

Egypt: Experience In Implementing Event Based Surveillance

EIOS meeting-Seoul, 12-14 Nov 2019

Prepared By EBS Team

Presented By

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Surveillance, DES

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 99.5 million

Governorates: 27
Cities: 300 Villages: about 5000

Inhabited area: 7.8%

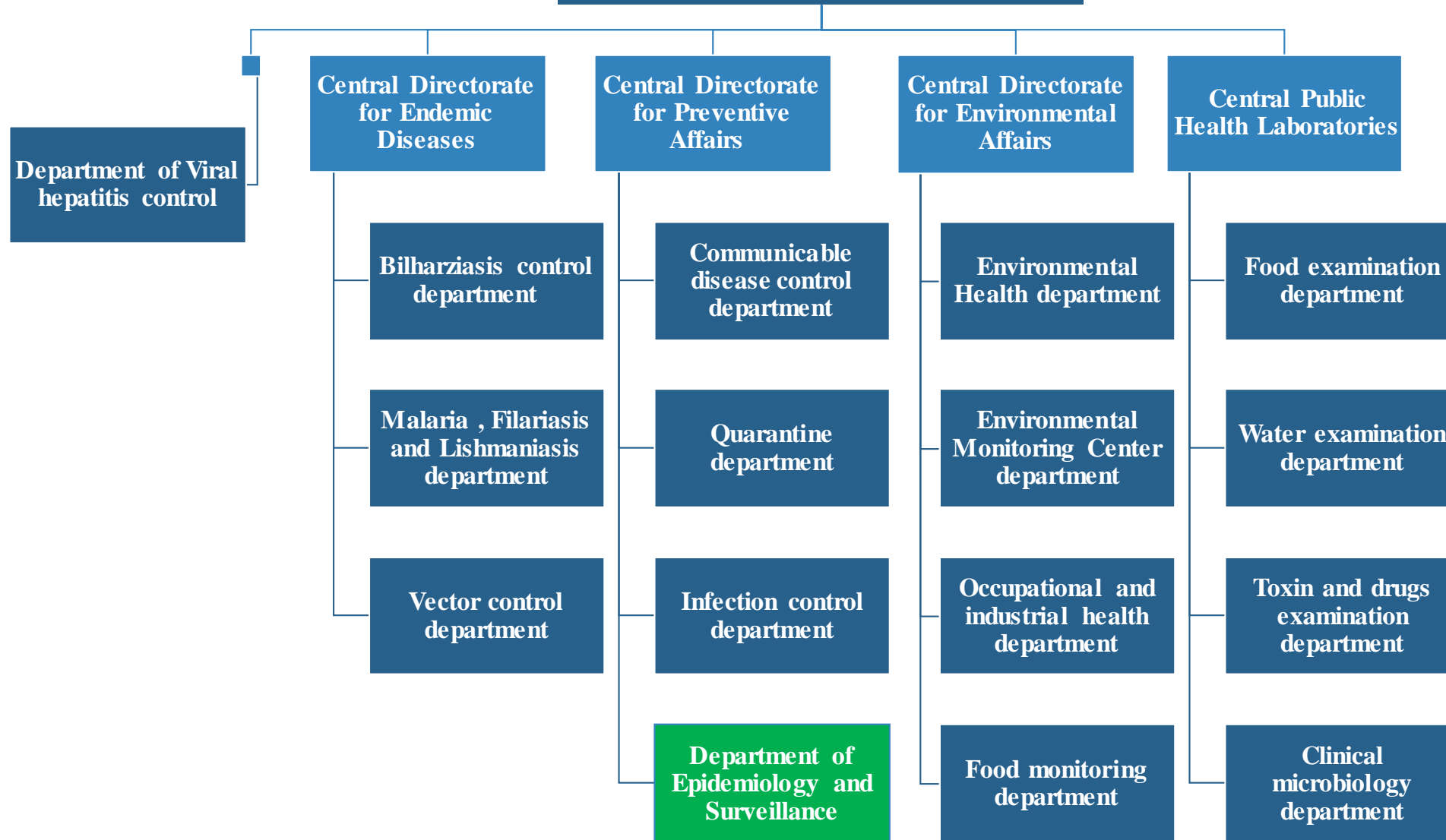
Population Density (Total area): 85.8
(per square km)

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

42.7 % of population living in urban areas
Climates vary from Mediterranean to sub-Saharan

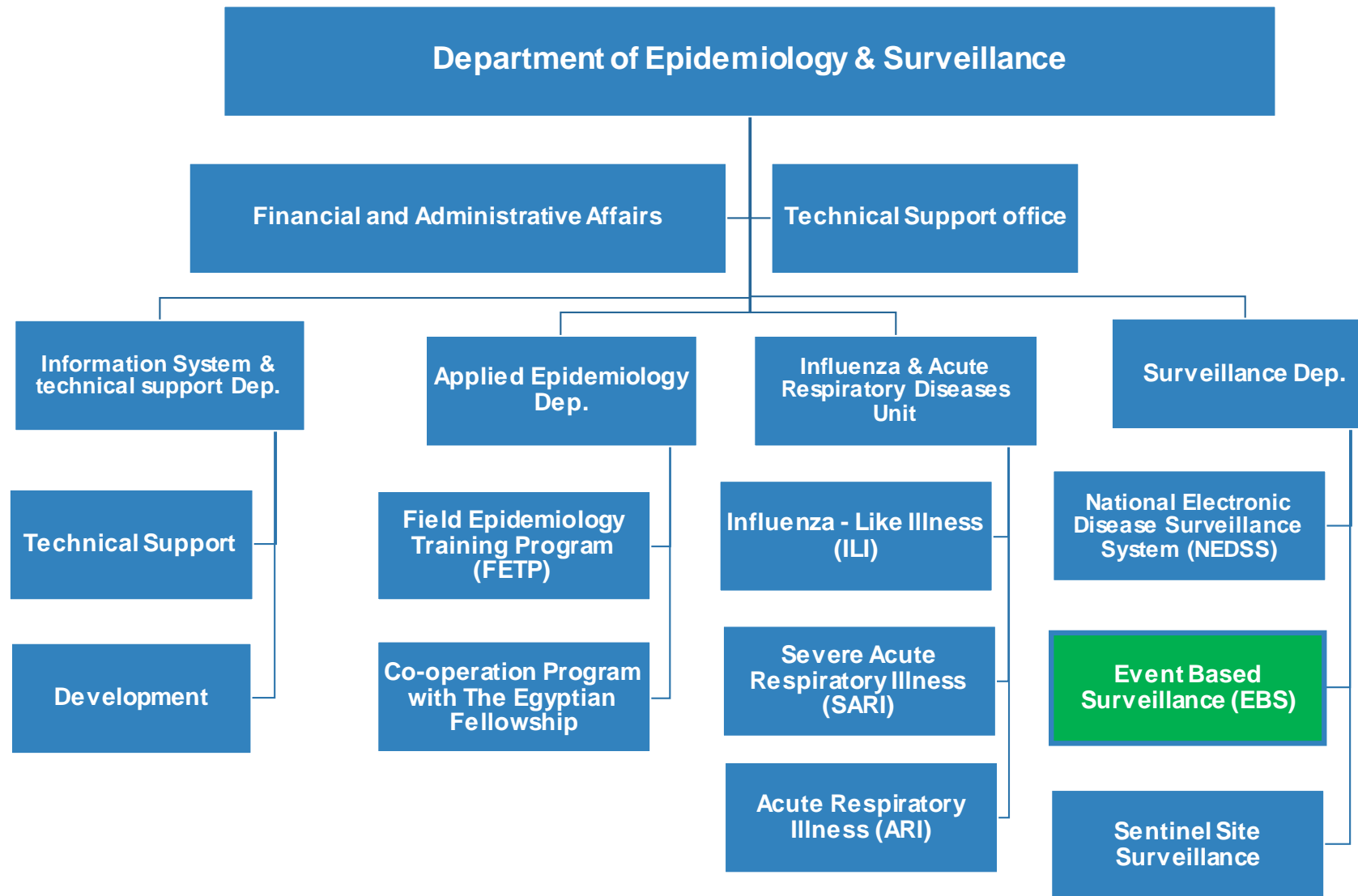


MOHP Preventive Sector



Department of Epidemiology and Surveillance
(DES)

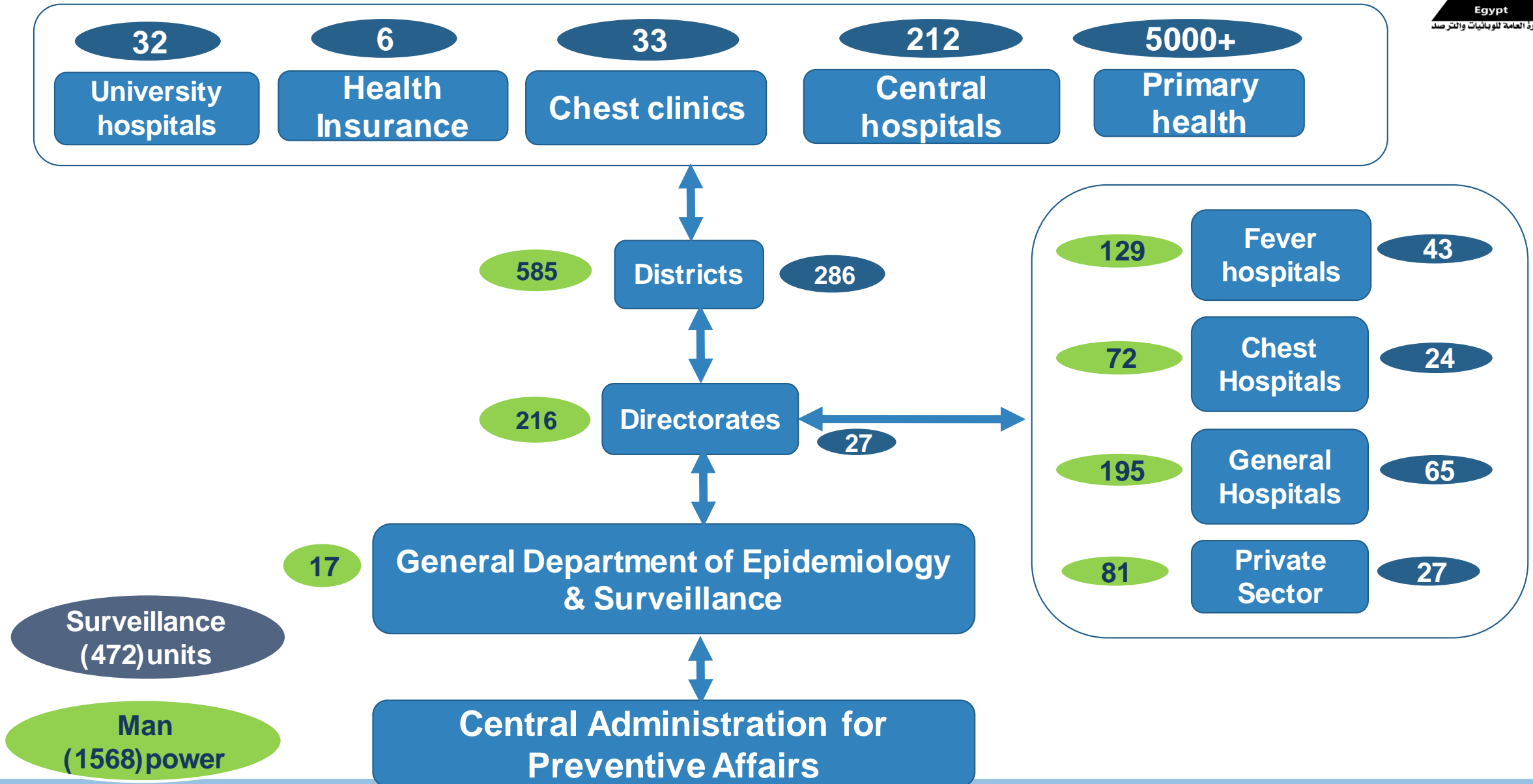
Epidemiology and Surveillance Structure





Indicator Based Surveillance

Reporting Sources, Levels and Human resources



List of Communicable Diseases Under Surveillance According to the Timing of Reporting

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	Viral hemorrhagic fever	A92 - A99
Measles		Ebola - West Nile fever - Crimean	A98.4 - A92.3
Rubella		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
		Zika virus	U06.9
Acute food poisoning	A03/A05.0	Unusual health events	

Group B (Weekly 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 Media Scanning
- 3 Community Based
- 4 Hospital Based

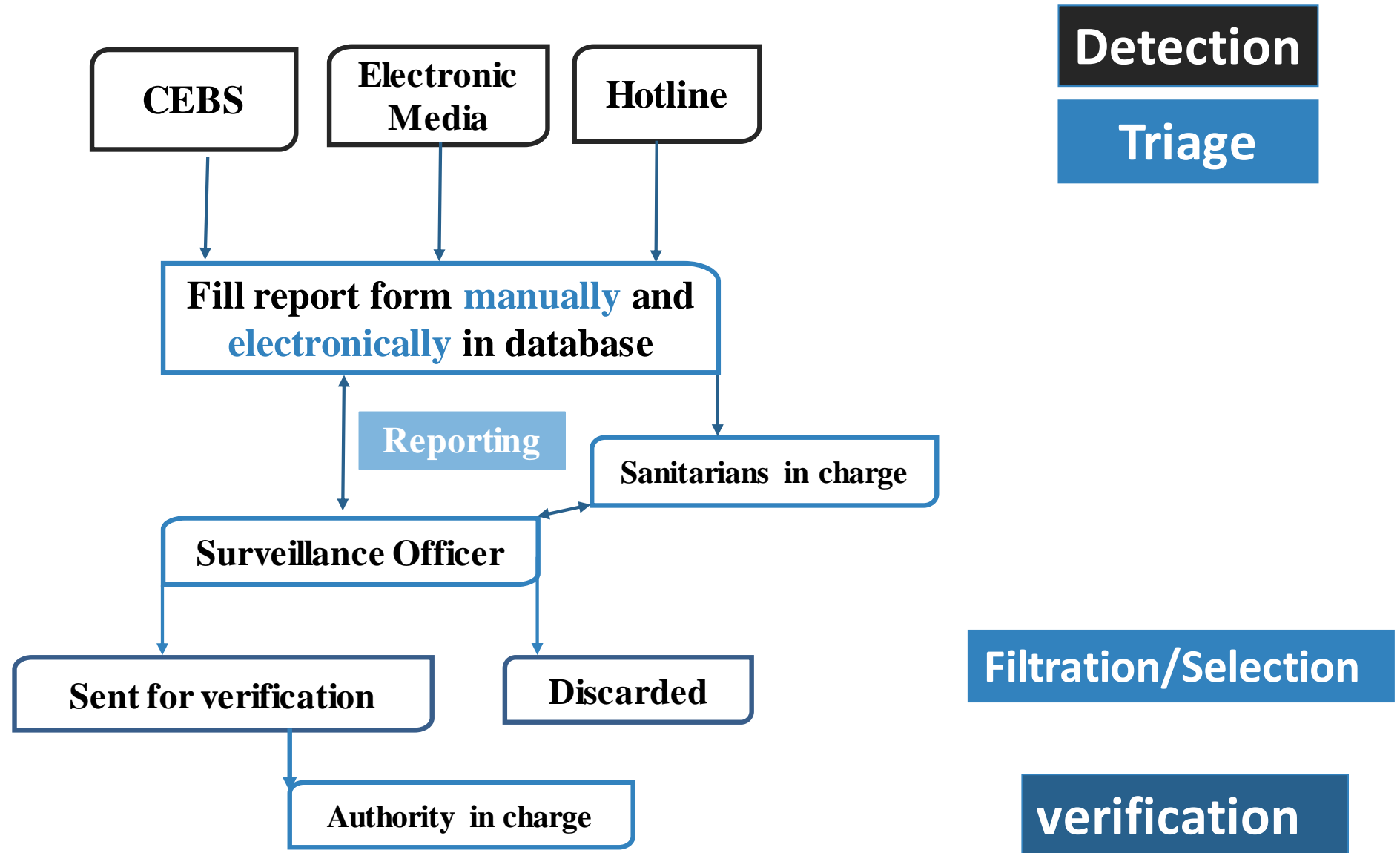
Phases of EBS implementation, Egypt

Phase	Pillars	Tools / Methodology	Implementation Year
Phase 1 (Paper-based Reporting)	Hotline Media Scan	Toll-free service Manual search – News Websites	2015
Phase 2 (Electronic Reporting) *	Media Scan CEBS	Google Alerts – RSS feed – Social Media Official Key Informants (7 Governorates)	2016-2019
Phase 3 (Automated Search)**	Media Scan CEBS	EIOS continuation (27 Governorates)	Current

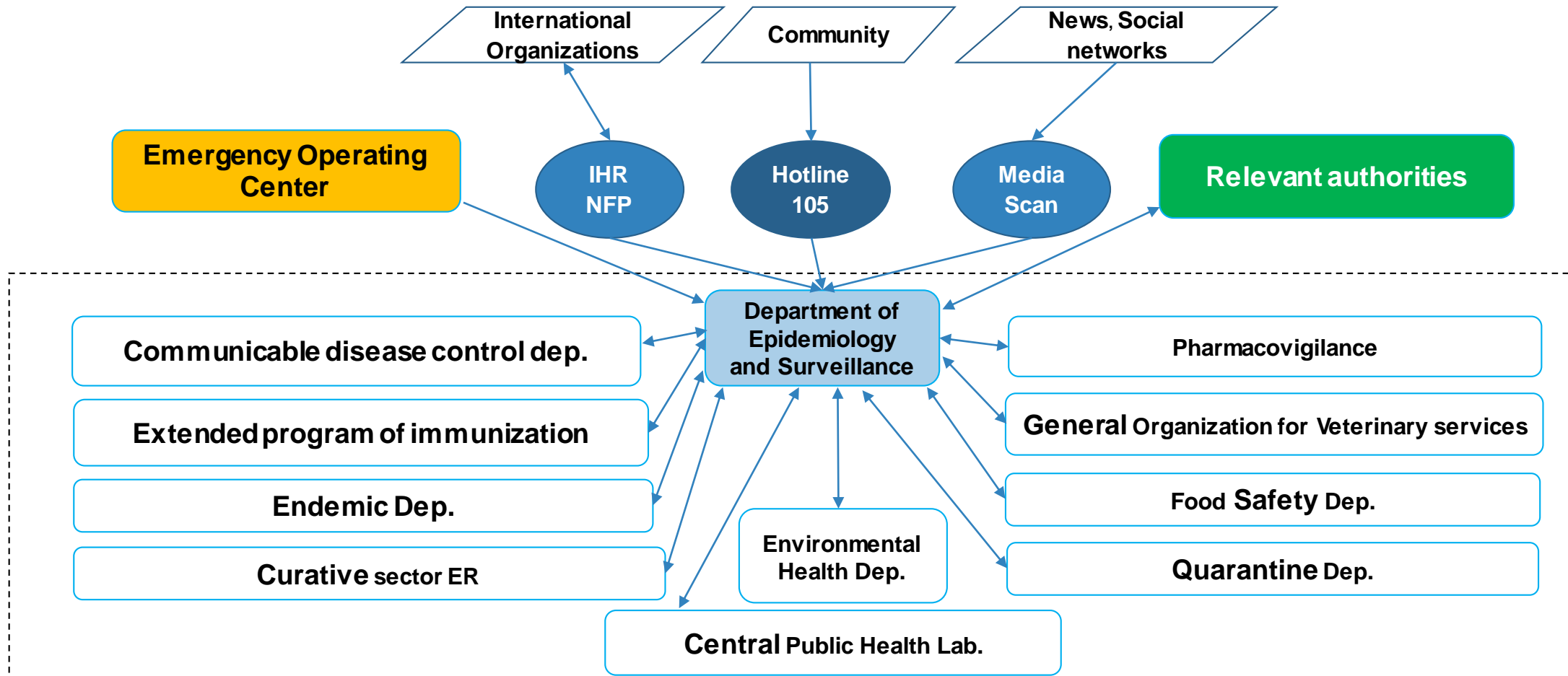
*Electronic Reporting launched on Jan 2018

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

Reporting Flow of signals



EBS flow chart for Verification and Response



Media Scan



Keywords and List Of websites

Google Alerts

RSS Feed

Social Media (Posts - Pages - Groups)

Keywords

نفوق طيور أو حيوانات ANIMAL / BIRDS DEATH	وباء EPIDEMIC	تسممات FOOD POISON
تفشي وبائي Outbreak	تجمع قمامة Rubbish	طعام فاسد Rotten food
بكتريا Bacteria	مجاري Sewers	أغذية Food
فيروس Virus	صحة بيئة Environmental	تلوث مياه Water Pollution
تلوث هواء Air Pollution	بعوض Insects	صرف صحي Sanitation
حجر صحي Quarantine	ناموس Mosquito	دخول مستشفى Hospital Entry
حميات Tropical	عقر Bites	قائمة أمراض الترصد الروتيني Routine Surveillance
ذعر أو ظهور فيروس غامض Panic	نفوق Death	عدوى Infection

List Of websites

Total
List Of

94



Sites

Title	URL
Akhbar El Yom	https://akhbarelyom.com/
Al-Masry Al-Youm	https://www.almasryalyoum.com/
Tahrir News	https://www.tahrirnews.com/
Al Dostor	https://www.dostor.org/
Youm7	https://www.youm7.com/landing/index.html
Albawaba	https://www.albawabhnews.com/
Al Wafd	https://alwafd.news/
Veto	https://www.vetogate.com/
El Watan	https://www.elwatannews.com/
El Fagr	https://www.elfagr.com/
Al Gomhuria	http://algomhuria.gomhuriaonline.com/
Masr Alarabia	http://www.masralarabia.com/
Shorouk	https://www.shorouknews.com/
El Mogaz	http://www.elmogaz.com/
Ahl Masr	https://www.ahlmasrnews.com/
Fil Goal	https://www.filgoal.com/landing/
Rabi 21	https://www.arabi21.com/
Al Zaman	https://www.elzmannews.com/
El Balad	https://www.elbalad.news/
dotmsr.com	https://www.dotmsr.com/
nmisr.com	https://www.ngmisr.com/
ArabNet5	http://www.arabnet5.com/
Elmwatin	https://www.elmwatin.com/
Al Hilal Al Youm	https://www.alhilalalyoum.com/
Masrawy	https://www.masrawy.com/
Propaganda	http://www.propaganda-eg.com/
Almogaz.com	http://www.almogaz.com/
Sharkia Today	http://www.sharkiatoday.com/
Al Shaab	http://www.elshaab.org/

Google Alert

[illegible]

Gmail

Search mail

Compose

Inbox 107

Starred

Snoozed

Drafts 31

More

Google Alerts - ملخص يومي

Google Alerts

الكورونا الأخبار والكوفيد-19 وفاة وإصابة في غزة والدمار Em News (إيان مسخي) سجلت وزارة الصحة في الأموع الأردني 41 حالات كورونا، وفاة رجل من وادي الفراس يبلغ

Sat, 12 Oct, 15:12

Google Alerts

ثلاث مياه الشرب الأخبار إمداد بخلافه انبعاثات الغازية الجوية بخاصة القوية (إيان مسخي) اصداف والتي أن المصارف التي إيماناً من داني روتا

Sat, 12 Oct, 18:07

Google Alerts

الكويتا الأخبار الخليج 365 (إيان مسخي) القاهرة - بواسطة محمد صلاح - أطلقت منظمة الصحة العالمية خطة تفعيم في مختلفين في جنوب شرق السودان اختواء تشي وفاة الله

Sat, 12 Oct, 22:05

Google Alerts <googlealerts-noreply@google.com>

Sun, 13 Oct, 09:03

to 10SHOTLINE

Arabic English Translate message

Turn off for Arabic x

أشعارات Google

الكورونا

الأخبار

كورونا: وفاة وإصابة في غزة والدمار
سكتة أو غشي الإخبارية (إيان مسخي)
قل الوفاة - مستشفيات سجلت وزارة الصحة في الأموع الأردني 41 حالات كورونا، وفاة رجل من وادي الفراس يبلغ من العمر 72 عاماً أصغت جازر،
معدة أولئك كما...
ودعم منظمة الصحة العالمي

(المطبخ على الفرد من النتائج | تحميل هذا التنبيه)

ثلاث مياه الشرب

الأخبار

Social Media

- Sub-national and peripheral levels
- Personal accounts/Numbers
- Closed special groups (profession/Town/Cities/.....)
- Search with keywords in Facebook/Twitter

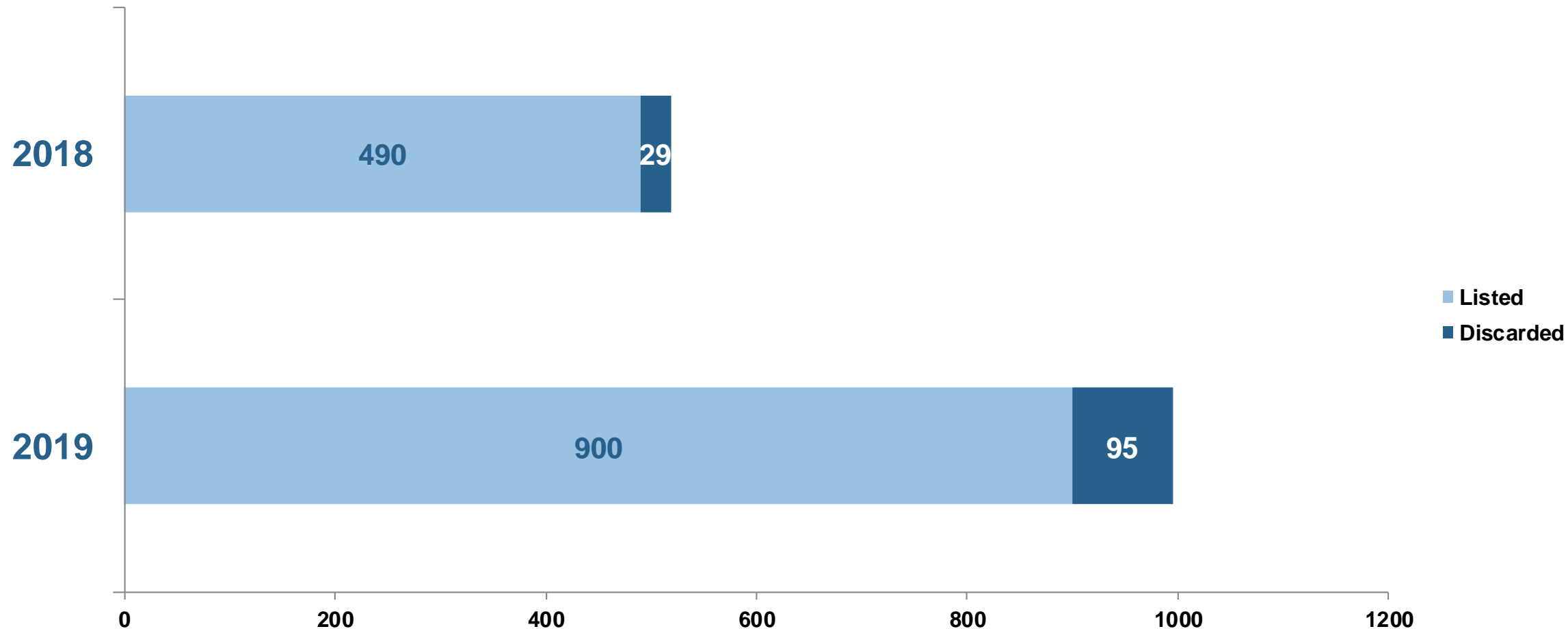
Community Event Based Surveillance

- 7 governorates in 2019
- Health Social Workers (Ra'edat)
- Simple list of signals
- What's app and/or Telephone

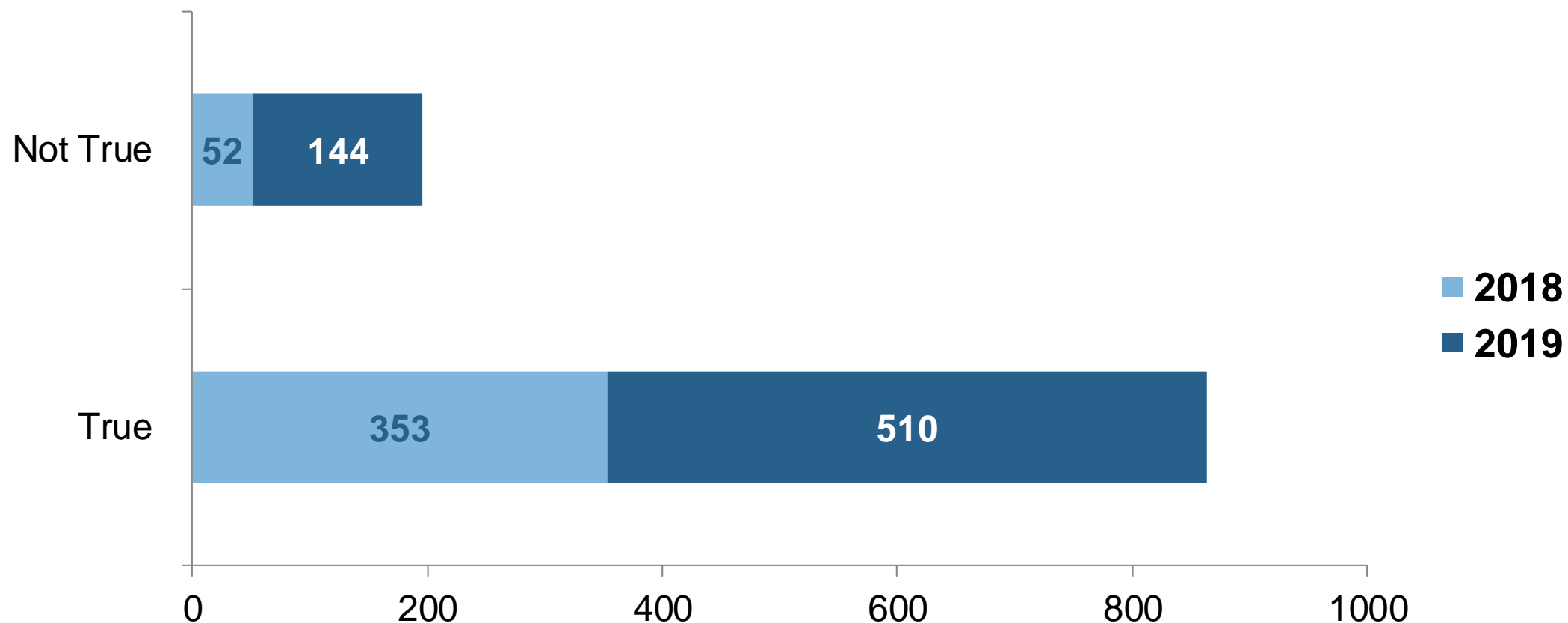
Reporting



Filtration of signals 2018-2019

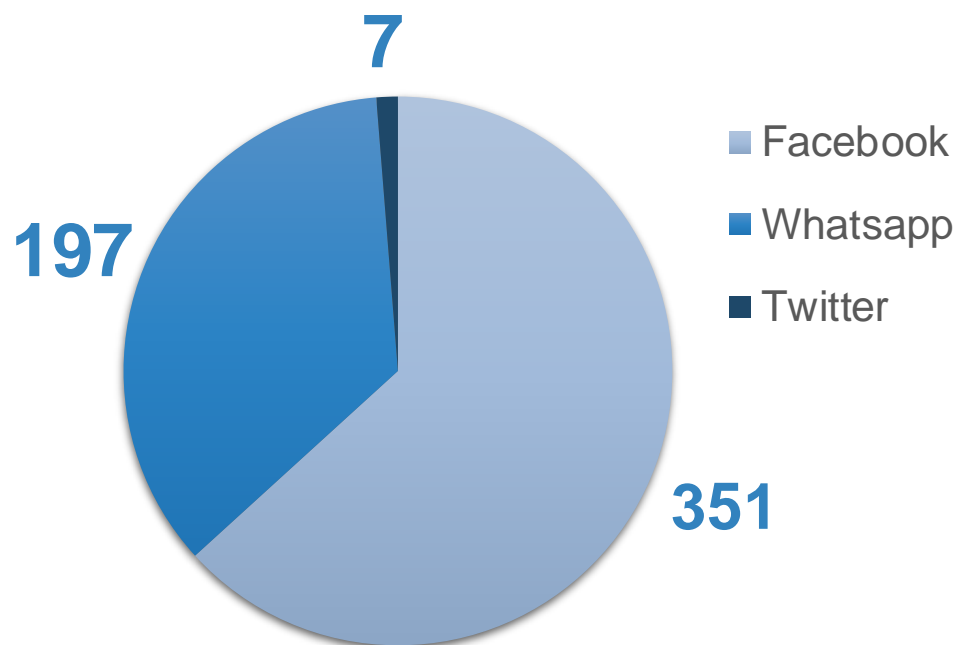


Verification of listed signals 2018-2019

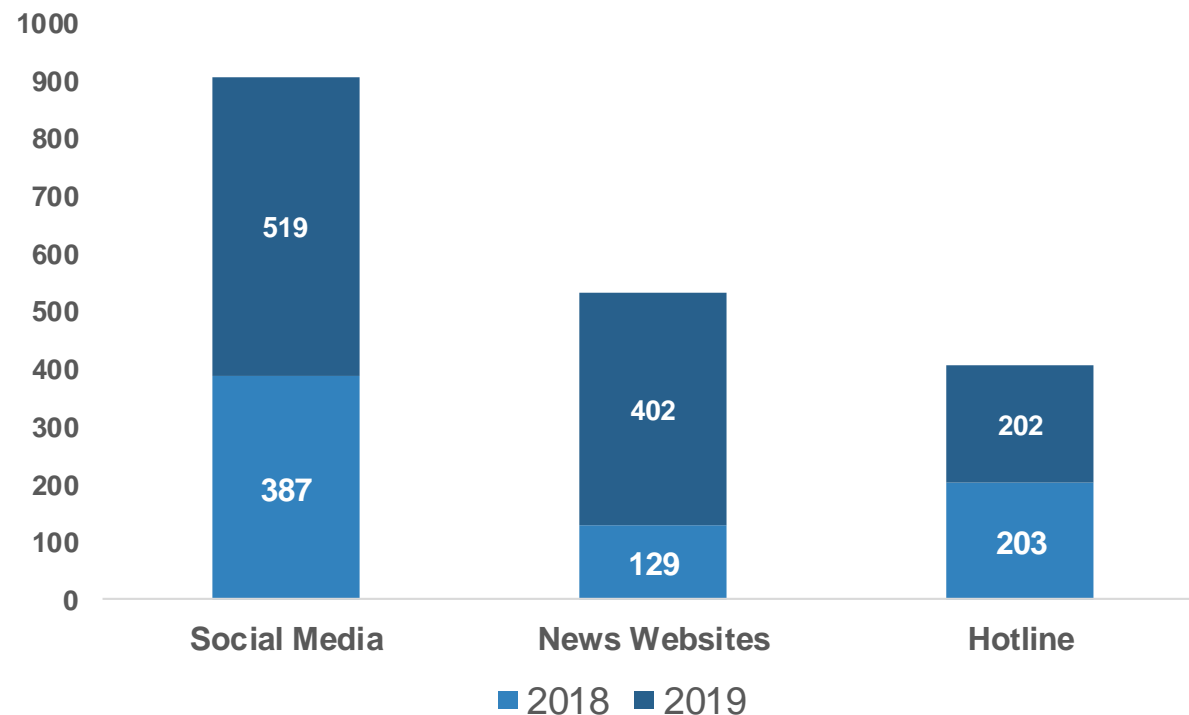


Sources Of Signals 2018-2019

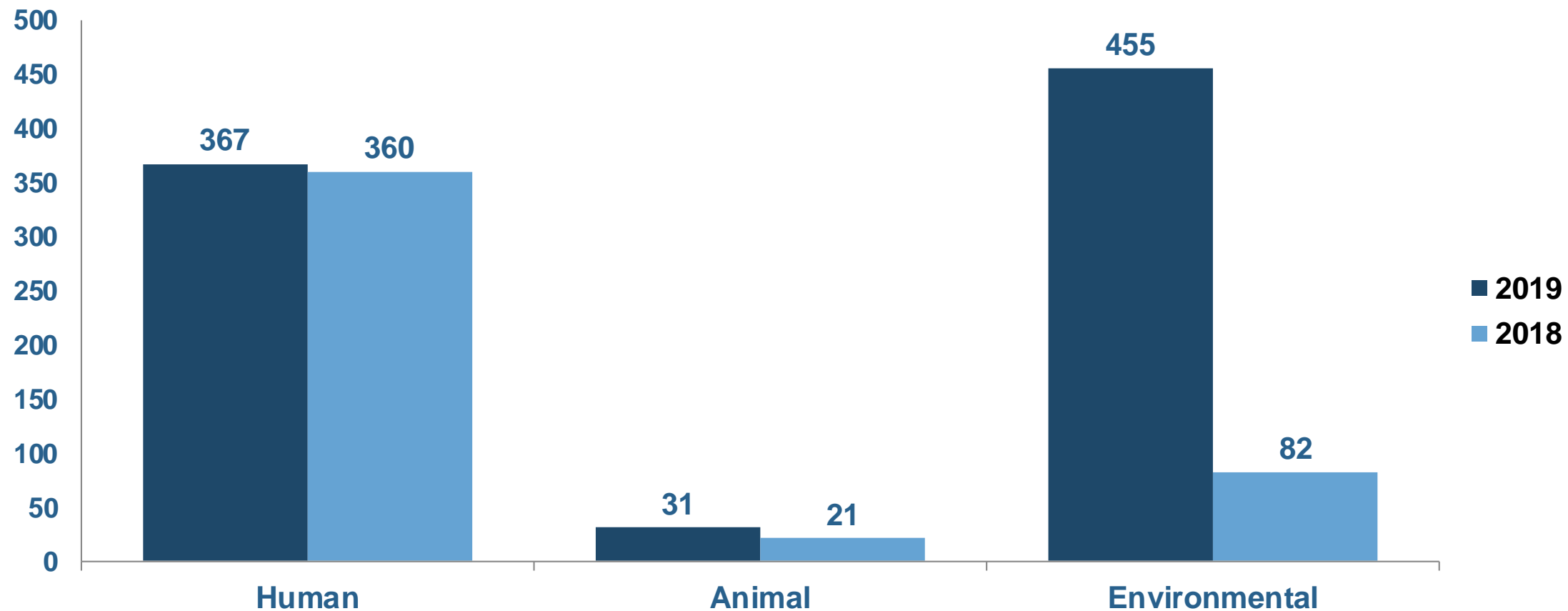
Reported Signals from social media
2018-2019



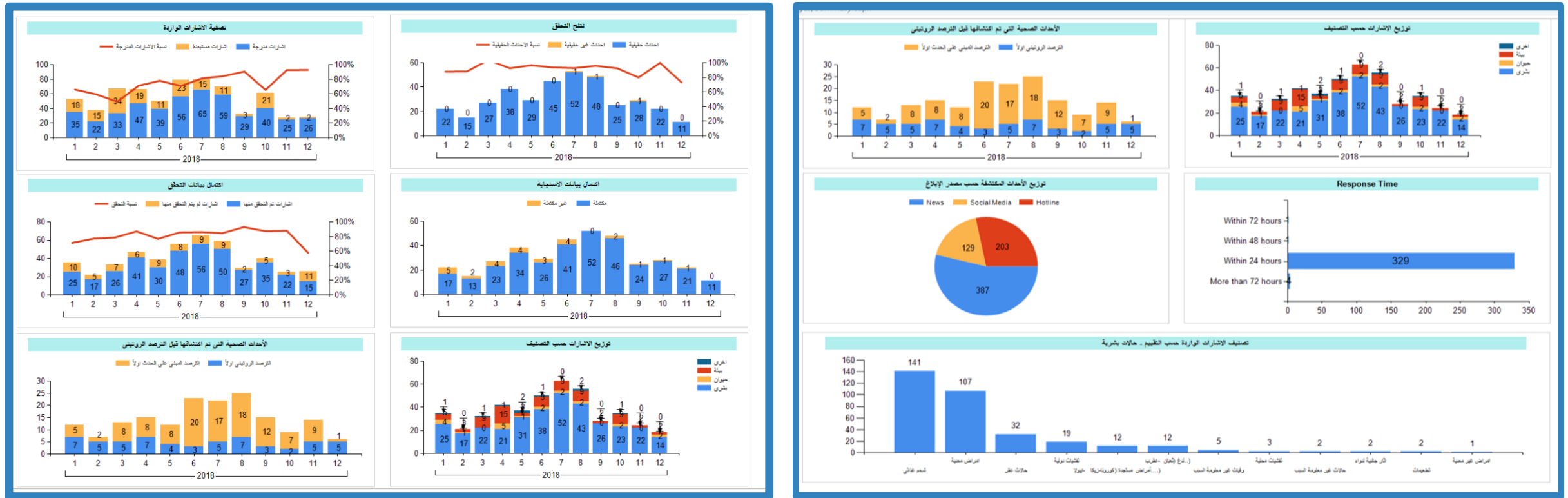
Source of EBS signals 2018-2019



Classification of signals 2018-2019



Dashboard





Evaluation of Event Based Surveillance System (EBS), Egypt, 2018

F. Osman ⁽¹⁾, R. Attia ⁽¹⁾, M.Fawzy,
Elsabbah A. Aly ⁽¹⁾, H. AbuElsood ⁽¹⁾

(1) Preventive sector, Ministry of Health (MoH)

Methodology

Data of 2018 was exported into an excel sheet, on the 6th March, 2019

Data was investigated for completeness, timeliness and early detection in relevance to IBS

Self-administered electronic questionnaire - guided by CDC guidelines for evaluating surveillance systems - was used to assess simplicity, flexibility, acceptability and stability



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Results

Positive predictive value was 93% (312/336)

Media scanning detected most of signals 71.6 % (466/650)

The most common reported events were food poisoning, communicable diseases and environmental issues

The median of time lag between detection and response was 24 hours

Out of 173 events related to communicable diseases, EBS captured 121 events earlier than IBS

Forty surveillance officers filled the questionnaire

The system was judged to be simple (76%), acceptable (81%), flexible (99%) and stable (73%)

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Conclusion

Overall, the system was found to be able to **achieve early detection** and **rapid response** for public health threats

The electronic platform should be upgraded to improve simplicity, acceptability and stability

The system was found to have limitation of lack of community engagement

Raising the awareness of public for reporting, and implementation of EBS at the community level are highly recommended to ensure real-time surveillance

Upgraded Electronic Reporting Platform

Not secure | 41.128.165.35/ebstest/WebPages/AddNew.aspx?Action=add

DES Egypt
الإدارة العامة للأمراض والتحصين

الترصد المبني على الحدث

Dashboard

تسجيل بيانات الاشارات

اشارة جديدة

استعلام / تحديث بيانات الاشارات

اشارات خارجية 23

تصفية الاشارات المسجلة 23

التحقق والمتابعة 145

تقييم المخاطر

الاستجابة 0

سلة المحذوفات 0

البيانات والتقارير

خروج

تسجيل إشارة جديدة

تاريخ الابلاغ
توقيت الابلاغ

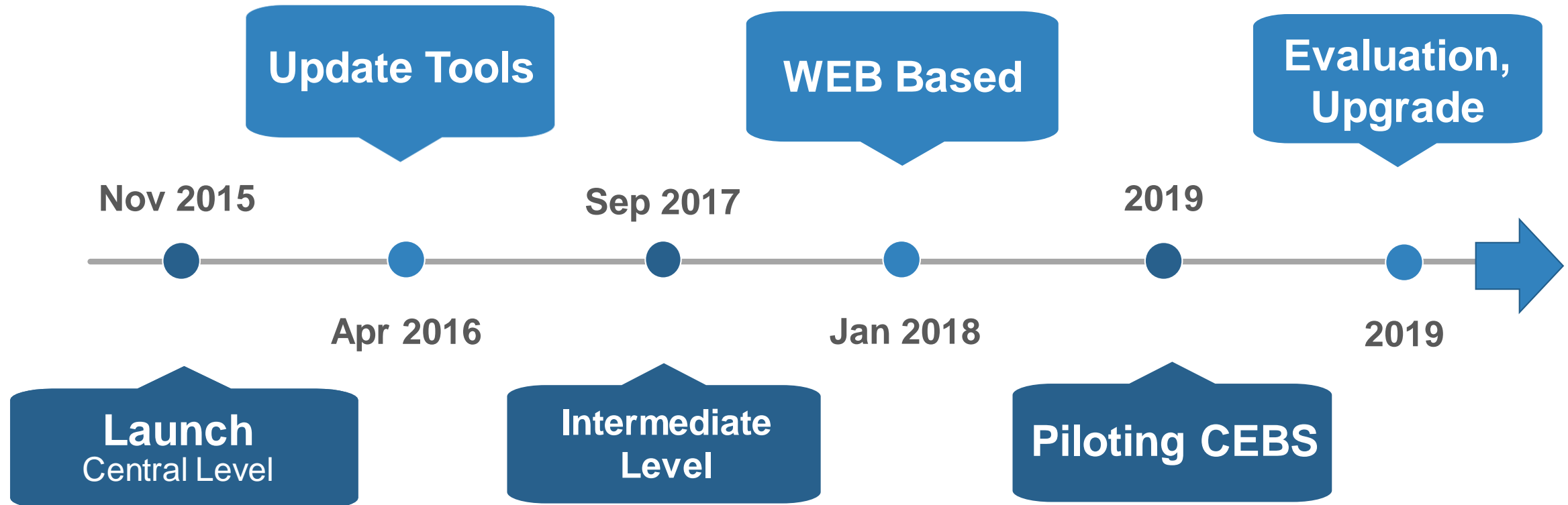
مصدر الإشارة
مصدر الإشارة - select -

مكان وتاريخ الإشارة
مكان الحدث
محلّي دولي
المحافظة
الادارة/المركز
ت بداية الحدث
العنوان بالتفصيل

معلومات عن الإشارة
عدد الحالات
عن اي شيء تود الابلاغ؟
الكل اطفال وفيات
هل مازال الحدث مستمر؟
هل لديك فكرة عن السبب في هذا الحدث؟
في حال تم اتخاذ اجراءات، اذكرها

متلقى البلاغ
الاسم
الوظيفة

EBS, Egypt in brief



Near Future Steps

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



Thank you

