## Influenza GAP III 15-16 November 2016, Geneve , WHO HQ

- Seasonal Influenza vaccine
- PPC of next generation influenza vaccine
- Preparedness of Influenza Pandemic (PIP)
- Universal Influenza vaccine.







### Seasonal Influenza vaccine

- evidence-based increase in seasonal influenza vaccine use, and overcome Influenza vaccine hesitancy
- Increase in influenza vaccine production capacity

2006 : 500 million dose

2015 : 1.5 billion dose

Research and development of new influenza vaccines.

(Press need for more Influenza burden studies)

## WHO preferred product characteristics (PPC) consider:

- **1- Indication**
- 2- target population
- 3- safety
- 4- co-adminesteration
- 5- Outcome measures and efficacy
- 6- Duration of protection
- 7- Immunogenicity
- 8-Registeration and prequalification
- 9- Programmatic suitability

Preferred Product characteristics (PPC) of next generation influenza vaccines Working Group

"Safe and well tolerated influenza vaccines that are effective at preventing severe influenza illness, that provide protection beyond a single year, and that are programmatically needed in LMICs"

2- To develop a WHO preferred product characteristics (PPC) guidance for next-generation influenza vaccines with an emphasis on low resource countries

3- To define research and activity gaps that must be undertaken in order to address the unmet public health need and to develop next generation influenza vaccines that meets the preferred characteristics

### PPC 10 years needs and gaps: Use case

### Who is targeted for immunization ?

- Platforms potentially exist for young children, pregnant women and health care workers

 Among these groups Influenza disease burden is considered to be greatest in young children < 5years, therefore the PPC prioritize this group</li>

#### What vaccines will be used ?

- Universal Influenza vaccine or next-generation influenza vaccines are unlikely to be used.

- Therefore, focus on currently licensed vaccines or available technologies

### PPC 10 years needs and gaps: Use case

#### When Immunize?

- The PPC calls for vaccines that have longer duration of protection which may enable programs to immunize persons during routine health care or vaccination visits year round

How to immunize ?

- Programs should emphasize programmatic suitability aspects such as ease of administration and thermo stability.

## Interim priorities and needs

#### summary

- 1- Ensure year-round supply
- 2- decrease manufacturing time
- 3-Register products in all countries
- 4-determine vaccine preventable burden of disease
- 5- Promote preventable vaccines to meet LMIC programatic needs
- 6- Promote R & D for broad-spectrum, long lasting vaccines
- 7-Strenthen < 5year delivery platform
- 8- Assess year-round delivery strategies
- 9- Advance delivery technologies



"Pandemic influenza occurs when people are affected by a new influenza virus against which they have no immunity".





Implementation of the Framework in the Eastern Mediterranean Region has been underway since July 2014 and countries have shown great progress in developing infrastructure and building systems that address sustainable influenza surveillance and pandemic preparedness.



PIP

As of October 2016, over 17 countries in the Region have a functioning influenza-like illness and severe acute respiratory infections surveillance system, while 16 designated national influenza centres are operational with the ability to detect and confirm unusual influenza viruses with human pandemic potential.



# Technical Advisory Group (TAG)

- Assist WHO to select and sponsor vaccine manufacturers in developing countries to enable greater vaccine productivity in face of a pandemic threat through transfer of vaccine production technologies.
- Past : Successful in the countries with a potential of production of additional 300-600 million in face of possible epidemics and pandemics in 2007-2015 and >600 million in 2016/2017 and expected up to one billion in 2018/2019

### Universal Influenza vaccine.

-Timely and equitable availability of a vaccine that is safe and effective and can be used in vaccination campaigns before the majority of the population is exposed to the virus.

- Sustainable efficacy of up to 5 years.

## STRATEGIC GOALS

- Strategic Goal 1: By 2022, influenza vaccines in advanced clinical development that can provide greater protection against influenza A strains (drifted or matched) than currently available unadjuvanted, inactivated influenza vaccines and protect against severe influenza A virus illness through at least one year after a primary series and that are suitable for high risk groups in low- and middleincome countries.
- Strategic Goal 2: By 2027, influenza vaccines in advanced clinical development that have the potential to provide protection against severe influenza A virus illness for at least five years after a primary series and that are suitable for high risk groups in low- and middle-income countries.



