

2nd Meeting of CDC and PIVI Partners on Influenza Vaccination Program Development



Meeting Report

February 6-7, 2018

Millennium Hilton Bangkok, Thailand



Executive Summary

On February 6-7, The Task Force for Global Health and the Centers for Disease Control and Prevention (CDC) convened the 2nd Annual CDC and Partnership for Influenza Vaccine Introduction (PIVI) Partners' Meeting in Bangkok, Thailand. The meeting brought together over 70 attendees from 22 countries to review and discuss ongoing collaborations to introduce or expand influenza vaccination programs globally, and to make plans for strengthening and expanding the work in the coming year. Participants represented The Task Force for Global Health (PIVI), CDC, Ministries of Health, World Health Organization, vaccine manufacturers, and non-governmental health organizations.

The Partners' Meeting provided a focused time for national influenza vaccine program leaders, industry partners and influenza and vaccine technical experts to come together to share experiences in influenza vaccine program development and implementation, as well as a time to share thoughts on the urgent and often complimentary work of pandemic preparedness. Over the two days, partners were able to examine

common challenges and opportunities, gain an understanding of tools for program evaluation and program improvement, and work on their approaches to sustainability planning – how each country partner can work with PIVI to create a multi-year plan to guide program growth and sustainability. Attendees, representing national vaccine programs collaborating with PIVI, were able to learn from technical experts in the fields of influenza prevention, sustainable influenza vaccination programs, as well as pandemic preparedness.

Another important area of sustainability planning includes how each country will work to build local support for an influenza vaccine program. PIVI and the CDC provide important technical assistance for policy development and strengthening; support and skills strengthening of National Immunization Technical Advisory Groups (NITAG); as well as technical assistance in planning, implementing and evaluating program effectiveness to generate data to support national decision-making. The Partners' Meeting also provided a time to share results and learnings around NITAG trainings and improvements.

To date, PIVI has provided more than 3 million doses of flu vaccine to Ministries of Health in Albania, Armenia, Kyrgyzstan, Lao PDR, Moldova, Mongolia, Morocco and Nicaragua – with the goal of creating sustainable, seasonal influenza programs. In addition, PIVI has worked in partnership with the CDC to provide technical assistance to Ministries of Health in Cote d'Ivoire, Kenya, Thailand, Uganda and Vietnam.

The year between the initial Partners' Meeting in Tbilisi, Georgia in 2017 and the Bangkok meeting was notable for progress in many areas including: improvement in program implementation; steps towards long-term sustainability; creation of data from program evaluations that will help leaders refine their approaches to reaching target population; expansion of partner countries; and work on linking seasonal vaccination programs with national pandemic response plans.

Background for the Meeting

In February 2017, representatives from Ministries of Health, non-governmental organizations, academia, and technical organizations met in Tbilisi, Georgia for the 1st CDC and PIVI Partners' Meeting on Influenza Vaccination Program Development. This was the first meeting among countries and technical partners following several years in which CDC supported countries to strengthen surveillance systems and laboratory surveillance, collect evidence on influenza epidemiology and disease burden, and strengthen pandemic and epidemic response capabilities. As an evolution of CDC's support to countries' Ministries of Health, following the 2009-10 pandemic, CDC's Influenza Division increased support for activities specifically related to the development of influenza vaccination programs. This support has centered around two programs – CDC Cooperative Agreements to support development of vaccine policies and vaccination programs with a small number of countries, and the development with The Task Force for Global Health of the Partnership for Influenza Vaccine Introduction (PIVI), which provides low- and middle-income countries with vaccine doses and/or

technical support to catalyze the development of sustainable influenza vaccination programs. The Tbilisi meeting offered the chance for partners in this work to convene to discuss progress, challenges and to plan for continuation and expansion of the work.

The 2nd meeting of CDC and PIVI Partners on Influenza Vaccination Program Development was held February 6-7, 2018 at the Millennium Hilton Bangkok Hotel in Bangkok, Thailand. The meeting provided an opportunity for partners to review progress during 2017, to discuss consensus priority goals and activities for 2018, and to expand our partnership with countries and industry partners. The meeting also highlighted that the partnership has grown to include additional country representatives and as well as new industry partners.

Meeting Goals and Themes

Four goals were identified and agreed to before the Bangkok meeting:

- 1) To share experiences and learnings from national influenza vaccination program development;
- 2) To learn from country partners' efforts to strengthen national influenza vaccination programs and make them more sustainable;
- 3) To work together to derive best practices regarding influenza vaccine program development, while supporting partner countries' influenza vaccination program efforts;
- 4) To discuss specific components of the partnership, including
 - a. Evaluation tools
 - b. Sustainability planning
 - c. Data needed for advocating to a variety of stakeholders.
 - d. Link between pandemic preparedness and seasonal vaccine programs

Relevant themes from the 2017 meeting were also reviewed, including:

- A consensus among country partners on the importance of expanding seasonal programs and strengthening PIVI-CDC/Country partnerships
- An agreement that there is an important link between seasonal influenza program development and pandemic readiness
- The agreement that NITAG strengthening was an important component of countries' influenza vaccination programs to ensure evidence-based influenza policy making, as well as a way to gain support from national stakeholders
- An agreement that building seasonal vaccination programs is challenging for many reasons, but remains important, and the partnership represented here is a critical tool for success

It was noted that during 2017, the PIVI and CDC partners made significant progress in their respective influenza programs. The partnerships were strengthened with countries by providing protocols, sharing communications materials and developing

regional trainings, as well as other opportunities for countries to share experiences and obtain affordable vaccines. PIVI expanded its partnerships with manufacturers. NITAG strengthening was also a focus in 2017.

It is clear that significant challenges remain, such as ensuring timely provision of vaccine doses to partner countries, assuring long-term access to affordable vaccines, collecting quality data on the value of influenza vaccination programs for senior government leaders, and increasing the predictability of vaccine supply every season. These were all noted to be topics for the 2-day meeting.

Key Points of the Meeting

Current Status of Planning and Implementing Vaccination Programs

Nine countries: Albania, Cote d'Ivoire, China, Georgia, Kenya, Kyrgyzstan, Laos, Mongolia and Vietnam presented their progress on their respective influenza vaccination programs. Each country provided input on the countries' successes, challenges, plans for the upcoming year, 3-5 year goals and critical needs.

Countries included some common successes such as: introduction and development of the NITAG workshops; vaccine donations were successful; and KAPs were conducted among several risk groups. Countries also shared some similar challenges such as: lack of government funding; low vaccine uptake; conducting demonstration projects; HCWs and general population are unaware of the benefits of flu vaccine; and the media does not have the correct training to disperse accurate information related to the virus and flu vaccines.

All partner countries described their plans for the upcoming year as well as their 3-5 year goals and the support needed to accomplish their goals (Notes in Appendix 4). In the 2018- 2019 vaccination season, countries planned to conduct KAP surveys among their respective risk groups, continue training, develop draft sustainability plans and update pandemic preparedness plans. Common long-term goals were conducting analysis of their programs, as well as implementing a national influenza policy and expanding their respective programs to cover more target groups. Most countries stated that in order to reach these goals, they will need more data to obtain stakeholder commitment, assistance with studies such as vaccine effectiveness and vaccine impact models, as well as increased funding and reliable vaccine supply.

Program Evaluation Tools

Ensuring that countries have tools and support for conducting evaluations of key components of their programs has been a priority for the partnership. Brief overviews of the tools created and available were provided, including: KAP survey tools; protocols for economic evaluations; Influenza Post-Introduction Evaluations (iPIE); methods for collecting adverse event following immunization surveillance (AEFI); vaccine effectiveness studies and vaccine impact models.

- The **Knowledge, Attitudes and Perceptions (KAP)** tool helps countries explore knowledge and acceptability of illness or vaccine among certain population groups. This tool can be used to help estimate the likelihood of vaccine uptake, identify obstacles to implementation and help to develop education and communication campaigns.
- Several **economic evaluations** have been created that will assist policymakers in determining the costs of conducting influenza vaccination programs, the cost effectiveness of an influenza vaccination strategy, the costs of illness and care, cost benefit analysis, and return on investment analysis. All analysis depends on the questions countries are trying to answer as well as the data available to conduct the analysis.
- **Influenza Post-Introduction Evaluations or iPIE** is a tool to review a country's immunization system after a country has introduced a new vaccine. This tool can assess various topics from issues related to high-level decision making, to identifying target groups and delivery logistics. iPIEs typically include structured interviews and systematic observations.
- **Evaluations for an Adverse Event Following Immunization (AEFI)** can detect increases in the frequency and/or severity of expected reactions that can pose serious risk throughout a vaccination campaign. These evaluations help maintain trust in the vaccine programs. Adverse event surveillance monitors the safety of vaccines and can be conducted several ways. Passive surveillance relies on patient reporting post vaccination, active surveillance relies on the healthcare workers reaching out to patients to obtain feedback on vaccination and, lastly, surveillance can occur by obtaining medical records and identifying if there were any adverse events.
- **Vaccine Effectiveness studies** utilize observational data and rely on lab-confirmed existing data. Vaccine impact studies rely on epidemiological, economic and other impacts. It is often difficult to estimate vaccine effectiveness for influenza. Another approach is modeling epidemiological impact, such as looking at disease burden data and vaccine coverage rates to model impact.
- **Disease burden analysis** supports the development of public health policy for influenza prevention and control. This analysis helps to communicate the disease's severity and expand knowledge within a specific disease. Disease burden analysis depends on sentinel surveillance data with influenza confirmation. A WHO manual and tools have been created to support countries' efforts to develop these data.

Expanding Partnerships for Successful National Influenza Vaccinations Programs

Pandemic Planning

Most countries acknowledged the need to update their pandemic preparedness plans. The group agreed that building a successful seasonal influenza vaccination program

would help prepare their countries for the next pandemic. In 2009, vaccine was delayed in many areas of the world. There was agreement that a functioning seasonal influenza program could have played a part in a more rapid deployment of pandemic vaccines. A seasonal program helps countries prepare the regulatory pathways, legal agreements, national vaccine policy, and distribution systems. It also increases vaccine acceptance and supports monitoring of the vaccine campaign. Given the role they play in building a stronger vaccine delivery system, seasonal vaccination programs are seen as a key component in preparing for a pandemic.

A participant from the WHO presented and reviewed WHO's influenza preparedness support tools. A declaration from the Public Health Emergency of International Concern would have to occur to declare a pandemic, only then does pandemic vaccine production start. Only 27 countries have updated their pandemic preparedness plans since 2010. WHO has tools to support countries such as the Pandemic Influenza Severity Assessment (PISA) and the Tool of Influenza Pandemic Risk Assessment (TIPRA). Their approach is to leverage existing systems, link with regional strategies and collaborate with other organizations to strengthen national and global health security.

A representative from Kenya reviewed the country's pandemic plan as a model for the participants, focusing on the process used to update the vaccine section of the pandemic preparedness plan. Stakeholders identified several steps that were required to have a successful vaccination campaign including: defining their target groups; drafting a vaccine implementation strategy (including the roles and responsibilities of those involved in different levels of government). They also identified the surveillance data required to understand the total volume of doses needed during a pandemic.

The group agreed that there must be a global strategy to prepare for an influenza pandemic. There are three pillars based on the WHO model:

- 1) Strengthen preparedness and response;
- 2) Expand prevention and control
- 3) Promote research and innovation.

The global partnerships with human, animal health, public and private sectors, seasonal influenza programs, effective vaccines and country commitment to update their National Action Plans all feed into the core pillars stated above.

Stakeholder Perspectives

Stakeholders (outside of Ministries of Health) were asked to share thoughts and updates on their institutional goals and activities, with a focus on how their work might intersect with the work of CDC and PIVI.

A representative from the World Health Organization reviewed their portfolio of activities, highlighting the valuable role that the expansion of the use of influenza vaccines could have on maintaining surveillance and laboratory infrastructure, as well as supporting their efforts to build global pandemic response capacity.

Similarly, the WHO Regional Offices also supported the idea that an increased use of flu vaccine would not only prevent influenza, but also support other facets of their influenza prevention and control programs. It was noted that the Regional Offices have been active partners in the country-level work represented at the meeting. Other partners, including nongovernmental organizations and industry partners, also commented on the value of the work in expanding influenza vaccine use in low- and middle-income countries, and reviewed their own organizational strategies and priorities. Discussion during the session focused on how each of these partners' work intersected with and in many ways augmented the work of CDC and PIVI and the countries in attendance.

Partners agreed that our shared success depends on working together toward common goals, while maintaining a focus on institutional priorities as well.

Building Foundation for Sustainable National Influenza Vaccination Programs

Laos Experience

Laos has been a PIVI member for over five years and has created a successful vaccination program. The development of the Laos vaccination program was described focusing on elements that made the program successful. Initially, they developed the laboratory and surveillance capacity, which produced data that indicated that seasonal influenza and pandemic influenza were threats to the public health of Laos. They used the pandemic influenza vaccination program in 2010 as a model for developing the seasonal vaccination plans. CDC, PIVI and USAID have contributed vaccine to Laos over the past 5 years to help build a sustainable program. Laos has learned several lessons along their influenza program journey. They had to invest in advocacy and community awareness and they anticipated key programmatic challenges and worked quickly on addressing them. Procuring vaccines annually can be a challenge but over time if a country conducts the evaluations required to present to the stakeholders, countries can gain the commitment and financial support from the government to sustain an influenza program long-term.

NITAG Workshops

National Immunization Technical Advisory Groups (NITAG) are a building block to create a successful influenza program. The importance of NITAGs was described and the work conducted in this area over the past year was reviewed. NITAGs are country-owned processes that will help develop immunization policies. The members of the NITAG make informed, evidence-based decisions on immunizations policies. Working groups within the NITAG gather, analyze and prepare information to present information on a particular vaccine.

In collaboration with the Ministries of Health, WHO and CDC, five NITAG workshops have occurred with attendees from seven countries. The workshop goal is to support a newly established NITAG or strengthen a working group. PIVI has created a technical

dossier to guide countries to make informed decisions on their influenza programs. The next step for the dossier is to get a Subject Matter Expert to review the content and share the dossier with other NITAGS and partners, allowing them to utilize this helpful resource for their decision making. NITAGs are an important piece of PIVI's work, and securing funding to create NITAGs and/or take fledgling NITAGs to the next level will remain a priority for PIVI.

There was a focused presentation on the NITAG strengthening activities that were undertaken in Cote d'Ivoire. Cote d'Ivoire established a NITAG in 2009, but in 2017 added influenza vaccination to their program. PIVI and CDC provided technical assistance for two 3-day workshops.

There were several lessons learned during the workshop: 1) NITAG recommendation timeline was tight. Steep learning curves related to evidence based methodology and language barriers made it challenging to provide the NITAG with a recommendation in a short time frame. 2) Having an established NITAG with experts in influenza and a cooperative agreement with CDC helped facilitate the progress of the NITAG working group. Access to resources such as influenza frameworks and articles is necessary to save time and effort in providing recommendations.

Communications/Advocacy

During a panel discussion, the group discussed successful influenza social mobilization campaigns. Conducting research on key target groups and engaging stakeholders using print ads and media helped countries gain better acceptance of the vaccine. Some countries have people who are anti-vaccines, creating another barrier to influenza vaccine acceptance. Most countries have limited resources and other challenges and therefore there was a consensus that having communications templates to utilize for vaccine campaigns, as well as advocacy (at the Ministry of Health level) could help increase vaccine uptake and wider acceptance of the flu vaccine. PIVI agreed to look into how to support these needs.

Reporting and Coordination Tools

The tools for sharing results and capacities were reviewed including the ART1 and ART2 annual reporting tools for countries, the Engagement Tools for new country partners, and the website area in which countries can share documents, data and communication tools. Discussion included ways to increase use and access, and to improve sharing of information between countries.

Program Sustainability

As a primary goal of the work together is to create "sustainable" seasonal influenza vaccination programs, the group worked together to refine the definition of "sustainability" as it relates to seasonal influenza programs. This session included moderated small group discussions that summarized participants' perspectives on the

drivers of sustainability, challenges in achieving sustainable vaccination programs, critical needs to be successful, and possible solutions to the key challenges. Participants were divided into seven groups, with two or more groups working on each of the three topics assigned (Appendix 3).

Common financial challenges identified were the high cost of vaccine and competing health priorities. Logistical challenges were also shared. Possible solutions to these challenges include implementing country or regional purchase agreements and gaining stakeholder buy-in by promoting the pandemic preparedness component of vaccine programs.

Other solutions could include stimulating public demand for the vaccine and having a strong and functional NITAG. Logistical and programmatic obstacles were also discussed including - delivery mechanisms, cold chain capacity, arrival of the vaccine, short expiration date and language barriers within country. Possible solutions discussed were pooled procurement mechanisms, education for medical professionals and videos to address language barriers.

PIVI and CDC can assist countries by promoting the public/private partnership, by initiating discussions with manufacturers, through providing updates on different vaccine product availability, by sharing communication material and support, by supporting the development of surveillance platforms, and by supporting NITAG formation and training.

Another series of questions addressed **the data needed for national and international policy makers, and government policy makers to make decisions.** Groups were asked to discuss the value of measuring and describing benefits of influenza vaccination programs beyond prevention. They were also asked how CDC and PIVI can support this work.

Across the workgroups the data needed for policy decisions included the following:

- RCT graded data
- disease burden
- public demand
- economic burden of program
- vaccine effectiveness
- surveillance
- coverage rates
- impact on hospitalizations and productivity

The data/information needed for governmental decision included:

- the costs of the program
- public health impact
- relative burden

- logistical issues
- seasonality information
- feasibility of delivery
- availability of monitoring the program

The workgroups concluded that there is a benefit of comparing flu programs to other public health programs.

The last group was asked **to list the critical stakeholders needed to sustain an influenza program, as well as to think about the types of partnerships that would be important to initiate or strengthen to ensure success.** The workgroups were also asked what national government capacities are critical to sustain the programs.

The group agreed that advisory committees, surveillance and research institutions and professional groups should build the evidence for the need to sustain an influenza program and the decisions should be made by the NITAG, Ministries of Health and regulatory agencies. Financing stakeholders would be Ministries of Health and Finance as well as other possible payment mechanisms such as insurance organizations, and individual pay or procurement of vaccines.

To implement an effective vaccine campaign, countries will need logistics stakeholders, media, community leaders and healthcare workers to be involved in the program. CDC and PIVI can support the stakeholder engagement by procuring pooled vaccines, building capacity and encouraging manufacturers to plan for surge in demand if there was a pandemic.

Conclusions and Next Steps

The PIVI and CDC partners meeting provided an opportunity for countries to come together to share experiences and learn from one another about best practices in influenza programs and how to expand influenza prevention in partner countries. There were several themes that resonated throughout the meeting.

- **Sustainability Planning**
We agreed that each PIVI-supported country would create a multi-year “Sustainability Plan” which would help guide the program growth and help PIVI/CDC forecast resource needs to support each country. This Plan is intended as a guide for our collaboration and is designed to be updated at least yearly. It can be changed as the country’s needs and resources change over time. It is intended to be mindful of the key principles of our collaboration:
1) the support is over multiple years, but is time limited (with a suggested span of <5 years);

2) the PIVI vaccine donation is intended to decrease over time as the government assumes the financial responsibility towards a time when PIVI/CDC provides technical assistance but not vaccines/supplies; and finally
3) that the plan is developed as a dialogue between the partners and can be amended over time.

- **The Link Between Pandemic Preparedness and Seasonal Vaccination Programs**

We agreed that each country would work to update their national pandemic vaccination planning as part of the partnership. This includes all partner countries – both PIVI and CDC-Policy Cooperative-Agreement supported. This is a collaboration between the country partners, CDC, PIVI and WHO. Countries can use WHO support materials and can work in concert with the WHO Regional Offices to develop the pandemic plan. PIVI and The Task Force for Global Health is pleased to support this work in each country providing technical assistance.

- **Sharing Information Across Countries**

The PIVI Partners Knowledgebase on the PIVI website contains technical support materials (such as generic protocols for program evaluations) and reports. One important function of the site would be to share work with other countries on this website. For example, KAP surveys, communications and advocacy materials, and training materials can be shared so that other partner countries could view and use the materials to design their own materials. All countries are generating a wealth of knowledge that will benefit other partners.

- **Collaborating on Projects and Peer-Reviewed Papers**

We agreed to work on a few collaborative projects that would help demonstrate the value of this partnership. Several KAP surveys have been conducted or will soon be conducted. These will provide critical data for the countries where the surveys are conducted. In addition, they will provide general themes and findings that may be important for other countries and global partners. PIVI and CDC can facilitate a project to combine the various KAP datasets and create a multi-country analysis and paper.

We also discussed providing a collection of examples of how establishing or growing a flu vaccine program benefits other parts of a country's vaccination programs or other public health programs. It is important to show the value of this investment, beyond prevention of influenza disease and flu related deaths. Hearing from countries about experiences with these sorts of benefits will be invaluable to the program and the partners. One way to effectively share country experiences, will be to write a manuscript for peer-reviewed

publications. Countries should take the opportunity to write about the work on evaluations or influenza program introductions.

Appendix 1: Agenda (created January 29, 2018)

Day 1 (February 6)		
8:30	Registration	
9:00	Welcome and opening comments Dr. Tawee Chotpitayasunondh, Queen Sirikit National Institute for Child Health Joshua Mott, Influenza Program Director, CDC-Thailand Mark McKinlay, Director, Center for Vaccine Equity, Task Force for Global Health	
9:15	Meeting background and goals <i>In this session, the strategic goals of PIVI and of CDC's International Program will be presented along with the context of this work within those programs, as well as a summary of the achievements and challenges during the last year and a review of ongoing work.</i> <i>The goals and agenda of the meeting will be reviewed and discussed.</i>	Joseph Bresee Kathryn Lafond Margaret McCarron
9:45	State of the Art Presentation - 100 Years Since 1918: Are We Ready for the Next Pandemic?	Daniel Jernigan
10:15	Break	
Session 1: Current status of our work together		
10:30	Current status of planning and implementing influenza vaccination programs <i>Each participating country delegation will give a brief (5 minute) structured presentation that includes:</i> <ul style="list-style-type: none"> • Overview of their program in 2017-18 • Plans for 2018-19 influenza vaccination program • 5-year program goals • Key challenges for successfully carrying out the program last season • Critical needs to sustain and grow influenza vaccination in their country <i>This session is intended to provide for a brief landscape of their work for other participants and lay</i>	Moderators: Eduardo Azziz-Baumgartner Mark McKinlay Presenters (country delegation should determine the presenter for their country): Silvia Bino (ALB) Gayane Sahakyan (ARM) Daouda Coulibaly (CDI) Feng Luzhao (CHI)

	<p><i>the foundation for discussions for the rest of the meeting. A slide template will be provided to presenters.</i></p> <p>Desired outcomes for the session: 1) Define common landscape of the work underway in partner countries; 2) Understanding of common needs and challenges to growing vaccination programs and proposed solutions or tasks towards reaching a solution to them</p>	<p>Giorgi Chakhunashvili (GEO) Phillip Muthoka (KEN) Dinagul Otorbaeva, Kaliya Kasymbekova (KGZ) Anonh Xeuatvongsa (LAO) Burmaa Alexander (MON) Tung Nguyen (VIE)</p>
12:30	Lunch	
Session 2: Program evaluations – creating the evidence base for program improvement		
13:30	<p>Program evaluation tools and experience</p> <p><i>This will include short overviews of the types of evaluations completed, ongoing and planned by participant programs, and of the tools and technical resources available for program evaluation. We will review the following tools:</i></p> <ul style="list-style-type: none"> • <i>Knowledge, attitude and perception and practice surveys (KAPP)</i> • <i>Economic assessments</i> • <i>Influenza post-introduction evaluations (iPIE)</i> • <i>Adverse event following immunization surveillance</i> • <i>Vaccine effectiveness studies and impact models</i> <p><i>This will be an interactive session, in which each type of evaluation will be discussed, including a review of tools available for the evaluation, data requirements, experience with use of the tools, and discussion of key partners and stakeholders.</i></p> <p><i>After a short review of each evaluation, meeting participants will be asked to comment on their experience in their countries, and their recommendations for improvements or technical support.</i></p>	<p>Moderators/Presenters:</p> <p>Margaret McCarron Sue Chu Malembe Ebama Kathryn Lafond Pernille Jorgensen Julia Fitzner</p>

	<p><i>Desired outcomes for the session: a better understanding of the landscape of evaluations being carried out by the partners; a better understanding of available tools and technical support for countries interested in conducting new evaluations; a list of improvements that need to be made in generic tools to maximize their utility.</i></p>	
15:15	Break	
Session 3: Expanding partnerships for successful national influenza vaccination programs		
15:45	<p>Pandemic planning – developing pandemic vaccination plans based on seasonal vaccination programs.</p> <p>Key considerations in national pandemic planning</p> <p>WHO’s pandemic preparedness program and tools for supporting country planning</p> <p>Recent country experiences with pandemic planning: informal comments</p> <p>Evaluating the link between seasonal vaccine programs and pandemic preparedness</p> <p><i>This session will have short presentations of key components and considerations involved in planning a vaccine response as part of a pandemic plan, including a review of the new WHO Pandemic Preparedness support materials. This will be followed by a discussion from participants of the current status of their national plans, and work plans for updating them.</i></p> <p><i>Key considerations will be the link between this work and work ongoing or planned to update the national pandemic plans as part of the new WHO Pandemic Influenza Preparedness Framework; and the use of NITAGs to develop policy for use of pandemic vaccines.</i></p>	<p>Moderator: Lisa Koonin</p> <p>Lisa Koonin</p> <p>Wenqing Zhang</p> <p>Phillip Muthoka Tung Xuan Nguyen</p> <p>Rachael Porter</p>

	<p><i>Participants will be asked to talk about their experiences in creating a pandemic vaccination plan and their plans for accessing pandemic vaccines in the event of a pandemic.</i></p> <p><i>Finally, the group will discuss opportunities to collect data to evaluate/test the link between seasonal program development and pandemic response readiness.</i></p> <p><i>Desired outcomes:</i> 1) Understanding of the link between seasonal vaccination programs and pandemic/epidemic preparedness; 2) Improved knowledge of key components of a pandemic vaccination plan; 3) commitment from participants to work to include updating the national pandemic vaccination plans, as a part of the partnership activities.</p>	
16:45	<p>Stakeholder perspectives and updates</p> <p>Updates from WHO on influenza program and activities</p> <p>Partner roundtable (no slides required, each partner will be allowed 2-3 min for comments)</p> <p><i>In this session, key stakeholders will discuss their organizations' roles in influenza prevention and pandemic preparedness. Discussions will focus on how their work does or can align with the work of the country partners and of CDC and PIVI.</i></p>	<p>Moderators: Sue Chu, Alan Hinman</p> <p>Ann Moen</p> <p>Other WHO HQ programs WHO Regional Offices Industry partners Non-governmental stakeholders</p>
17:30	Wrap up and adjourn	Joseph Bresee

Appendix 2: Participant List

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Appendix 3: Small Group Discussion Questions

Plan for small group discussion on key challenges to ensuring influenza vaccine program sustainability

As a primary goal of the work together is to grow “sustainable” seasonal influenza vaccination programs, we will need to define what we mean by “sustainability” and can use this partnership to both identify challenges as well as solutions for achieving this goal. This session will include moderated small group discussions that will summarize participants’ perspectives on drivers of sustainability, gather information on challenges in achieving sustainable vaccination programs, identify critical needs to be successful, and discuss possible solutions to key challenges. Common issues will be summarized and

Participants will be broken out into 6 groups, with 2 groups working on each of the three topics below.

Workgroup 1: Challenges and solutions to developing sustainable, stable influenza vaccination programs

- a. What are the critical financing obstacles in developing and sustaining influenza vaccination programs? What are some possible options for overcoming these obstacles?*
- b. What are important logistical or programmatic obstacles to sustaining and expanding the use of influenza vaccines? What are possible solution to overcome these obstacles?*
- c. How can the CDC and PIVI partnerships support the work to overcome these challenges?*

Workgroup 2: Critical data needed to convince key leaders of the need for influenza vaccination programs

- a. List types of data that are needed by national and international policy-makers for policy decisions? Which are most important?*
- b. List types of data/information that are needed for decisions by political/governmental decision-makers? Which are most important?*
- c. Discuss the value of measuring and describing the benefits of influenza vaccination programs beyond influenza prevention, such as effects on other vaccine and public health programs, pandemic preparedness, health care worker training, etc.*
- d. How can the CDC and PIVI partnerships support the work to convince leaders?*

Workgroup 3: Key national and local capacities and stakeholders required to build sustainable influenza vaccination programs

- a. List critical stakeholders that are needed for successfully sustaining and growing national influenza vaccination programs. Why is this role(s) critical? Describe mechanisms to engage them.*
- b. Describe partnerships that will be important to initiate or strengthen to ensure success.*
- c. What are national government capacities that are critical to sustain influenza vaccine programs? (e.g. NITAGs, NRAs, Maternal-child health programs, etc.)*
- d. How can the CDC and PIVI partnerships support the work to build these capacities or support building partnerships*

Appendix 4: Country Notes, 3-5 Year Goals

Albania – Dr. Silvia Bino

Successes – NITAG/Government collaboration, increased interest in target groups, media helped with flu vaccination messaging, timely vaccine arrival, utilizing the WHO Flu Tool and increased government engagement on flu policy.

Challenges – Government funding is lacking, government support to cover other risk groups, building trust in HCWs, low vaccine uptake in PW, monitoring coverage rates and no electronic reporting system.

Plans for Upcoming Year – KAP survey in PW/HCW, enhance self-reporting of AEFI, conduct an evaluation of vaccine coverage rates and develop a sustainability plan.

3-5 Year Goals – Burden of disease estimates, conduct delivery and cold chain assessments and update the national influenza vaccine policy and pandemic plan.

Critical Needs – In need of a vaccination coverage evaluation.

Cote d'Ivoire – Drs. Alfred Douba and Daouda Coulibaly

Successes – NITAG workshops and KAP in target groups.

Challenges – NITAG recommendation draft and completing the demonstration project.

Plans for Upcoming Year – Complete pilot demonstration project, select target groups based on KAP results, utilize 2,000 doses of vaccine, continue AEFI monitoring and continue NITAG workshop training.

3-5 Year Goals – Develop a national influenza policy, increase funding for flu, raise public awareness on flu vaccinations and develop a sustainability plan.

Critical Needs – Collect more data, obtain financial commitment from the MoH and need assistance with vaccine impact modeling.

China – Dr. Luzhao Feng

Successes – National Immunization Advisory Committee was formed and implemented community based intervention.

Challenges – Low vaccine uptake among risk groups.

Plans for Upcoming Year – Update technical guidelines, accelerate QIV introduction and improve vaccination coverage rates in HCWs.

3-5 Year Goals – Introduce new influenza vaccines and promote flu in high risk groups.

Critical Needs – Conduct vaccine effectiveness studies, vaccine impact studies, budget analysis, develop sustainability plan and obtain financial commitment from the MoH.

Georgia – Dr. Giorgi Chakhunashvili

Successes – Purchased more vaccine, continued to monitor cold chain process, attended a NITAG workshop and conducted a KAP survey.

Challenges – Vaccine uptake is low, media spreads false information about flu vaccines and unable to dispel the myths regarding flu vaccine in the population.

Plans for Upcoming Year – Expand the program by increasing number of doses received, train HCWs, implement a campaign for PW and develop a sustainability plan.

3-5 Year Goals – Implement a national influenza vaccine policy, increase funding, increase vaccination to new risk groups, develop recommendations from the NITAG and finalize the sustainability plan.

Critical Needs – Utilize KAP survey results, identify ILI and SARI incidence, increase funding from donors and obtain access to other countries flu program data.

Kenya – Dr. Phillip Muthoka

Successes – Developed training materials for HCWs, conducted several train the trainer workshops on flu.

Challenges – Need resources to conduct the flu vaccination pilot and cannot accept PIVI donated vaccines.

Plans for Upcoming Year – Vaccine demonstration project, KAP in HCWs, stakeholder engagement, update pandemic plan, develop sustainability plan and conduct a cost effectiveness analysis.

3-5 Year Goals – Develop a national influenza policy, assess data, obtain commitment from MoH and obtain data from the vaccination program.

Critical Needs – Need support from MoH, Implement vaccine demonstration project, present cost- effective data to stakeholders, need a financial commitment from MoH and increase funding.

Kyrgyzstan – Dr. Dinagul Otorbaeva and Kaliya Kasymbekova

Successes – Purchasing vaccine and there were minimal adverse events.

Plans for Upcoming Year – Update pandemic plan, purchase vaccine per national budget, obtain 200,000 doses, train HCWs and increase coverage rate to 35%.

3-5 Year Goals – Influence government to commit to flu program and involve local medical centers in vaccination.

Critical Needs – Need predictable vaccine supply and assistance in training HCWs.

Laos – Dr. Anohn Xeuatvongsa

Successes – co-financing with public and private partnerships, government funded programmatic costs, no serious adverse events during vaccination, MoH formulating immunization law to include flu and KAP protocols were implemented.

Challenges – Vaccine has a short expiry date, unpredictable vaccine supply, low vaccine uptake in PW, information of flu vaccination is limited and population is unaware of the benefits of vaccination.

Plans for Upcoming Year – Develop AEFI guidelines and training materials, conduct cost effectiveness studies, conduct impact model to determine health benefits and conduct a KAP.

3-5 Year Goals – Establish a national influenza policy, continue the public and private partnership, introduce new risk groups to flu vaccine and develop a specific sustainability plan.

Critical Needs – Cost benefit analysis, financial commitment from MoH, need to enhance community demand and need assistance with technical support.

Mongolia – Dr. Burmaa Alexander

Successes – Vaccine delivered, HCW trainings and conducted a NITAG workshop.

Challenges – Vaccines had different arrival times, HCWs are not knowledgeable about flu vaccine, and unstable government.

Plans for Upcoming Year – Update the pandemic plan, develop NITAG activity plan, conduct HCW training, enhance communication and advocacy efforts.

Vietnam – Dr. Tung Nguyen

Successes – Drafted a national influenza policy, developed ICE materials, vaccine delivered, conducted KAP for HCWs and evaluation on acceptability.

Challenges – Completing demonstration project, HCW are not concerned about flu vaccines and need reliable flu vaccine funding.

Plans for Upcoming Year – Finalize the national influenza policy, plan to participate in PIVI, conduct awareness campaigns and gather technical and financial support.

3-5 Year Goals – Expand the flu program to HCWs and other high risk groups.

Critical Needs – Raise awareness, technical and financial support and national flu policy.