Operationalizing "One Health" A brief overview of the Stone Mountain meeting

BACKGROUND

In 2008, following up on policy initiatives that took place during the International Ministerial Conference on Avian and Pandemic Influenza held in New Delhi in December 2007, the three major international organizations charged with animal health and human health – the Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health (OIE), and the World Health Organization (WHO) – collaborated with the United Nations Children's Fund (UNICEF), the United Nations System for Influenza Coordinator, and the World Bank, to develop a joint strategic framework in response to the evolving risk of emerging and re-emerging infectious diseases. The document communicating this framework, *Contributing to One World, One Health* - A Strategic Framework for Reducing Risks of Infectious Diseases at the Animal–Human–Ecosystems Interface*, set out six specific inter-linked objectives for countries to consider in their approach to infectious disease control at the animal-human-ecosystem interface.

In March 2009, the Public Health Agency of Canada, hosted an expert consultation titled "One World, One Health: from ideas to action" in Winnipeg, Manitoba. The purpose of the consultation was to discuss the Strategic Framework and to identify and shape country-level recommended actions to globally advance the framework. Participants recommended the development of supra-country approaches that use multidisciplinary/trans-disciplinary methods in addition to trans-boundary/regional approaches to integrate efforts. In her closing remarks, Danielle Grondin of the Public Health Agency of Canada, noted that because the political economic agenda is the priority of world leaders today, "One Health" principles need to be translated into language that is relevant to finance ministers.

STONE MOUNTAIN MEETING

All parties involved recognized the important information that came out of the Winnipeg meeting, and to move the concept of One Health forward, a follow up meeting was necessary to define specific action steps. Therefore, the U.S. Centers for Disease Control and Prevention (CDC), in collaboration with OIE, FAO and WHO, hosted subsequent expert consultations titled *Operationalizing "One Health": A Policy Perspective – Taking Stock and Shaping an Implementation Roadmap* in May, 2010 in Stone Mountain, Georgia, USA. This meeting brought together a select group of leaders, including specialists from national Ministries of Health and Agriculture, the European Commission, the United Nations, the World Bank, and other diverse institutions from the academic, policy and economic sectors, to contribute their expertise and experience to the discussion. The 54 participants reviewed progress to date in terms of leading practices related to "One Health" and identified key policy decisions and financial commitments necessary to support sustainability and expansion.

To provide background for participants, the meeting began with a series of presentations on recent One Health events, followed by short panel presentations and in-depth discussions where speakers described their own experience in advancing the concept of One Health within their sector and/or

country. The first three sessions focused on the economic benefits and drivers of a "One Health" Approach, and presented successful examples of "One Health" implementation at the national level and within other sectors (professional, NGO, international and academia).

A specific goal of this meeting was to develop sustainable inter-sectoral collaboration at international, regional, national, and sub-national levels by identifying concrete opportunities for implementing One Health strategies and recognizing key barriers and possible options for overcoming these barriers. To achieve this, participants were asked to identify successful examples of behavior change and political will that demonstrate implementation of "One Health". They were then asked to draw on these successes to develop specific strategies that governments and the health community can use to engage a range of stakeholders to implement sustainable "One Health" approaches in their country. Participants were also asked to build upon the successes and lessons learned from the response to influenza H5N1, pandemic (H1N1) 2009, and other emerging diseases.

The group recognized that comprehensive operationalization of One Health involved changes on a long term time scale. In small groups, however, participants were asked to discuss a vision of what One Health should look like globally in the next three to five years. In the plenary session, the following points were identified and agreed upon for a common vision of One Health:

- **Culture change** appreciation for the importance of the connection between humans, animals and ecosystems;
- **Increased visibility** evidence-based recognition of the value added by operationalizing the One Health approach in preventing, detecting and controlling diseases that impact both humans and animals;
- Designated funding to support interdisciplinary collaborative programs;
- **Improved coordination** inter-sectoral collaboration in surveillance, communications, outbreak response and sample sharing.

The participants were then tasked to identify "critical enabling initiatives" that will further attainment of the three to five year goals, and that are feasible for completion over the next 18 months. Of the more than 20 nominated critical initiatives, seven key activities were selected as fundamental to moving forward the One Health agenda in order to reach the three to five year vision. Seven workgroups were then formed to collaboratively develop and implement the key activities:

- 1. **Training:** Develop and build skills, expertise, and competencies through a One Health training curriculum and identify opportunities to integrate One Health approaches into existing curricula.
- 2. **One Health Global Network (OHGN):** Advocate and garner international support for One Health through a network that serves as a vehicle for further global collaboration on One Health programs and projects.
- 3. **Information Clearing House:** Promote One Health advocacy through a centralized area where One Health success stories are gathered and made available to a wide-ranging audience.
- 4. **Needs Assessment:** Develop country level self-assessment methods to identify programmatic areas that could benefit from a One Health approach and areas for targeting improvement.

- 5. **Capacity Building:** Identifying ways to leverage existing programs and capacity-building efforts in order to have a major impact at very little cost.
- 6. **Proof of Concept:** Demonstrate through a retrospective and prospective evidence base that the use of One Health interventions leads to better cross-species health outcomes.
- 7. **Business Plan:** Articulate the subject area of One Health more clearly and present it to policy-makers and donors at the global level.

Each group was asked to develop One Health plans and partnerships that would occur within a designated timeframe. The groups presented the results from their discussions and fielded questions from the larger group, who provided their opinions and suggestions to help strengthen the ideas of each workgroup. These workgroups will convene and continue their development process via teleconference to finalize their action plans and carry out activities. The following is a brief summary of the seven workgroups, listing each group's members and describing their goals and objectives, steps for implementation and timelines:

WORKGROUP SUMMARY

WORKGROUP 1: TRAINING

Leader: Joe Annelli, USDA Leader: Kira Christian, CDC/CGH

Brian Bedard, World Bank Jean Kamanzi, World Bank

Richard Kock, The Zoological Society of London

Malika Kachani, Western University

Sayoki Mfinanga, Nat'l Institute for Medical Research

Laura Kahn, Princeton University

Joanne Cono, CDC/OID Peter Daszak, Wildlife Trust Jason Thomas, HHS/OGHA Katey Pelican, *University of Minnesota* Gyanendra Gongal, *WHO/SEARO*

Victoria McGovern, Burroughs Wellcome Fund

John McDermott, *ILRI*Esther Schelling, *SwissTPH*Carol Rubin, *CDC/NCEZID*Raymond Dugas, *PAHO*

Manish Kakkar, Public Health Foundation of India

Patrick Otto, FAO

Peter Rabinowitz, Yale University
Lonnie King, The Ohio State University

GOALS/OBJECTIVES: To develop and build skills, expertise, and competencies through a One Health training curriculum for various target audiences (from students to politicians) in order to define the One Health leader and worker capable of planning and implementing One Health activities.

Training will be provided at the following levels: orientation, operational, proficient, practitioner and leader. Using a pre-designed metric to develop the scope of the project, the group will select an initial target audience (e.g. who will be trained); define where this training will be delivered; determine the critical needs/outcomes (e.g. locate the next generation of leaders in the area, what skills would they need to have); and define the depth of knowledge and the length of time required depending on training level.

TIMELINE:

August 1, 2010 Complete initial • Have curriculum Develop Pilot curriculum in limited curriculum communication reviewed number of locations strategy to launch Identify funding internationally Use feedback from program on broader sources reviews/pilot programs to scale improve materials

WORKGROUP 2: ONE HEALTH GLOBAL NETWORK (OHGN)/PARTNERSHIP

Leader: Alain Vandersmissen, European

Commission

Leader: Chantal Symoens, European CommissionPeter Black, Australian Dept. of Agriculture, Fisheries

and Forestry John McDermott, ILRI Liz Mumford, WHO

Steve Morse, Columbia University
Jian Du, Ministry of Agriculture, China
John MacKenzie, WHO-GOARN
Gyanandra Gongal, WHO/SEARO

Gyanendra Gongal, WHO/SEARO Peter Daszak, Wildlife Trust

Karin Nygard, Norwegian Institute of Public Health

Joe Annelli, USDA

Manish Kakkar, Public Health Foundation of India

Raymond Dugas, *PAHO* Kira Christian, *CDC/CGH* Josef Schmidhuber, *FAO* Jan Slingenbergh, *FAO* Ali Khan, *CDC/NCEZID*

Roland Suluku, Animal Health Clubs

Simone Magnino, WHO
Tracee Treadwell, CDC/NCEZID
Tracey McNamara, Western University

Joanne Cono, CDC/OID

Laura Kahn, Princeton University

GOALS/OBJECTIVES: To advocate and garner international support for One Health through a network that serves as a vehicle for further global collaboration on One Health programs and projects and provides an efficient method for the collection and dissemination of information. The OHGN will be a virtual umbrella coordinating body for One Health leadership and advocacy, with a level of membership that will include all stakeholders and countries.

This network will be composed of global professionals representing their individual institutions - whether public or private - rather than participating in a personal capacity, in order to maintain a sense of credibility to the information exchanged through the network. Criteria for selection will be based on expertise and experience in One Health, networking and coordination skills, availability and willingness to participate. Initially, the expectation will be to get the network functioning, and then focus on adding to the membership as it gathers momentum. Similar to the avian influenza response, communication will be based mainly on an electronic system, with occasional in-person meetings when possible.

A Virtual Coordination Team can be permanently active electronically to serve as a neutral group, or advisory board, which will represent all One Health professional sectors (up to 10 persons) acting in their expert capacity.

May	Mid-September	End September	October	December	
2010	2010	2010	2010	2010	
•Identify members of Virtual Coordination Team	 Coordination group is operational Charter/Mission statement and communication plan in place 	 Network is operational Finalize member criteria and membership request process 	 Send participation request to potential members 	 First 20 members are active and contributing 	

WORKGROUP 3: INFORMATION CLEARING HOUSE

Leader: Tracey McNamara, Western University Raymond Dugas, PAHO

Leader: Jesus Lopez-Macedo, UNICEF Chantal Symoens, European Commission

John O'Connor, CDC/NCEZID Nancy Cox, CDC/NCIRD Katey Pelican, University of Minnesota Liz Mumford, WHO

Joe Annelli, USDA Alain Vandersmissen, European Commission

GOALS/OBJECTIVES: To promote One Health advocacy and enable trans-disciplinary and trans-boundary connectivity through the creation of a centralized area where One Health success stories are gathered and made available to a wide-ranging audience. This clearing house will include past and on-going One Health programs, results, partners and other pertinent information.

This group will help establish or identify a portal for One Health information in order to provide broader One Health connectivity. As a neutral portal website, existing websites will have the ability to link to the site to share their One Health related programs and information. UNICEF offered to support the creation of a neutral space, without making it a UNICEF branded website. As a result of the overlap between the Information Clearing House Group and the Global Network group, the OHGN could potentially serve as the websites managing body.

TIMELINE:

May 2010 November 2010 May 2011

- Create working group (collaborate with OHGN)
- Establish home for portal website
- Identify/collect data: success stories, lessons learned, reports, meetings, etc.
- Synthesise/analyze data to identify gaps in information and One Health sucesses
- Publicize and brand website
- Identify other websites to link to in order to provide information from international and federal agencies
- Identify means to communicate

WORKGROUP 4: COUNTRY LEVEL NEEDS ASSESSMENT

Leader: ???

Esther Schelling, SwissTPH
John McDermott, ILRI
Peter Black, Australian Dept. of Agriculture, Fisheries

and Forestry
Kate Glynn, OIE

Jean Kamanzi, *World Bank* Nicoline De Haan, *FAO*

Manish Kakkar, Public Health Foundation of India

Raymond Dugas, *PAHO*Carol Rubin, *CDC/NCEZID*James Zingeser, *FAO*

GOALS/OBJECTIVES: To develop country level self-assessment methods to identify programmatic areas that could benefit from a One Health approach and areas for targeting improvement. These assessments would focus on the level of threats/risk of new disease emergence and the fragility or weakness of existing systems within individual countries to encourage policy makers to incorporate a One Health approach while developing nation-wide activities and setting priorities.

An expert working group will develop a process, including pre-assessment methods and tools, where a country could request participation in a needs-assessment to determine where and how One Health approaches could lead to real benefits in their country's context. Initially, a pilot program will be established to inform assessment development and test implementation. External facilitators (e.g., initially the expert working group) will help countries identify members for their in-country team, or steering committee (i.e., government, NGO, private sector, etc.), to be involved in long-term implementation. After the completion of the pilot program in several countries, results will be evaluated and the assessments will be revised in order to develop the standardized tools. Countries will submit a formal assessment request and have complete ownership over all the results so the process will not be seen as obligatory, or forced upon them.

May 2010	November 2010	February 2011	November 2011
 Identify/develop expert working group and intersectoral leadership of activity 	Ouput from working groupEngagement with countries	Pilot Program	Complete assessment pilotsUse results to develop standardized tools

WORKGROUP 5: CAPACITY BUILDING (LEVERAGING EXISTING PROGRAMS)

Leader: Katey Pelican, University of Minnesota

Alex Thiermann, *OIE*Nancy Cox, *CDC/NCIRD*Victoria McGovern, *Burrough*

Victoria McGovern, Burroughs Wellcome Fund William Karesh, Wildlife Conservation Society

Peter Daszak, Wildlife Trust Jason Thomas, HHS/OGHA John O'Connor, CDC/NCEZID Gyanendra Gongal, WHO/SEARO John MacKenzie, WHO/GOARN Joe Annelli, USDA

Jaap Wagenaar, Utrecht University

John McDermott, ILRI

GOALS/OBJECTIVES: To raise awareness and expand engagement in the One Health concept by identifying ways to leverage existing programs and capacity-building efforts in order to have a major impact at very little cost.

This five-part approach would include developing a cross-sectoral capacity building plan with individual countries; coordinating OIE/IHR focal points that already exist, enhancing training activities, engaging academia in the promotion of One Health and ensuring One Health is a major component of the zoonotic disease portion of the 2011-2014 strategy document for the Asia-Pacific Strategy for Emerging Disease .

TRAINING:

May 2010

- Develop working group
- Develop scope of work
- Review OIE courses for One Health content, create open content

November 2010

- Identify 2-3 countries with human/animal health assessments.
 Hold stakeholder meetings to develop capacity building plan with prioritization of country needs
- Identify/inventory existing One Health training materials and programs
- Pilot project involving ecosystem/wildlife professionals in FETP type program.
- Develop One Health course as proof of concept to present at academic meetings, show value

May 2011

- Develop cross-sector training and networking workshops
- Develop One Health continuing education module

WORKGROUP 6: PROOF OF CONCEPT

Leader: Malika Kachani, Western University

Peter Rabinowitz, Yale University
Rob Wallace, University of Minnesota

Sayoki Mfinanga, National Institute for Medical

Richard Kock, The Zoological Society of London

James Zingeser, FAO Nicoline De Haan, FAO Patrick Otto, FAO
Raymond Dugas, PAHO
Carol Rubin, CDC/NCEZID
Jason Thomas, HHS/OGHA
Peter Daszak, Wildlife Trust
John McDermott, ILRI

Katey Pelican, *University of Minnesota*Jacque Fletcher, *University of Oklahoma*

GOALS/OBJECTIVES: To demonstrate through a retrospective and prospective evidence base that the use of One Health interventions lead to better cross-species health outcomes than comparable health care systems that do not utilize One Health concepts.

This group will conduct a series of studies, both retrospective and prospective, that will provide a holistic examination of One Health and its various applications throughout history up through present day and into the future. These studies will look closely at high-risk communities and provide evidence-based information describing why One Health approaches are more effective, efficient and beneficial to improving animal and human health. A demonstration project that focuses prospectively was suggested. This project would include a baseline and metrics to reveal whether disease was reduced, thereby validating the proof of concept.

May 2010	June 2010	November 2010	February 2011	May 2011
 Set hypothesis Define parameters and criteria for all studies 	• Conduct literature review for retrospective study	 Select studies for meta-analysis Start collecting data and planning prospective study; formulate hypothesis 	 Conduct meta- analysis Finish prospective study plan, include selection of study populations 	 Prepare and submit manuscript Use results, lessons learned from retro. study to refine prospective study design and plan.

WORKGROUP 7: BUSINESS PLAN

Leader: Jan Slingenbergh, FAOJonathan Rushton, Royal Veterinary UniversityLeader: Josef Schmidhuber, FAOAli Khan, CDC/NCEZIDJean Kamanzi, World BankJohn O'Connor, CDC/NCEZIDNicoline De Haan, FAOKate Glynn, OIE

GOALS/OBJECTIVES: To articulate the subject area of One Health more clearly and present it to policymakers and donors at global level.

This group will define the overall importance of One Health and use that to create a strategy investment document, or socio-economic framework, that clearly defines the general concepts of One Health, addressing the proof of concept and the socio-economic impact. A communication strategy will also be developed to identify the various stages at which material could be presented to donors and policy makers to ensure understanding of direction and garner support.

June 2010	December 2010	May 2011
Develop seperate concept notes for donor community and	 Develop strategy investment document 	•Individual investment projects
policy makers	 Develop communication document 	

OVERALL TIMELINE

May – August, 2010

- Initial curriculum is complete and funding sources identified for the One Health training program.
- Members of the One Health Global Network's (OHGN) Virtual Coordination Team are identified
- Working group for the Information Clearing House group is created and collaborating with the OHGN
- Home for information clearing house portal website is established
- Process to identify expert working group and inter-sectoral leadership of activity are identified and developed for needs assessment activities.
- Working group and scope of work for capacity building activities are developed
- OIE courses are reviewed for One Health content to build capacity by leveraging existing programs
- To demonstrate the proof of concept, parameters and criteria are defined for all studies. A hypothesis is set and a literature review is conducted for the retrospective study.
- Separate concept notes for donor community and policy makers are developed

September-December, 2010

- Training curriculum is reviewed internationally
- OHGN's Virtual Coordination group is operational with a charter/mission statement and communication plan in place
- OHGN becomes operational. Membership criteria and process for requesting membership are finalized. Requests to participate are sent to potential members and the first 20 members are active and contributing.
- Data are identified and collected for the information clearing house website, including success stories, lessons learned, reports, meetings, etc. Data are synthesized and analyzed to identify gaps in programs and One Health successes.
- The initial development process for the needs assessment is initiated and the countries propose to host the pilot projects are approached.
- For the capacity building group, (1) two to three countries that have conducted human/animal health assessments are identified. A stakeholder meeting is held with these countries to develop a capacity building plan with prioritization of country needs. (2) Existing One Health training materials and programs are identified and inventoried. (3) Project involving ecosystem/wildlife professionals in FETP type program is piloted. (4) One Health course developed as proof of concept to present at academic meetings.
- Studies are selected for the proof of concept meta-analysis. A hypothesis is formed and data are collected for the prospective study.
- Investment strategy and communication documents are developed for the business plan

January-June, 2011

- First needs assessment pilot program is conducted
- To build capacity, cross-sector training/networking workshops and One Health continuing education modules are developed.

- Meta-analysis for the proof of concept is completed and the prospective study plan is finalized.
 Manuscripts for peer review journals are prepared and submitted. Results and lessons learned gleaned from the retrospective study are used to refine the prospective study design and plan.
- Individual investment projects are designed and proposed to donors and policy makers
- Training curriculum is piloted in a limited number of locations, using feedback from reviews of the pilot to improve future training materials.
- Portal website is branded and publicized. Other international and federal agency websites are identified and invited to add a link to increase the amount of One Health information available.

July - December, 2011

- A communication strategy to launch the One Health training program on a broader scale is developed
- Two needs assessment pilots are completed and process to evaluate results and potentially develop standardized tools are initiated