Global Influenza Burden

**Seasonal Influenza**
- 1 billion cases annually
- 3-5 million severe cases annually
- 290,000-650,000 influenza-related respiratory deaths annually

**Zoonotic influenza**
- H7N9, H9N2, H5NX
- Animal viruses continue to spill over into humans

**Pandemic influenza**
- 4 pandemics in last century
- 0.5-4.8% of global GDP lost in each
- Future pandemics a certainty
Building Capacity for Influenza

- Influenza is the perfect example of a “poster child” for capacity-building
- Why: Influenza affects every country every year
- Programmes for seasonal influenza surveillance, prevention & control are essential for pandemic preparedness
- Influenza capacity is IHR (2005) core capacity for EIDs
GLOBAL INFLUENZA STRATEGY 2019–2030

Better Global Tools

Stronger Country Capacities
Outcome 1. Better Global Tools

Strategic Objective 1: Promote research and innovation to address unmet needs:

• Improved, novel and universal vaccines
  • Broader immunity, longer lasting
  • Faster, improved technology, timeliness

• More effective therapeutics
  • Antivirals, immune modulators, other drugs

• Better understanding of the virus and host response

• Better detection methods, POC testing

• Optimized use of current tools in the meantime
Outcome 2. Stronger Country Capacities

1. Many countries are unprepared for a pandemic (i.e COVID-19, MERS, Ebola, influenza)

2. Strengthen countries’ capacity for seasonal influenza and preparedness planning

3. Every country has a prioritized influenza programme
   • Evidence based,
   • Optimized to fit their needs, &
   • Contributes to national and global preparedness, response and health security.
Global Influenza Strategy: Four Strategic Objectives

1. Promote research & innovation to address unmet public health needs
2. Strengthen global influenza surveillance, monitoring & data utilization
3. Expand seasonal influenza prevention & control policies/programmes to protect the vulnerable
4. Strengthen pandemic preparedness & response for influenza to make the world safer
Vision for 2030

Attainment of the highest possible influenza prevention, control and preparedness to safeguard the health of all people
Thank you!
Seasonal Influenza Vaccination: Developing and Strengthening National Programmes

Shoshana Goldin
World Health Organization
WHO recommends that all countries should consider implementing seasonal influenza vaccination programmes

**Vision for 2030**
Attainment of the highest possible influenza prevention, control and preparedness to safeguard the health of all people
National influenza vaccination policies

Existed in all income groups but were reported more often in higher income countries and countries that were eligible for support from Gavi.

Policy
- Public & private sectors
- Public sector
- Private sector

No policy

Preliminary findings – Publication upcoming

HIC: high income; LIC: low income; LMIC: lower-middle income; UMIC: upper-middle income.

Source: 2022 programme data collected via the 2023 WHO/UNICEF eJRF supplemented with the most recent JRF report (2017–2021) when a 2022 report was unavailable | Based on data available 26 September 2023 (n = 194).
Is influenza vaccination available in your country?
Vaccines against influenza: WHO position paper – May 2022

• New position paper published on 13 May 2022:
  o SAGE decision-making process reflected in evidence-to-recommendation tables
  o Replaces the previous 2012 WHO position paper on influenza vaccines

• Focus is on vaccines and vaccination against seasonal influenza
  o Intended for use by national public health officials and immunization programme managers
  o May also be of interest to funding agencies, vaccine advisory groups, vaccine manufacturers, health professionals, researchers, scientific media, and the general public
Selection of target groups

For countries considering initiation or expansion of seasonal influenza vaccination programmes, WHO recommends the following as priority target groups (alphabetical order):

- Health workers
- Individuals with comorbidities and underlying conditions
- Older adults
- Pregnant women

Other groups to consider:
- Children
- Individuals living in congregate-living settings (e.g., prisons, refugee camps, group homes)
- Disadvantaged populations
- Indigenous populations

Selection of target groups is ultimately based on local context (e.g., burden of disease, national goals and policies) and programme feasibility (e.g., capacity, resource availability)
When to vaccinate?

WHO recommends annual seasonal influenza vaccination prior to the beginning of the influenza season.

For tropical and subtropical areas with multiple peaks of influenza activity, WHO recommends seasonal influenza vaccination prior to the start of the primary period of increased influenza activity.
Have you been vaccinated against influenza this year?
Materials to Support Influenza Vaccination Programmes

**Policy Brief**
- Key elements to include in seasonal influenza vaccination policy

https://www.who.int/publications/i/item/9789240084636

**BeSD Tool**
- Tool to better understand behavioral and social drivers for influenza vaccination

Will be published in 2024

**Vaccination Toolbox**
- Training, guidance, campaign materials, and other useful resources

https://www.who.int/teams/global-influenza-programme/vaccines/influenza-vaccination-toolbox
Policy Brief: Key components of national policies

- Rationale
- Surveillance, burden of disease, and economic burden
- NITAG roles and responsibilities, national recommendations, and estimates of target groups
- Preferred vaccine types and costs
- Vaccine supply and market authorization
- Distribution and administration (E.g. timing, sites, supplies, cold chain, waste, inventory)
- Risk communications, community engagement, and demand generation
- Documentation and reporting
- M&E and research
- Funding
- Process for updating the policy

Links to helpful resources (e.g. WHO recommendations, manuals, and tools)
Global influenza vaccine production capacity

- **31 manufacturers** (2019)
- **Maximum annual production capacity**
  - Seasonal: 1.48 billion doses
  - Pandemic: up to 8.31 billion doses (best case)
- **Production capacity largely concentrated in HICs**

### Income status

<table>
<thead>
<tr>
<th>Income status</th>
<th># of facilities</th>
<th>% capacity seasonal</th>
<th>% capacity pandemic</th>
<th>% of world population</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIC</td>
<td>0</td>
<td>0%</td>
<td>0%</td>
<td>9%</td>
</tr>
<tr>
<td>LMIC</td>
<td>5</td>
<td>2%</td>
<td>1%</td>
<td>38%</td>
</tr>
<tr>
<td>UMIC</td>
<td>15</td>
<td>29%</td>
<td>19%</td>
<td>37%</td>
</tr>
<tr>
<td>HIC</td>
<td>20</td>
<td>69%</td>
<td>80%</td>
<td>16%</td>
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</table>

### By vaccine type

<table>
<thead>
<tr>
<th>Vaccine type</th>
<th>Seasonal influenza</th>
<th>Pandemic influenza</th>
</tr>
</thead>
<tbody>
<tr>
<td>IIV</td>
<td>89.6%</td>
<td>88.9%</td>
</tr>
<tr>
<td>LAIV</td>
<td>5.0%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Recombinant</td>
<td>5.4%</td>
<td>7.7%</td>
</tr>
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</table>

### By substrate

<table>
<thead>
<tr>
<th>Substrate</th>
<th>Seasonal influenza</th>
<th>Pandemic influenza</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eggs</td>
<td>84.5%</td>
<td>79%</td>
</tr>
<tr>
<td>Cell culture</td>
<td>15.5%</td>
<td>21%</td>
</tr>
</tbody>
</table>

Resources

• Vaccines against influenza: WHO position paper – May 2022: https://www.who.int/publications/i/item/who-wer9719


• Influenza vaccination toolbox: https://www.who.int/teams/global-influenza-programme/vaccines/influenza-vaccination-toolbox

• Influenza vaccines overview for policymakers: https://apps.who.int/iris/handle/10665/336951


• WHO Flutool plus – seasonal influenza immunization costing tool (SIICT) and training: https://openwho.org/courses/influenza-costing-tool

• Understanding the behavioural and social drivers of vaccine uptake position paper: https://apps.who.int/iris/bitstream/handle/10665/354458/WER9720-eng-fre.pdf
Thank you
Seasonal Influenza Vaccination (Jordan)

Context:

• Influenza vaccines have been used in Jordan since 2003.
• A formal seasonal influenza vaccination policy will strengthen the programme. The Ministry of Health (MOH) in collaboration with the National Immunization Technical Advisory Group and national stakeholders developed the first draft of the influenza vaccination policy.
• The policy development was supported by WHO and the Task Force for Global Health’s Partnership for International Vaccination Introduction. The policy is currently under legal review to be endorsed.

To support uptake of the vaccine, MOH is also:

1. Conducting educational sessions for MOH, health workers, primary health care centers, and hospitals to address barriers for influenza vaccination.
2. Educating the public on the importance of influenza vaccination before the season through national interviews on media outlets.
3. Refining the WHO tools for Understanding Behavioural and Social Drivers of Seasonal Influenza Vaccination by field testing them in two primary health centers.
Seasonal influenza vaccination in the Americas

39 (89%) of the countries in the American Region have seasonal influenza vaccination

Number of countries by priority group:
- Health care workers: 39 (100%)
- Older adults: 38 (97%)
- Pregnant people: 35 (90%)
- People with comorbidities: 35 (90%)
- Children: 30 (77%)

Number of countries by vaccine composition:
- Northern Hemisphere: 25 (64%)
- South Hemisphere: 14 (36%)

Number of doses distributed through PAHO Revolving Fund for Access to Vaccines:
- 2016: 10
- 2017: 15
- 2018: 20
- 2019: 25
- 2020: 30
- 2021: 35
- 2022: 30
- 2023: 25

[Links:
Regional Vaccine Effectiveness Network

Influenza vaccine effectiveness against hospitalization, SH 2023
Antivirals (Japan)

- Recommended and available antivirals for influenza in Japan
  - Oseltamivir (Oral), Zanamivir (Inhaled), Peramivir (Intravenous), Laninamivir (Inhaled), Baloxavir (Oral)
- Antivirals are commonly prescribed to patients with influenza
  - Antivirals are recommended for those at higher risk of influenza complications
  - Clinicians can prescribe antivirals to non-high-risk patients based on clinical judgement
  - Antivirals for prophylaxis can be considered in certain settings (e.g. outbreaks in hospitals and long-term care facilities)
- Antivirals should be given as soon as possible (< 48 hours after onset of illness)
- Antivirals for treatment and rapid antigen tests are covered by the health insurance
We welcome your questions through the Q&A feature!