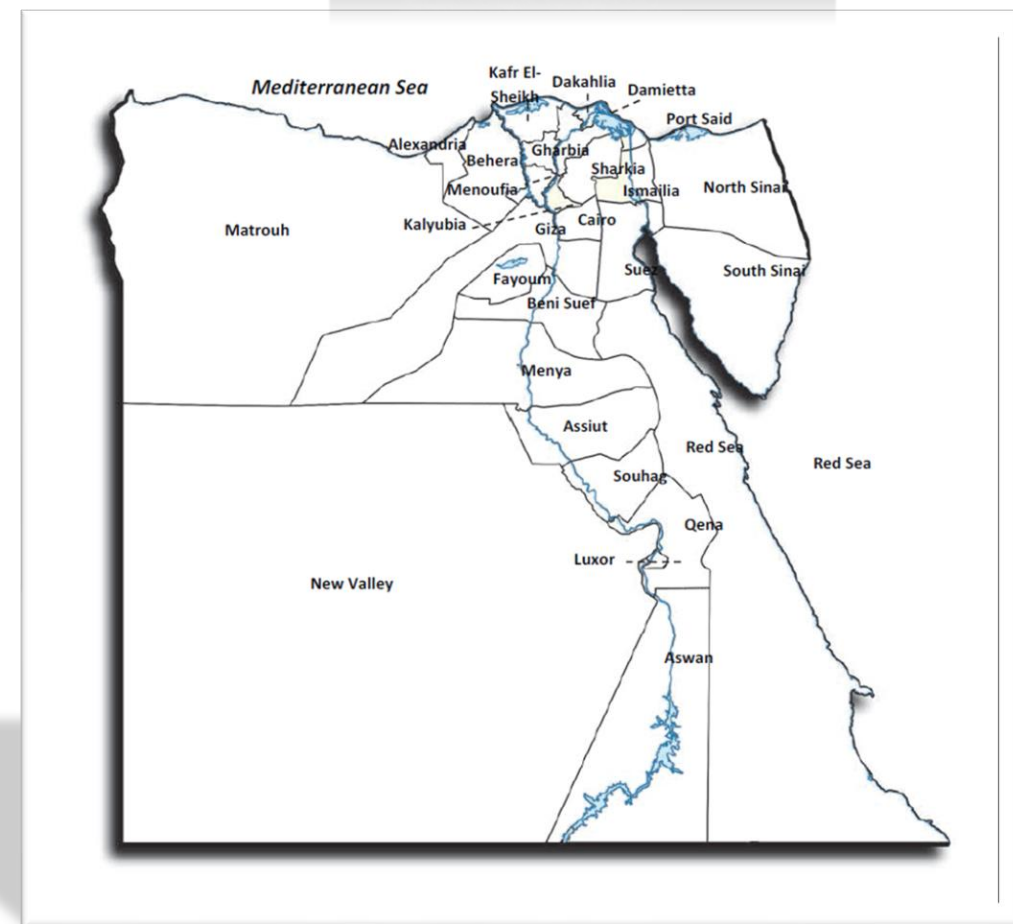
**Borders** with Libya from West, Sudan from South, Palestine Territory and Red Sea from East.

Population Density (Total area): 85.8 (per square km)  
Inhabited area: 7.8%

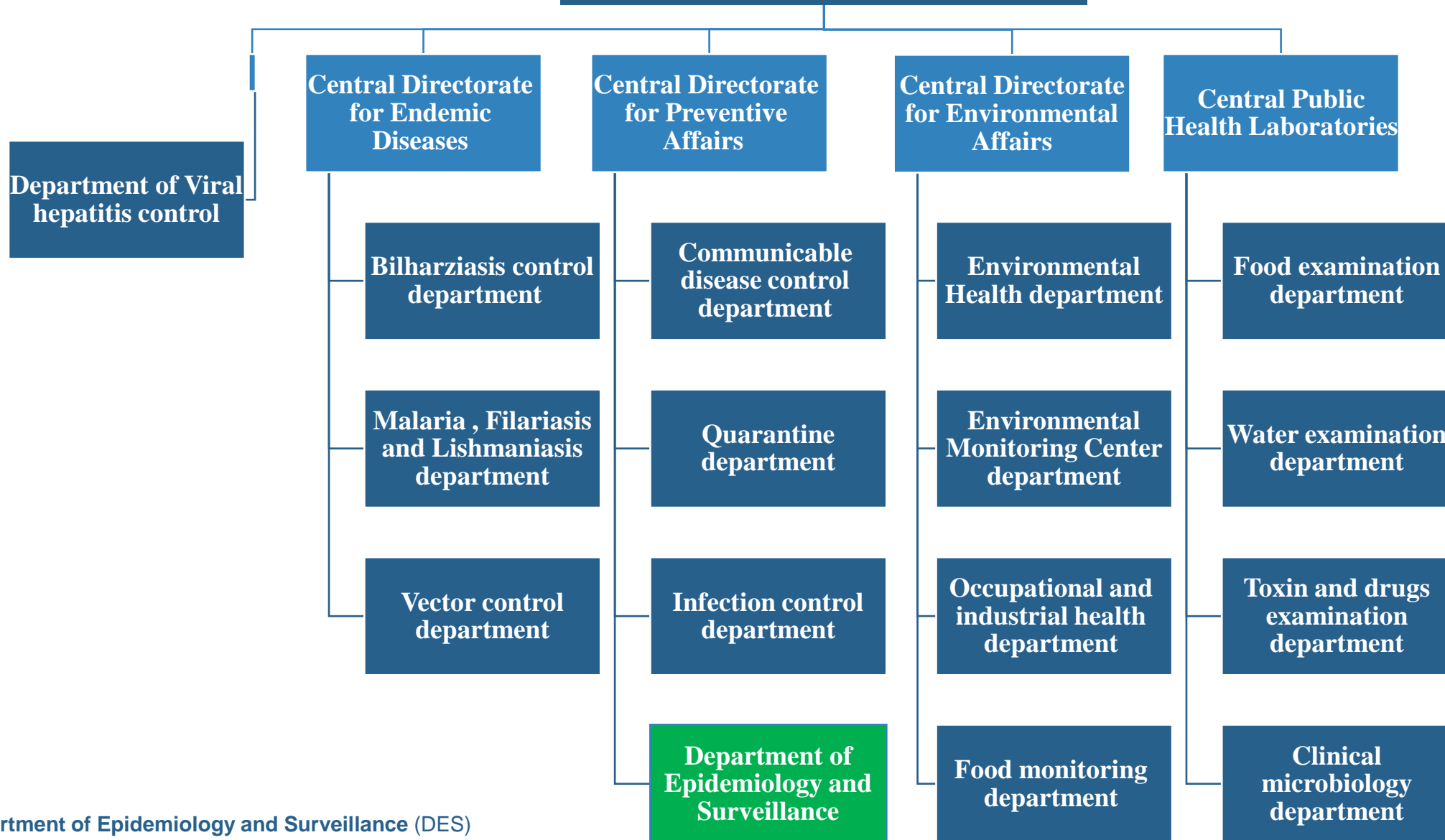
Population density (Inhabited area): 1,109 (per square km)

42.7 % of population living in urban areas

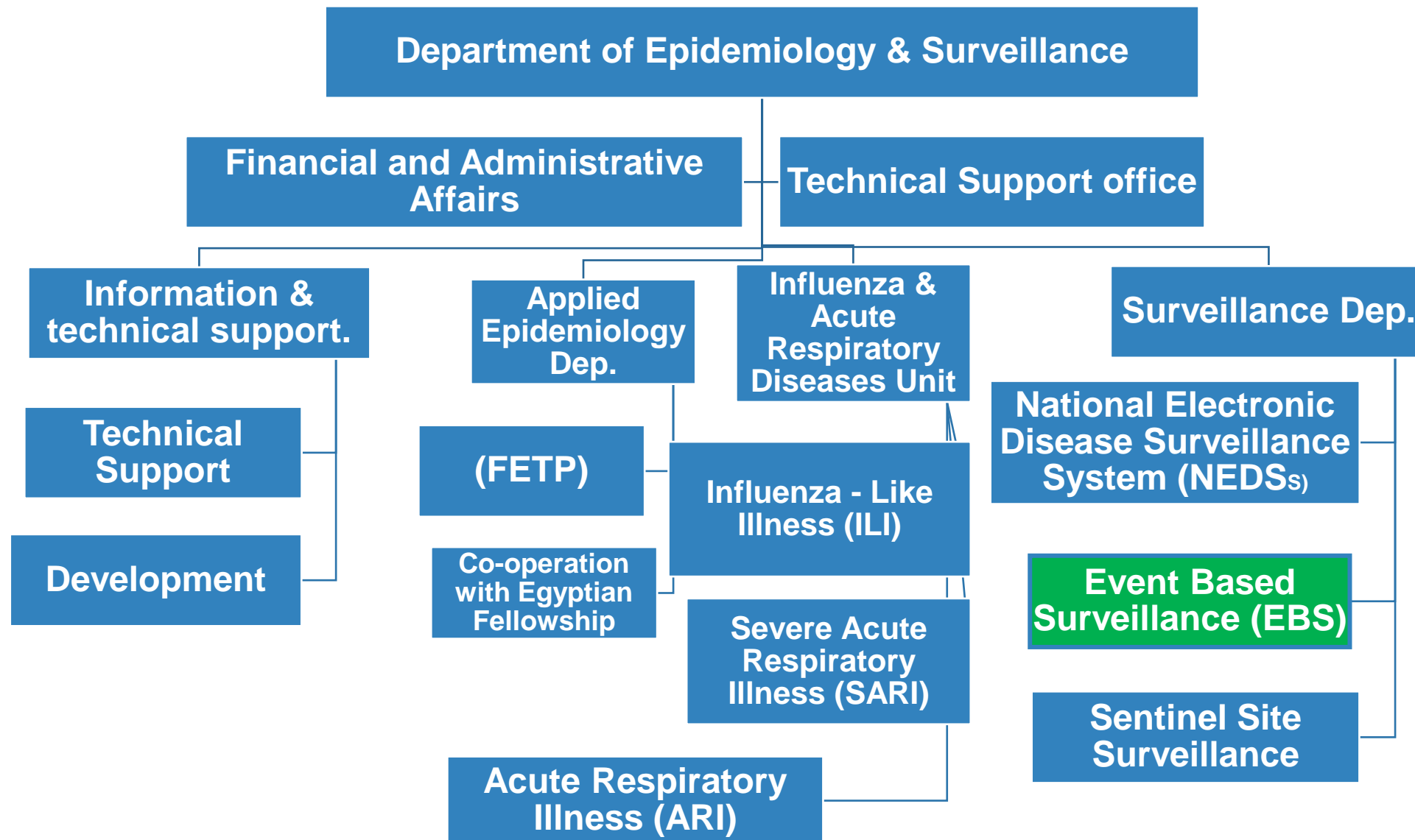
**Climates** vary from Mediterranean to sub-Saharan



# MOHP Preventive Sector



# Epidemiology and Surveillance Structure



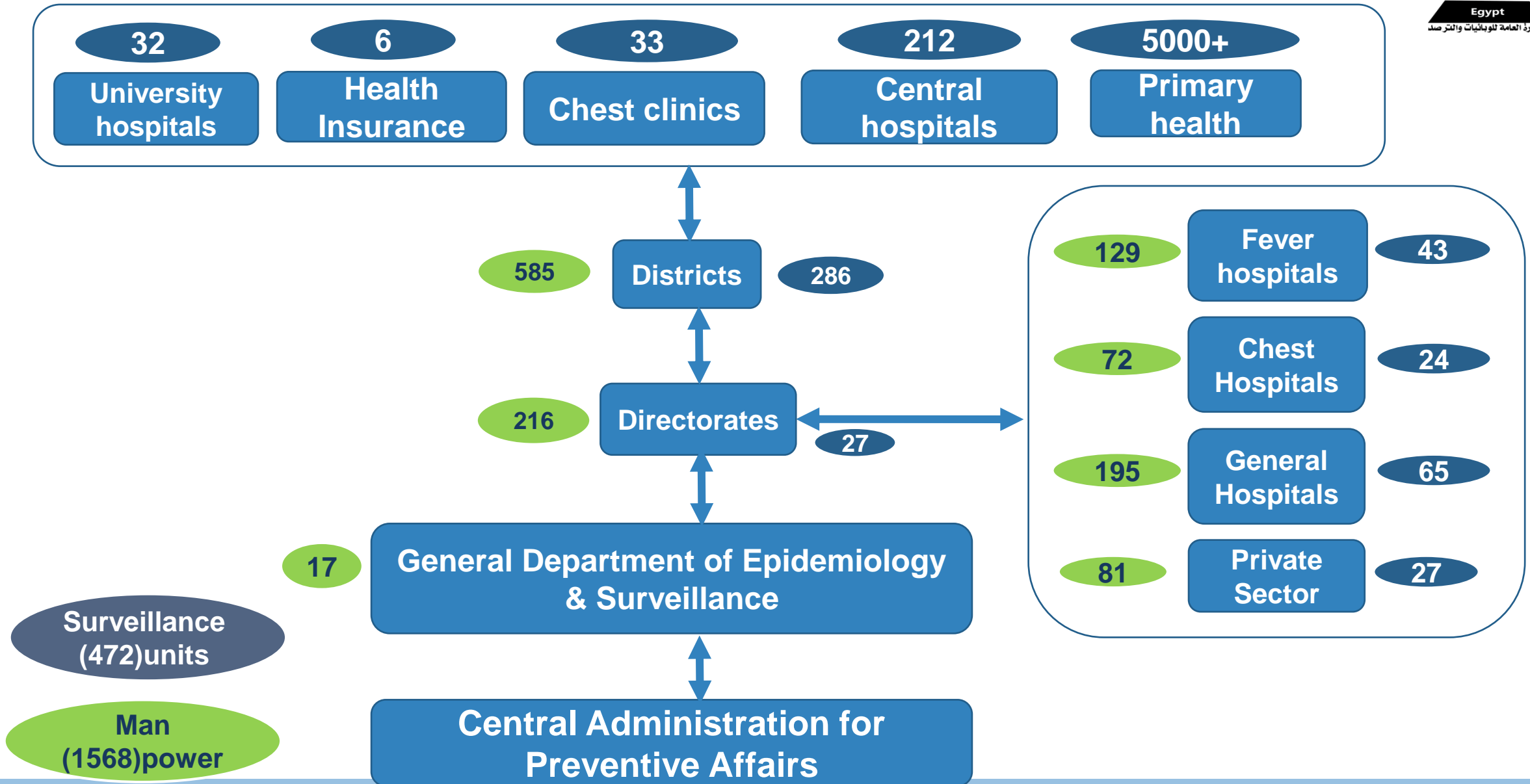


# Indicator Based Surveillance

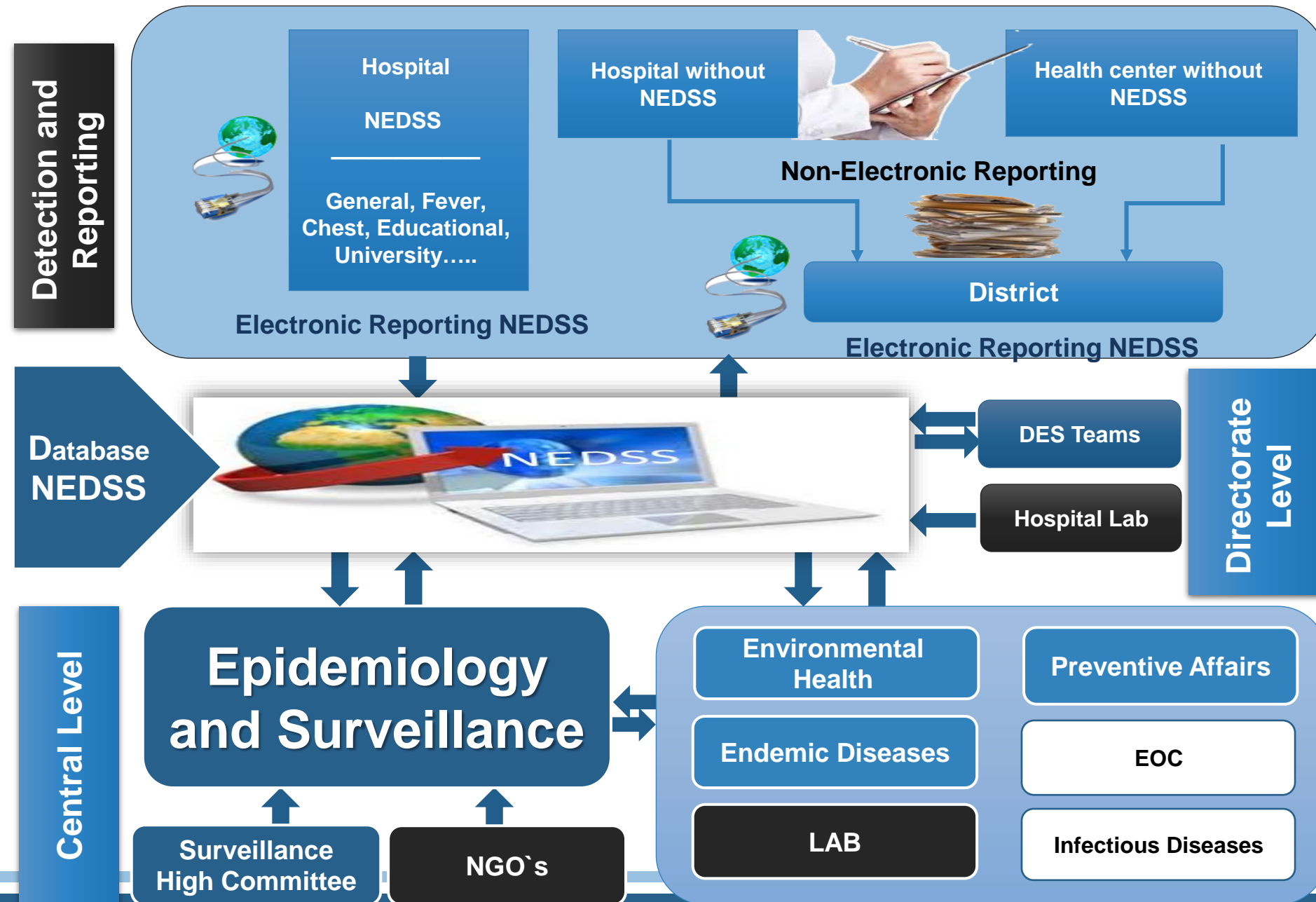
## National Electronic Disease Surveillance System (NEDSS)



# Reporting Sources, Levels and Human resources



# NEDSS Flow Chart





## List of Communicable Diseases Under Surveillance According to the Reporting Time

Group A (Immediate reporting)					
Disease	ICD10	Disease	ICD10		
Meningitis	A93/G00/A87	Cholera	A00.1		
Viral encephalitis	A86	Malaria	B50 - B54		
Acute flaccid paralysis (AFP)	A80	Plague	A20		
Tetanus neonatorum	A33	Avian influenza	J09		
Diphtheria	A36	Rift valley fever	A92.4		
Fever and rash	B05 B06	Viral hemorrhagic fever	A92 -A99		
Measles		Ebola - West Nile fever -	A98.4 - A92.3		
Rubella		Crimean fever - Yellow fever	A98.0 - A95		
Pertussis	A37	Dengue fever	A97		
Mumps	B26	Botulism	A05.1		
HIV/AIDS	B20 - B24	MERS-CoV	B34.2		
Rabies	A82	Anthrax	A22		
Acue food poisoning	A03/A05.0	Zika virus	U06.9		
COVID-19	U07.1	Monkey pox	B04		
		Unusual health events			
Group B (48hr reporting)					
Disease	ICD10	Disease	ICD10	Disease	ICD10
Viral hepatitis	B15 - B19	Brucellosis	A23	Lishmaniasis	B55
Seasonal influenza	J10	Bloody diarrhea	A03 - A04.0 A04.4 - A06	Filariasis	B74
Tuberculosis	A15 - A19	Leprosy	A30	Faschioliasis	B66
Typhoid	A01.0	Bilharziasis	B65	Animal bite	T01.9
chickenpox	B01				

# Event Based Surveillance

# Implementation of EBS in Egypt ?

- 1 International Health Regulations (IHR) requirements
- 2 Early detection of potential Acute Public health threats
- 3 One Health Approach

# EBS Egypt

## Pillars of Implementation

- 1 Hotline
- 2 Community Based
- 3 Media Scanning & EIOS
- 4 Hospital Based



# Phases of EBS implementation, Egypt



Phase	Pillars	Tools / Methodology	Implementation Year
<b>Phase 1</b> ( Paper-based Reporting )	Hotline Media Scan	Toll-free service Manual search – News Websites	2015
<b>Phase 2</b> ( Electronic Reporting ) *	Media Scan	Google Alerts – RSS feed – Social Media	2016-2019
<b>Phase 3</b> ( Automated Search )**	Media Scan CEBS	EIOS 2 Governorates	2019-Continuous
	CEBS EBS	3 Governorates continuation (25 Governorates)	2020-2021
<b>Phase 4</b> (Districts level)	EIOS EBS CEBS	New members Sub-national and peripheral levels 5 Governorates	2022-Continuous

\*Electronic Reporting launched on Jan 2018

\*\*Upgrade Electronic Platform Dec 2019 Using Automated Rapid Risk Assessment Tool

# Reporting Flow of signals



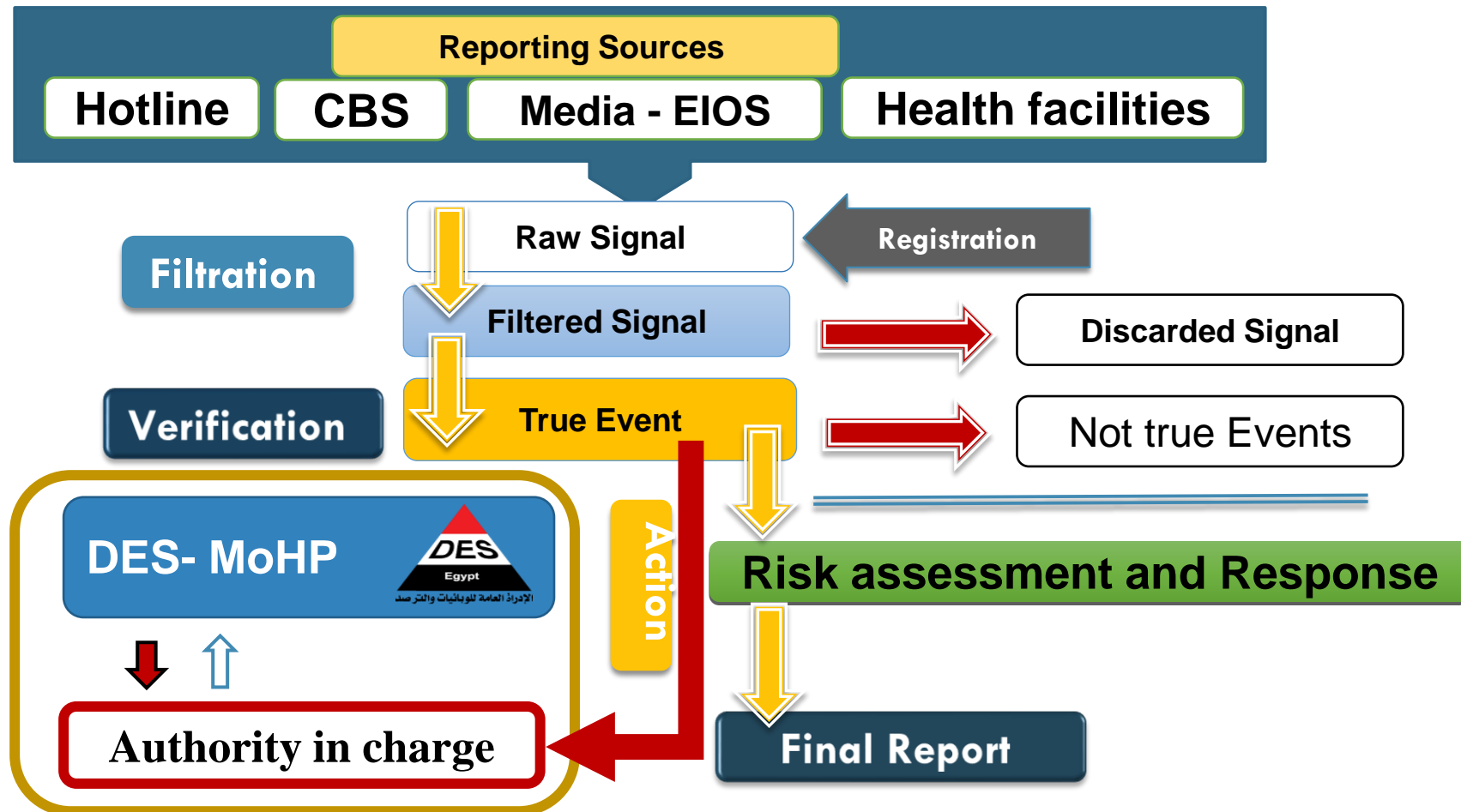
Detection

Triage

Filtration

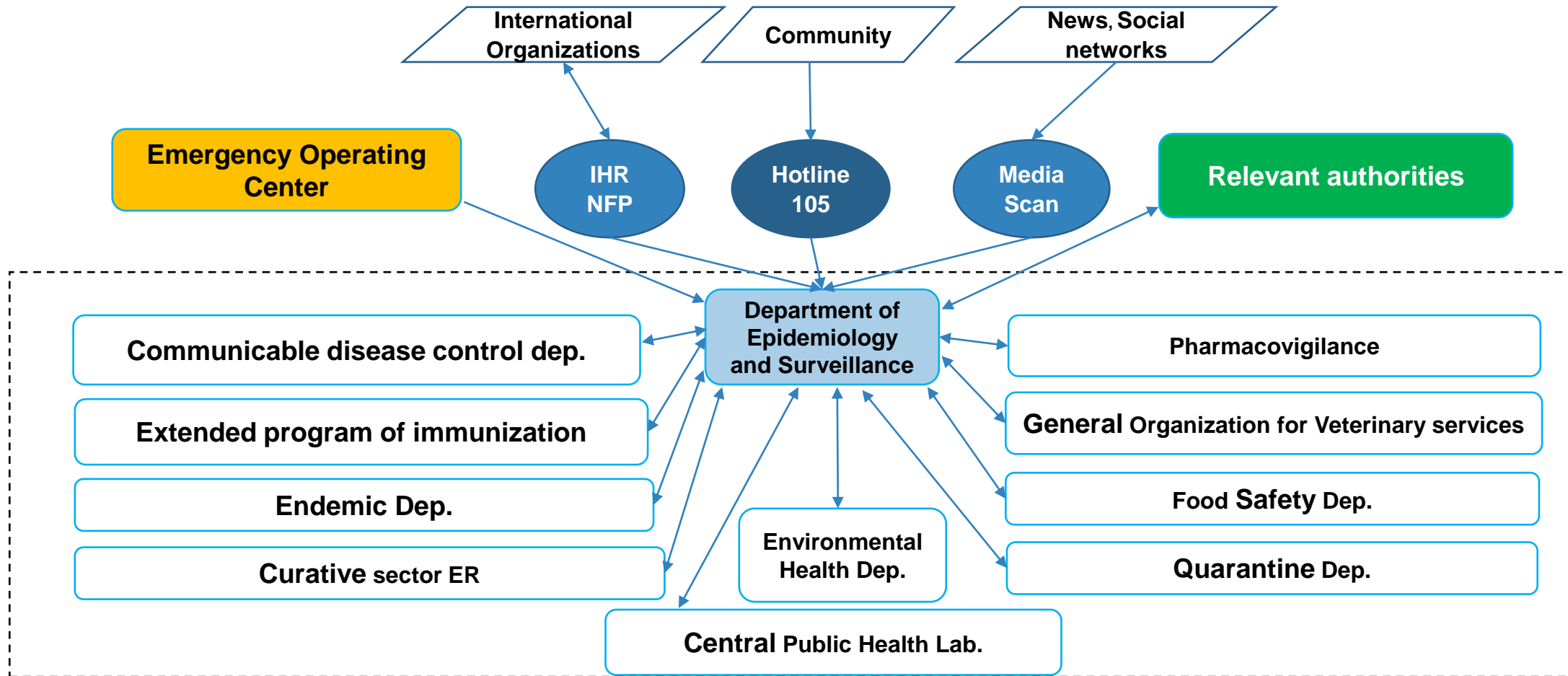
verification

Response





# EBS flow chart for Verification and Response



# Media Scan

EIOS

Google Alerts - RSS Feed

Social Media ( Posts - Pages - Groups )

Keywords and List Of websites





# Participatory Surveillance



# Hotline (105)



- More than 500 agents working 24/7
- Respond to public queries and complaints
- Bilingual communication in Arabic/English
- Promoting for the Hotline in all our channels including all the posted pictures, Video graphs, and info graphs



# Community Surveillance



- Community Health Care Workers
- Simple list of signals
- What's app groups
- Telephone Reporting





# Types of Events reported by community



- The first case of COVID-19 in Egypt was reported via the hotline
- The first case of Monkeypox in Egypt was reported via the hotline
- Increase in incidence of any communicable disease
- Spread of symptoms among population
- Undiagnosed deaths
- Water and food pollution
- Infections related to a particular product (water – food – drug ...etc.)
- Unusual disease or deaths among animal in certain place



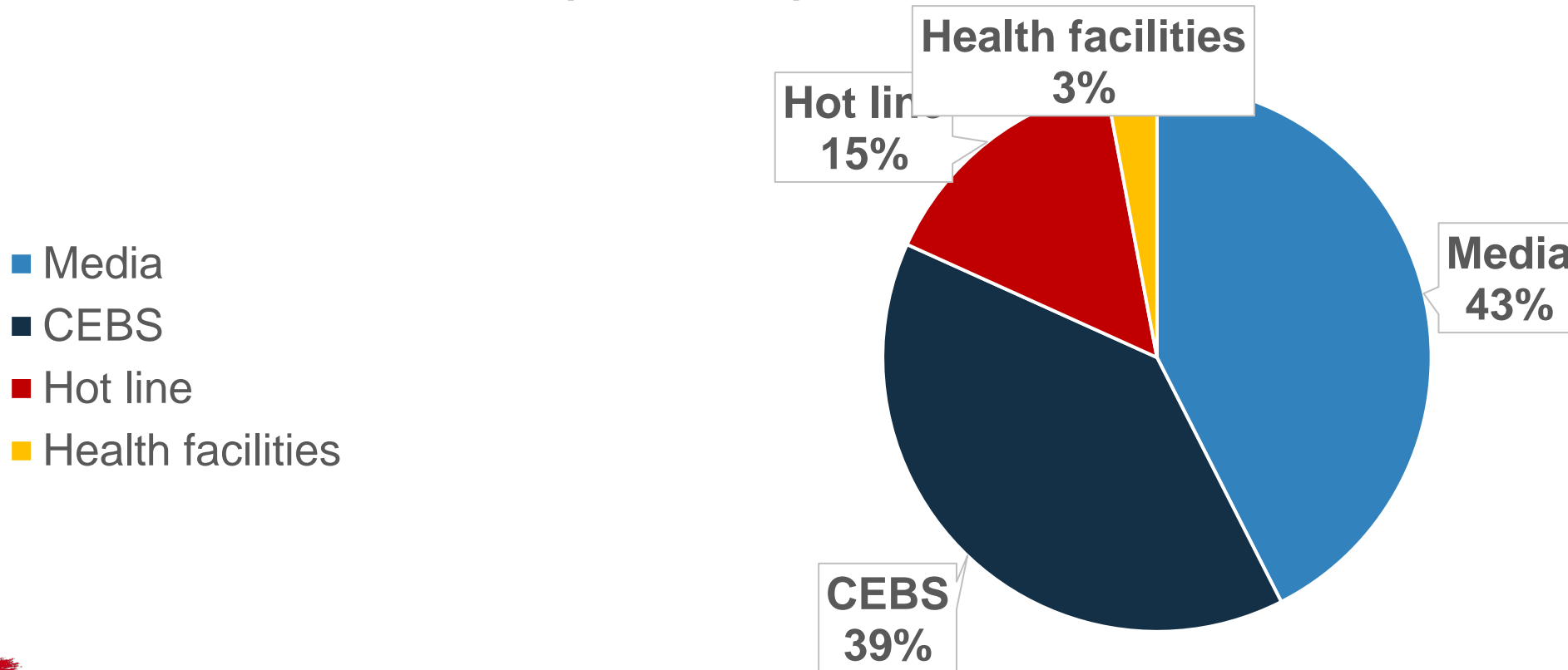


# Results



## Source of selected signals, 30 June 2022

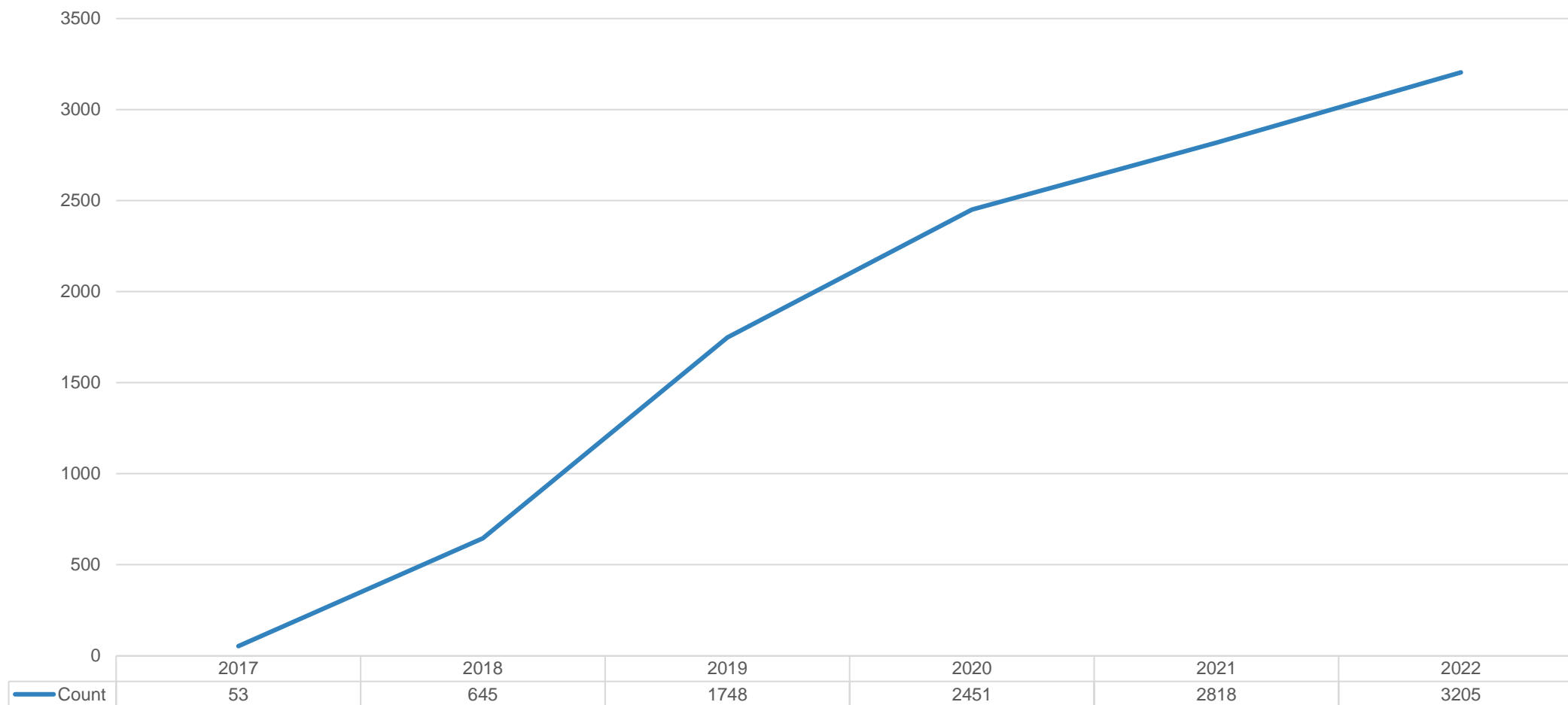
Percentage of signals according to reporting source  
(N=10920)



# Reported Signals of EBS 2017, June 2022



Count of reported signals from 2017 - June 2022



# Near Future Steps



- Mobile Application for public reporting
- Sustainability of CEBS
- EIOS
- Link EIOS with EBS reporting Platform
- Mobile Application for surveillance staff (Facilitate Notifications)
- Rapid Risk Assessment Tool



# Way forward



- Working on a final draft of the guidelines for EBS
- Upgrade the web-based system for EBS
- Conduct training courses for the designated staff on the updated system
- Apply the CEBS in new pilot 5 governorates





Thank you

