

THE GLOBAL INFLUENZA HOSPITAL SURVEILLANCE NETWORK (GIHSN)



Sous l'égide de

Fondation de France

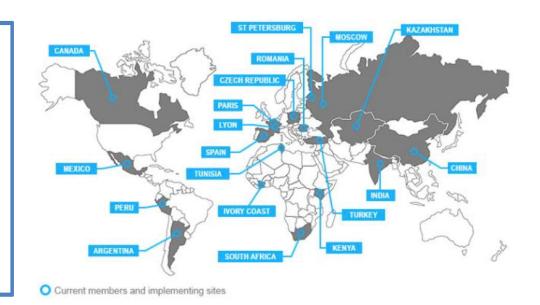
INITIATIVE & OBJECTIVES

Network of country sites affiliated with **health authorities** coordinating several hospitals and using a standardized surveillance protocol

Yearly assessment of : (i) influenza virus circulation,(ii) lab-confirmed **severe flu burden** (iii) **vaccine protective effect** (when coverage allows)

Building of a surveillance platform trough **catalytic funding** from the Foundation for Influenza Epidemiology

- 60 hospitals in 18 countries (20 sites) in 2017-18 season
- More than 2,500 documented cases of hospitalizations from influenza in the 2016-17 season (>1,000 RSV cases)
- Already 6 consecutive seasons of data generated including NH and SH data (>50,000 patients records collected)





AN OPERATIONAL PLATFORM FOR DATA GENERATION, CAPACITY BUILDING AND DATA SHARING/VALUATION

Type of data data generated

- Influenza activity and lengths of epidemics
- Pattern of strain circulation by subtype by region
- Burden of severe influenza (lab confirmed and requiring hospitalization) by regions, subgroups and risk factors (e.g. pregnancy)
- Genetic characterization
- Benefit of flu vaccination
- Similar data on other respiratory viruses (e.g. RSV)

Annual experts meeting

40+ participants from 15 countries including important flu experts and representatives from international health authorities (WHO, **US CDC, Chinese CDC)**

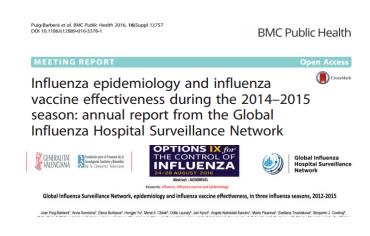








Annual peer-reviewed publications & international conferences presentations



A dedicated website www.gihsn.org



PROTOCOL



Patients hospitalized during the flu season are asked for recent influenza-like-illness (ILI) symptoms (<7 days)

All ILI cases are swabbed and tested by PCR for flu

All flu positive PCR samples are sub-typed to identify A/H1N1, A/H3N2, B/Yamagata, B /Victoria

When vaccine coverage is sufficient, vaccine effectiveness is assessed using a test negative design (comparison of vaccine coverage between lab confirmed case of flu and controls)

RECENT PUBLICATIONS (1/2)



Manuscripts

- Genetic characterization of influenza viruses from influenza-related hospital admissions (St. Petersburg & Valencia) of the Global Influenza Hospital Surveillance Network during 13/14 influenza season (journal of clinical virology, 2016)
- Influenza epidemiology and influenza vaccine effectiveness during the 2014– 2015 season: annual report from the Global Influenza Hospital Surveillance Network. (BMC Public Health, 2016)

ESWI Sept 2017 conference

- Assessment of the effect of repeat vaccination on current season influenza vaccine effectiveness in patients 60 years old or older over three consecutive seasons (2013-2014, 2014-2015 and 2015-2016) in the Valencia Region (Spain) (Oral presentation)
- Description of the burden of severe influenza in diabetic patients during four consecutive seasons from 2011 to 2016 in the GIHSN Poster).
- Respiratory viruses associated admissions during four consecutive seasons (2012/13 – 2015/16) in the global influenza hospital surveillance network (poster)



RECENT PUBLICATIONS (2/2)



Local sites publications

- İnfluenza Benzeri Hastalık Nedeniyle Hastaneye Yatış Gerektiren Hastalarda Mortaliteyle İlişkili
- Faktörler Mikrobiyol Bul 2017; 51(1): 20-31
- Unpredictable local trends: Epidemiology of patients hospitalized for influenza like illness in 2015-16 influenza season in Turkey (ESWI poster)
- Waning protection of influenza vaccination during four influenza seasons, 2011/2012 to 2014/2015 -Valencia site- accepted in Vaccine
- Outcomes of adult patients hospitalized for influenza like illness in 2015-16 influenza season in Turkey



CALL FOR TENDER AND NETWORK MEMBERS



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DATA INTERPRETATION AND SURVEILLANCE INFORMATION FROM SITES (2016-17 SEASON)



Catchment area population is known 10 /15 sites

With differences between sites i.e cat of age

Others respiratory viruses information is available in 12/15 sites

Including RSV, rhinovirus, metapneumovirus...

Laboratory Sequencing capacity 6/15 sites

Vaccination status 13/15 sites

Mainly declarative information from patients

Use of the GIHSN data in interactions with WHO or national surveillance system 12/15 sites

Or key national surveillance institutions (i.e NICD South Africa)

2017-2018 CALL FOR PROPOSAL

20 dossiers were received using a standard template form

- Africa (n=4); Asia (n=2); Eurasia (n=3); Europe (n=7); South-America (n=3); North-America (n=2)
- 6 new applications compared to the previous season

NOTATION GRID

Relevant expertise and experience of the applicant (15 pts):

- Expertise in influenza and in vaccines (5 pts)
- Experience in conducting epidemiological studies, in particular similar active surveillance studies (5 pts)
- Role in the national/regional influenza surveillance system (5pts)

Proposed implementation into the GIHSN (30 pts):

- Presentation of the catchment area, type of population, participating hospitals and expected sample size (15 pts)
- Scientific relevance of the proposal and the proposed design (5 pts)
- Team organization and dedicated staff for active surveillance (5 pts)
- Institution infrastructure and laboratory capacities to test influenza strains by RT-PCR; sequencing capacity is a plus (5 pts)

Level of co-funding from the applicant (15 pts)

All applications were evaluated and quoted by the Executive committee members. Experts did not quoted dossiers when there was a specific ongoing collaboration with the applicant.



LIST OF PUBLIC INSTITUTIONS AND MAIN INVESTIGATORS 2017-2018 SEASON (1/2)



NORTH AMERICA

- Canada: SOS Network, Pr Shelly McNeil
- Mexico: Institution nacionales de Salud, Dr Ruiz Palacios

LATIN AMERICA

- Argentina: National Reference Laboratory for Viral Respiratory Diseases, Elsa Baumeister
- . Peru: CITBM, Dr Alberto Laguna

EUROPE

- Czech rep: National Institute of Public Health, Dr Jan Kyncl
- France-Paris: REIVAC Hôpital Cochin, Pr Odile Launay and Lyon: Hôpital Edouard Herriot, Pr Philippe Vanhems
- **Poland**: Warsaw Medical University, Aneta Nitsch-Osuch
- **Romania**: National Institute of infectious diseases, Dr Draganescu
- **Serbia**: Institute of Public Health of Vojvodina, Dr S.Medić
- **Spain**: FISABIO, Dr Javier Diez-Domingo

LIST OF PUBLIC INSTITUTIONS AND MAIN INVESTIGATORS 2017-2018 SEASON (2/2)



AFRICA

- Ivory Coast: Institut National d'Hygiène Publique, Dr Coulibaly
- Kenya: Kenya Medical Research Institute (KEMRI), Dr. G.O. Emukule
- Tunisia: Institut Pasteur de Tunis, Dr Ben Salah
- **South Africa**: Respiratory and Meningeal Pathogens Research Unit, Dr M. Nunes

EURASIA

- Kazakhstan: National Influenza Center, Dr Kuatbayeva
- Russian Federation-Moscow: Ivanovsky Institute of Virology, Dr Bursteva
- Russian Federation-St Petersburg: Research Institute of influenza, Pr Sominina

ASIA

- China: Fudan University, Dr Tao Zhang
- India: Sher-i-Kashmir Institute, Dr Koul