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<tr>
<td>AFA</td>
<td>Africa Flu Alliance</td>
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<td>AFRO</td>
<td>World Health Organization Regional Office for Africa</td>
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<td>ARI</td>
<td>Acute respiratory infection</td>
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<td>CC</td>
<td>WHO Collaborating Centre</td>
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<td>EMRO</td>
<td>World Health Organization Regional Office for the Eastern Mediterranean</td>
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<tr>
<td>EMS</td>
<td>Event management system</td>
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<td>EQAP</td>
<td>WHO External Quality Assessment Programme</td>
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<td>FluNet</td>
<td>(reporting tool for GiSN)</td>
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<td>FluID</td>
<td>(epidemiological reporting tool used to transmit information to WHO)</td>
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<td>GiSN</td>
<td>Global Influenza Surveillance Network</td>
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<td>HPAI</td>
<td>Highly pathogenic avian influenza</td>
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<td>HQ</td>
<td>WHO Headquarters</td>
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<td>IHR</td>
<td>International Health Regulations (2005)</td>
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<td>ILI</td>
<td>Influenza-like illness</td>
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<td>NIC</td>
<td>National Influenza Centre</td>
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<td>PCR</td>
<td>Polymerase chain reaction</td>
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<tr>
<td>SARI</td>
<td>Severe acute respiratory infection</td>
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<td>WHO</td>
<td>World Health Organization</td>
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I. Introduction

1. Purpose of the Africa Flu Alliance

Background

The impact of influenza infection in Africa is not yet fully understood. However, available information indicates that seasonal influenza may have caused a significant impact on morbidity and mortality in Africa. For example, in 2002 an influenza outbreak in Madagascar had a case-fatality rate of 3% as compared to <0.1% in other influenza epidemics. The majority of deaths occurred in young children. Similarly, high (3.5%) case-fatality rates among children <5 years of age were observed during an influenza outbreak in the Democratic Republic of the Congo in 2002. In the continent, acute lower respiratory tract infection, such as pneumonia, is a major cause of death, particularly among children under 5 years of age. Given the well-recognized fact that influenza is, among others, an important etiology in childhood pneumonia, the populations in Africa may benefit from influenza prevention and control.

Since 2006, the highly pathogenic avian influenza (HPAI) A(H5N1) virus has also been circulating in poultry on the African continent and has caused human infections, especially in Egypt. More recently, since the emergence of the pandemic influenza A(H1N1)2009 virus, a number of African countries have provided regular updates to WHO on its spread. However, the impact of the pandemic on the African continent is difficult to assess, which indicates a need to strengthen surveillance systems to assess its effect in the continent.

Goals of the Africa Flu Alliance

The Africa Flu Alliance aims to be a forum for discussion between health authorities, health partners and international agencies to fill knowledge gaps on influenza, and to facilitate the implementation of projects in the African continent. It is open to any organization or agency interested in influenza prevention and control. The Alliance will promote collaboration and exchange of information between various stakeholders in order to:

1. Strengthen influenza surveillance and better understand disease dynamics and their impact in Africa;
2. Foster evidence-gathering and data sharing to provide the best possible advice to decision-makers in national health authorities;
3. Facilitate synergies in the implementation of influenza-related activities on all forms of influenza; and
4. Contribute to reducing the burden of influenza and other respiratory infections.
2. **The first meeting**

WHO hosted its inaugural meeting of the Africa Flu Alliance (3–4 June 2010, Marrakesh, Morocco). The meeting was attended by 80 participants, including from 19 African Region countries¹ (see Figure 1 below) and five Eastern Mediterranean Region countries,² as well as international agencies and institutions.

The objectives of this meeting were to:

1. Review challenges in understanding influenza epidemiology and the influenza disease burden in Africa;
2. Develop an action plan to guide the work of the Alliance in the coming years; and
3. Achieve consensus on the governance principles of the Alliance.

The meeting was held during the influenza A(H1N1)2009 pandemic and provided a further opportunity for countries to exchange experiences in their responses.

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1 Angola, Algeria, Botswana, Burkina Faso, Cameroon, Côte d’Ivoire, Cape Verde, Democratic Republic of Congo, Ethiopia, Ghana, Kenya, Madagascar, Malawi, Mauritania, Nigeria, Senegal, South Africa, United Republic of Tanzania and Uganda.

2 Egypt, Libyan Arab Jamahiriya, Morocco, Sudan and Tunisia.
II. Summary of the discussions

1. Reviewing challenges in understanding influenza epidemiology and the influenza disease burden in Africa, including relevant experience during the 2009–2010 H1N1 pandemic

Summary points

Surveillance:
- There are different levels of influenza surveillance capacity and quality within and among countries. Existing systems in most sub-Saharan countries are sub-optimal.
- Coordination at the national and sub-national level between various ministries and technical units needs to be improved in order to increase the flow and sharing of information/data.
- Given the increased coverage of mobile phone networks and number of users in developing countries, usage of relatively inexpensive SMS mobile text messaging allows for timely monitoring in resource-limited settings.

Burden of disease:
- Currently available information does not make it possible to fully understand or assess influenza epidemiology and disease burden levels. However, several international partners are working closely with national counterparts to strengthen surveillance and implement epidemiological and disease impact studies.

Laboratory diagnosis and virological surveillance:
- Laboratory diagnostic capacity is difficult to scale up for emergencies (e.g. pandemic, outbreaks) without well developed advance planning. Maintaining staff motivation and building teamwork were key challenges during the pandemic.

Patient care:
- The sustainability of health systems and infrastructure needs to be reinforced; the motivation of health workers needs to be maintained; and training and financial resources and medical supplies should be provided during an emergency.

Communication:
- Timely communication and information-sharing are crucial in any response to influenza pandemics, severe epidemics and outbreaks.

Coordination:
- Existing influenza networks and alliances in Africa need to synergize activities based on comparative advantages and harmonize/share existing databases.
Presentations by WHO Regional Offices

Regional Office for Africa (AFRO)

Dr Ali Ahmed Yahaya presented on the progress of the regional influenza laboratories network.

As laboratory diagnosis is a key component of influenza surveillance and response, AFRO developed a number of strategies aimed at strengthening the laboratory network on the continent, these included: (1) Expanding the influenza laboratory network in the region through establishment of additional National Influenza Centres (NICs)\(^1\)/Influenza laboratories; (2) strengthening collaboration between laboratories and Ministries of Health, as well as maintaining and reinforcing the exchange of information between laboratories in the region; (3) strengthening collaboration between human and veterinary labs, (4) enhancing mechanisms for the transport of specimens; and (5) promoting active participation of influenza labs in the WHO External Quality Assessment Project (EQAP).\(^2\)

Prior to the emergence of the HPAI H5 virus, ten laboratories in the region had seasonal influenza surveillance in place. In collaboration with partners, the regional influenza laboratory network has expanded (see Figure 2 below), and now comprises 12 NICs in 11 countries and 25 national influenza laboratories\(^1\) in 21 countries. Of these, 11 countries have laboratories with influenza virus isolation capacity and 7 countries with BSL 3 laboratory. In addition, 21 labs in 19 countries are participating in WHO EQAP.\(^2\) Also, 20 labs in 18 countries are sharing data with WHO AFRO on a weekly basis, and 11 countries are submitting isolates to WHO CCs.

Figure 2  AFR Influenza laboratory network as of May 2010

Source: Dr Yahaya, WHO AFRO

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1 National Influenza Centres (NICs) are national institutions designated by national Ministries of Health and recognized by the World Health Organization (WHO) for the purpose of participating in the work of the WHO Global Influenza Programme. Upon such recognition by WHO, NICs become members of the WHO Global Influenza Surveillance Network. http://www.who.int/csr/disease/influenza/TORNICs.pdf (accessed December 2010)

Regional Office for Eastern Mediterranean (EMRO)

Dr John Jabbour presented on pandemic surveillance in the region. Surveillance approaches and reporting requirements (e.g. the sets of information that were needed, the forms that needed to be completed and reporting frequency) changed as the pandemic evolved. Timely communication and information-sharing were key success factors to the effective pandemic response.

The Regional Office responded to the needs by activating EMRO Strategic Health Operations Centre (SHOC) and held regular video conferences with WHO Representatives in the countries (WRs). During this time, EMRO distributed technical guidance documents and updates from WHO HQ on the global situation and facilitated the implementation of WHO surveillance guidelines. Additionally, the Regional Office supported Member States with technical and other resources; formulated recommendations on strengthening active surveillance at points of entry, as well as on antiviral treatment, laboratory supplies and reagents. The Regional Outbreak Alert and Response Network was activated to provide trainings to countries. In addition, a consultative meeting was organized on establishing/strengthening sentinel surveillance of pandemic influenza.

Identified challenge areas included: bridging different levels of surveillance capacity and quality among countries; the lack of full capacity of the public health system for early detection and identification of an alert and to manage such events; reporting obstacles, e.g. the flow of information from peripheral to central levels; sustainability-related issues due to human and financial resources, as well as political sensitivities.

Presentations by countries

Egypt

Dr Mohamed Amin of the Ministry of Health presented on the challenges of HPAI H5N1 and pandemic H1N1 communication. One of the central points made by Dr Amin is that communication strategies need to address country-specific factors.

In Egypt, a range of factors, including demographic (population density), economic (importance of poultry as an income source) and cultural (preference for fresh chicken) factors, created obstacles in the way of efforts to control H5N1 outbreaks. Egypt’s response to the H1N1 (2009) pandemic was based on the 2007 National Pandemic Preparedness Plan, and was widely disseminated across the country. The operational elements of the plan were disseminated to various concerned parties in Arabic and English, and included training for health-care workers. In a spirit of complete transparency with the public and media, a mass communications strategy was prepared by the Ministry of Health; the campaign consisted of an awareness-raising campaign which was implemented through central and peripheral health administrations; procedures were put in place for immediate notification to international organizations; and a hotline, press releases and printed materials were prepared and disseminated.

Targeted communication channels were utilized, e.g. through mass media campaigns, print materials, community outreach and school programmes covering 8,000 rural public schools. Coordination with different ministries and stakeholders was undertaken, e.g. with the Ministries of Education, Tourism, Transport and Communication. Challenges to the strategy included rumour management on issues, such as the safety of the H1N1 pandemic vaccine.

Egypt notified the first case of the pandemic (H1N1) 2009 virus infection on the continent in early June of 2009 (Epidemic week (EW) 23) and a small ‘out-of-season’ outbreak wave followed (EW 28-38). During the annual influenza season, which started in late October (EW 42), the pandemic virus was the predominant circulating strain. A peak in activity occurred in late December (EW 52), and had fallen back to baseline by mid-February of 2010 (EW8). Low level activity continued until mid-May (EW 21) when influenza viruses were no longer detectable. The Ministry of Health conducted awareness-raising campaigns through central and peripheral health administrations, TV and radio broadcasts and immediately notified WHO and other international organizations.
In conclusion, Dr Amin noted that successful preventive measures and decision-making are underpinned by evidence gathered in the course of enhanced influenza surveillance. He also noted the importance of transparency, and the need to be aware of country-specific factors when developing communication strategies. Next steps include qualitative studies on how messages are perceived by the target audiences and risk behaviour patterns.

**Madagascar**

Mr Arnaud Orelle from the National Influenza Centre (Institut Pasteur de Madagascar) reported on past influenza epidemics in Madagascar, and the influenza-like illness (ILI) and severe acute respiratory infection (SARI) sentinel surveillance system. Of note is that Madagascar started with a basic surveillance system whose capacity has been remarkably expanded over time. The main achievements include extension of sentinel surveillance network (from 6 in 2007 to 26 sites in 2010), development of SARI surveillance, well trained surveillance staff collecting data on a daily basis, thereby enabling real-time monitoring of the epidemiological situation; this made it possible to increase responsiveness, optimize monitoring of outbreaks, and improve diagnostic capacities and collaboration with neighbouring countries, e.g. the Seychelles. Data for clinical surveillance of ILI and SARI are reported by mobile phones (SMS) on daily or weekly basis, respectively. Mobile phones are provided to surveillance officers at the sentinel sites. The NIC in Madagascar plans to apply this new tool to strengthen surveillance activities as the geographical coverage of the country’s mobile phone network expands, and also because SMS is inexpensive and allows timely data reporting.

Challenges include: sustaining staff motivation; a lack of virological data on SARI; insufficient regional collaboration and communication between veterinarian and human laboratories among Indian Ocean countries and neighbouring countries. Planned future developments include: the further extension of the sentinel surveillance network; implementation of biological surveillance of SARI; establishing regional laboratories for influenza testing; further research at the human-animal interface; and additional training of staff.

Madagascar’s sentinel surveillance system was able to detect and describe seven local influenza outbreaks between 2007 and 2008, and in 2009, made it possible to study and report the temporo-spatial evolution of the pandemic. Madagascar notified the first case of the pandemic (H1N1) 2009 virus infection in late August 2009 (EW 34); community-level transmission was quickly established with a peak in activity occurring in early November (EW 45), and had fallen back to baseline by early January 2010.

**Morocco**

Professor Rajae El Aouad of the National Influenza Centre (National Institute of Hygiene) presented on building laboratory capacity in Morocco. The national surveillance system is based on both the National Institute of Hygiene and the Public Health Laboratory Networks. She described the components and links between existing epidemiological and virological surveillance systems. National influenza surveillance commenced in 1995 with the establishment of laboratory surveillance system. Clinical influenza surveillance network for epidemiological data collection was established in 2004, with 375 contributing sentinel health centres on a voluntary basis (covering a population of 12 million). A new scheme was introduced to reinforce influenza surveillance in 2007; presently, there are 16 regional hospitals that conduct SARI surveillance and 380 health centres, 110 private physicians and 16 emergency departments that carry out ILI/ARI surveillance. For ILI surveillance, WHO case definitions are being used.

The H1N1 (2009) pandemic preparedness and response included adaptation of the pandemic preparedness plan, expansion of the laboratory network and clear identification and sharing with partners of the procedures and channels for virological testing. Laboratory challenges during the pandemic included: staff motivation and availability of qualified staff; proper specimen collection, site visits and quality control; communication; and stockpiling of reagents.
Morocco notified the first case of the pandemic H1N1 (2009) virus infection on 10 June of 2009 (EW 24); low levels of ‘out-of-season’ transmission occurred until EW 36, after which only sporadic detections were made until late October (EW 43). During the annual influenza season that followed, the pandemic virus was the predominant circulating strain. A peak in activity occurred in late November (EW 47), and had fallen back to baseline by early January 2010 (EW 3).

The lessons learned included the difficulties involved in quickly establishing laboratory infrastructure during an emergency, e.g. developing teamwork; and the development of operating procedures, quality control and corrective actions. Professor El Aouad also highlighted the importance of contact tracing, communications strategies and innovative approaches and tools for communication and information.

**Presentations by international partners**

*AfriFlu International Conference on Influenza in Africa*

Dr Brad Gessner from Agence Médecine Preventive (AMP), the organizer of the Afriflu Conference, presented the meeting outcomes. A total of 80 participants from 22 African countries, as well as participants from international institutions attended the conference, which was held just before the Africa Flu Alliance meeting. In summary, the Afriflu conference highlighted actions to strengthen influenza surveillance and priorities in epidemiological research in Africa in order to establish proper disease burden evaluation. These studies will help determine different intervention strategies, e.g. target groups, vaccine, antivirals and case management. Other highlighted research topics that can be immediately implemented include: vaccine effectiveness studies in priority groups; and understanding the interaction of influenza and meningococcal/pneumococcal infection. The meeting noted the importance for existing influenza networks in Africa to synergize activities based on comparative advantages, and the need to harmonize and share existing databases.

**2. Developing a road map of actions and interventions to address influenza challenges in Africa**

**Summary points**

- Gather and organize existing knowledge on influenza in the region through an assessment of existing surveillance data and establishment of communication platforms for national and international stakeholders to exchange information.
- Establish and adapt surveillance strategies and research programmes to the African context in order to advance our understanding of influenza epidemiology, prevention and control in Africa.
- Improve patient care through better access to health care, trained health-care staff and health worker resources.
- Introduce and adapt prevention and control policies tailored to the African context.

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1 The Afriflu conference proceedings are available at: http://www.elsevier.com/wps/product/cws_home/30521


3 The African Field Epidemiology Network (AFENET), the European Commission (EC), the German Agency for Technical Cooperation (GTZ), the Coordination Organization for the Control of Endemic Diseases in Central Africa (OCEAC), the West African Health Organization (WAHO), the World Health Organization (WHO), the United States Centers for Disease Control and Prevention (US-CDC), the United States National Institutes of Health (US-NIH) and the United States Naval Medical Research Unit 3 (NAMRU3).
Participants were assigned to working groups in four technical themes and asked to discuss a list of strategic actions proposed in a background document. They were requested to, as necessary, comment on, amend and expand the background document, in order to reflect discussion outcomes and complete proposed actions and interventions. The proposed list constitutes a road map of actions and intervention strategies to address the afore-mentioned influenza challenges in Africa. The road map with revised strategic actions for each of the themes was discussed by the plenary and can be found in Annex I. A summary of the plenary discussion from each group theme follows.

2.1 Gather and organize existing knowledge on influenza

Data on influenza in Africa is limited. The data that has been gathered so far indicate that influenza has a significant impact on morbidity and mortality in the region. Group discussions noted four main areas of improvement to gather and better organize existing knowledge on influenza. (1) Countries should actively collate existing data and complement findings with data from other countries. There are a number of data sources in addition to data from epidemiological and laboratory surveillance, e.g. data gained from education and training workshops; data aggregated and used for modeling purposes; national health information systems, including vital statistics; clinical and case management. All these data can be used for better understanding of the disease. (2) Country experts should be encouraged to publish data. Actions should include hosting writing workshops, regional conferences and establishing national forums. (3) Countries should make data accessible by identifying and developing communication platforms, e.g. on-line journals, communication through expert teleconferences or web-based platforms for timely data-sharing; and developing mechanisms to encourage countries to access to and obtain feedback from existing international databases, such as WHO’s FluNet\(^1\) and FluID.\(^2\) (4) Countries need to strengthen in-country coordination for better use of data from surveillance systems and other sources among different government ministries and academia. The group highlighted improvement of communication as a cross-cutting theme that touches on all areas.

2.2 Establish and adapt influenza surveillance

Most countries in Africa do not have an influenza surveillance system that incorporates both disease and laboratory surveillance. Some countries only have a system that partially consists of either disease or laboratory surveillance. Due to other competing public health needs, establishing a new vertical disease surveillance system, such as influenza, is challenging for many resource-limited countries. The group highlighted the need to establish, adapt and integrate influenza surveillance to the African context through the following five strategic areas of work. (1) Standardization of surveillance approaches, i.e. use and adaptation of WHO influenza protocols with standard case definitions, standard tools and reporting forms. (2) Influenza surveillance could be improved by evaluating existing systems and extracting the lessons learned. (3) The group recommended linking influenza surveillance with other disease surveillance systems (i.e. polio); finding ways to motivate participation of all health-care workers, and using appropriate tools to collect information on influenza. (4) The group addressed improving laboratory capacity by promoting collaboration among different laboratories, i.e. between veterinary and health laboratories; supporting the development of national laboratory capacity; supporting the development of regional confirmatory or reference laboratories; promoting the twinning of laboratories with more capacity with those with less so they can learn from each other; and promote more collaboration between epidemiological and laboratory technical units. (5) Further recommendations geared towards improving information-sharing, e.g. promoting reporting to FluNet and FluID by Member States; promoting equity and transparency in data-sharing for mutual benefit; safeguarding data ownership;

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2. https://extranet.who.int/fluid/
considering periodic joint publication by WHO and the Alliance to acknowledge country contributions; and providing feedback to those that report data.

2.3 Improving patient care

Access to antiviral, antibiotic and other therapies, such as the use of oxygen allows treating patients with influenza and its complications to prevent more severe consequences. Many countries in Africa, however, either have no access or only limited access to these resources. The management of influenza patients is in most cases the same as for other respiratory infections. Influenza capacity strengthening of the health care system will eventually have spill-over effects on the management of all respiratory infections in Africa. The group addressed the themes of improving access to health care; increasing knowledge and skills of health-care staff; and improving resources for health-care workers. It emphasized a focused approach aimed at: (1) further developing nurse-led primary care in communities through ARI training and the development of a care and diagnostic kit; (2) increasing knowledge in the population, for example, through the mass media, community health workers and social mobilization campaigns; and (3) strengthening pneumonia care in hospitals through in-service training, delivering equipment as a package (e.g. oxygen, masks, pulse oximeters) and emphasizing strategic planning in funding and human resources. Improving patient care needs to take into account resource constraints in countries, and to adopt distinct approaches vis-à-vis countries with weak health systems, functioning systems but insufficient resources, and countries with functioning systems and resources. The group recommended that access to care encompasses access to both technologies and treatments.

2.4 Introduce and adapt prevention and control policies

Policies for prevention and control should reflect African needs and realities and must be tailored to reflect the heterogeneity of countries in Africa (e.g. climate, culture and language); they should also be adaptable so that they can be modified as conditions change. The group identified strategic options and identified four areas of improvement. (1) Countries should establish regional collaboration for emergencies through joint planning and needs assessment, e.g. establishing a regional stockpile of antiviral and vaccine supply and availability of emergency funding. (2) Countries should work to ensure that communication, advocacy and behavioural change management are integral parts of implementing evidence-based policies. For example, vaccine use and immunization programmes are often hampered by inadequate or inaccurate information and communication needs to be targeted at all levels, including the public, community leaders, politicians and academic centres. (3) Countries should evaluate the experience with the recent H1N1 (2009) pandemic and adapt pandemic preparedness plans accordingly. It will be particularly important to measure the impact of interventions. (4) Countries should integrate and create linkages between influenza prevention and control strategies with those of other health programmes and intervention strategies, i.e. integrated disease surveillance and response (IDSR) for surveillance and the WHO’s Global immunization vision and strategy (GIVS)\(^1\) for vaccination. They should also consider including the private health care sector and other public sectors in such efforts.

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3. **Defining the governance principles of the Africa Flu Alliance**

**Summary points**

- People and organizations work together because of a common understanding that they cannot achieve all goals by working alone and believe that by working cooperatively with others they can achieve greater added value.

- The benefit of networking and forming an alliance is to have better access to information and knowledge, improve operational efficiency, develop more effective products and services, and develop people/capacity-building.

- Members need to understand both the common interests and the individual interests, and need to be encouraged to contribute and value their own and other inputs equally.

- The Africa Flu Alliance should work towards implementing the strategic actions contained in the roadmap, and WHO should lead the global and regional efforts leading to the implementation of the roadmap.

A presentation on “Making an alliance successful: Learning from existing success stories” emphasized the added value of collaborative work created by an alliance and provided background information on the mechanisms of work for the Africa Flu Alliance. The presentation emphasized the importance of the principles of equity, transparency and mutual benefit, highlighting potential benefits of partnering. Practical information included leadership techniques, schematic frameworks, as well as the spectrum of possible commitments. In terms of member self-assessment, participants were to reflect on: (1) what could constitute success for the Africa Flu Alliance; (2) what might limit the involvement of participants; and (3) based on desired outcomes, how the Alliance could be structured to operate effectively and efficiently. Discussions emphasized the importance of encouraging all participants to contribute and valuing their input; the main risks that could weaken the alliance, such as the lack of direction or structure or overdependence on the secretariat, could lead to the disengagement of participants; the need for resources and funding; the importance of reflecting the interests of individual participants; and that the ‘institutionalization’ of an alliance may not actually reflect the interests of individual organizations. Participants agreed that the operating principles of this alliance should be directed at facilitating the implementation of the outcomes (actions and interventions) of the group discussions. Participants addressed the need for WHO to ensure global and regional coordination, follow up on the next steps and develop potential operating protocols and procedures.
Conclusion

1. **Assessment of the meeting**

The meeting provided an opportunity for national health authorities, health partners and international agencies to engage in informal discussions on facilitating the implementation of projects targeting influenza in Africa. The participants worked together to identify the main challenges in reducing the influenza burden in Africa. Based on the identification of challenges, they developed a road map consisting of a list of actions and interventions to be carried out in the coming years; this road map will help to reduce existing obstacles and increase our knowledge of the disease burden. Finally, participants agreed on the need for collaborative work and that the Africa Flu Alliance provides a mechanism of exchanging and sharing information and synergizing common activities and interests. This alliance will operate informally with a mechanism that is open and flexible.

2. **Challenges ahead**

The current absence of adequate information, lack of awareness of the disease and other competing public health priorities, pose a great challenge as it has hampered the development of specific interventions to reduce the impact of influenza in Africa in the past. Furthermore, the coordination of activities by different agencies, networks and countries will be challenging, particularly with regard to limiting redundant projects and build on the comparative advantages of stakeholders in order to create added value for the whole of Africa. Also, the eventual end of the pandemic might lead to an influenza fatigue in terms of political commitment and available funding for capacity strengthening. To that effect, the Africa Flu Alliance should strive to facilitate discussion, coordination and interaction among researchers, donors/funding agencies and public health professionals in the region and worldwide in order to maintain focus on the disease burden that influenza and other respiratory diseases cause in Africa. The climatic diversity in Africa poses a challenge as it means to assess the disease burden for different climatic settings. Nevertheless, clusters of countries with similar geographical settings can be identified to introduce similar assessment strategies. Lastly, influenza activities in Africa need to ensure spill-over effects and lead to capacity-building in other areas of the public health system.

3. **Next steps**

Participants requested WHO to coordinate and promote the objectives and future activities of the Africa Flu Alliance. Following this meeting, WHO will summarize the proposed actions and develop a publication based on the revised background document. The future plan of action will include the mapping of existing capacities and projects of alliance members in Africa. WHO and alliance members will target implementation of strategic actions from the list of strategic actions, e.g. organizing a meeting on clinical management of influenza patients in resource-limited settings. The list of strategic actions will be used as a road map of necessary actions. It will be used as a monitoring tool of the implementation of actions defined by the Africa flu Alliance.
Annex I: List of strategic actions

**Theme One: Gathering and organizing existing information on influenza**

1. Organize technical and scientific workshops.
2. Develop national/regional fora and conferences to exchange information.
3. Coordinate Ministries of Health, academia and research centres.
4. Develop communication platforms to exchange information (teleconferences, websites).
5. Improve access to/feedback from international databases (Flunet, EMS, ANISE) as well as access to scientific literature.
6. Provide technical support to improve data collection and reporting.
7. Expand information input and output from international databases and feedback (lab, epi, reports, economic data, etc.).
8. Organize field visits in order to share experiences of other countries.
9. Encourage publication of data by countries and recognize country contributions in publications.

**Theme Two: Strengthening Influenza Surveillance Systems**

**A. Surveillance**

1. Evaluate and improve existing systems.
2. Integrate flu surveillance into existing regional systems (IDSR, Polio) to promote synergy at a regional level.
3. Define strategies of sample collection and linkage between clinical info and sampling.
4. Establish links between laboratory surveillance and epidemiology.
5. Standardize approaches (what type of surveillance in each country).
6. Define minimum activities to generate data.
7. Mechanism: Establish working group to evaluate success and modalities of surveillance.

**B. Improve laboratory capacity**

1. Define a regional strategy addressing the structure and functioning of laboratory networks.
   a) Utilize surveillance systems for other diseases (regional reference laboratories).
b) Support development of capacity in each county and in specialized regional laboratories.

c) Reinforce and follow laboratory twinning.

d) Promote transportation of specimens between countries.

e) Invest in human resources.

2. Improve human-animal interface (building on existing initiatives).

3. Promote information exchange respecting equity, transparency and mutual benefit.

4. Detection of novel viruses, other respiratory viruses and further investigation of non-typable influenza in regional laboratories.

5. Improve communication between NICs and WHO CCs.

**Theme Three: Improve patient care**

1. Improve access to health care.
   a) Nurse-led primary care.
      i) Introduce training to identify and manage acute respiratory illness.
         1. Algorithm-type approach (e.g. PALSA/PALSA-PLUS, already in use in some African countries).
      ii) Development of care and diagnostic kit (technical information, equipment, medicine).
   b) Educational campaigns (media, social mobilization campaigns).

2. Increase knowledge and skills of healthcare staff.
   a) In-service training.
   b) Deliver equipment as a package (e.g. oxygen, masks, pulse oximeter, etc.).
   c) To be sustainable – need strategic planning (funding, human resources).

3. Define strategies according to different settings, contexts and resources.

4. Develop community approaches for ARI.

**Theme Four: Introduce and adapt prevention and control policies**

1. Revisit pandemic preparedness plans.

2. Member States should develop strategies for flu control, and decide according to the national context how they would like to integrate them into existing structures — eventually to implement the National Influenza Technical Advisory Groups (NITAGs), aim to have harmonization of approaches.

3. Develop specific strategies for Africa, e.g. grouped purchase.

4. Improve communication.

5. Carry out research/studies to support development of prevention and control policies.

6. Maintain capacity-building and strengthening for IHR.

7. Incorporate ethical issues.

Cross-cutting theme: development of human resources and strategic communication.
# Annex II: Agenda

<table>
<thead>
<tr>
<th>DAY 1, THURSDAY, 03 JUNE 2010</th>
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<tr>
<td>08:30–19:00</td>
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</tbody>
</table>
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79. Dr John Siu Lun TAM  
    Global Influenza Programme (GIP)
The meeting participants completed a WHO standard form for declaration of interests. At the start of the meeting, all participants were asked to confirm their interests, and to provide any additional information relevant to the subject matter of the meeting. In accordance with WHO procedures, the Secretariat reviewed and assessed the declarations submitted by each of the participants.

The following participants declared current or recent (< 1 year) financial interests related to commercial organizations as listed below:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Participant</th>
<th>Interest declared</th>
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<tbody>
<tr>
<td>Institut Pasteur de Côte d’Ivoire</td>
<td>Herve KADJO</td>
<td>Institute Pasteur received a research grant and funds to purchase reagents for laboratory testing. Dr Kadjo personally received travel funding to attend an epidemiological training course</td>
</tr>
<tr>
<td>Institute National de Santé Publique</td>
<td>Hannoun DJOHAR</td>
<td>Received a travel grant to participate at scientific meetings from a commercial organization</td>
</tr>
<tr>
<td>AMP</td>
<td>Brad GESSNER</td>
<td>AMP received a research grant from a commercial organization</td>
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<tr>
<td>AMP</td>
<td>Alfred DA SILVA</td>
<td>AMP received a research grant from a commercial organization</td>
</tr>
<tr>
<td>University of Witswatersrand</td>
<td>Charles FELDMANN</td>
<td>Received an allowance for serving on an advisory board of a commercial organization</td>
</tr>
<tr>
<td>Institut Pasteur de Madagascar</td>
<td>Arnaud ORELLE</td>
<td>Institute Pasteur, received a research grant and funds to purchase reagents for laboratory testing and establishing an influenza sentinel surveillance system for Madagascar from a commercial organization</td>
</tr>
<tr>
<td>Institut Pasteur du Maroc</td>
<td>Jalal NOURLIL</td>
<td>Institut Pasteur du Maroc receives research grants to establish virological surveillance in Morocco from a commercial organization</td>
</tr>
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</table>

Several participants described academic interest in the subject matter of the meeting. These were not regarded as conflicts of interest since they formed the basis of the expertise of the participants.

On the basis of their declared interests in the subject of the meeting, and with regard to the nature and extent of financial and/or academic interests, the following meeting participants took no part in the working group 4 “Prevention and Control Policies” which included strategic options for antiviral and vaccine policy discussions: Kadjo, Djohar, Gessner, Da Silva, Feldmann, Orelle, Nourill.