

WHO Global RSV Surveillance based on GISRS

- Progress so far

<http://www.who.int/influenza/rsv/en/>



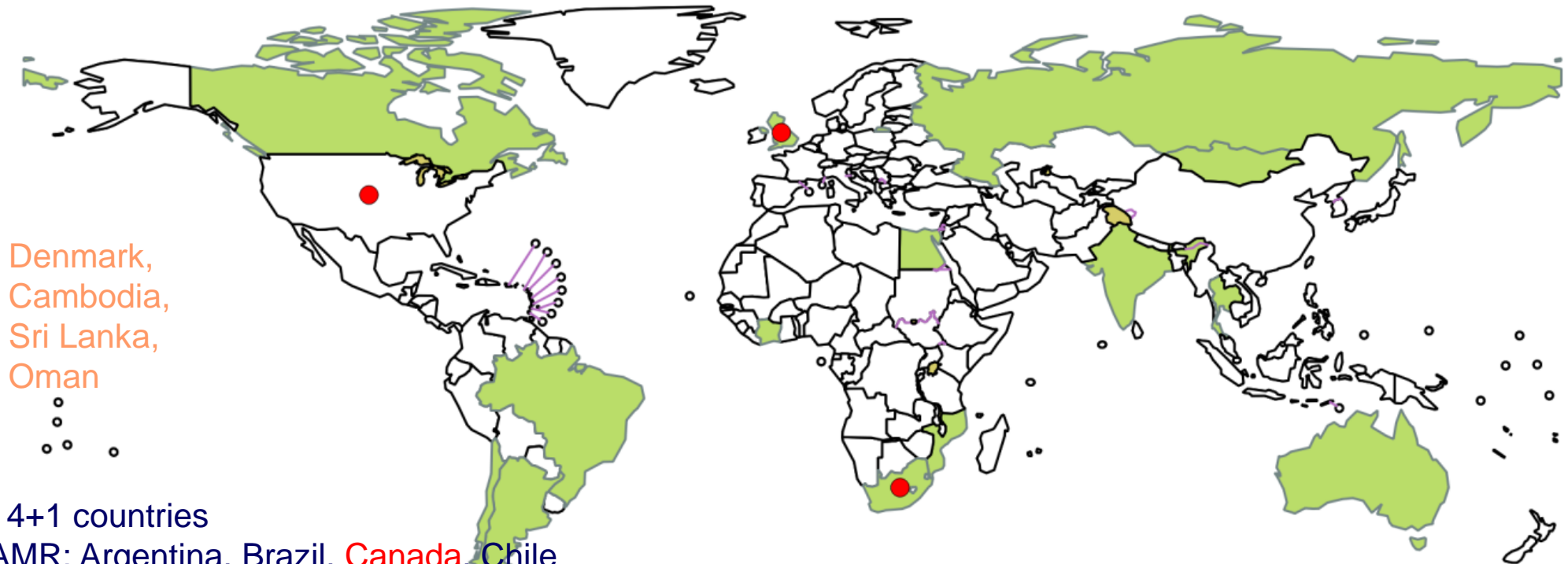
World Health
Organization

Genesis

- Development of a global RSV surveillance strategy
 - Geneva, 25-27 March 2015
 - Consensus reached to leverage GISRS capacities for RSV surveillance
 - http://apps.who.int/iris/bitstream/10665/200762/1/WHO_HSE_PED_GIP_RSV_2015.01_eng.pdf
 - Geneva, 2-3 February 2016
 - Countries invited, RSV surveillance strategy outlined
 - <http://apps.who.int/iris/bitstream/10665/252625/1/WHO-OHE-PED-GIP-2016.7-eng.pdf>
 - Geneva, 28-30 June 2016
 - Strategy finalized, protocols standardized, ToR for reference laboratories discussed, pilot project launched
 - <http://apps.who.int/iris/bitstream/10665/252617/1/WHO-OHE-PED-GIP-2016.6-eng.pdf>



So far



Denmark,
Cambodia,
Sri Lanka,
Oman

14+1 countries

AMR: Argentina, Brazil, **Canada**, Chile

EUR: Russian Federation, **UK**

EMR: Egypt, **Pakistan**

AFR: Côte d'Ivoire, Mozambique, South Africa

SEAR: India, **Thailand**

WPR: **Australia**, Mongolia

RSV surveillance

 Participating countries (May 2017)

2016

- Engaged with regional office and MoH
- RSV testing standardized
 - Different extraction systems (QIAamp®, QIAGEN, etc.) validated with the CDC assay
 - Different RT-PCR platforms (7500 Fast Dx Real-Time PCR & ViiA 7 Real-Time PCR Systems, Mx3000P and Mx3005P QPCR System, iCycler IQ5 and CFX96 etc.) validated with CDC assay
- CDC shipped the PT panels, primers and probes
- IRR shipped the enzymes, reagents
- EQAP
 - RSV reference laboratories – QCMD EQA
 - National laboratories – successfully participated in the proficiency testing
- Countries start preparation
 - Sentinel sites identified, training, logistics



2017

- Countries continued with sentinel site preparation
- External advisory group established
- RSV website launched
 - <http://www.who.int/influenza/rsv/en/>
- RKI collaboration to develop ICD-10 based methodology to estimate RSV disease burden
- RSV surveillance strategy published
 - http://www.who.int/influenza/rsv/WHO_RSV_pilot_strategy_21112017.pdf?ua=1
- FluMart data portal adapted
 - <https://extranet.who.int/flumart/Account/Login?ReturnUrl=%2fflumart>
- Surveillance outputs developed in Tableau business intelligence software
- Countries started testing for RSV from different times in 2017
 - Australia, Brazil, Mongolia started week 15 – 32
 - Canada, UK just started from Nov (data upload expected soon)
- Data uploaded so far – 8046 records (12 countries)

Increasing visibility / networking

- Website
- Dissemination on ezcollab
- Manuscripts for scientific publication
 - EQAP (under preparation)
 - RSV Surveillance strategy (proposed for early 2018)
- Networking
 - IVR / IVB coordination
 - ECDC
 - Expert consultation – Feb 2017 Stockholm
 - Annual influenza meeting – Jun 2017 Stockholm
 - RESCEU
 - Kick-off meeting – Jan 2017 Barcelona
 - ReSViNET
 - 3rd high level expert meeting – Mar 2017 Amsterdam
 - RSV vaccines for the World conference – Nov 2017 Malaga



Site profile

- **Most countries implementing hospital based surveillance**
 - Both hospital and community based surveillance by Côte d'Ivoire, India, Mozambique, UK
 - Mix of tertiary and secondary level hospitals
 - Ranging from 1 to several hospitals
 - Selected based on convenience, capacity, case load
 - Surveillance in pediatric age group only
 - Australia, Brazil, Canada
- **Most countries using single-plex RSV assay (CDC)**
 - In-house assay by Australia, Mongolia, Russia, South Africa, UK
 - Both in-house and CDC assay by India

Teething problems – WHO end

- Some countries deferred participation after showing initial interest
 - Cambodia, Sri Lanka, Oman, Denmark
 - Shipment delays
 - shipment of primers, probes, reagents etc. had to be re-directed
- Data related
 - Mapping of country data to FluMart
 - Timeliness of reporting
 - Missingness
 - Quality issues
 - Publishing of surveillance outputs

Acknowledgement

- WHO Expert Group on RSV
 - Harry Campbell (UK), Shobha Broor (India)
- CDC (Teresa Peret, Sue Gerber) – RT-PCR protocols, primers, probes, PT panels (CDC)
- IRR (Ann Moen, Erica Guether) – reagents, enzymes
- National influenza surveillance (MoH), National influenza centers
- Global Influenza Program
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- BMGF