



# Experience with influenza vaccine introduction in Mongolia

*A. Burmaa, MD., PhD*

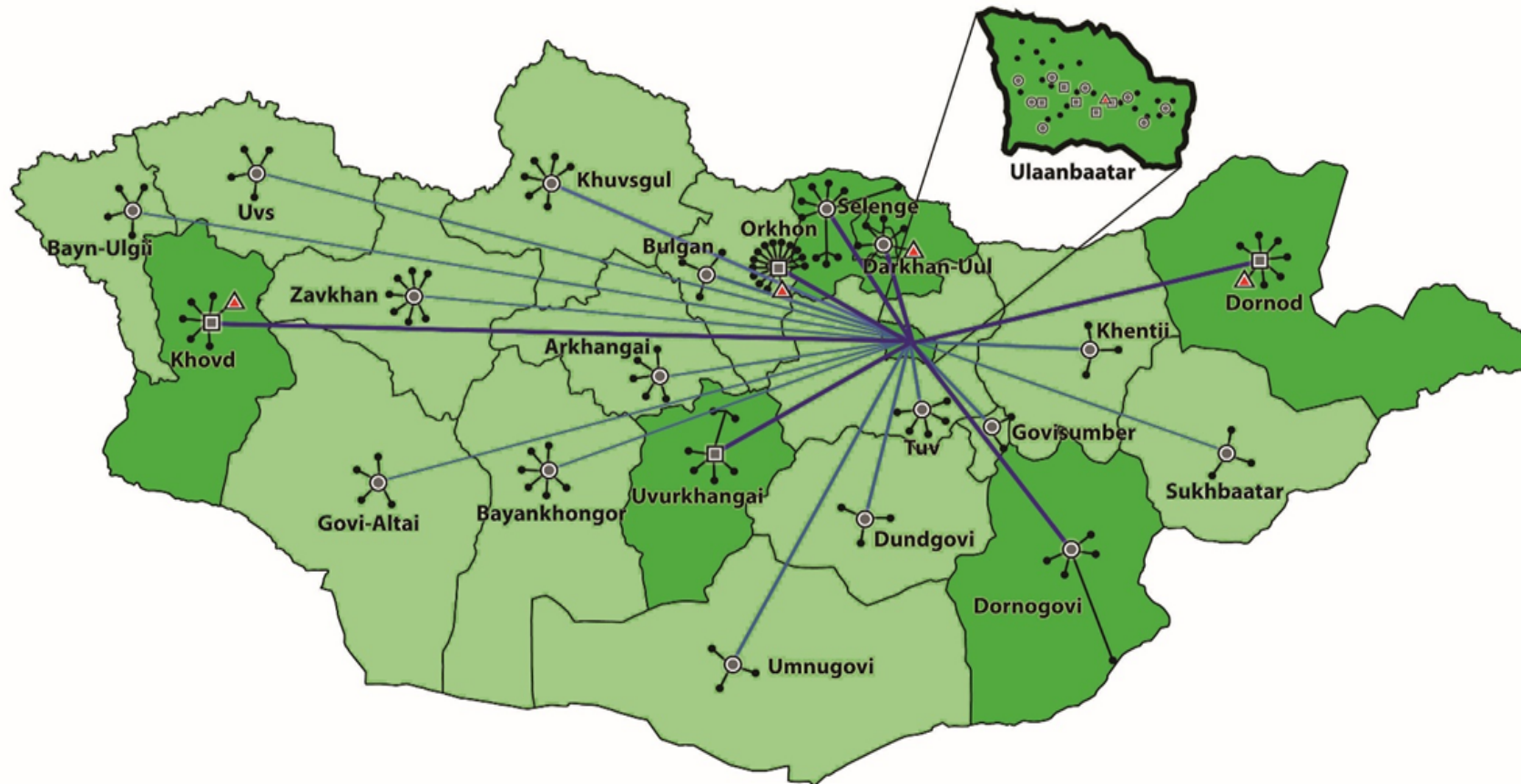
*Head of National Influenza Surveillance Division, NIC, NCCD, Mongolia*

# Country overview



- Mongolia is a landlocked country, neighboring China and Russia with a population of 3.2 million people and half of the population reside in the capital city.
- Mongolia's total area is 1,555,600 km<sup>2</sup>.
- The population density in Mongolia is 2 per km<sup>2</sup>.
- The median age in Mongolia is 27.4 years.
- Mongolia is classified as a lower middle-income country by the World Bank.
- Mongolia is administratively divided into 21 provinces and the capital city Ulaanbaatar.

# Influenza Surveillance Network



## Territory

- 1st category
- 2nd category

## Information/Sample Flow

- 1st category
- 2nd category

## Site

- Regional Diagnostic Treatment Centers and Referral Hospitals
- Aimag and District General Hospitals
- Influenza Virology Laboratory
- FGP/Sum Hospitals

**ILI sites-115**

- Category 1 - 61
- Category 2 - 54

**SARI sites-37**

- Category 1 – 17
- Category 2 – 20

# Influenza vaccination in Mongolia

**2001**

By the Immunization Law influenza vaccination is issued as a voluntary based with payment;



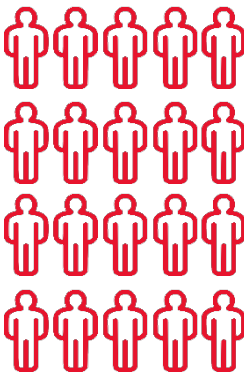
**2014**

Ministerial order: (HCWs; Children under 5 years; Elderly; Pregnant women; Individuals with underlying conditions)

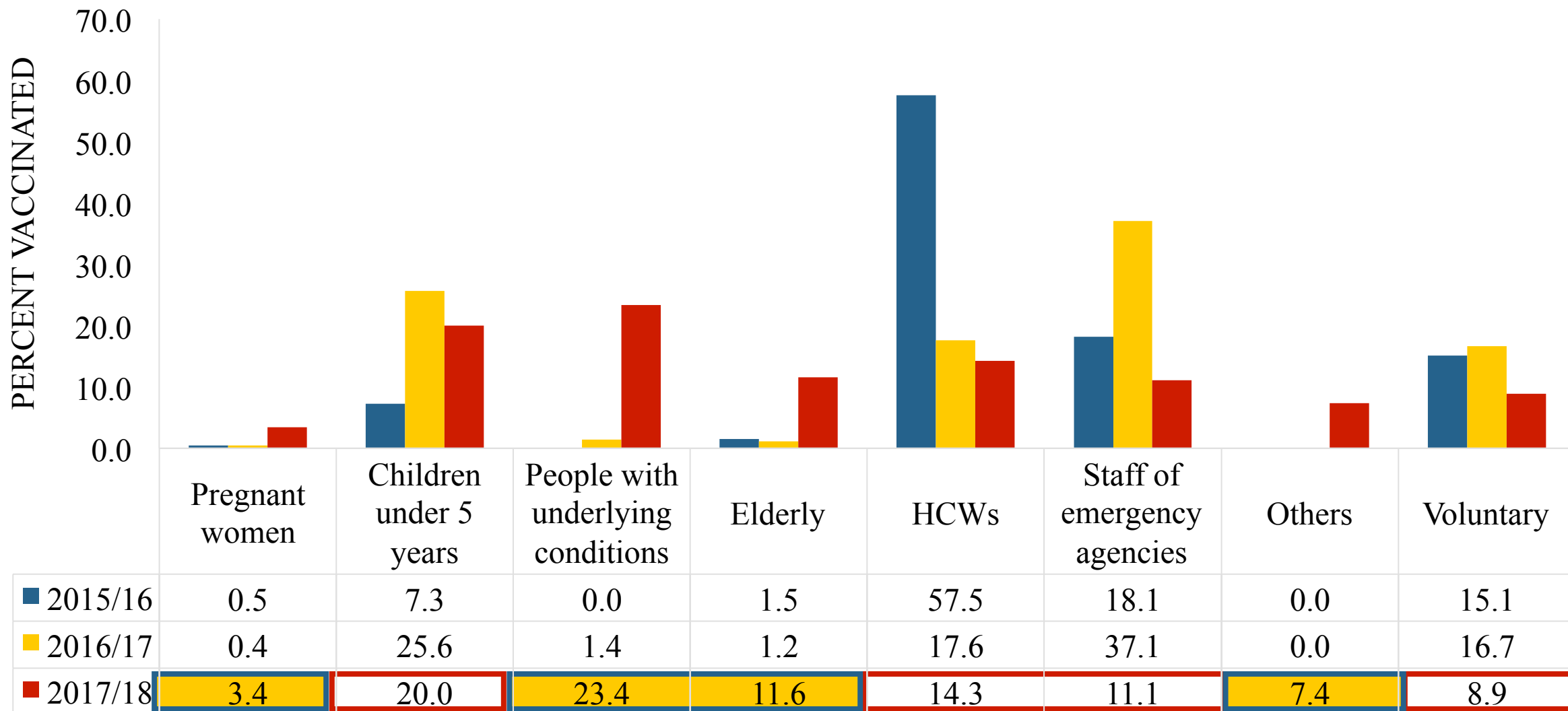
**2016**

Partnership for Influenza Vaccine Introduction **PIVI**

# Last 3 season's Influenza Vaccination in Mongolia

| Years   | Name of Manufacturer  | Funding sources | Number of doses | Date of vaccine received | Duration of vaccination campaign (in months) |   |
|---------|---|-----------------|-----------------|--------------------------|--|---|
| 2015/16 | IIV, GCF, Green Cross Corporation (Korea)                     | Government      | 45,000          | Oct 5, 2015              | 1  |  <b>45,000</b>   |
| 2016/17 | IIV, GCF, Green Cross Corporation (Korea)                     | Government      | 33,000          | Nov 21, 2016             | 1  |  <b>78,000</b>   |
|         | RIV, Flublok®, Protein Sciences Corporation, Meriden, CT, USA | PIVI            | 45,000          | Jan 27, 2017             | 1  |   |
| 2017/18 | IIV, GCF, Green Cross Corporation (Korea)                     | Government      | 45,000          | Oct 23, 2017             | 1  |  <b>220,000</b> |
|         | RIV, Flublok®, Protein Sciences Corporation, Meriden, CT, USA | PIVI            | 50,000          | Oct 13, 2017             | 1.5  |   |
|         | IIV, Split Virion, Hualan Biological Bacterin Co., Ltd        |                 | 100,000         | Nov 15, 2017             | 2  |   |
|         | IIV, Agriflu™, Seqirus Company, Australia                     |                 | 25,000          | Nov 15, 2017             | 2  |   |

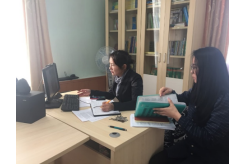
# Percent of Vaccinated (by groups, last 3 seasons)



# Activities within PIVI program (2016/17)



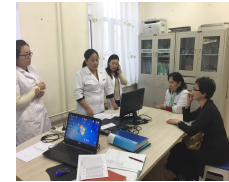
**AEFI active surveillance;**



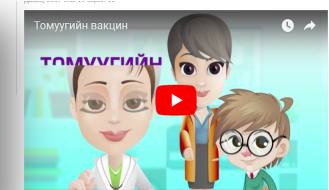
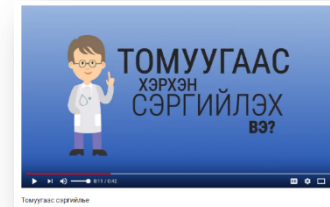
**KAP - general population;**



**Non-vaccination survey - HCWs;**



**Development of animation;**



**Decision maker meeting;**



# Activities within PIVI program (2017/18)

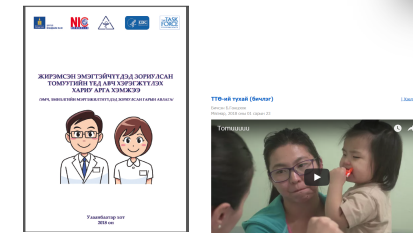


## Extended surveillance on Adverse Events and Birth Outcomes among Pregnant Women Received Influenza Vaccine in Mongolia, 2017/18;

- ✓ Assessment the frequency of post vaccination reactions, between Agriflu® and Flublok®, through follow up of vaccinated women 7 days post-vaccination);
- ✓ Follow up of vaccinated pregnant women for post-vaccination reactions;
- ✓ Evaluation the frequency of birth outcomes among pregnant women vaccinated during 2016/17 influenza season in Khuvsgul province (retrospective);



## Development of advocacy materials (animation, leaflets and guidance etc.) on benefits of influenza vaccination for target groups;



## Trainings for HCWs;





# Mongolia's achievements on influenza vaccination



- ✓ 2009 - Experience with pandemic vaccine;
- ✓ Gradually annual increase of population interested in vaccination;
- ✓ Ministerial order including a sustainability plan on influenza surveillance;
- ✓ Sustainability plan on influenza vaccination recommended by PIVI;
- ✓ Government resolution on strengthening and sustaining the influenza pandemic preparedness and emerging and re-emerging disease surveillance within the “National Program on Prevention of Communicable Diseases in 2017-2020”;
- ✓ National Plan on Public Health Emergencies and Pandemic Preparedness;
- ✓ National Immunization Plan for next 5 years including influenza vaccination issues;

# Challenges



Lack of knowledge on influenza vaccine benefits among general population;

---



Lack of Government Funding Source to increase vaccine supplement;

---



Social misleading advertising on vaccine including influenza vaccine;

---



Continued education for HCWs for influenza vaccination;

---

# Acknowledgement



Ministry of Health, Mongolia for leadership and decision making;



Task Force for Global Health, Center for Vaccine Equity, PIVI for vaccine donation and project implementation;



US CDC Influenza Division for technical assistance in conducting the surveys;



NCCD staff and HCWs in health facilities;

Thank you very much!

