

Summary report on the
**Subregional workshop
for NITAG chairs, EPI
managers and influenza
focal points on influenza
vaccination programmes,
policy and evidence review**

Tunis, Tunisia
12–14 February 2024



**World Health
Organization**

Eastern Mediterranean Region

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1. Introduction

Seasonal influenza is a contagious acute respiratory infection caused by influenza viruses which circulate in all parts of the world. Up to a billion people get seasonal influenza every year, and with the increasing concern over influenza pandemics, there is an urgent need to monitor circulating respiratory viruses, including influenza. This monitoring informs the vaccine composition recommendations that the World Health Organization (WHO) issues twice a year.

Influenza causes high morbidity and mortality around the world, with more than 4.6 million cases globally each year, including 3 million cases of severe disease and half a million deaths. Vaccination is considered the most effective control measure against influenza and is one of the key components of WHO's global influenza strategy (2019–2030), which advocates expansion of seasonal influenza prevention and control policies and programmes to protect the vulnerable.

The WHO Strategic Advisory Group of Experts on Immunization (SAGE) recommends seasonal influenza vaccination for high-risk groups as a high priority, including older adults (over 65 years), health workers, pregnant women and individuals with underlying health conditions.

Although safe, effective and well tolerated influenza vaccines with rare significant side effects have been available for over 60 years, the uptake of influenza vaccines in the WHO Eastern Mediterranean Region remains suboptimal. This is due to several challenges, such as a lack of local evidence, competing health priorities, siloed programmes, and vaccine hesitancy and misconceptions. Consequently, influenza vaccination implementation varies among the countries of the Region.

Seasonal influenza epidemics can have to a severe economic impact through the loss of workforce productivity, whether due to increased

morbidity and mortality or through overwhelming the capacity of health services. That is why it is necessary to estimate the burden of disease (BoD) to convince decision-makers to revive or strengthen their influenza vaccination programmes.

The Expanded Programme on Immunization (EPI) has proven to be one of the most impactful and cost-effective public health interventions. Since its launch in 1974, the EPI has been expanding and is continuously adding new vaccines and new target groups. WHO is working to support the establishment and expansion of well-structured sustainable influenza vaccination programmes in the Region and collaborates with partners to further this goal. Three countries in the Region (Egypt, Jordan and Lebanon) have recently joined the countries being supported by the Partnership for International Vaccine Initiatives (PIVI) to improve and promote their seasonal influenza vaccination activities.

In this context, the WHO Regional Office for the Eastern Mediterranean, in collaboration with the Centers for Disease Control and Prevention (CDC), PIVI, Task Force for Global Health and WHO headquarters, held a subregional workshop in Tunis, Tunisia, on 12–14 February 2024 for National Immunization Technical Advisory Group (NITAG) chairs, EPI managers, and influenza focal points at ministries of health on influenza vaccination programmes, policy and evidence review.

The workshop's objectives were to:

- identify opportunities and next steps to strengthen national seasonal influenza vaccination policies and programmes;
- highlight the barriers/enablers of use of seasonal influenza vaccines among target groups, especially health workers and other high-risk groups, in countries of the Region;

- provide guidance to countries on the importance of integration of seasonal influenza vaccination with other vaccinations under the EPI at the ministry of health;
- highlight the importance of using the evidence base (such as influenza BoD studies) to inform decision-making on seasonal influenza vaccination programmes; and
- share country experiences of best practices and lessons learned from COVID-19 vaccination programmes.

The workshop was attended by participants from 11 countries of the Region: the three newly-supported PIVI countries (Egypt, Jordan, Lebanon), two countries that had previously received direct support from PIVI (Morocco, Tunisia), three countries with good experience in seasonal influenza vaccination (Bahrain, Oman, Saudi Arabia) and three other countries interested in enhancing their seasonal influenza vaccine programmes (Iraq, Pakistan, Syrian Arab Republic). Representatives from CDC, the Eastern Mediterranean Region Regional Immunization Technical Advisory Group (RITAG), PIVI and the Task Force for Global Health, as well as staff from the WHO Regional Office and WHO headquarters, also attended the workshop.

Opening speeches were given by Amal Barakat, Team Lead, Influenza and Other Respiratory Disease Surveillance, WHO Regional Office for the Eastern Mediterranean, Joe Bresee, Director, Respiratory Virus Prevention and Preparedness, Task Force for Global Health, Ramzi Ouhichi, Public Health Officer, WHO Tunisia country office, and Osama Mere, Life Course Immunization Lead, WHO Regional Office for the Eastern Mediterranean. The speakers welcomed participants and highlighted the importance of influenza vaccination.

2. Summary of the discussions

Influenza vaccination

An overview was provided on regional influenza surveillance, including the integrated surveillance of influenza and SARS CoV-2. It was noted that regional sentinel surveillance data can be used to estimate the influenza burden and as a basis for future studies, and the regional influenza data reporting platform EMFLU 2.0 was discussed.

Influenza vaccination is a priority of the global influenza strategy. The different types of influenza vaccine, vaccination timing and target groups were discussed. It was noted that the coadministration of influenza vaccines with other routine vaccines is acceptable for programmatic reasons.

The influenza market was the second highest volume vaccine market in 2022, reaching nearly 1 billion doses. Influenza vaccination has been found to be cost-saving or cost-effective in most studies. Resources are available to support countries in developing/strengthening their influenza vaccination programmes, including the WHO seasonal influenza vaccination toolkit which includes training, guidance, campaign materials and other useful resources.

The seasonal influenza vaccination situation in the Region, including influenza vaccination policies and programmes, was outlined. It was noted that seasonal influenza vaccination programmes had proven to be beneficial for both pandemic influenza and the COVID-19 vaccination response. The main pillars of seasonal influenza vaccination programmes and the challenges and opportunities facing countries in the Region were discussed.

It was observed that strong national seasonal influenza vaccination programmes start with clear policy. The key elements of seasonal influenza vaccination policy and the resources available to support

programme strengthening were outlined. An influenza policy checklist was introduced as a tool for establishing a framework for the development and review of national influenza vaccination policy. The checklist ensures that all key components are included, and provides guidance on where funding is needed for influenza programmes. The checklist is a desk review of influenza policy that can be completed as a self-assessment or with technical support from partners.

Participants were split into three groups, in which countries reviewed the available tools and compared them to existing national policy.

Life course immunization and integration of influenza, COVID-19 and other adult vaccines into EPI

Immunization Agenda 2030, its strategic priorities and the benefits of a life course approach to vaccination were presented, including reduced mortality and morbidity from vaccine-preventable diseases for all people at all ages, reduced burden on the health system and improved country preparedness for pandemics. The leveraging of EPI resources was discussed, from planning through evaluation, and a case study on vaccinating health care workers in Zambia was presented.

There was a panel discussion the importance of having an integrated vaccine programme and examples of integration. Panellists from Egypt, Lebanon, Saudi Arabia and Tunisia discussed the level of integration, vaccine coverage, studies conducted to assess the BoD for influenza, lessons learned from the COVID-19 pandemic, and plans to develop/improve integration in their countries.

The role of NITAGs

The definition, purpose and functions of NITAGs were presented, from endorsing national policy, making recommendations on national vaccination schedules for different population groups and the introduction of new vaccines based on local importance. The role of the RITAG was described as a group of independent experts responsible for advising the WHO Regional Director on regional immunization priorities and strategies, from research and development to the delivery of immunization services.

Evidence-informed decision-making is a key function of a mature NITAG. Evidence to recommendation (EtR) frameworks provide an evidence-informed decision-making approach to developing systematic, transparent and comprehensive vaccine recommendations. The Task Force for Global Health, in collaboration with WHO, CDC and the NITAG Support Hub (NISH), has completed 13 training courses for over 30 countries in EtR, and offers support to countries who are interested in EtR training focused on an influenza policy question.

Bahrain, Egypt, Iraq, Jordan, Lebanon, Oman and Saudi Arabia discussed the role of NITAGs in their countries and shared success stories in influenza vaccine-related activities. This included the endorsement of national policies and evidence-based studies to introduce new vaccines or add specific target groups.

Building the evidence base for influenza vaccine recommendations

A new tool for measuring the behavioural and social drivers of influenza vaccination (BeSD) was presented. The tool is a standardized and adaptable quantitative and qualitative tool developed to understand enablers and barriers for seasonal influenza vaccination. A BeSD for influenza vaccination package was discussed, which includes a survey

tool with questions specific for SAGE target groups (quantitative), interview guides for recipients and stakeholders, including policy-makers and hospital administrators (qualitative), and an implementation guide to support the gathering, analysis and use of data and examples from other countries (solutions).

The different types of data for evidence within the different domains of the EtR framework were discussed, including the problem, benefits and harms of options, values and preferences, resource use, equity, acceptability and feasibility elements. The use of BoD estimates to understand the extent of influenza in populations was outlined, including using population-based rates and pyramid tools. How the burden of influenza can be averted through vaccination and a compartmental model to estimate the burden averted were also discussed.

Participants were divided into three groups to review the existing and needed country evidence. Each country first reviewed the evidence available to them, that planned to be gathered and the evidence still needed. The discussion was then extended to other countries in the same group and finally shared with all groups through presentations. Different types of studies and surveys were shared on BoD for influenza, knowledge, attitudes and practices (KAP), vaccine hesitancy assessment and BeSD.

Implementation, monitoring and evaluation of influenza vaccine programmes

Country presentations were made on the different target groups, including health care workers, pregnant women and those with comorbidities.

An overview of the Jordanian national immunization programme, seasonal influenza vaccination programme and influenza surveillance system was given, including surveillance for severe acute respiratory

infection and influenza-like illness. The Ministry of Health has recently finalized a national influenza vaccination policy, which is still to be endorsed by decision-makers. Other recent seasonal influenza vaccination activities include a study to understand the behavioural and social drivers of seasonal influenza vaccination through field testing in two primary health centres and a video to raise awareness and encourage people, especially the main target groups, to have seasonal influenza vaccination, which was screened to participants.

Seasonal influenza vaccination activities in Oman were presented, including the national seasonal influenza vaccination policy, its recommended target groups and its integration into the national immunization programme and different public health services, including primary health care. The country's integrated electronic disease surveillance system and immunization database were also discussed.

An overview of the Iraqi influenza surveillance system and seasonal influenza programme was presented. Iraq has had a national seasonal influenza policy since 2010, with the Ministry of Health's Public Health Directorate coordinating a large scale annual national influenza vaccination campaign. By 2023, larger numbers of people in the main high-risk groups were being reached. Vaccination and surveillance of influenza have been integrated into a single policy, submitted to the NITAG for approval, and the influenza vaccination plan is being implemented by the Ministry's EPI department in cooperation with the Communicable Diseases Control Center.

Strong monitoring systems are essential for closing immunity gaps and to enable the measurement of vaccine programme effectiveness. Immunization programme monitoring systems takes one of two forms: aggregate systems or nominal electronic immunization registries. The COVID-19 vaccine rollout made new demands on immunization monitoring systems, with many countries opting for digital solutions. A case

study was presented on Zambia's digital health strategy and the available resources for the design of immunization monitoring systems were outlined.

A presentation was made on adverse events following immunization (AEFI) reporting, covering definitions, types (cause-specific or seriousness and frequency), clusters, causes and surveillance. EPI programmes in many countries have sensitive AEFI systems for child immunization, presenting opportunities to build on these assets.

The electronic Joint Reporting Form (eJRF) is a key tool for monitoring global and regional immunization goals. An overview of the tool was presented and the reporting process was described and demonstrated to participants, with discussion on the quality, timeliness and completeness of data, and how the data can be used.

Vaccine assessments

Challenges in the Eastern Mediterranean Region include the need to collect data and assess the situation for seasonal influenza vaccination in countries. To do this, an assessment tool is needed, so PIVI and WHO developed the Facilitated Assessment of Influenza Vaccination Programme Review (FAIR) tool, an easy self-assessment tool that can be used as an initial step for the improvement of influenza vaccination programmes. The tool has been piloted in Bahrain due to the country's well-functioning seasonal influenza vaccination programme. An overview of immunization programmes in Bahrain was presented, including the integration of the seasonal influenza vaccination programme into the life course immunization programme. The influenza programme was described, including its different pillars, funding, vaccine supply and authorization. Activities to improve vaccine coverage, communication strategies and a recent BoD study were also discussed, as well as the results of the piloting of the FAIR tool in the country.

Challenges

Challenges were discussed in a group work session. The most important challenges identified, by area, were:

- Integration of vaccine programmes:
 - siloed seasonal influenza vaccination programmes unintegrated with other national immunization programmes;
 - lack of data integration between the private and public sectors;
 - limited collaboration among stakeholders.

- Influenza vaccination programme improvement:
 - weak or undeveloped seasonal influenza vaccination programmes in some countries;
 - low increase in uptake of influenza vaccine;
 - lack of affordability (particularly in the current economic context);
 - high costs of the vaccine in the private sector in some lower-income countries, particularly given the devaluation of the local currency;
 - expatriate communication difficulties in some countries due to language barriers;
 - scarcity of resources and funding problems;
 - stakeholders, particularly the private sector, felt that inadequate and inconsistent messaging by the ministries of health regarding the importance of influenza vaccine was a major barrier to uptake;

- Influenza vaccination policy:
 - no national policy for seasonal influenza vaccination in some countries;
 - competing priorities in many countries who do not consider influenza a priority.

- Influenza vaccination evidence-based studies:
 - lack of local evidence-based studies on seasonal influenza vaccination and an unknown regional burden (disease and economic).

- NITAGs:
 - resource constraints: NITAGs may lack sufficient resources, both financial and human, to carry out their functions effectively;
 - data availability: NITAGs rely on robust data and evidence to make informed recommendations on immunization policies. However, data availability, quality and accessibility can be limited, particularly in resource-constrained settings;
 - political interference: NITAGs may face pressure from political entities or other stakeholders to make recommendations that are not based on scientific evidence or public health priorities. This can undermine the credibility and effectiveness of the NITAG;
 - coordination and collaboration: effective coordination and collaboration between NITAGs and other stakeholders, such as government agencies, international organizations and civil society groups, are essential for successful immunization policies. However, achieving consensus among diverse stakeholders can be challenging;
 - communication and public engagement: NITAGs need to communicate their recommendations effectively to policy-makers, health care professionals and the public. This requires clear and transparent communication strategies, as well as efforts to address vaccine hesitancy and misinformation;
 - adaptation to emerging challenges: NITAGs must adapt to emerging challenges in the field of immunization, such as new vaccine technologies, disease outbreaks and changes in

- epidemiological patterns. This requires ongoing monitoring of scientific developments and flexibility in decision-making processes;
- sustainability: ensuring the long-term sustainability of NITAGs requires stable funding, institutional support and capacity-building efforts. Without these resources, NITAGs may struggle to fulfill their mandate effectively over time.

After identifying the challenges, participants discussed ways to face them and made recommendations for the way forward.


3. Recommendations

To Member States

1. Strive for full integration of influenza vaccination into life course immunization and immunization systems and programmes.
2. Use the influenza vaccine policy brief and checklist to review national vaccine policies and update as needed.
3. NITAGs and stakeholders should provide guidance on which target groups to prioritize, given the limited resources.
4. Focus on data quality, enhancing integration of influenza vaccines into electronic digital systems, where possible, and setting up systems to support the gathering of coverage data.
5. Increase the use of technology to improve uptake and tracking and build on what was done/learned during the COVID-19 pandemic.
6. Where coverage is low, consider conducting a vaccine acceptance and demand study to determine the barriers to uptake, and develop plans to improve uptake.
7. Implement monitoring and assessment and consider reviewing the national influenza vaccine programme in the context of life-course immunization to understand areas for potential enhancement.

4. Actions for WHO and the Task Force for Global Health

- WHO to share materials, slides and tools with Member States.
- WHO to develop a package of regional evidence and global information and share with NITAGs.
- WHO to share the May 2022 influenza position paper with NITAGs and consider what additional evidence is needed for each country.
- The Task Force for Global Health to offer support to countries who are interested in EtR training focused on an influenza policy question.



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