

Summary report on the

Meeting of country focal points for implementation of the PIP framework and expert meeting on pandemic preparedness planning

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Beirut, Lebanon
20–22 November 2016



**World Health
Organization**

Regional Office for the Eastern Mediterranean

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1. Introduction

In May 2011, during the sixty-fourth World Health Assembly, World Health Organization (WHO) Member States unanimously adopted the Pandemic Influenza Preparedness (PIP) framework, which was designed to improve pandemic influenza preparedness at the global level. One component of the PIP framework is the partnership contribution (PC): an annual contribution to WHO from industry partners that uses the Global Influenza Surveillance and Response System network. The WHO uses these funds to strengthen influenza pandemic preparedness and response capacities in 43 priority countries across the world under five areas of work: laboratory and surveillance, burden of disease, regulatory capacity-building, planning for deployment and risk communication.

The main objectives of PIP are to improve the sharing of influenza viruses with human pandemic potential and to establish more predictable, efficient, and equitable access to vaccines and other lifesaving products during a pandemic. The Infectious Hazards Management Unit of the Health Emergencies Programme at the WHO Regional Office for the Eastern Mediterranean supports six priority countries in the Region, Afghanistan, Egypt, Jordan, Lebanon, Morocco and Yemen, to implement the PIP PC implementation plan for enhancing epidemiological and laboratory surveillance and response capacities for pandemic influenza. Each country implements the planned activities through a yearly work plan, and focal points have been designated at the ministries of health in the priority countries for easy communication and coordination related to implementation of these identified activities.

The annual meetings of the PIP focal points with WHO staff responsible for implementation of the activities at the country offices have been organized by the Regional Office since the PIP PC plan was

officially launched in the Region in 2014. The annual meeting of the PIP focal points for 2016 was held in Beirut, Lebanon, from 20 to 22 November 2016 along with an expert meeting on pandemic influenza preparedness. The objectives of the meetings with country focal points for PIP and the expert groups were to:

- review implementation of country activity plans under the PIP PC support for 2016;
- identify common challenges and potential solutions for effective implementation of PIP PC-supported activities, particularly in the areas of epidemiological and laboratory surveillance, estimation of disease burden and influenza research;
- define strategies to enhance influenza and respiratory disease virus sharing as required under the PIP framework;
- define the expected scope of work for PIP in priority countries in the Region in 2017 and beyond, including expected financing needs and availability of resources;
- identify and agree on actions to support development of pandemic influenza preparedness plans in the Region using an evidence-based approach.

Dr Jaouad Mahjour, Director of Programme Management at the WHO Regional Office for the Eastern Mediterranean and acting Director of the Health Emergencies Programme, inaugurated the meeting. In his opening remarks, Dr Mahjour highlighted the unique opportunity that the PIP framework offered for WHO and its Member States to work with the private sector and non-state actors on PIP. encouraged all the assembled experts to advise WHO on how best to assist Member States in developing comprehensive national pandemic preparedness plans.

2. Summary of discussions

Implementation of the PIP partnership contribution plan

The number of sentinel sites for severe acute respiratory infection (SARI) surveillance in the Region has increased from 20 to 48 since the PIP PC-funded plan was initiated in the Region in 2014 and the number of countries reporting SARI and influenza-like illness (ILI) surveillance data to the online portal, the Eastern Mediterranean Flu Network (EMFLU), has increased from 4 to 6. The Eastern Mediterranean Region is one of the six WHO regions that are on track for implementation of PIP PC funds.

Challenges to implementation include sustaining the current momentum in the face of shrinking or downsizing funds, enhancing the quality of data, translating the disease burden information into policy and exploring new avenues for funding support. The PIP PC funding is a long-term investment that can continue as long as the currently demonstrated enhanced surveillance capacity of the countries for influenza virus detection and sharing of viruses with pandemic potential can be maintained. Other major challenges remain in terms of low implementation rates and slow progress in utilizing the earmarked funds, and these are major hindrances for increasing the funding share for the Region.

A two-year analysis of financial management of PIP PC funds in the Region from 2014 to 2016, including a breakdown of expenditure by country, revealed that of the total available funds of US\$ 7.8 million, 61% has been distributed to WHO country offices and 39% to the Regional Office. Budget utilization has averaged at 63%; the highest utilization was in the third quarter of 2015, but this is expected to increase in December 2016. Countries were advised to implement

plans earlier in the year rather than wait until the fourth quarter or year end to spend the funds in a timely manner.

The priority countries receiving the PIP PC funds from the Region have been selected based on certain agreed criteria, such as geographic location in an influenza transmission zone, ability to show measureable progress and capacity to implement the funded activities in a timely manner. It is therefore imperative for countries to show progress and success consistently over the entire funding cycle. As PIP PC funds support 43 priority countries across the world, there is great competition among the countries, and when countries do not perform and the implementation rate remains consistently low over the entire funding cycle, funds could be diverted or re-allocated in the following years to priority countries in other WHO regions who are able to demonstrate visible progress with discernible outcome and with a high implementation rate of the funds.

Country perspectives: progress, challenges and potential solutions

The Regional Office sent technical missions to all the countries in receipt of PIP PC funds during 2016 in collaboration with the PIP focal points from the ministries of health of six priority countries. The general findings of these joint missions were:

- demonstration of strong political commitment and leadership within the ministries of health;
- effective coordination and collaboration between the ministries of health and WHO regional offices;
- expansion of the SARI/ILI surveillance system;
- enhancement of national laboratory capacities for detection, characterization and sharing of influenza viruses with epidemic/pandemic potentials;

- training of rapid response teams at both national and subnational levels;
- initiation of event-based surveillance systems in many countries.

Despite these successes, a number of gaps continue to be seen in the countries, such as the nonavailability or absence of: algorithms; standard operating procedures and surveillance protocols; integration of laboratory and epidemiological surveillance system; consistent sampling methods for collecting biological samples from eligible SARI cases; sustainability of the SARI/ILI sentinel sites. They also reported poor coordination between the human and animal health sectors, weak and disjointed use of an event-based surveillance system for monitoring outbreaks of influenza and respiratory disease, and poor sharing of SARI/ILI surveillance data with EMFLU. Other common challenges were staff turnover, nonavailability of courier services for specimen shipment and referral, and a slow disbursement mechanism for utilization of funds at ministry of health level.

Influenza vaccination in the Region: policies, coverage and practice

A study was launched recently in the American University of Beirut in Lebanon to understand the current situation on the use of seasonal influenza vaccines in the Region, including policies, coverage and practice. The overall goal of this study is to review influenza vaccine policies in the Region and draw up future plans for increased use and improved coverage. As there is currently a data gap in the use of seasonal influenza vaccines in the Region, the study will be conducted through a literature review and a survey to be conducted among the countries. The findings of both the literature review and the survey should be available during the first quarter of 2017.

Enhancing effective implementation of PIP PC-funded activities in the Region

The surveillance protocol for SARI currently in use in many countries need to be updated, and current practises may not reflect the current and changing needs of the SARI and ILI surveillance. Many countries collect a lot more data than is required or necessary. It is vital for WHO and the countries to agree on collecting a minimum set of data for SARI surveillance. Well defined objectives, protocols and case definitions are to be put in place, based on recommendations by WHO but owned and managed by each country.

The discussion on these items concluded with the following points.

- The sentinel sites for SARI/ILI surveillance should be in geographically suitable locations, based on the needs of the country and be reviewed for suitability on a regular basis. The selection of the sentinel sites should be driven by the country objectives for the SARI surveillance system, and population catchments (denominator) for these sites need to be determined using the WHO recommended guidelines.
- The countries need to agree on a minimal dataset for collection.
- Country ownership of the SARI surveillance systems is important.
- The sampling techniques used for collecting nasopharyngeal swabs from SARI cases need to be standardized and used consistently. Applying a systematic sampling method for collecting nasopharyngeal swabs will minimize the possibility of missing samples from critical or atypical SARI cases that might be of public health importance.
- Staff managing the SARI surveillance system should be well trained, and close and continuous monitoring of the quality of the surveillance system should be ensured by the countries using a rigorous and consistent policy and process.

- Standard operating procedures need to be developed for quality data management, analysis and reporting.
- The progress and accomplishments of the SARI surveillance system must be reported.

The recommendations of the Regional Office on how to select representative virus samples for sharing with WHO collaborating centres and shipment procedures were presented as a draft guidance document with a view to enhancing virus sharing. It was noted that 11 or 12 countries from the Region send influenza virus shipments to WHO collaborating centres, but the frequency is not regular. Countries were reminded to send only representative samples, up to 4 shipments per year, each with a maximum of 20–30 samples collected over the previous 2 months.

Improving sustainability and enhancing the quality of the SARI surveillance system

Gaps and opportunities in the supply chain management of influenza laboratories were identified. System strengthening is required in managing information, storage and distribution of supplies as well as in forecasting, quantification and procurement at the subnational level and in product ordering. It was noted that national level forecasting for influenza laboratory supplies is mostly done on an ad hoc basis. There are no standard operating procedures for the storage and distribution system. Other problems that were identified are listed below.

- There is no evidence-based forecasting method for influenza laboratory supplies requirements.
- Manually entered data for product ordering is incomplete: there is no stock record, no consumption record and no visibility of data.
- Cold-chain monitoring requires automated recording and reporting systems.

- Manuals and standard operating procedures are not available in the supply chain.

In the past 2 years of the PIP PC implementation plan, the most pressing requests were procurement for reagents and other consumable supplies, with about 40% of the US\$ 8 million spent in the past 2 years going towards procurement of supplies. Consequently, there is a strong need to establish an automated system for forecasting the needs of influenza laboratory supplies from the perspective of supply chain management.

Effective influenza surveillance depends on good country practices and country protocols must reflect what is being done inside the country. A draft guidance document on strengthening SARI/ILI surveillance, developed by the Regional Office, was presented in the meeting. The main focus of this guidance document is to help the countries in strengthening the SARI and ILI surveillance system in the Region through:

- promoting the use of a standard case definition across the countries, which would help ensure the cross-country data was measureable, comparable and truly representative of the Region;
- advocating the collection of minimal data elements in order to avoid overburdening the system with excessive and non-essential data;
- introducing a consistent and uniform method for influenza virus sampling;
- planning and forecasting supplies needed for influenza laboratory surveillance;
- setting baseline measurements for influenza, including those for assessing severity

The Eastern Mediterranean Flu Network or EMFLU is a regional web-based interactive platform for entry, management and sharing of

epidemiological and virological data on influenza in the WHO Region for the Eastern Mediterranean. It provides countries with a standardized way of influenza data sharing. The information variables for EMFLU were chosen from a consultative meeting held in September 2015 to determine minimum data required for SARI and ILI surveillance.

The EMFLU portal offers entry of SARI data collected through patient forms or on an aggregated basis. The data entry for ILI requires data to be entered in aggregated form. The on-line system also allows data to be analysed automatically and presented in graphs and charts. The system automatically connects to WHO headquarters databases on influenza (FluID) and data can be shared with FluID automatically through EMFLU without having to enter the data twice.

2017 PIP funding work plans: status and way forward

Globally, over US\$ 50 million has been distributed since 2013 under the PIP Partnership Contributions. According to the review of funds spent, the countries in the Region have achieved satisfactory progress and have shown good detection capacity. In 2017, the total amount of funds available for disbursement is US\$ 14 million compared with the requested amount of US\$ 25 million. The various work plans submitted by the regional offices are being reviewed by the Global Influenza Programme team as well as external reviewers. The decision on funds disbursement for countries will depend on what funds are available at the end of the year, reflecting the implementation rate, monies unspent and progress made in sharing influenza viruses with epidemic and pandemic potential.

It was noted that, while US\$ 2 million per WHO region may not seem a fair and equitable distribution as different countries have different needs, the countries in the Eastern Mediterranean Region have

received more funds in comparison to countries in other WHO regions. Countries in the Region were encouraged to show a reasonably high implementation rate for the PIP PC funds by the end of 2016 in order to secure the same level of funding in 2017 and also to increase the possibilities for additional funding.

Pandemic influenza preparedness planning in the Eastern Mediterranean Region

The Eastern Mediterranean Region of WHO falls under four migratory paths for birds, which makes the Region extremely susceptible to the introduction and circulation of animal and zoonotic influenza viruses with pandemic potential. Recently, a literature review was conducted on PIP plans published in scientific domains. The review identified a total of 73 manuscripts published in peer review journals on this subject, of which 17 were from the Region (since 2009 the number of publications on PIP has increased enormously). Based on this review, an outline of a best practice document was developed by the WHO Regional Office to guide countries in effectively planning for PIP using a coherent standardized approach. The document was presented and discussed in the meeting.

As pandemic influenzas are unpredictable events which will occur with great rapidity and mobility and their severity and time of origin remain generally unknown, there is a strong need for a unified regional approach for planning following harmonized planning principles, grounded on practices that are evidence-drawn and sharing the common values of an integrated plan.

One of the fundamental requirements for PIP planning is the ability of the countries to report the early emergence of a novel flu virus with pandemic potential. This necessitates enhancing the capacities of the

countries to characterize the influenza viruses, both seasonal and novel. Pandemic preparedness plans should be compatible with other health emergency and national emergency plans. It is a complicated business and it is not easy to calibrate correctly for severity and other worst-case scenarios if the PIP plans are not updated and revised on a regular basis. Nevertheless, it is important to gain a better understanding of the triggers by constantly simulating the plan using a standard approach and updating it regularly.

Some planning elements were added to the best practices document, the use of which will ensure a standardized approach to planning for pandemic influenza preparedness and response.

The PIP plans of four countries in the Region, Afghanistan, Egypt, Jordan and Lebanon, were reviewed by a group of experts who visited the countries and organized face-to-face meetings with the national health authorities to review their existing plans, which dated back to 2009. While these plans had some strong and positive points, a number of gaps were identified; these are summarized as:

- overemphasis of the plan on avian influenza A(H5N1) as the pandemic strain;
- absence of national triggers and country-specific actions for escalation/de-escalation;
- lack of clear roles and responsibilities of various agencies in pandemic response;
- lack of clear guidelines on the access and use of antivirals and vaccines;
- inconsistent use of clinical, epidemiological and laboratory surveillance data to assess/measure severity;
- absence of a legal framework for the implementation authority for activation of the plan, including regular table-top or simulation exercises;

- absence of clear guidance on what activities would be implemented during different phases of a pandemic and how the health systems would recover from the acute phase of the pandemic.

As most of the country plans for PIP are outdated and require revision, it was suggested that the countries update their plans in accordance with the planning elements described in the best practices document that was presented in the meeting. This will ensure consistency across the Region.

Challenges faced by the countries for implementation of PIP PC funds and possible solutions

In this session the participants discussed the challenges the countries are facing in utilizing the PIP PC funds and possible solutions to address these challenges. These included:

- human resources constraints such as lack of dedicated, trained motivated staff; issues of promotion and incentives not being well addressed, leading to frequent staff turnover;
- sustainability of laboratory capacities for identification, detection and characterization of influenza and respiratory viruses;
- limited engagement of the private sector and academia for influenza surveillance;
- poor coordination mechanisms with the animal health sector for data sharing;
- inadequate support from the ministries of health for sustainability of SARI sentinel sites and failure to integrate SARI and ILI surveillance within routine surveillance programmes;
- difficulties in integrating epidemiological and laboratory surveillance data with multiple reporting systems (FluID, FluNet, EMFLU); overdependence on donor-driven protocols for SARI

surveillance; lack of denominator data for sentinel sites; and weak data management, analysis and interpretation;

- slow disbursement and expenditure of funds, including difficulties in scaling-up the implementation rate and delays in spending funds due to ministry of health procedures and regulations;
- other issues such as inability to demonstrate measurable progress, inability to attract matching funds/investment from countries to ensure sustainability;
- nonavailability of funds for countries in crisis or with complex emergencies where there is a need for additional funds;
- not knowing the timing of the disbursement of funds from WHO as well as the release of funds in tranche, which affects the planning process and negatively impacts on implementation;
- poor sharing of viruses with pandemic potential; geographic gaps in surveillance and poor use of the influenza virus tracking mechanism by the national influenza laboratories.

A number of solutions, including the following, were discussed with a view to addressing these challenges.

- Improve coordination and communication within the health sector (epidemiology, clinical and laboratory services) and outside the health sector (private, academic and animal health sectors) to maximize the surveillance goals. Regular and frequent meetings between intra- and inter-disciplinary sectors on issues pertinent to enhancing the quality of influenza surveillance in the country could be good practice to improve communication and coordination within the health sector as well as between the health sector and other sectors.
- Advocate to governments and decision-makers for allocating a budget from the national health services for SARI surveillance in order to ensure the sustainability of the system.

- Offer nonfinancial incentives to staff managing SARI surveillance to enhance motivation (such as acknowledgement from WHO, offering external training opportunities and providing funding support for international conferences, etc.).
- Enhance staff capacity through training and retraining activities.
- Deploy interactive electronic reporting systems for SARI/ILI surveillance.
- Work with partners on implementing an influenza research agenda and document successes and achievements on a periodic basis.

3. Recommendations

To Member States

1. Active engagement with the private sector, including academia, should be pursued for strengthening SARI surveillance, and collaboration with the animal health sector should be made stronger under the “One health” framework since influenza viruses of pandemic potential have always been zoonotic in origin.
2. As the reason for collecting data on ILI is only to assess severity of an influenza epidemic or pandemic, it would be prudent not to overwhelm the health systems by collecting case-based surveillance data for ILI. Data on the aggregated number should be collected, and this number compared with total consultations reported for that week in primary care health centres, in order to generate meaningful information on the weekly trend. Comparing this trend with the previous month or with the corresponding week of the previous year can provide information on severity.
3. Although influenza virus sharing has increased in the Region, the increased flow of viruses to WHO collaborating centres needs to be sustained. In line with the newly developed guidance document for influenza virus sharing, countries should send representative influenza samples to the WHO collaborating centres, up to 4

shipments per year with a maximum of 20–30 samples collected over the previous 2 months.

4. The capacity of national influenza laboratories to isolate influenza viruses needs to be enhanced across the Region; laboratories which do not have Biosafety Level 3 (BSL-3) facilities should not attempt isolation of unsubtypeable viruses. Unsubtypeable viruses should be sent to a WHO collaborating centre for detailed characterization.
5. Countries should continue to share epidemiological data on SARI with the Global Influenza Surveillance and Response System. The integration of epidemiological surveillance data for SARI with the virological data would pave the way for ensuring increased sharing of both epidemiological and virological data on SARI cases.
6. All the PIP PC-funded countries in the Region should have their own national protocol for SARI/ILI surveillance which is nationally owned and reflects national priorities and objectives rather than being driven by donor objectives and priorities.
7. The countries should revise and update their national PIP plan in accordance with the framework developed by the Regional Office and presented in the meeting. The Regional Office should develop a scenario-based exercise to test the country plans. The countries need to run these scenario-based exercises to make plans usable in a real pandemic.

To WHO

8. The Regional Office should conduct technical missions to countries that are underperforming in terms of budget utilization in order to determine the reasons and offer support if required to scale up implementation. Consideration should also be given to cessation of funds permanently and diversion of the funds to other

priority or new countries if required in cases of continued underperformance and a lack of visible progress.

9. The Regional Office should continue to follow up with the PIP PC-funded countries, Jordan, Lebanon and Morocco, to complete the studies on burden of disease associated with influenza in order to have a better understanding of the epidemiology of influenza in the Region. Three countries – Egypt, Islamic Republic of Iran and Tunisia – have completed studies on estimating the burden of disease associated with influenza which have also been published in peer reviewed journals.
10. The current version of EMFLU should be expanded with additional automated data analysis and reporting features, as desired and requested by the countries. One additional element to include along with the existing features is the integration of the supply chain management and logistic services for effective operation of influenza laboratories. The automated seasonal influenza supply chain management system should include procurement, storage, distribution, consumption, ordering and transportation functions.
11. The Regional Office and the concerned ministries of health should make concerted efforts to document the progress of the implementation of PIP PC-funded activities in the Region in the form of publications as well as other advocacy and information materials to share experiences and best practices from the Region. There is a need to advocate strongly for PIP activities at global level as well.
12. A financial transition plan for sustaining the ongoing progress of this programme should be developed by the Regional Office in preparation for any unlikely situations such as withdrawal of PIP PC funds or downsizing the current flow of funding. Best practices and lessons can be drawn from other WHO regions where such transition plans for any public health programmes have been adequately addressed using innovative methods, but

also looking at the sustainable growth of a donor driven project. Countries should make concerted efforts to integrate influenza surveillance with other routine surveillance programmes. If any matching fund is available from the national budget of the countries to support the SARI/ILI surveillance system, this would reflect the active interest and commitment of the countries to support and sustain the SARI/ILI surveillance system. The starting point for developing a financial transition plan would be to determine a cost estimate on how much funding is needed to establish and maintain a sentinel SARI surveillance system in a given country with a desired outcome.

4. The way forward

A number of follow-up mechanisms were established for timely implementation of the recommendations agreed in the meeting.

- The WHO Regional Office will organize virtual meetings with the PIP focal points and the WHO Country Offices on a regular basis to monitor the implementation of the funds and to track the technical progress of the planned activities.
- A peer group will be established to review and finalize the generic guidance document on strengthening SARI/ILI sentinel surveillance system.
- The Centers for Disease Control and Prevention (CDC Atlanta) and the WHO collaborating centres will provide ad hoc technical assistance to the interested countries for preparing or improving their national PIP plans.
- The Regional Office will communicate with the concerned countries to get their suggestions and recommendations on what kinds of enhancements they expect to see to improve/expand the EMFLU system.



World Health Organization
Regional Office for the Eastern Mediterranean
P.O. Box 7608, Nasr City 11371
Cairo, Egypt
www.emro.who.int