Regional Conference on Avian Influenza Control and Human Influenza Pandemic Preparedness and Response

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Proceedings

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Introduction/ Rational

On 12 and 13 June 2006, the Republic of Kazakhstan hosted in Almaty the Regional Conference on Avian Influenza Control and Human Influenza Pandemic Preparedness and Response ("Regional Conference" hereafter), which was convened jointly by twelve international agencies.

The Regional Conference marked the largest gathering held to date to assess in Central Asia and its neighbouring countries the multiple threats arising from outbreaks of highly pathogenic avian influenza, caused by the H5N1 virus. The meeting was considered unique in the number of participants (nearly 100), the high level of government representation of 10 countries, the adoption of a Declaration of Almaty expressing commitment for further action, and the number of international agencies co-sponsoring the Regional Conference: the Asian Development Bank (ADB), the Central Asia Regional Economic Cooperation Program (CAREC), Centers for Disease Control and Prevention, the U.S. Agency for International Development (USAID), the European Commission, five United Nations System agencies (FAO, UNDP, UNICEF, UNSIC, WHO), the World Organisation for Animal Health (OiE) and the World Bank.

Discussions took place on a well-prepared ground, preceded as they were by frequent Email exchange with stakeholders, by an exchange of ideas during human and animal health sector meetings held in Uppsala ([1]) and in Tashkent ([2]) in May 2006, and during regular meetings which were organized by a Conference Secretariat established in Almaty since early April 2006. During these meetings the Conference Secretariat linked up co-organizers based in Almaty, Astana, Bangkok, Copenhagen, Geneva, Paris, Manila, New York and Rome by conference call. Moreover, participants of the CAREC Senior Officials' Meeting of 10-11 April 2006 held in Urumqi ([3]), welcomed the Almaty Regional Conference, as it aims to foster a well-coordinated regional approach to control avian influenza outbreaks at an early stage and to stem the potential public disruption due to an influenza pandemic. Indeed, agriculture is still a driving force in the economies of the region, accounting for about one third of GDP in the non-petroleum rich Central Asian republics. The losses from chicken culling to control the spread of the highly pathogenic avian influenza virus H5N1, and the attendant hardships are severe for farmers with little access to safety nets. Particularly rural areas where poultry farming is concentrated are most at risk.

The purpose of the Regional Conference was to enable countries of Central Asia and its neighbouring countries to share experiences and discuss a common approach to control the spread of avian influenza among poultry, mitigate the social and economic impact of avian influenza outbreaks, and improve preparedness for a possible human influenza pandemic, and other emerging infectious diseases.

These proceedings are complemented by presentations, a conference agenda, a list of participants, and background documents shared by country delegations and international agencies (including national influenza preparedness plans), which are all available online at the following address: [http://www.adb.org/Documents/Events/2006/avian-influenza-control/default.asp]

The conference in Almaty was a regional follow-up to global meetings held in **Geneva** (Partners Meeting on Avian Influenza and Human Pandemic Influenza ; 7-9 November 2005), **Beijing** (International Pledging Conference on Avian and Human Influenza; 17-18 January 2006) and **Vienna** (Senior Officials' Meeting on Avian and Human Pandemic Influenza; 6-7 June 2006). At the Beijing meeting a simplified coordination framework had been presented, listing key influenza activities by three levels of intervention as follows:

- Global level (expanded global anti-viral stockpile; global strategy for vaccine research and development; costing of country plans and regional and global requirements; facilitate coordination at the global level);
- Regional level ('rapid response' teams of experts; support to strengthen country and regional capacity; expanded network of influenza laboratories; multi-country technical networks);
- Country and sub-national levels (development of integrated national plans; aggressive control of avian influenza in birds and human pandemic preparedness; assess needs of veterinary infrastructures; voluntary compliance of international health regulations).

The 10-country meeting held on 12-13 June in Almaty, focused on improving regional and inter-regional collaboration for influenza control. As such, it built on cross-border planning initiated at other regional meetings, including the intersectoral meetings held in **Cairo** ([4]), **Tehran** ([5]) and **Ankara** ([6]), a human health sector meeting organized in **Uppsala** ([1]), and an animal health sector meeting which took place in **Tashkent** ([2]).

The Regional Conference held in **Almaty** broke new grounds as:

- it was the first influenza meeting aimed to improve interregional collaboration across national borders in Central Asia and its neighbouring countries (10 countries);
- major international organizations and development partners met to initiate collaboration about joint programming of externally funded projects in this region;
- country delegations (consisting of representatives responsible for both human and animal health, as well as preparedness and contingency planning) identified new opportunities to enhance intersectoral collaboration, particularly during break-out sessions.

Participants

The Regional Conference brought together nearly one hundred participants of both governmental and inter-governmental actors. The complete list of participants, includes government representatives from 10 countries (the 8 CAREC member countries ([3]), the Russian Federation and Turkmenistan), officials of 13 international organizations and development partners (ADB, CDC, EC, ECDC, FAO, NAMRU-3, OiE, UNDP, UNICEF, UNSIC, USAID, World Bank, and WHO), as well as invited resource persons from Georgia, the Islamic Republic of Iran and Thailand. Country delegations consisted of minimum 3 officials of different sectors (human and animal health sectors, and preparedness and contingency planning).

Conference Proceedings

Welcome and overview

The Regional Conference was opened by *Anatoliy Aleksandrovich Belonog* (Principal State Sanitary Doctor and Chairman of the State Sanitary-Epidemiological Surveillance Committee, Ministry of Health of Kazakhstan), who thanked the co-sponsoring international organizations for convening the meeting. Dr Belonog emphasized that the burden of avian and human influenza cannot be addressed only by focusing on medications, treatment and expertise, but also by strong planning and a policy framework foundation, combined with an increased capacity for cross-sectoral collaboration and cooperation. The opening plenary session was co-chaired by *Jacques Jeugmans*, (ADB Principal Health Specialist, Manila) and *Yuriko Shoji* (Resident Coordinator of the United Nations in Kazakhstan, Almaty).

Break-out sessions and other plenary sessions were chaired by *Shukrullah Wahidi* (Afghanistan), *Chingiz Akhmedov* (Azerbaijan), *Zholshorinov Aitmagambet Shetybaevich* (Kazakhstan), *Tursunkulov Sh. Zh.* (Kazakhstan), *Zhumakanov K.T.* (Kyrgyz Republic), *Murodali Sharipov* (Tajikistan), *Hudayberdy Mukhammedov* (Turkmenistan), *Ravshan Rakhimov* (Uzbekistan), *Nikola Belev* (OiE Regional Representative for Europe, Sofia), *Alexandr Zouev* (UNICEF Representative Kazakhstan, Astana), and *Peyvand Khaleghian* (World Bank Central Asia Regional Office, Almaty).

The closing plenary session was chaired by *Asylbeck Aubeterovich Kozhumratov* (Chief Veterinary Inspector and Director, Department of Veterinary Services, Ministry of Agriculture of Kazakhstan). During this session, country delegations finalized the "Declaration of Almaty", a consensus document outlining a roadmap for action including immediate next steps to be initiated after the Regional Conference.

During plenary sessions experts from international organizations (CDC, FAO, OiE, NAMRU-3, UNDP, UNICEF, UNSIC, WHO) reviewed the current influenza epidemiological situation and the current status of epidemic preparedness at global and regional levels, and shared some country experiences. They also introduced concepts and proposals for effective action against influenza threats, based on the most recent globally acquired evidence.

During two break-out sessions government representatives shared their experience with preparedness planning and outbreak response. They identified sector-specific gaps, and successful strategies to improve preparedness and implementation of strategic plans through multi-sectoral cooperation and regional collaboration. Further, development partners gathered during one break-out session to review what can be done to enhance coordination of donor-funded activities against influenza threats in the region.

These proceedings have four headings: [**1**] Taking stock…; [**2**] …taking action at the local level…; [**3**] …planning ahead; and [**4**] donor coordination. In an Annex to these proceedings, presentations of government representatives are summarized.

Taking stock ….

On the first day of the Regional Conference, findings were presented from a Global Data Gathering Exercise which assessed in May 2006 the current state of country-level planning and preparedness for avian and human influenza (see box below). By end May 2006, data had been compiled from 133 countries out of 200 countries covered by the survey.

Some of the findings of the global survey were presented in Almaty comparing 23 "Asian" countries with the 10 countries whose delegations participated in the Regional Conference (hereafter described as "Central Asian"). Caution should be taken when interpreting the survey results, as the data are preliminary: they have not been confirmed or validated independently.

Overall, performance in "Central Asian" and in "Asian" countries seems to be comparable, for most of 19 key indicators presented. However, worth mentioning are some differences related to: (1) (planning for) influenza vaccination, (2) outbreak detection capacity, and (3) institutional arrangements for planning and programming (see below).

(1) Planning or implementation for vaccination of poultry appears more prevalent among "Central Asian" than among "Asian" countries; whereas for comprehensive vaccination of the human population when an influenza pandemic strikes, proportionally more strategies are available in "Asian" than in "Central Asian" countries.

(2) Diagnostic capacity to detect the avian influenza virus in humans appears more prevalent among "Central Asian" than among "Asian" countries, whereas proportionally more "Asian" than "Central Asian" countries have gained the capacity to detect the virus in animals. Also, "Central Asian" countries lie behind "Asian" countries when comparing the national level programming for the strengthening of surveillance and for outbreak reporting in animals.

(3) In a higher proportion of "Asian" than of "Central Asian" countries governments have endorsed national influenza plans. "Asian" countries counted also a higher average number of national Task Force meetings held over the past 6 months than "Central Asian" countries.

Simon Strickland (UNSIC), who presented results from the Global Data Gathering Exercise, briefed the Conference attendants in Almaty also on the Senior Officials' Meeting held on 6-7 June 2006 in Vienna. In Vienna it was agreed that there is a need for: (1) regular reports documenting progress made at country, regional and global levels, (2) improved coordination of needs assessments, (3) a communications resource centre, and (4) addressing a number of policy issues (a.o. farmer compensation schemes, vaccination, simulation exercises for pandemic preparedness plans, overall coordination), based on (5) well-tracked progress made in science.

The next Senior Officials Meetings are planned for December 2006 (to be organized by the African Union), and June 2007 (in India). A schedule for country needs assessments had been presented at the European regional workshop held in Uppsala ([1]). Among the 10 countries with delegations attending the Almaty Regional Conference, 3 countries have completed assessments (Azerbaijan, the Kyrgyz Republic and Tajikistan), and Uzbekistan was tentatively scheduled for an assessment in September 2006. *Bernardus Ganter (WHO)* presented in Almaty WHO's regional strategy for the 52 countries of the WHO European Region, and the outcomes of the workshop held in May 2006 in Uppsala (where a.o. indicator development and surveillance strategies in the human health sector were on the agenda, [1]).

… bringing action to the local level as ingredients for a pandemic are abundant …

Both human and animal health experts likewise highlighted the importance for country and regional response capacity, as the risk for avian influenza outbreaks in the 10 countries attending the Regional Conference remains high. Indeed, the region is covered by four major flyway routes of wild birds carrying the H5N1 avian influenza virus, and by many wetlands where these birds reside (e.g. Kazakhstan alone counts 14,000 lakes). Moreover, efforts to improve detection and diagnostic capability in the region have been initiated only in most recent months.

Christianne Bruschke (OiE) and *Giancarlo Ferrari (FAO)* took stock of the current threat of influenza in birds (both wild migratory and domestic). They stressed that the only way the H5N1 avian influenza outbreaks can be managed is through countries acquiring increased capability to detect and notify these rapidly. Such enhanced capability will be able to reduce the virus load in poultry, and eventually in migratory bird populations as well.

Michael Perdue, Bernardus Ganter (WHO), Michael Favorov and *Ray Arthur (CDC)* equally stressed that improving laboratory and surveillance infrastructure at country and regional level will enhance overall epidemic responsiveness, allowing, among others, that samples can be sent timely to diagnostic laboratories.

Michael Perdue (WHO) clarified that ingredients for a pandemic are abundantly available, either through reassortment of currently circulating virus strains (i.e. the highly pathogenic H5N1 virus and the human seasonal influenza virus), or through slow adaptation, as lab-evidence indicates that it may have happened in the case of the virus causing the pandemic of 1918. In recent years one sees an acceleration of events with pandemic potential. Such events include infections of humans by a variety of animal influenza virus strains ([7]) and outbreaks caused by the H5N1 epizootic in animals ([8]).

Even though H5N1 influenza virus outbreaks have had limited direct human health impact so far ([9]), ominous changes of the epidemiology of the disease have been observed in animals. Pathogenicity of H5N1 virus was shown to increase in chicken, mice and ferrets. Widespread outbreaks were seen in China in May 2005 (migratory birds) and November 2005 (in animals and humans). The H5N1 virus is expanding its mammalian host range: it has infected felines (cat, tiger) and civets, species not previously considered susceptible to disease caused by any influenza A virus. It has been suggested that mammals may act as the "vessel" for dual infection and recombination. In the period July-August 2005 H5N1 was isolated from domestic and wild birds in several provinces of Russia, Kazakhstan and Mongolia; and later human infections occurred in Turkey, Iraq, Azerbaijan and Egypt. By mid 2006, the H5N1 virus strain has become endemic in poultry populations in large parts of Asia. With a larger geographical coverage the population at risk has increased, and each new human case gives the virus an opportunity to evolve towards a fully transmissible pandemic strain.

Government representatives attending the Regional Conference and experts of CDC, FAO, and WHO reviewed highly pathogenic H5N1 influenza outbreaks in the region.

In Kazakhstan 8 outbreak foci of H5N1 among wild birds and poultry (geese, ducks and chickens) were contained in North-East (late 2005) and West (March 2006) parts of the country after culling 13,000 birds. Rapid response teams helped control the outbreak foci, establish surveillance in animals and humans, and investigate promptly any suspicion of infection. Serological testing was used to assess possible H5N1 infection in those who were in contact with diseased fowl and in persons who had suffered from pneumonia nearby the outbreak zone.

In Afghanistan, which has an estimated poultry population of 12 million, H5N1 outbreaks confirmed in 10 provinces were contained after culling 31,000 birds. During the epidemic phase (March-May 2006), a surveillance system was established that collected nearly one thousand samples from 25 provinces. After the outbreak, periodical animal surveillance activities focus on the rural poultry sector (both backyard poultry and poultry in farms), live bird markets, and villages surrounding wetlands in 12 provinces, as it remains unclear whether the highly pathogenic avian influenza virus strain has been eradicated.

In total, 6 of the 10 countries with delegations attending the Regional Conference in Almaty have reported H5N1-outbreaks. Experiences shared of 4 other countries which controlled H5N1 influenza outbreaks in 2005/2006 include Azerbaijan (animal outbreak foci in 4 districts, and human cases in 2), China (where outbreaks were detected since April 2005 in 14 administrative divisions with province-level jurisdiction, a.o. in Xinjiang Uyghur Autonomous Region), Mongolia (where 2 outbreak foci were detected in wild fowl, July 2005), and the Russian Federation (where 1.5 million poultry was lost or culled during the 2005/2006 outbreaks).

….and planning ahead

During plenary and break-out sessions, conference attendees shared a wide variety of proposals to improve the region's capacity to respond to influenza threats. Below these proposals are summarized, under five sub-headings:

(1) policies and standards

(2) surveillance, early detection and response systems

(3) stockpiling and human resources (networking, rapid response teams)

(4) communication, governance

(5) regional collaboration

(1) Policies and standards, operationalizing, monitoring

In 2004 and 2005, the OiE Terrestrial Code and the revised WHO International Health Regulations ([10]) have been adopted by each organization's Member States. These international standards contain risk-based recommendations for animal and human health sectors based on the most recent scientific findings, including the prompt notification of outbreaks of highly pathogenic influenza and of any human influenza case caused by a new subtype.

By mid 2006, all 10 countries which convened at the Almaty Regional Conference had national influenza preparedness plans. However, more seems to be needed to make these plans work to improve preparedness and response at national and sub-national levels. During break-out sessions, government representatives recognized that influenza plans need to be operationalized

and tested. For this purpose standardized management guidelines are needed a.o. to guide surveillance and laboratory diagnosis at all levels. The plans will also need to be further adapted with a rapidly changing situation as new evidence emerges, and indicators should be developed to monitor regularly progress made at sub-national levels with the implementation of operational plans. *Michael Perdue (WHO)* noted that a variety of information and guidelines on influenza control have become available, which are not always standardized or palatable.

Chakrarat Pittayawonganon (Ministry of Health, Thailand) presented at the Regional Conference his country's experience with planning and programming. The Thai government endorsed 3-year integrated national influenza plans (one for avian influenza and one for influenza pandemic preparedness) in January 2005. Hereafter, operational plans have been drafted, as well as several sector-specific guidelines and standard operational procedures. Also, several types of exercises have been conducted to operationalize the plans (table-top, drills, full-scale exercise) at national, provincial, and local levels.

(2) Surveillance, early detection and response systems

Nearly all 10 countries which convened at the Almaty Regional Conference have laboratory and surveillance infrastructure in place, albeit with levels of performance which varies geographically and over time, and thus need improved.

Government representatives and international technical agencies presented in Almaty capacity building initiatives for laboratory and surveillance infrastructure development in Central Asian and neighbouring countries. These trainings intend to improve timeliness and reliability of influenza outbreak detection, so that response can be organized swiftly. In Almaty, Baku, Beijing, Bishkek, Kabul, Tashkent, and Ulaanbaatar, training for laboratory scientists has been organized or is under way with support of CDC ([11]), NAMRU-3 ([12]), FAO, WHO, and ADB ([13]). Training to improve surveillance and outbreak response capacity at country level for influenza control has been supported in these country capital cities by ADB, CDC, FAO, WHO and bilateral donor agencies (a.o. China, Japan, Switzerland, and USAID).

However, coordination of training initiatives at the regional level appears to be in its earliest stages, as development partners have exchanged their first experiences during the Almaty Conference. By mid 2006, joint donor-country missions have assessed in detail the needs to improve surveillance and laboratory infrastructure of three CAREC member states (Azerbaijan, Kyrgyz Republic and Tajikistan). Conference participants felt that urgently standardized training packages need to be developed for the region, particularly for those working on surveillance and laboratory diagnosis at sub-national levels. Those geographic areas identified as most at risk should be targeted first with capacity building initiatives.

Government representatives and *Samuel Yingst (NAMRU-3)* highlighted the need for a regional centre where specimen can be sent for laboratory confirmation (thus a biosafety-level 3 laboratory), which can assist with medical maintenance and which can coordinate and guide training initiatives. So far, experience in the region with cross-border disease alert information tracking systems does not include influenza, nor does it allow for direct communication between all of the countries with delegations attending the Regional Conference ([14]). Likewise, there is no

institutional link established at the regional level between animal and human disease information tracking systems.

At the global level, OiE/FAO and WHO have demonstrated unprecedented level of cooperation for outbreak detection. The three organizations have linked up animal and human health influenza laboratory networks, i.e. OFFLU (for avian influenza in animals), and the Global Influenza Surveillance Network (consisting of national influenza centres and specialized WHO collaborating centres). Equally, FAO, OiE and WHO are setting up a Global Early Warning System (GLEWS), a real-time monitoring system which connects disease alert information tracking systems created by the three organizations ([15]).

Liudmila Mosina, Ray Arthur (CDC) and *Yon Fleerackers (ADB consultant)* highlighted in their presentations the cost-effectiveness which can be gained by applying an **integrated disease surveillance** approach promoted by CDC, WHO and by an increasing number of countries ([16]). These include the 7 countries whose Ministers of Health signed on 20 April 2006 the Kabul Declaration on Regional Collaboration in Health ([17]). As ever more countries in Asia, the Middle East and Africa are implementing such an approach, they reach faster coverage- and performance-related targets by sharing across high-priority disease control programmes the resources which become available at local level for specific surveillance functions (such as detection, registration, reporting, supervision and training).

(3) Stockpiling and human resources (networking, rapid response teams)

Government representatives and international organizations shared at the Regional Conference their experiences with influenza vaccination in animal and human populations, and with stockpiling of resources needed for pandemic preparedness and for the control of avian influenza outbreaks (antiviral medicine, vaccines, diagnostic kits and reagents, decontamination kits and disinfectants, as well as personal protective equipment [for health care personnel and for personnel involved in the control of outbreaks in animals]). Currently, there is no regional-level plan for the stockpiling of resources to face influenza threats. Neither have procedures been established to create a regional technical support network, nor to identify regional rapid response teams. Such a regional network of expertise had been considered as essential at global-level planning for influenza control.

With only 9 countries currently producing human influenza vaccine, which provides protection against seasonal influenza, the current global production of 300 million vaccine doses covers less than 5% of the world's population. Some countries noted that a nearby vaccine production facility where high-quality vaccines can be procured at an affordable price, would be welcomed.

Thanks to support of the pharmaceutical industry, WHO has a strategic global stockpile available of 3 million antiviral treatment courses which can be shipped to any international airport nearest to an affected area. WHO has also been working on guidance about how one can prepare countries to keep essential health services functional while coping with a pandemic. And OiE has developed "Performance, Vision and Strategy for National Veterinary Services", an instrument to guide the improvement of critical competencies of veterinary services.

(4) Communication, governance

Government representatives felt that communication awareness programmes should be adapted to local needs (e.g. the use of village veterinary workers in Kyrgyz Republic, and of religious leaders to disseminate messages about ways to reduce human exposure to avian influenza during Friday prayers in rural areas of Afghanistan). *Morten Giersing (UNICEF)* presented guidelines for drafting a communication plan and a framework for behaviour change communication planning named "CREATE", as well as a primer on communication for behaviour change and on media relations.

Government representatives indicated that the creation of intersectoral technical committees (with the participation of different Ministries and development partners) have contributed significantly to multisectoral cooperation. *Christina Carlson (UNDP)* highlighted 6 governance factors which can facilitate the successful implementation of influenza control plans: political commitment, management systems, strategic partnerships, information dissemination, sustainable livelihoods, and rapid response.

(5) Regional collaboration

Government representatives proposed the following initiatives to enhance regional collaboration:

- funds to strengthen laboratory and surveillance infrastructure at the regional level;
- arrangements for easy sharing of information and of virus strains;
- regional Website with country-specific disease outbreak alert information and with standard indicators used to monitor progress made with the operationalization of influenza preparedness and response plans;
- creation of a coordination committee/ technical advisory group comprised of representatives of the 10 countries participating in the "Regional Conference", responsible for regional strategy development, monitoring of progress made, which will be in close contact with a coordination mechanism established by the international donor community and international agencies in-country and region-wide;
- creation of three working groups comprised of representatives of the 10 countries participating in the "Regional Conference" (on [1] disease surveillance and early warning system, [2] laboratory capacity strengthening, [3] public communication, governance, involvement of society and private sector) which will draft activity plans to strengthen collaborative region-wide disease control and prevention efforts. Regular technical meetings should be organized to share experiences in specific fields of expertise (e.g. on the rapid compensation schemes for farmers whose poultry was culled as a control measure to contain the spreading of the virus).
- a new regional conference to be held tentatively in June 2007. It is proposed to request CAREC to facilitate communication between countries.

The latter three actions mentioned above are part of the "Almaty Declaration on Avian Influenza and the Threat of a Human Pandemic in CAREC-countries, the Russian Federation and Turkmenistan", a document on which country representatives reached consensus at the end of the Regional Conference.

Donor coordination

The outcome of a break-out session attended by officials from development partners was summarized by *Adriaan Van der Meer (European Commission).* These partners had called for strong donor coordination, and recognized that important efforts were undertaken with this regard while preparing for the Regional Conference. The agencies and institutions present at this break-out session included multilateral financial institutions (ADB, World Bank), multilateral and bilateral donor agencies (European Commission, USAID), as well as United Nations system and other international agencies providing technical expertise or support with coordination (ECDC, FAO, OIE, UNDP, UNICEF, UNSIC, WHO, US-CDC).

Development partners agreed that regional donor coordination should be facilitated by a secretariat, to be established with a long-terms perspective. A first donor coordination meeting had been proposed to be organized in Almaty. This secretariat should liaise with a regional technical advisory group.

One of the first tasks for donor coordination, is a.o. to make an inventory of externally funded projects that support action against influenza threats in the 10 countries with delegations attending the Regional Conference. Such a mapping exercise should help avoid duplication and identify complementarities. The resulting matrix of programmatic activities should include details on amount of funding, on geographic coverage, and on the estimated time needed for disbursement following submission of government request for assistance. This table should be used for gap analysis, where one should distinguish what type of regional-level support is needed when and where, as identified through a regional-level planning exercise.

Notes

1 3rd Joint EC/ECDC/WHO Workshop on Pandemic Influenza Preparedness, 15-17 May 2006, Uppsala, Sweden/ 52 country delegations of WHO European Region, including Azerbaijan, Kazakhstan, Kyrgyz Republic, Russian Federation, Tajikistan, Turkmenistan, and Uzbekistan.

2 Annual Meeting of Chief Veterinary Officers of the Commonwealth of Independent States (with participation of FAO and OiE), 28-29 May 2006, Tashkent, Uzbekistan/ targeting 12 CIS-member countries: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan and Ukraine.

3 Senior Officials' Meeting on Central Asia Regional Economic Cooperation (CAREC), 10-11 April 2006, Urumqi, PR China/ 8 CAREC-member countries: Afghanistan, Azerbaijan, Kazakhstan, Kyrgyz Republic, Mongolia, People's Republic of China (with focus on Xinjiang Uyghur Autonomous Region), Tajikistan, and Uzbekistan. The CAREC Program begun in 1997. It brings together 8 countries, and is also an alliance of 6 multilateral institutions. As of 2006, it is the primary mechanism for multilateral donor coordination throughout the region.

4 Intercountry Meeting on Avian Influenza and Preparedness for Human Pandemic Influenza; Cairo, Egypt, 28-30 November 2005/ with participation of 19 out of 22 member countries of WHO Eastern Mediterranean Region: Afghanistan, Bahrain, Djibouti, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Pakistan, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Emirates, Yemen.

5 ECO High Level Expert Group Meeting on Health focusing on Avian Influenza, Tehran, Iran, 12-13 March 2006/ 10 ECO member countries: Afghanistan, Azerbaijan, Iran, Kazakhstan, Kyrgyz Republic, Pakistan, Tajikistan, Turkey, Turkmenistan, Uzbekistan.

6 Intersectoral Approaches to Avian Influenza for Animal and Human Populations, Ankara, Turkey, 12-13 April 2006/ 7 country delegations: Armenia, Azerbaijan, Georgia, Iran, Iraq, Syria, Turkey.

7 A dramatic increase of infection of humans by animal virus strains (previously not detected in humans) was seen in recent years: at least 12 events of infection of humans with 5 different animal influenza strains since 2003, compared to only 7 such events in the period 1968 – 2002.

8 The increase of highly pathogenic H5N1 outbreaks seen in animals since 2004 is unprecedented, and even more so in the first half of 2006, counting more than 3000 infected foci by April 2006. By mid 2006, the H5N1 virus has affected more than 50 countries, an increase from only 15 (mainly South-East Asian) countries with H5N1 outbreaks reported in the period from 2003 to 2005. In some cases these outbreaks were confined to wild fowl, but in several the highly pathogenic H5N1 virus has been identified in domestic and commercial poultry.

9 As of end May 2006, 224 human cases of H5N1 influenza have been detected, of which 127 have been fatal. As of November 2005 the World Health Organization raised its global influenza alert to Pandemic Alert Phase 3, since a new influenza virus subtype has infected the human population, while no efficient onwards transmission from human to human occurs. Very limited transmission has been seen occasionally to very close contacts (relatives or nurses caring for infected patients), among clusters of human cases investigated in Indonesia, Thailand, Turkey, Azerbaijan, Iraq and Vietnam. WHO's influenza alert will be raised again as soon as increased human-to-human transmission has been demonstrated occurring either locally (Pandemic Alert Phases 4 and 5) or in a widespread and sustained manner in the general population (Pandemic Phase 6).

10 The revised International Health Regulations (IHR) will become legally binding on 15 June 2007. However, some countries are implementing already in 2006 the new IHR, starting with the identification of national focal points for IHR-notification.

11 In May 2006, CDC organized training in Tashkent for laboratory scientists of 3 Uzbekistan national level laboratories on quality assurance, and on the diagnosis of 4 dangerous pathogens (anthrax, Congo-Crimean haemorrhagic fever, plague, and tularemia).

12 By mid 2006, NAMRU-3 has supported influenza diagnosis training for about 25 laboratory scientists of the region in their national laboratories as well as at NAMRU-3 laboratory facilities (in Cairo, Egypt).

13 In June 2006, the Kazakhstan Republican Sanitary-Epidemiological Station (Almaty) and CDC have organized training with ADB-support on the laboratory diagnosis of influenza.

14 Cross-border disease information tracking systems operational in Central Asia and neighbouring countries include those supported by CDC, FAO, NAMRU-3 and WHO. The 10 countries attending the conference send data related to 5 high-priority diseases (poliomyelitis, measles, malaria, tuberculosis, HIV/AIDS) to 3 WHO-regional offices based in Cairo, Copenhagen, and Manila. CDC supports programmes to build surveillance capacity for tuberculosis, for HIV/AIDS and for 9 extremely dangerous pathogens, with staff based in Almaty, Beijing, Kabul and Tashkent. A regional programme for the control of transboundary animal diseases, supported by FAO, has staff based a.o. in Dushanbe, Kabul, Tashkent, Tehran (for regional coordination), and Rome (at FAO-HQ). NAMRU-3 has staff based in Kabul; its main office is in Cairo.

15 GLEWS links up GOARN (Global Oubreak Alert and Response Network created by WHO) with OiE and FAO supported information systems (such as those supported by the Global Framework for the Progressive Control of Transboundary Animal Diseases [GF-TAD]). Standard Operating Procedures for improved disease alert information tracking and sharing have been developed in the context of GLEWS. And in June 2006 OiE, FAO and WHO met in Paris to develop a work plan for GLEWS.

16 McNabb S, Chungong S, Ryan M et al. Conceptual framework of public health surveillance and action and its application in health sector reform. BMC Public Health 2002; **2**: 2 (9 pages, available from http://www.biomedcentral.com/1471-2458/2/2).

17 The "Kabul Declaration on Regional Collaboration in Health" (signed by 7 Ministers of Health at the end of a Regional Health Conference "Health for All, Health by All: Communicable Diseases Recognize no Borders"), recommends an "integrated approach" to control 6 high-priority communicable diseases, including avian influenza. This meeting, held in Kabul on 17-20 April 2006, was organized with support of WHO, USAID, and CDC. Three of the 10 countries attending the Almaty Regional Conference were present at the Kabul meeting: Afghanistan, Tajikistan, and Turkmenistan. The other 4 countries signing the Kabul Declaration were Iran, Iraq, Pakistan, and Turkey.