Update
Middle East Respiratory Syndrome Coronavirus (MERS CoV)
and
Avian Influenza A(H7N9)

PAHO/ AMRO Regional Committee
Keiji Fukuda
Health Security and Environment

World Health Organization

Important Similarities

- Both viruses emerged recently from (different) animal reservoirs
- Both show limited person 2 person transmission but no sustained community-wide outbreaks
- Both cause high fatality rates
- Both remain major ongoing global health security risks

Important Differences

H7N9

- So far, reported only in China
- Source of most infections is contact with infected poultry
- Influenza-specific & general treatment available
- In several months, could have commercially available H7N9 vaccine

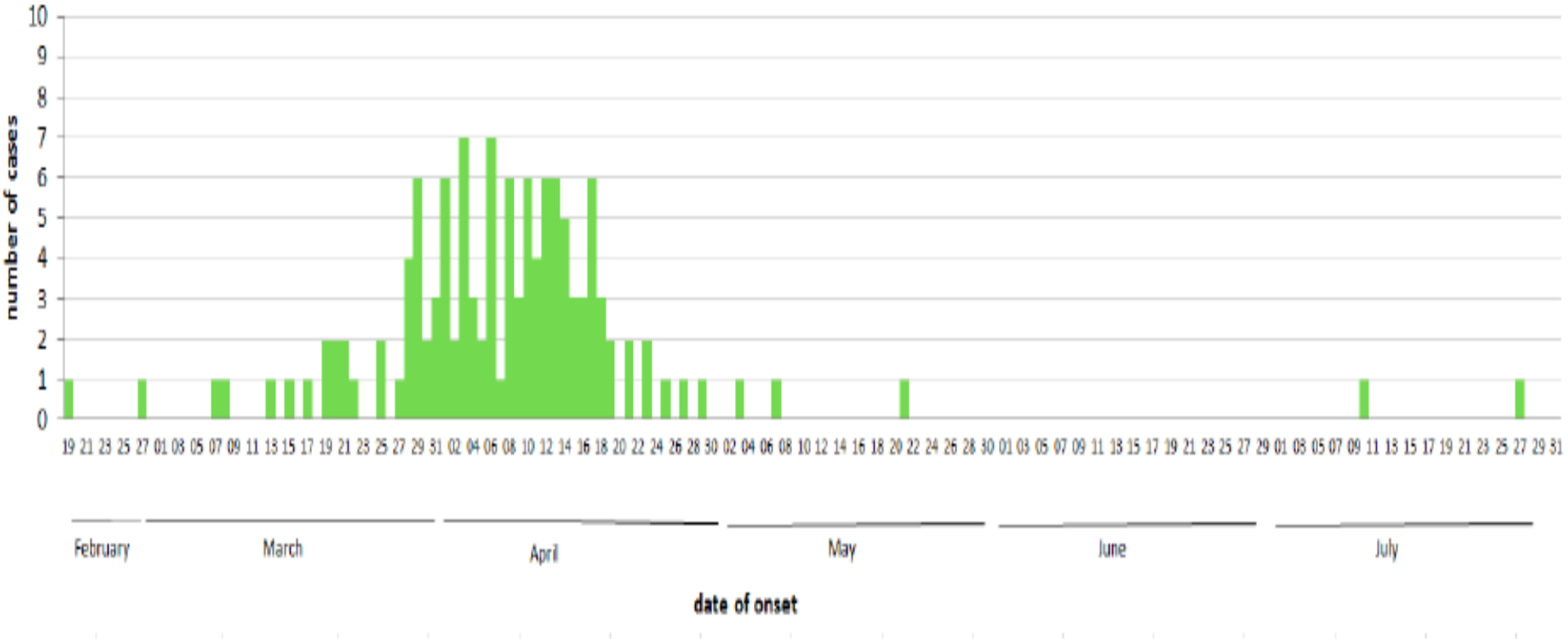
MERS-CoV

- So far, reported from Jordan, KSA, Qatar, UAE, Tunisia, France, Germany, Italy, UK
- Source of many community infections not established
- Hospital clusters notable
- Treatment is supportive
- Much more time needed for vaccine

Influenza A(H7N9)

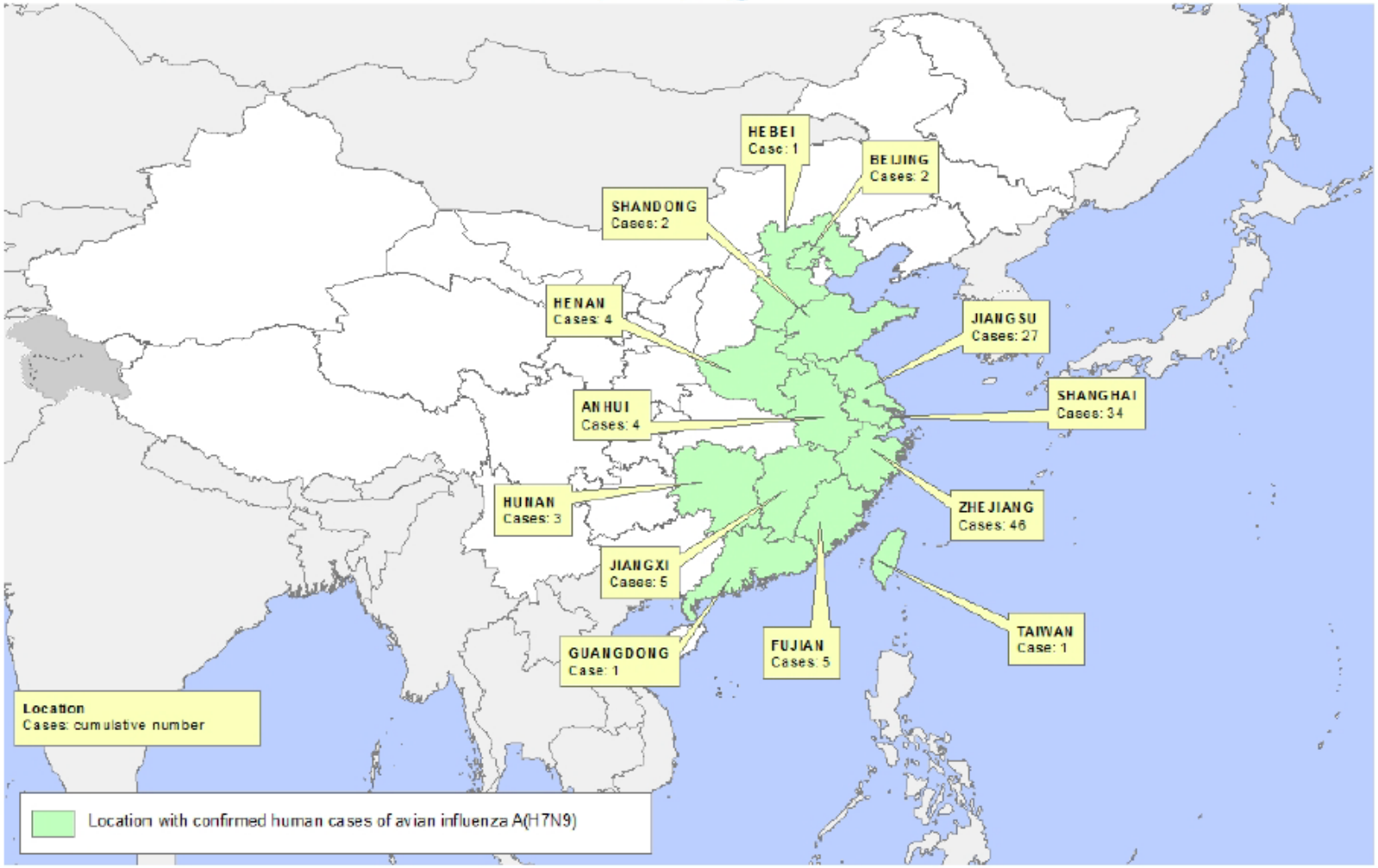
Human H7N9 cases during 2013

N = 125 confirmed cases for whom date of onset is known



World Health Organization

H7N9



Data as of 12 August 2013, 14:45 GMT+1
Source: WHO/GIP

World Health Organization

Key Points Related to H7N9

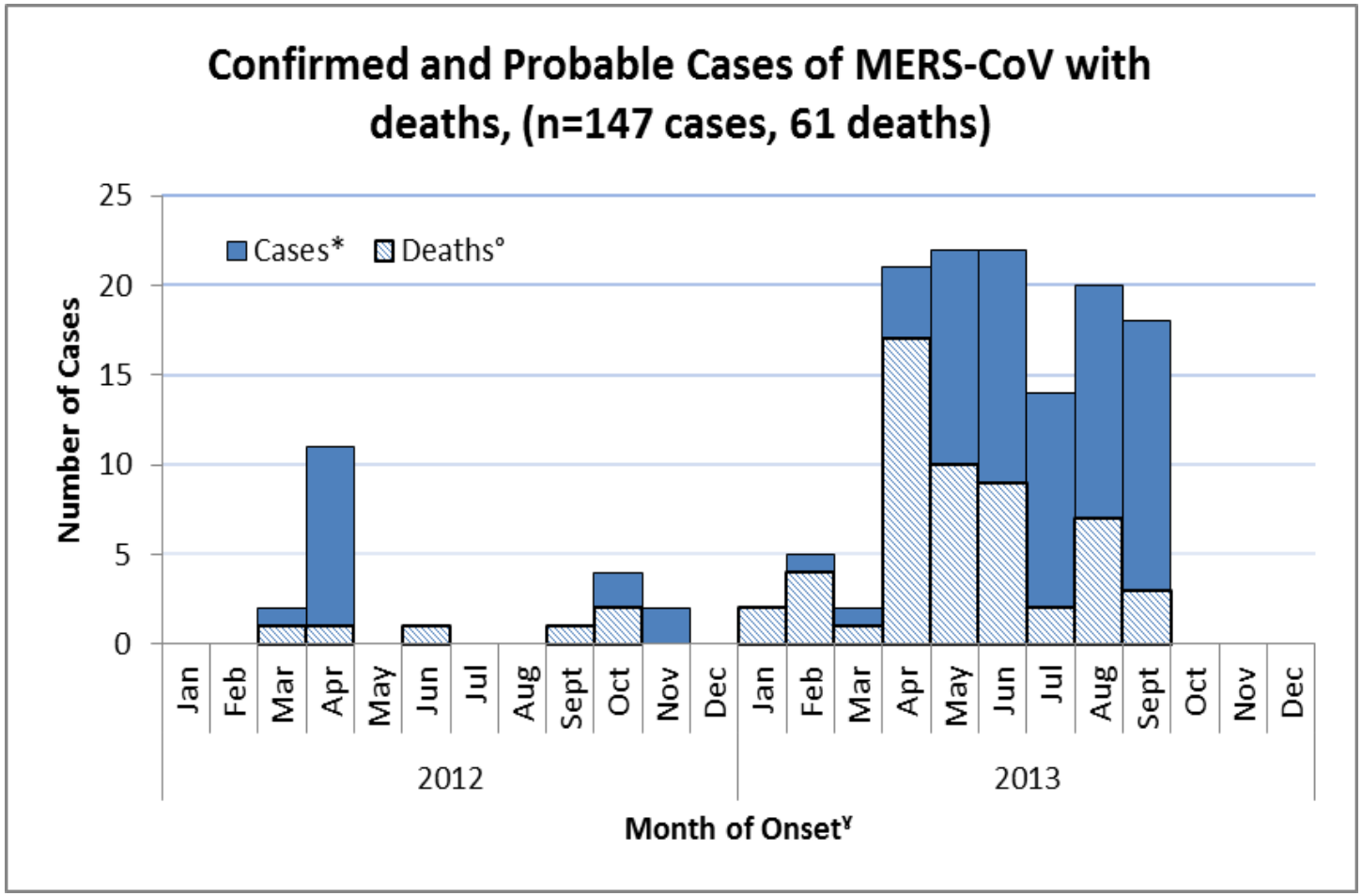
- Human infections often very severe, but poultry infections largely “silent”
- During summer, few human infections
- Activity anticipated to increase in winter
  - Typical pattern for avian influenza
- Key concern: has H7N9 spread “silently” to other countries

MERS CoV

Key Points Related to MERS

- Less known about MERS than influenza viruses
- Seasonality of MERS not clear
- Current concern of many Member States whether Hajj will foster spread of MERS

MERS-CoV cases from 2012 to present



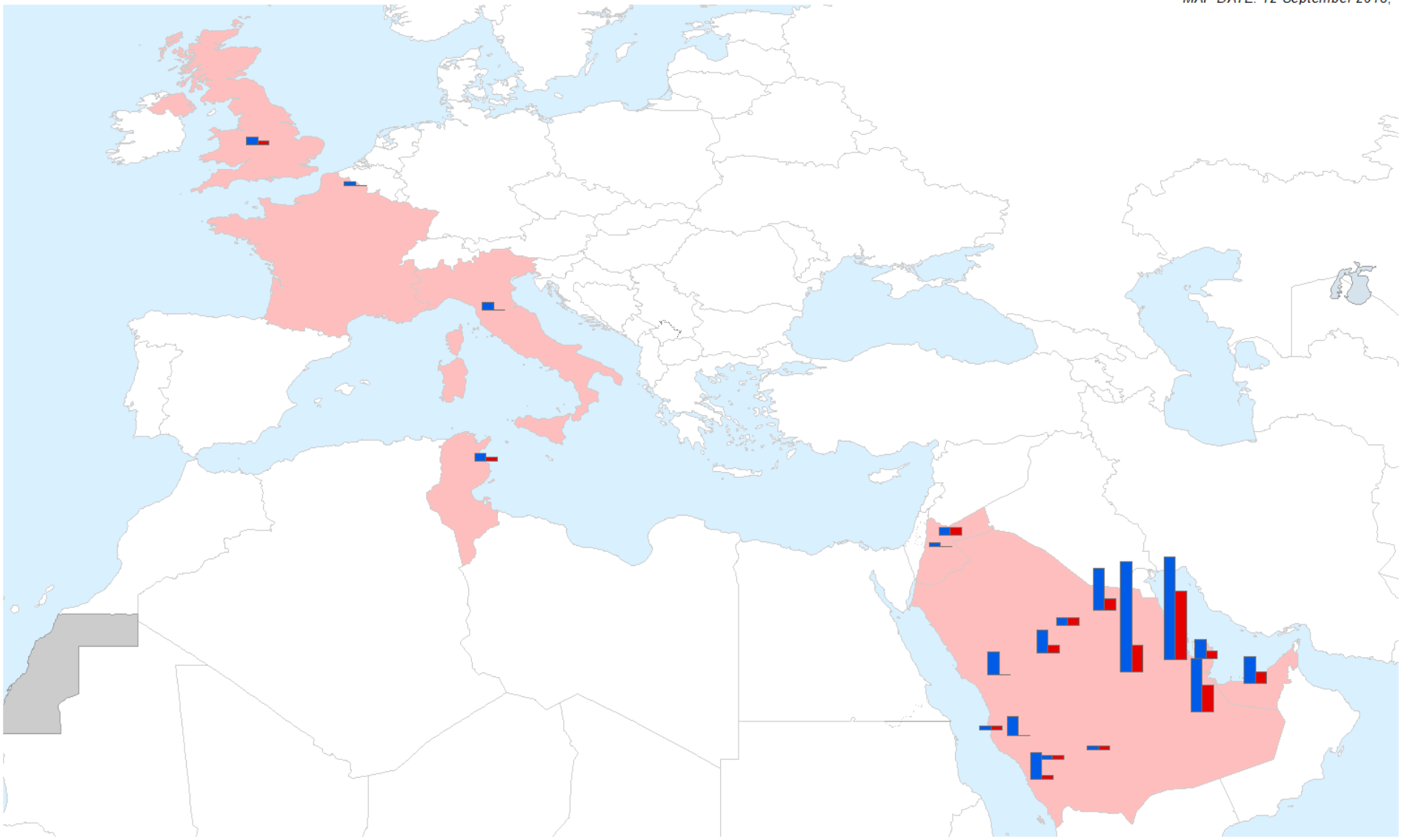
World Health Organization

In July 2013, WHO convened IHR Emergency Committee (EC) on MERS

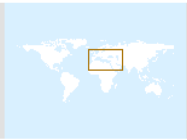
- To advise DG on risk posed by MERS
- So far, 3 teleconferences held
  - Two in July
  - One on 25 Sept
- Membership & summary reports on WHO website

CONFIRMED CASES OF MIDDLE EAST RESPIRATORY SYNDROME - CORONAVIRUS 2012 - 2013

MAP DATE: 12 September 2013,



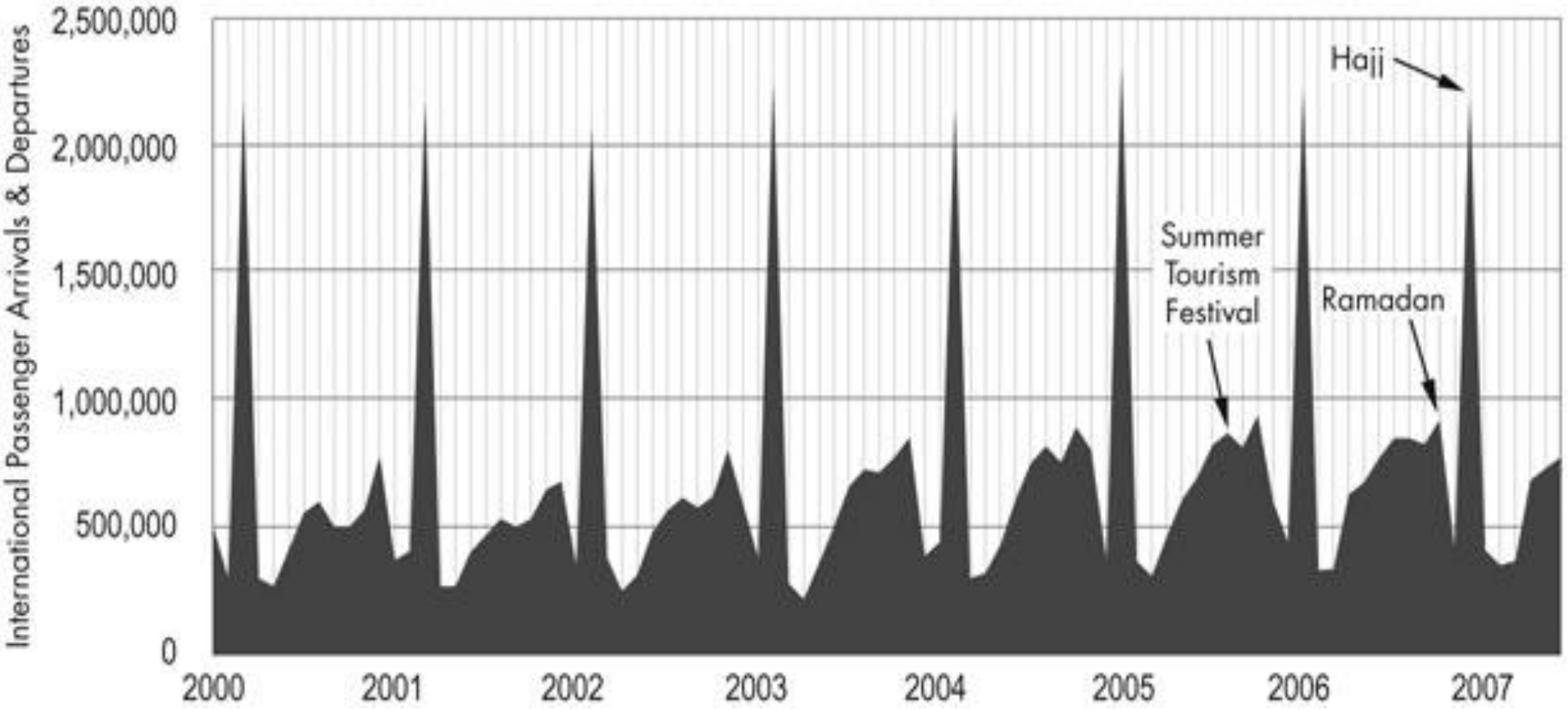
Map Scale (A3): *1:21,120,666*
1 cm = 211 km
Coordinate System: GCS WGS 1984
Datum: WGS 1984
Units: Degree



Legend:

- Countries of probable exposure
- Location of confirmed cases
- Location of confirmed deaths

Annual variation in Pilgrims visiting KSA



Umrah

- Pilgrimages occur year-round
  - Peaks during Ramadan (started 9 July 2013)
- For 2013 -- 5.5 million pilgrims anticipated
  - 400,000 month
  - Twice higher during Ramadan
- Individual visits shorter than for Hajj
  - Relatively limited interaction with local population

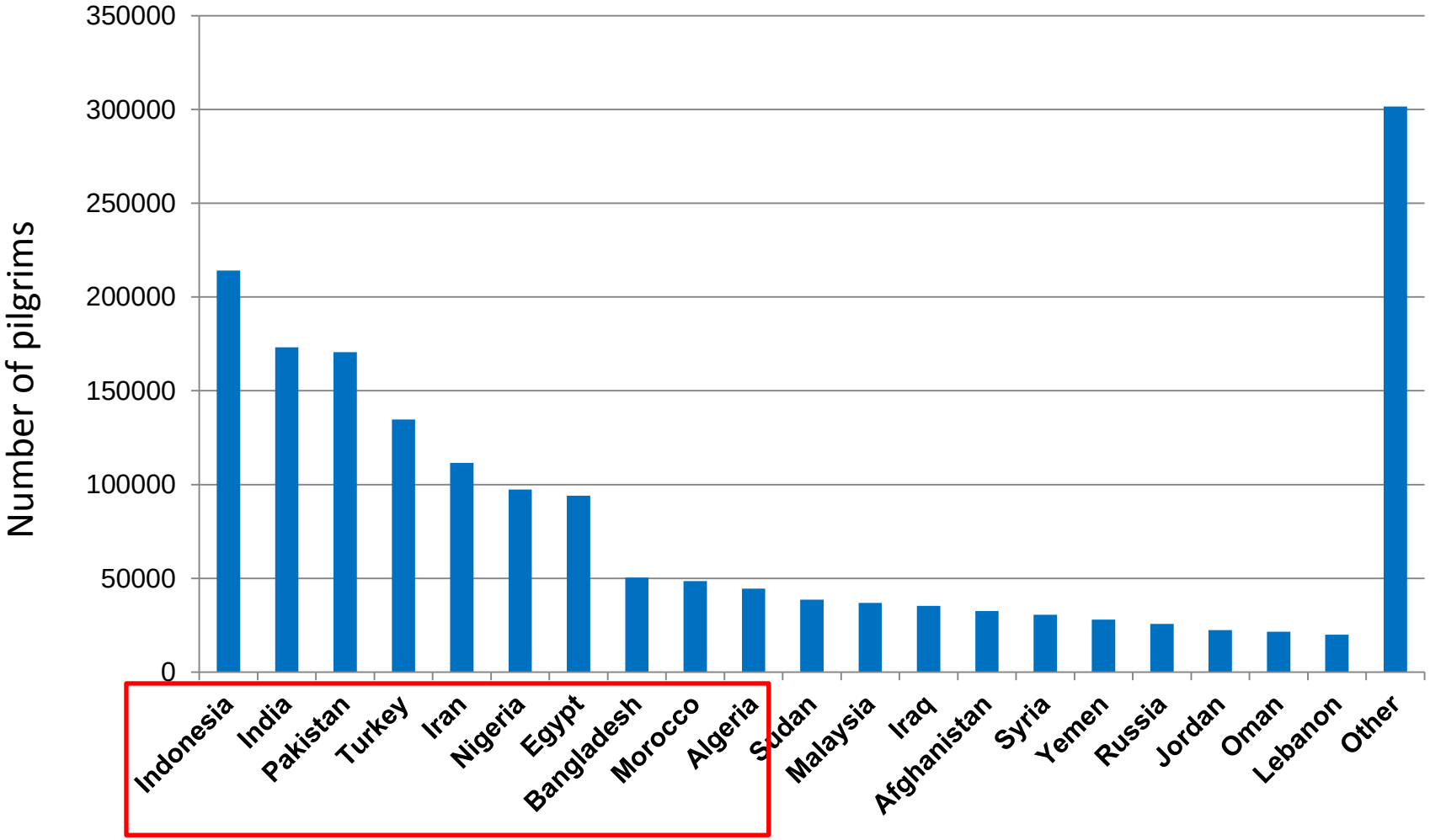
Umrah & monitoring for MERS

- 1 case reported in a pilgrim
  - Resident of UK visited KSA in January 2013
  - Secondary infections in family members in UK
- No cases in pilgrims reported during / after Ramadan
  - However, surveillance & testing limited in many countries sending pilgrims

Official Figures of Pilgrims in Hajj
October 13-18, 2013

- 2010 – 2.8 million
- 2011 – 2.9 million
- 2012 – 3.1 million

Countries with Pilgrims attending Hajj



In July, EC advised

- Currently not an IHR Public Health Emergency of International Concern (PHEIC)
- WHO role critical for answering the key questions about virus & risks
- Crucial to focus on surveillance, investigation, development of diagnostics, prevention & therapeutic strategies

WHO interim travel recommendations in July related to Hajj emphasized

- Before Hajj
  - Awareness raising, information & risk communication to travelers, health officials, HCW, etc.
- During Hajj
  - Infection prevention & what to do to if ill
- After Hajj
  - Self-monitoring, voluntary isolation if symptomatic, reporting for testing
- Overall emphasis on increasing awareness
  - On conveyances and at transit points

In Sept, EC advised

- Currently not an IHR Public Health Emergency of International Concern

- But emphasized concerns
  - Surveillance, especially in countries with pilgrims;
  - Awareness and effective risk communication
  - Particularly vulnerable countries, esp Sub-Saharan Africa
  - Increasing relevant diagnostic testing capacities;
  - Continuing investigative work
  - Timely sharing of information under IHR & active coordination with WHO.

Conclusions

- Both viruses continue to pose risks greater than usual to health security
- Future course is speculative
- What is certain is this period offers countries opportunity to strengthen areas to be more prepared

WHO focus

- Implementation of IHR & other key frameworks
  - PIP Framework
  - Within WHO -- Emergency Risk Framework
- Strategic plan emphasizing 4 goals
  - Protect people and communities
  - Comprehensively monitor and assess situation
  - Support countries to be prepared
  - Provide global leadership and coordination

Ongoing Actions by WHO

- Intensified surveillance, risk assessment, reporting
- Emergency Committee
- Joint missions with affected countries
- Technical assistance to countries covering
  - Diagnostic lab testing
  - Surveillance, clinical management, infection control …
  - Training
  - Investigation protocols and guides
  - Expert consultations &scientific meetings
  - Support through GOARN, technical networks ……..
- Communications
- Outreach to other sectors such as FAO, OIE …..

Thank you