

8<sup>th</sup> MENA Influenza Stakeholders Meeting,  
10-11 April 2018, Cairo, Egypt



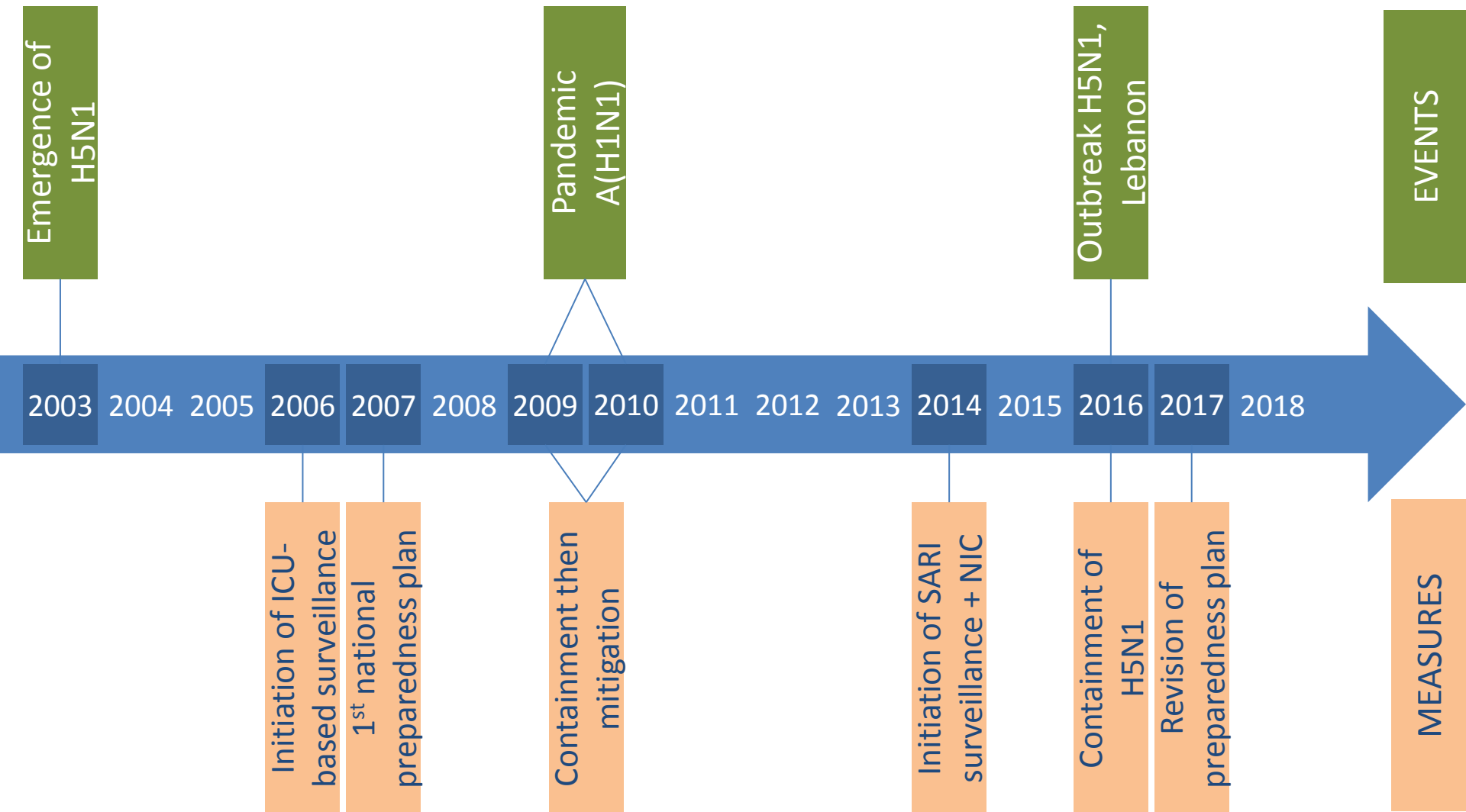
# Influenza Lebanon Achievement

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# Outline

- Context and historic
- Objectives
- Methods
- Results
- Next steps

# Severe Acute Respiratory Infection surveillance: Context & historic



# Severe Acute Respiratory Infection surveillance: Objectives

## National objectives

- To identify circulating influenza strains and detect novel viruses
- To describe influenza cases by time, place, and person
- To identify baseline figures in order to be able to detect alerts/outbreaks

## International objectives

- To contribute to the global influenza surveillance

# SARI surveillance: Methods 1

## **Case definition** (WHO standardized, 2011)

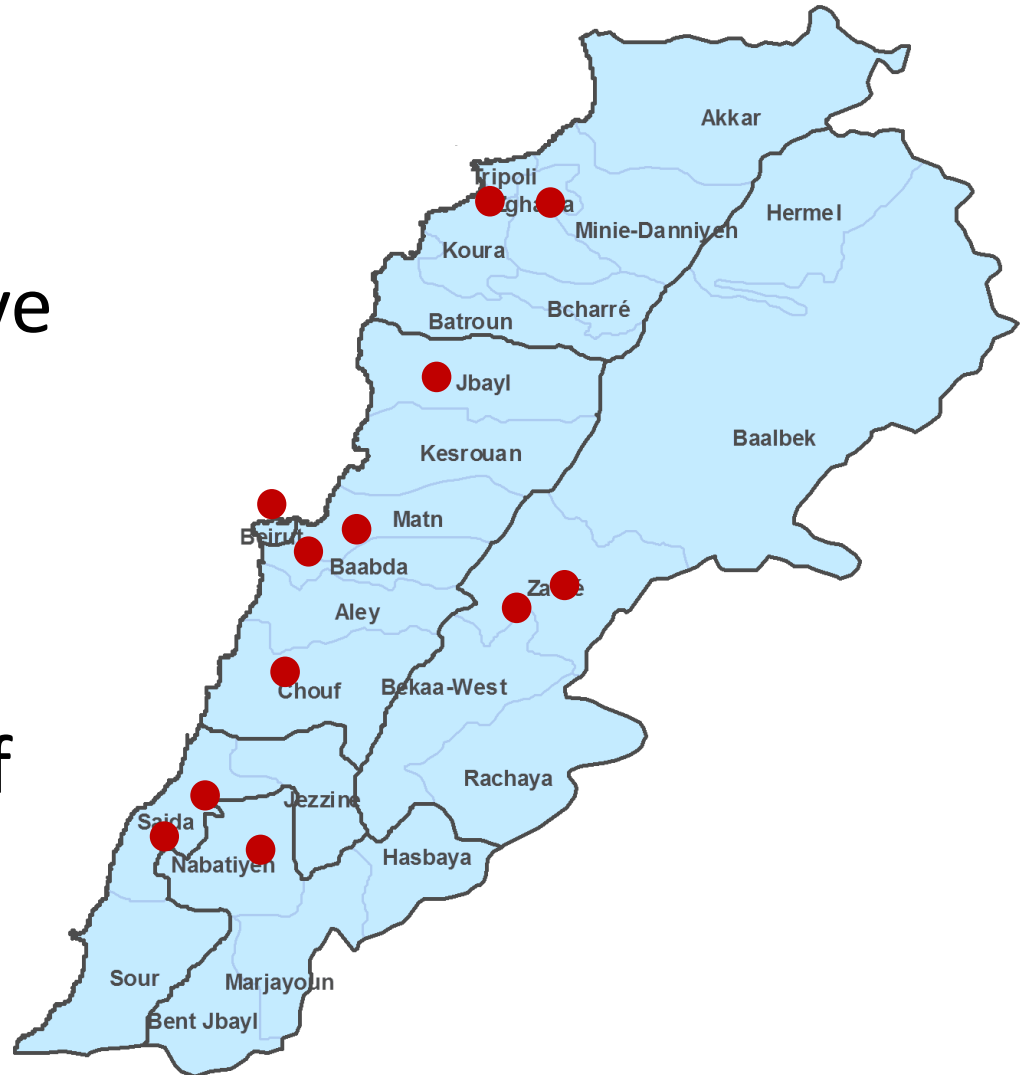
Severe respiratory infection with fever or history of fever ( $\geq 38^{\circ}\text{C}$ ) and cough

Requiring hospitalization

With onset within 10 days

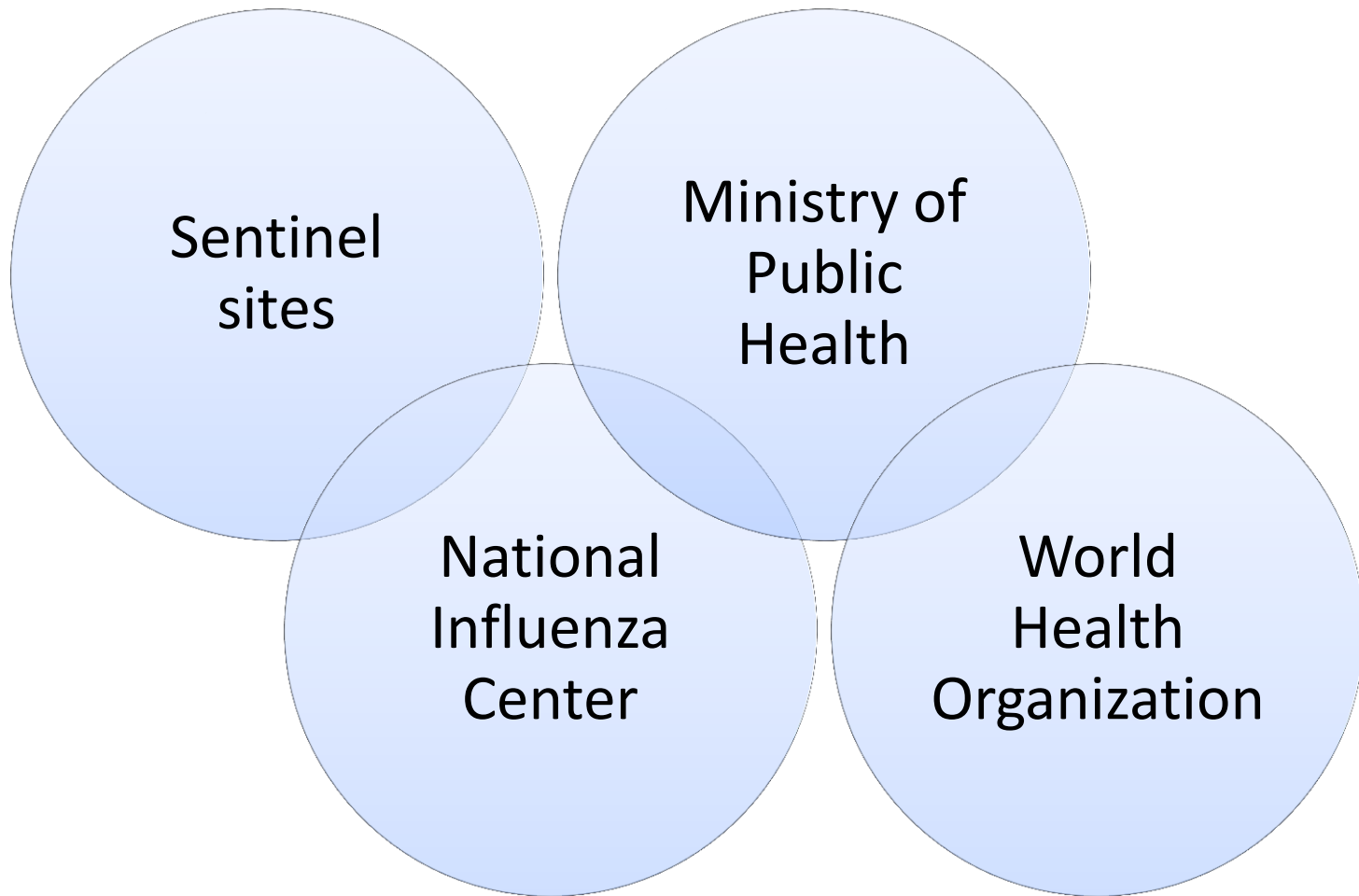
# SARI surveillance: Methods 2

- Cumulative: 12 sentinel sites
- Currently: 7 active
- Sectors:
  - Public (3)
  - Private (4)
- Memorandum of understanding



# SARI surveillance: Methods 3

## The actors



# SARI surveillance: Methods 4

## At the sentinel sites

### Focal person

- Designated by hospital
- MD or nurse

### Case detection

- Active
- Passive

### Case investigation

- Data collection
- Specimen collection

### Case notification

- 2014-2017: epidata
- 2018+: dhis2 platform (online)



# SARI surveillance: Methods 5

## At the NIC

### NIC

- Designated at Rafic Hariri University Hospital
- Official agreement

### Laboratory confirmation

- PCR
- Flu panel A+B

### Data sharing

- Feedback to sources
- Flunet

### Virus sharing

- WHO/VCM

# SARI surveillance: Methods 6

## At the MOPH/Esumoh

### System management

- Protocol
- Coordination, training, specimen referral...

### Data management

- Data collection and concatenation
- Data analysis

### Studies

- Outbreak investigation
- Burden of diseases

### Results

- Dissemination via MOPH website
- Sharing with WHO platforms (Fluid, Emflu)

# SARI surveillance: Methods 7

## At WHO

### Expertise

- Scientific support
- Training

### Logistics support

- Material / equipment
- For sites, NIC and Esumoh

### Global network

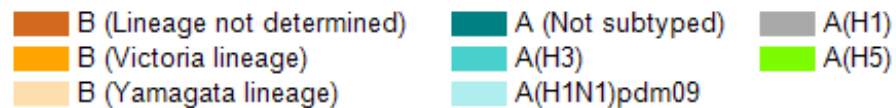
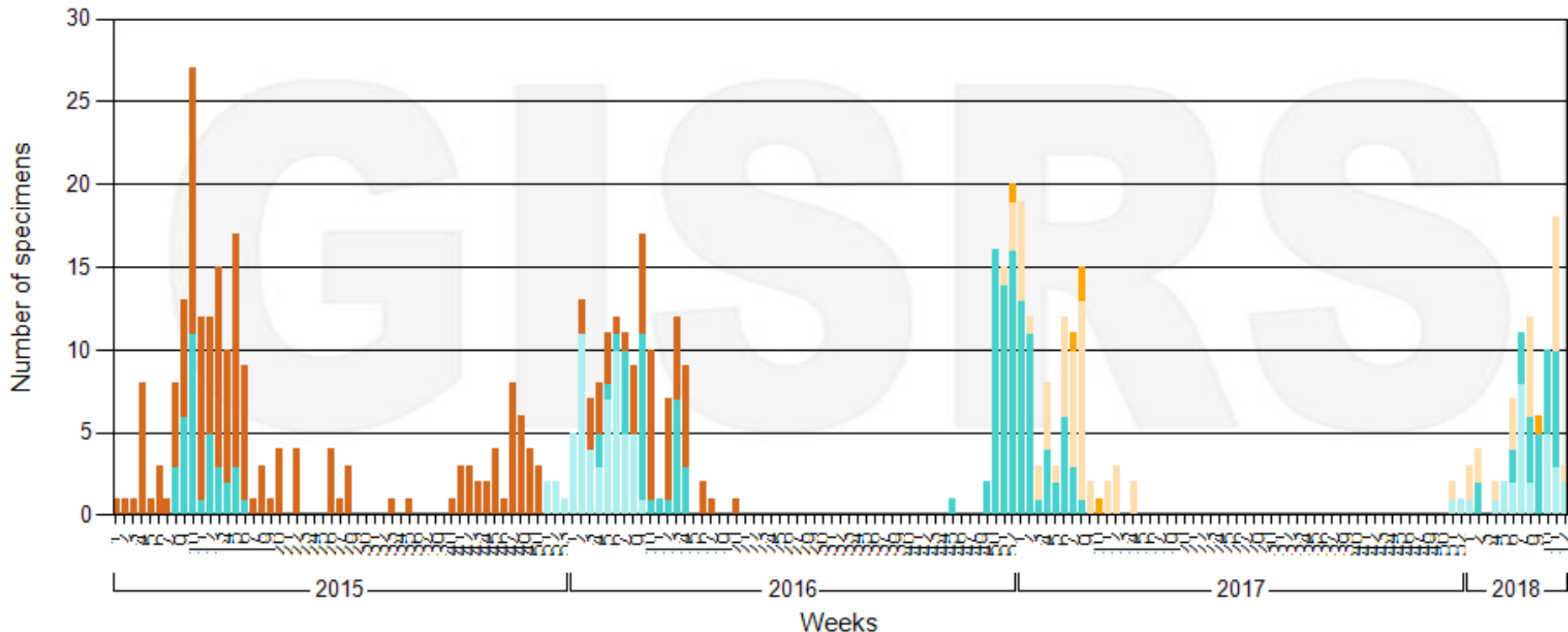
- Platforms, WHO-CC
- Meetings

### Global surveillance

- Seasonal influenza
- Novel influenza

# SARI surveillance: Results 1

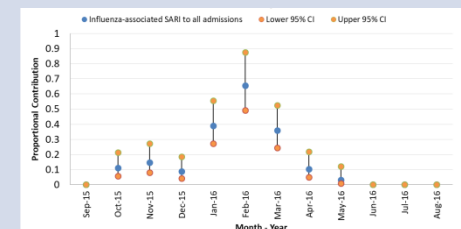
Number of specimens positive for influenza by subtype



# SARI surveillance: Results 2

## Influenza-associated SARI study, 2015-2016

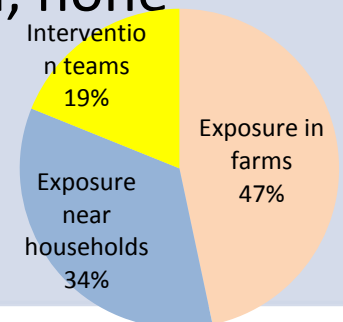
- SARI data from 1 September 2015 to 31 August 2016
- 5 sentinel sites representing 5 Lebanese provinces
- Total numbers of all-cause hospital admissions obtained for same time frame
- Proportional contribution of influenza-associated SARI to all site admissions (%)
- Result: 0.16% [95%CI: 0.13-0.19]



# SARI surveillance: Results 3

## Highly Pathogenic Avian Influenza A(H5N1) outbreak in poultry, 2016

- Outbreak declared in 21<sup>st</sup> April 2016, activation of national plan
- Animal: containment strategy, culling all poultry in 3 km radius of affected farms
- Human: search for exposed and follow up
- Exposed: 185, 97% received antiviral prophylaxis, 98% had daily follow up, 41 reported symptoms, 39 tested, none positive for H5N1
- Outbreak reported to WHO and OIE
- Containment declared on 1<sup>st</sup> June 2016



# SARI surveillance: Results 4

## Isolates sharing

- December 2017: 6
- January 2018: 5



**WORLDWIDE INFLUENZA CENTRE  
WHO CC for Reference & Research on Influenza  
THE FRANCIS CRICK INSTITUTE  
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LONDON NW1 1AT**

**Report prepared for the WHO annual consultation on  
the composition of influenza vaccine for the Northern  
Hemisphere 2018-2019**

**19<sup>th</sup> – 21<sup>st</sup> February 2018**

# Next steps

## Initiation of ILI surveillance

- Private cabinets
- Medical centers

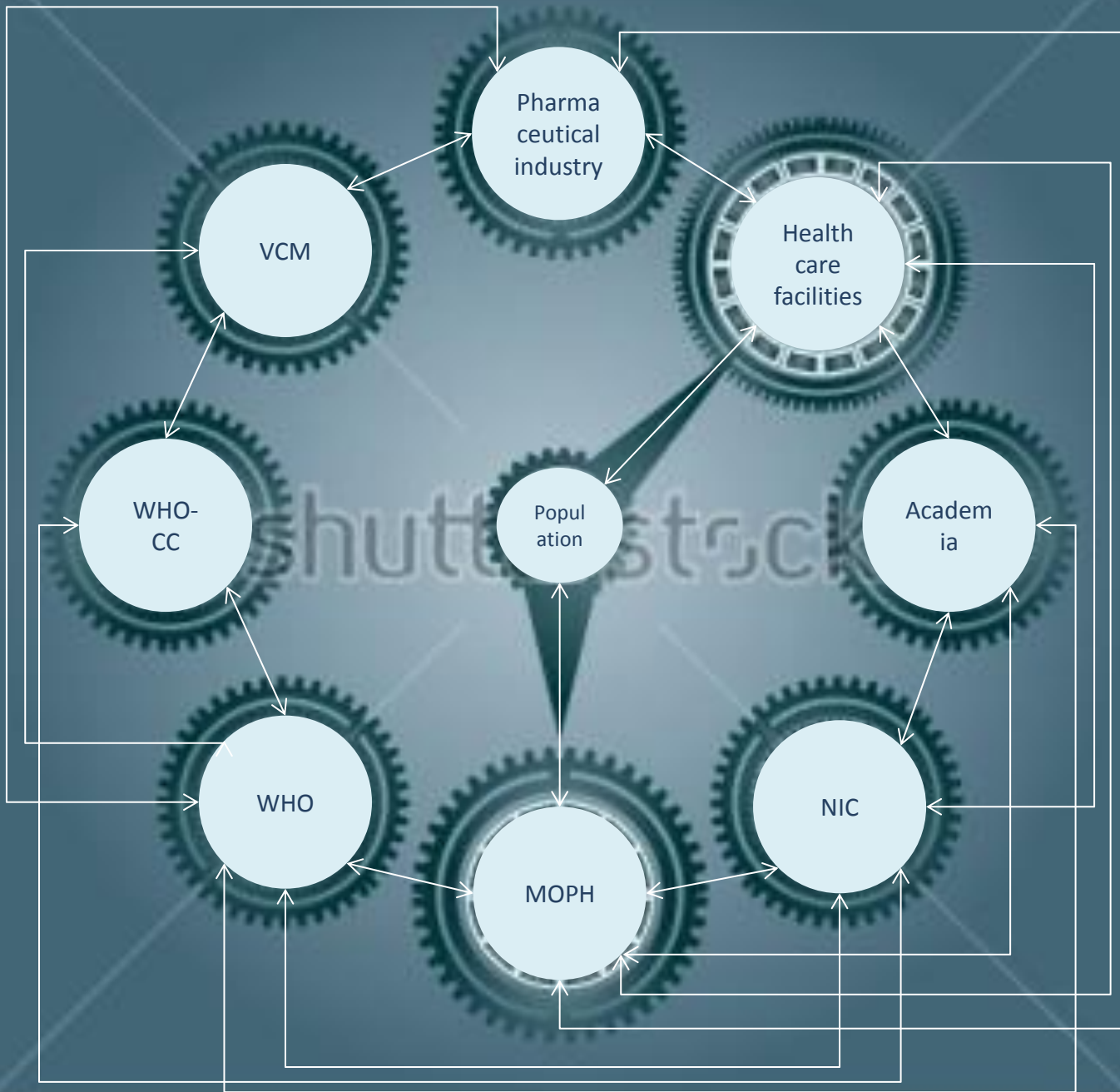
## Computing catchment area

- Catchment area of sentinel sites
- To be able to compute incidence rates

## Cycle information for action

- Prevention
- Control





# Acknowledgment

- Sentinel sites
  - Ain WaZein Hospital
  - American University of Beirut, Medical Center
  - Dahr Bachek, Governemental Hospital
  - Elias Hrawi Governmental Hospital, Zahleh
  - Hammoud Hospital
  - Khoury Hospital, Zahleh
  - Mounla Hospital
  - Notre Dame de Secours Hospital
  - Rafic Hariri University Hospital
  - Saida Governmental Hospital
  - Tripoli Governemental Hospital, Qobeh
- Surveillance expert committee:
  - Ministry of Public Health: W. Ammar, A. Berry, J. Haddad, D. Mansour
  - Academia: S. Kanj, G. Dbaibo, P. Salameh
  - Reference laboratories: M. Beaini, G. Mattar, R. Feghali
  - World Health Organization: A. Rady, P. Mrad
  - Ministry of Agriculture: A. Sarawan, B. Bazzal

- Thank you