MEASURING PROGRESS AND PROGRESS IN MEASUREMENT

Strengthening M&E Systems for Avian and Pandemic Influenza Programs in Southeast Asia, 2006–2014

End of Activity Report

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Preface

MEASURE Evaluation is pleased to submit this end-of-activity report for our work in strengthening monitoring and evaluation (M&E) systems for avian and pandemic influenza (API) programs in Southeast Asia. We have supported the U.S. Agency for International Development's (USAID) Regional Development Mission in Asia (RDMA) since 2006 in its efforts to develop regional M&E standards, support the establishment of country-level M&E systems, build capacity for API M&E at provincial and district levels, and generate lessons learned to inform API efforts in other regions.

MEASURE Evaluation is the USAID Global Health Bureau's primary vehicle for supporting improvements in monitoring and evaluation in population, health, and nutrition worldwide. We help to identify data needs, collect and analyze technically sound data, and use that data for health decision making. This report details our results and accomplishments, as well as lessons learned, from our regional API activities from 2006–2014.

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1. INTRODUCTION

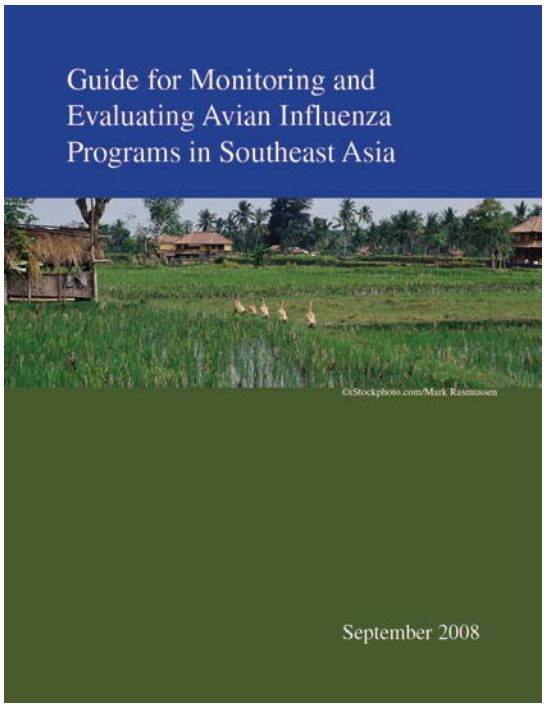
The avian disease Highly Pathogenic Avian Influenza H5N1 (HPAI H5N1) emerged in Vietnam in late 2003 as a significant pandemic threat.[1] By 2004, the disease had rapidly spread throughout the region, resulting in human fatalities. The global community responded in 2006 through an international pledging conference in Beijing, China, which raised pledges of $4.3 billion for the global response effort. The United States constituted the largest donor in this effort and mobilized important resources, particularly in Southeast Asia, which was the epicenter of the disease. National governments in the region established new avian and pandemic influenza (API) programs, which brought together for the first time animal and human health officials to address the challenges posed by this virus. From 2006–2014, national governments in the region made enormous strides in developing national plans, establishing integrated coordinating bodies, fostering coordination between animal and human health sectors, and implementing broad disease control measures. A strong focus in laboratory strengthening dominated these early efforts, with the result that laboratories in the region gained new capacity for the diagnosis of HPAI H5N1. New surveillance methods, including integrated community-based surveillance, were piloted and tested throughout the region. As a complement to the work in HPAI, USAID established an Emerging Pandemic Threats (EPT) program to preempt and combat other diseases that could spark pandemics. The program focuses on four main regions, including the Mekong region and other "hot spots" in Southeast Asia.

Throughout this period, MEASURE Evaluation has worked in tandem with programs to establish and strengthen M&E systems for this evolving field. Regionally, we developed frameworks and standards for newly established programs through the *Guide for Monitoring and Evaluating Avian Influenza Programs in Southeast Asia.* In Vietnam, we supported the Government of Vietnam's Partnership for Avian and Human Influenza (PAHI) in the development and implementation of the national avian and human influenza (AHI) M&E framework and in the development of an HPAI and EPT Performance Management Plan (PMP). In Lao PDR, we delivered training on fundamental M&E concepts to API program managers at central and provincial levels. We also worked closely with USAID's Regional Development Mission in Asia (RDMA) to support monitoring and evaluation of USAID's own regional portfolio of API activities by developing two PMPs, standardized data reporting forms, and data storage and analysis tools. The tools and approaches in this region spurred important API M&E efforts in countries outside of SE Asia.

[1] The disease is first known to have crossed the animal-human barrier in Hong Kong in 1997, infecting 18 people; however, the outbreak was contained effectively by health officials, and the virus was not detected again until 2003 in Vietnam.

2. RESULTS AND ACCOMPLISHMENTS

2.1 Regional Guide for Monitoring and Evaluating Avian Influenza Programs in Southeast Asia



In 2006, newly established national API programs had an urgent need for M&E guidance and standardized frameworks for assessing progress at sub-national, national, and regional levels. In recognition of this need, RDMA requested MEASURE Evaluation's assistance in the development of a regional guide to provide standard M&E terminology for avian influenza (AI) indicators and information systems. The use of standard indicators facilitates data aggregation and provides information for consistent national, regional, and global-level monitoring of progress for AI programs. Because the understanding of the disease was still evolving, the guide needed to allow for adaptation as new programs and interventions come into place.

MEASURE Evaluation responded by establishing a technical working group consisting of international and regional experts from the U.N. Food and Agriculture Organization (FAO), the U.N. System Influenza Coordination (UNSIC), the U.N. Children's Fund (UNICEF), the World Health Organization (WHO), USAID, Abt Associates, the Academy for Educational Development (AED), and the Centers for Disease Control and Prevention (CDC), which met in June, August, and October 2006 to develop the logical framework and propose a set of indicators. The indicators were further refined in dialog with regional technical experts, country-level program managers, and officials from the ministries of health and agriculture from countries across the region.

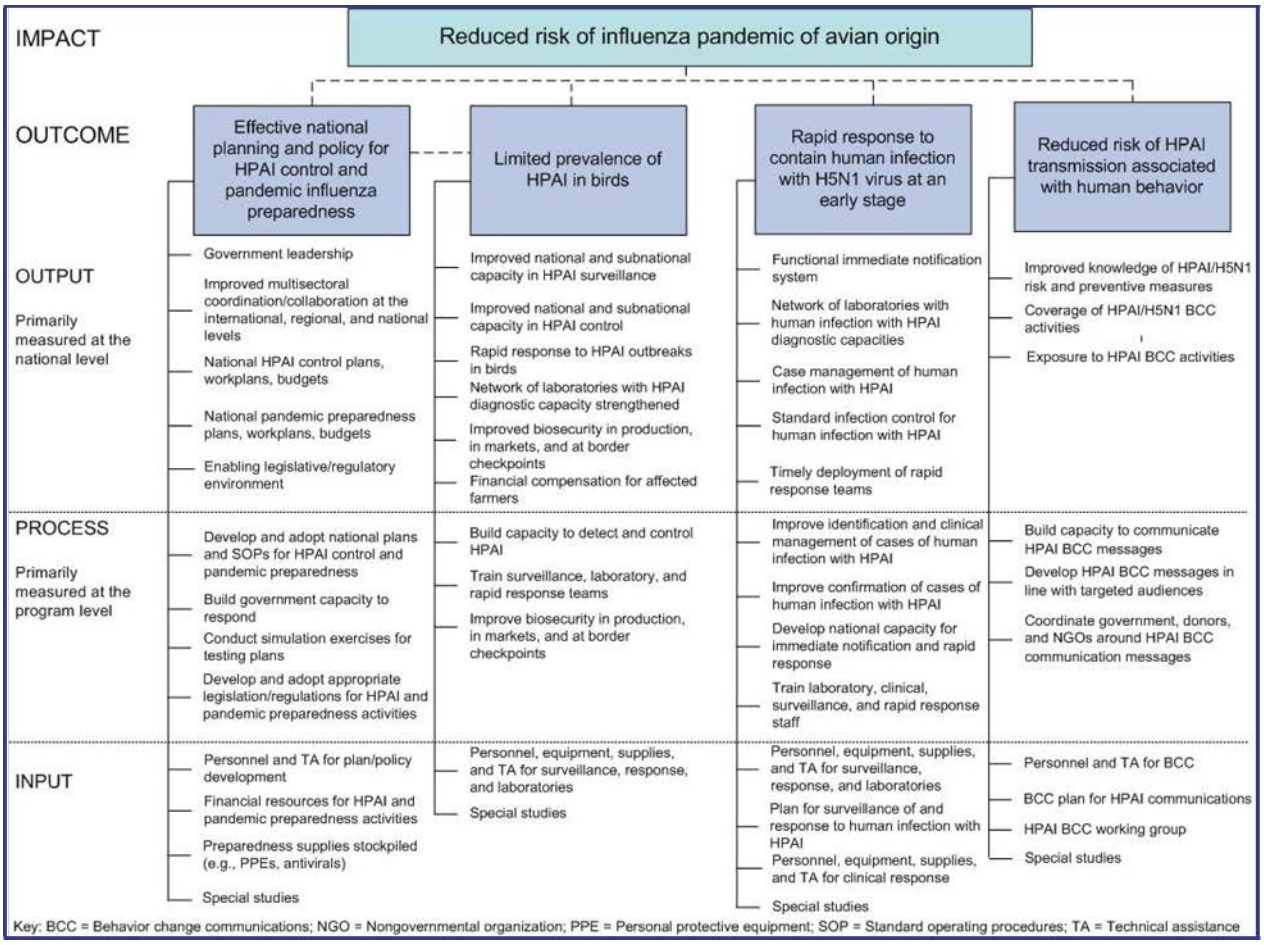


Exhibit 1. Logical framework

Countries in the region vary widely in their experience with the disease and their ability to harness existing public health and veterinary infrastructures to prevent and control outbreaks. In January 2007, MEASURE Evaluation convened meetings and workshops with government officials in three countries (Thailand, Vietnam, and Lao PDR) to assess the utility of the proposed M&E indicators and the feasibility of data collection. The meetings and workshops revealed a wide spectrum of national experiences with AI programming. To ensure that the *Guide for Monitoring and Evaluating Avian Influenza Programs in Southeast Asia* responds across this spectrum, the document recommends a set of core and additional indicators. Countries can select the indicators that are the most applicable for their national context.

> The full Guide has been downloaded 3,819 times from the MEASURE Evaluation Web site since its release.

Because no global standard for M&E of AI programs existed, many of the indicators in the guide were newly developed, with extensive input from technical experts involved in global, regional, and national-level programs. The guide originally was released in June 2007 as a working draft to respond quickly to the increasing demands for M&E guidance in the region. The interim release provided the opportunity for organizations working in the field to review, test, and provide feedback, which resulted in an extensively revised final version released in June 2008.

2.2 RDMA API Performance Management Plan (PMP)

In January 2007, MEASURE Evaluation assisted USAID/RDMA in the establishment of a PMP for its API program for the period 2008–2010. MEASURE Evaluation staff engaged in consultative meetings with key program staff and drafted a PMP that detailed a regional results framework, associated indicators, and data sources. Many of the indicators and data sources were informed by the concurrent development of the regional *M&E Guide for Southeast Asia*. The USAID's Office of the Inspector General, in its audit of USAID's global avian influenza activities in June 2007,[2] highlighted the development process for the regional framework as "noteworthy."

Following the development of the PMP, MEASURE Evaluation developed and maintained a program management database to store, aggregate, and generate reports on indicators for projects in RDMA's API portfolio. The database assisted in the management and analysis of data across multiple partners and countries. It included a number of automated features that strengthened data quality and generated reports on indicators aggregated by country, partner, and region. The database also provided a streamlined interface for reporting on both the indicators for USAID/Washington's Global API Framework and for the regional indicators from the PMP.

In the 2 years following the development of the 2007 PMP, significant changes occurred in the epidemiology of the disease, the available funding for API activities, and the knowledge base for effective interventions. In addition, the indicators, which were newly developed in 2007, had now been in use for multiple rounds of data collection in a number of countries in the region. As a result, RDMA felt the need for a revised PMP to reflect both changes in programmatic orientation and advances in the field of M&E for API programs.

MEASURE Evaluation led collaborative efforts for the development of the revised PMP, focusing particularly on the next generation of indicators. Project staff convened two workshops, in September 2009 and September 2010, to gather input for the development of the plan. Since 2007, many of the implementing partners had developed project-level M&E plans, allowing monitoring of some of the immediate output-level indicators from the 2007 PMP through project-level reporting. This achievement allowed the results framework and monitoring plan for the revised PMP to focus more strongly on intermediate and longer-term results.

Working with WHO, FAO, AED, USAID/RDMA, and the Kenan Institute Asia, MEASURE Evaluation produced the revised PMP. The PMP, finalized in May 2011, details activities and results that are expected for 2011 through 2015. It describes the current epidemiology of the disease in both animals and humans in the region and gives an overview of USAID's response. The document outlines a results framework for organizing the portfolio of activities managed by RDMA and identifies a monitoring plan, including relevant indicators for program management. Changes since the 2007 RDMA API PMP included an increased focus on cross-border surveillance and response activities, the expansion of

[2] USAID. Office of the Inspector General. Audit of USAID's Avian Influenza Efforts. (Report No. 9-000-07-0007-P). June 2007.

program interventions from farms to all components of the poultry production and marketing chain (particularly live bird markets and slaughter points), the use of strengthened active surveillance data, and the entering into force of the International Health Regulations (2005).

MEASURE Evaluation developed data collection forms to facilitate standardized annual partner reporting under the PMP framework. The Microsoft Excel-based data collection forms were tailored to the reporting requirements of each partner and contained standard data quality checks to catch issues prior to data submission.

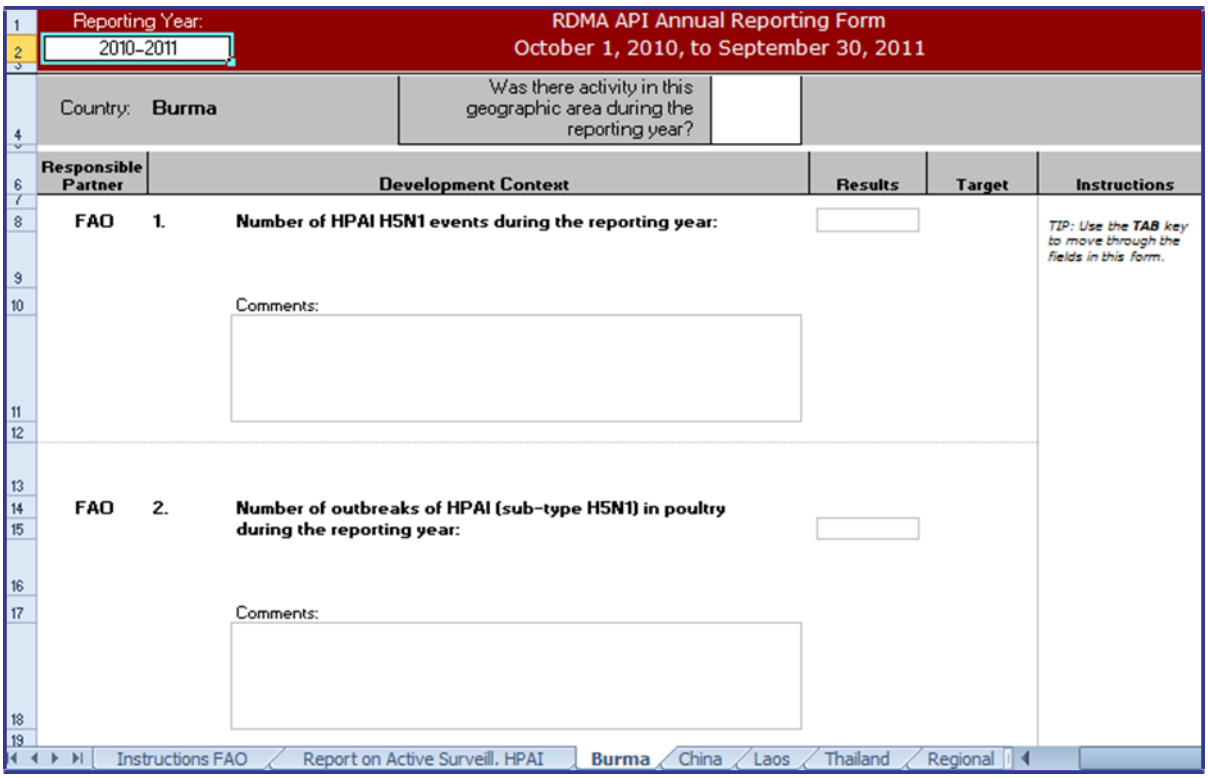
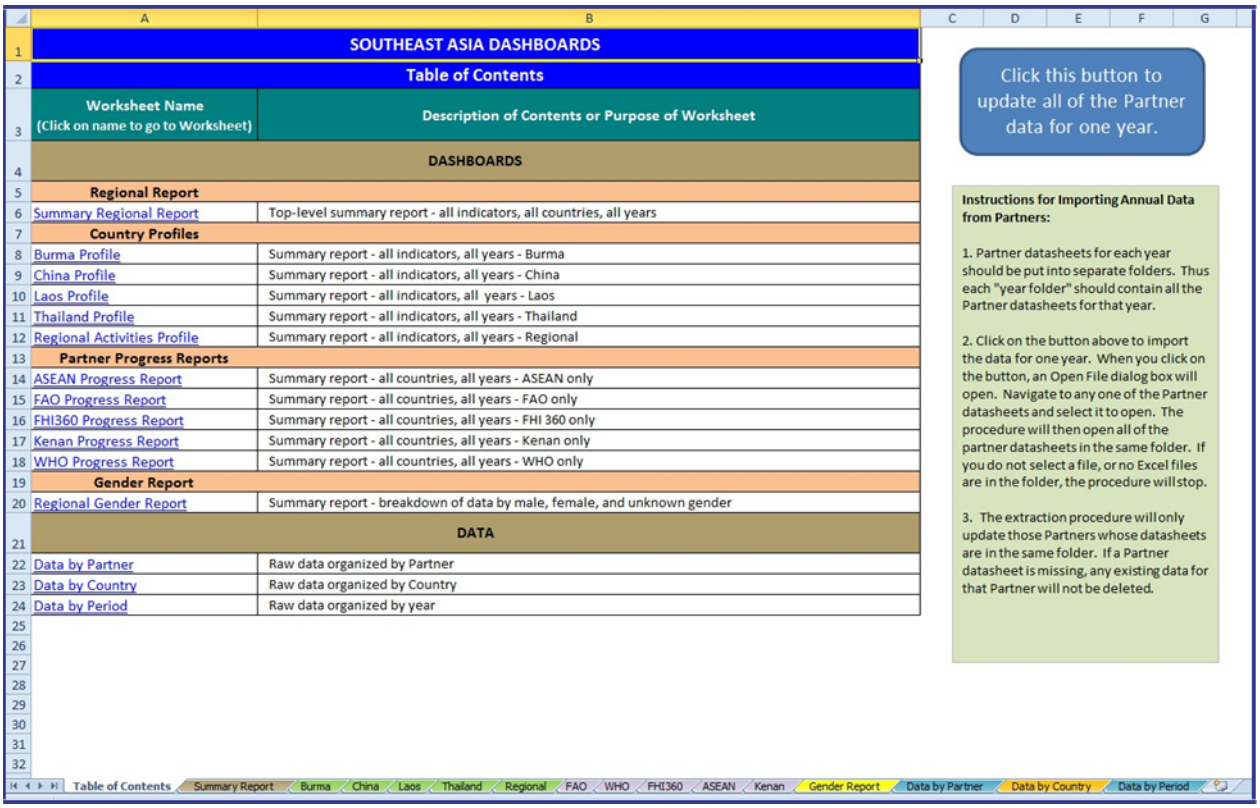

Reporting Year:
2010–2011
RDMA API Annual Reporting Form
October 1, 2010, to September 30, 2011
Country: Burma
Was there activity in this geographic area during the reporting year?
Responsible Partner | Development Context | Results | Target | Instructions
FAO 1. Number of HPAI H5N1 events during the reporting year:
Comments:
TIP: Use the TAB key to move through the fields in this form.
FAO 2. Number of outbreaks of HPAI (sub-type H5N1) in poultry during the reporting year:
Comments:
Instructions FAO | Report on Active Surveill. HPAI | Burma | China | Laos | Thailand | Regional

Exhibit 2. RDMA API annual reporting form

The project developed a corresponding MS Excel-based data storage and dashboard tool for the mission to use in analyzing and reporting out performance data. The data storage and dashboard tool provides an automated data import from the partner forms, stores the numeric data, and presents the data in the form of dashboards. The dashboards were designed to foster greater use of the data for programmatic decision-making than the data storage and reporting tools developed earlier.



SOUTHEAST ASIA DASHBOARDS

Table of Contents

Worksheet Name (Click on name to go to Worksheet)	Description of Contents or Purpose of Worksheet
DASHBOARDS	
Regional Report	
Summary Regional Report	Top-level summary report - all indicators, all countries, all years
Country Profiles	
Burma Profile	Summary report - all indicators, all years - Burma
China Profile	Summary report - all indicators, all years - China
Laos Profile	Summary report - all indicators, all years - Laos
Thailand Profile	Summary report - all indicators, all years - Thailand
Regional Activities Profile	Summary report - all indicators, all years - Regional
Partner Progress Reports	
ASEAN Progress Report	Summary report - all countries, all years - ASEAN only
FAO Progress Report	Summary report - all countries, all years - FAO only
FHI360 Progress Report	Summary report - all countries, all years - FHI 360 only
Kenan Progress Report	Summary report - all countries, all years - Kenan only
WHO Progress Report	Summary report - all countries, all years - WHO only
Gender Report	
Regional Gender Report	Summary report - breakdown of data by male, female, and unknown gender
DATA	
Data by Partner	Raw data organized by Partner
Data by Country	Raw data organized by Country
Data by Period	Raw data organized by year

Click this button to update all of the Partner data for one year.

Instructions for Importing Annual Data from Partners:

1. Partner datasheets for each year should be put into separate folders. Thus each "year folder" should contain all the Partner datasheets for that year.

2. Click on the button above to import the data for one year. When you click on the button, an Open File dialog box will open. Navigate to any one of the Partner datasheets and select it to open. The procedure will then open all of the partner datasheets in the same folder. If you do not select a file, or no Excel files are in the folder, the procedure will stop.

3. The extraction procedure will only update those Partners whose datasheets are in the same folder. If a Partner datasheet is missing, any existing data for that Partner will not be deleted.

Table of Contents | Summary Report | Burma | China | Laos | Thailand | Regional | FAO | WHO | FHI360 | ASEAN | Kenan | Gender Report | Data by Partner | Data by Country | Data by Period

Exhibit 3. RDMA AI data dashboard

2.3 Capacity Building in Lao PDR: Support to Provincial-Level M&E

MEASURE Evaluation, in collaboration with the National Emerging Infectious Disease Coordinating Office (NEIDCO) of the Government of Lao PDR (GoL), provided a 5-day training course, the Fundamentals of Monitoring and Evaluation of Avian Influenza Programs, from September 28–October 2, 2009, in Vientiane, Lao PDR. The training course was attended by 44 participants, including representatives from the agriculture and health sectors for each of the 17 provinces of Lao PDR. In addition, representatives from key central government offices attended, including staff from the Curative and Preventive Medicine Departments of the Ministry of Health, the National Centre for Laboratory and Epidemiology, the Department of Livestock and Fishery, and the National Animal Health Centre.

The purpose of the training course was to strengthen provincial- and central-level monitoring and evaluation capacity for staff involved in implementing API programs under GoL's National Avian Influenza Control and Pandemic Preparedness Plan (i.e., the National Plan). The training provided participants with basic M&E vocabulary and enabled them to understand M&E workplan development, indicators, data quality, data analysis, and use in the context of API activities.

Exhibit 4. Participants sharing group M&E frameworks developed during the training

The 5-day course curriculum was adapted from MEASURE Evaluation's Fundamentals of M&E for HIV/AIDS Programs. The training in Lao PDR was the first time that the adapted curriculum was used. In addition, this was the first time that the Fundamentals of M&E curriculum was taught in translation. The training course was well received by participants, and the majority of participants indicated that they would recommend the course to a colleague and that they now had a strong understanding of the importance of M&E in the program. Feedback from the training was used to revise the training materials and make them available for use on the MEASURE Evaluation website for others interested in replicating the training. To date, the online training materials have been accessed and downloaded over 6,800 times.

2.4 Establishing a National M&E System in Vietnam

As part of the regional portfolio under USAID/RDMA, MEASURE Evaluation provided technical assistance to the Government of Vietnam's PAHI in the development of an M&E strategy for the national AHI program. Vietnam's overall AHI response was initially outlined in the National Pandemic Preparedness Plan and National Integrated Operational Programme on AHI (i.e., the Green Book), with an estimated cost of $250 million for the period 2006–2010. The overall objective of the program from 2006 to 2010 was to reduce the health risk to humans from avian influenza by controlling the disease at source in domestic poultry, by early detection and response to human cases, and by preparing for the medical consequences of a human pandemic. The purpose of the framework was to build on and enhance existing AHI monitoring mechanisms in order to support effective decision-making by national authorities and their international partners.

MEASURE Evaluation staff members provided materials for workshops convened by PAHI and traveled to the region to finalize the indicators for the framework. During the drafting of the framework, MEASURE Evaluation helped facilitate a series of consultative meetings with government officials from the Department of Animal Health, Department of Livestock Production, and Ministry of Health, as well as international technical organizations, including FAO and WHO. MEASURE Evaluation staff produced the draft of the framework for translation, review, and approval by all involved government entities.

MEASURE Evaluation's support of the Government of Vietnam continued with the establishment of the USAID/Vietnam mission in April 2008. The framework was issued as a ministerial decision in January 2010. In 2010–2011, MEASURE Evaluation worked with PAHI to undertake a pilot implementation of the framework. In the data collection, MEASURE Evaluation met with each agency identified as responsible for one or more indicators to gather data, determine the feasibility of reporting the indicator routinely, and identify any revisions needed to the indicator definition. The results of the data collection were summarized in a final report, which both presented the data gathered for each indicator for CY 2009 and provided an indicator-by-indicator breakdown of the data collection process and challenges. The report noted areas where further capacity building was needed in order to collect the data, which ranged from additional training in basic M&E or statistics to investment in nationwide behavior change surveys. PAHI disseminated the report to national and international stakeholders. The findings were presented by MEASURE Evaluation and discussed at a meeting of all stakeholders in Hanoi, convened and facilitated by PAHI. The findings from the data collection and recommendations from the report were used to develop the M&E framework for Vietnam's national preparedness plan for 2011–2015, which includes avian influenza in addition to pandemic preparedness and other emerging threats. Because of the evolving nature of the program and focal areas, MEASURE Evaluation in 2012, supported the Government of Vietnam to update the M&E Framework for its integrated National Operational Program on Avian Influenza, Pandemic Preparedness, and other Emerging Infectious Diseases (AIPED).

2.5 Supporting USAID Portfolio Management Activities in Vietnam

2.5.1 USAID's Avian Influenza Provincial Package of Interventions

In May 2008, USAID, with the support of PAHI, conducted a strategic data review of the current epidemiological and other data on the AHI situation in Vietnam. The review included participation by officials of the Government of Vietnam, international donors, U.N. agencies, nongovernmental organizations, and other implementing partners. The purpose of the review was to explore whether changes were needed in policies, strategies, or programmatic direction on the basis of the available evidence. Based on the priorities emerging from the strategic data review, USAID identified a provincial package of interventions to be implemented in FY 2008 in the following five focus provinces: Hung Yen, Han Nam, Quang Tri, Can Tho, and Kien Giang.

In support of this strategy, USAID/RDMA requested MEASURE Evaluation's technical assistance in developing a baseline assessment and situational analysis tool to aid provincial authorities, implementing partners, and USAID in planning targeted interventions and evaluating the progress of activities. From May 2008 to June 2009, working with the Government of Vietnam's PAHI, WHO, FAO, AED, and other implementing partners involved in provincial-level AI programs, MEASURE Evaluation developed a baseline situational analysis in five focus provinces and a related performance assessment framework with associated tools. The situational analysis and assessment framework were developed through a series of consultative meetings with provincial authorities that identified critical data collection needs at the provincial and district levels. Indicators for the assessment tool were adapted from a variety of sources, including Vietnam's proposed National AHI M&E Framework, USAID's Global AI Results Monitoring Framework, CDC/WHO Pandemic

Preparedness Assessment indicators, and FAO's proposed poultry production checklist. The final assessment framework includes key indicators across all four programmatic components of the provincial package of interventions: animal health, human health, communications, and planning and policy. From December 2008 to March 2009, MEASURE Evaluation worked with AED and implementing partners to pilot and scale-up standardized data collection forms at provincial and district levels in five provinces. The situational analysis also collected key denominators for the performance assessment framework. The data collection forms and associated guidance were completed in May 2009. The data collection was conducted by AED and FAO in June 2009. Feedback from the data collection was gathered and used to inform development of the USAID/Vietnam PMP described below.

2.5.2 USAID/Vietnam's Highly Pathogenic Avian Influenza and Emerging Pandemic Threats PMP

Prior to the official opening of the USAID/Vietnam Mission in April 2008, responsibilities for Vietnam's highly pathogenic avian influenza (HPAI) and EPT activities rested with USAID/Washington and USAID/RDMA based in Bangkok, Thailand. HPAI program results were monitored in two ways. The first was through reporting under the USAID/RDMA PMP (developed by MEASURE Evaluation), which ended in September 2009. The second was through the provincial package of interventions (PPI) framework described above. In September 2009, the USAID/Vietnam HPAI/EPT team requested MEASURE Evaluation technical assistance to develop the first comprehensive avian influenza program PMP. The mission requested a PMP that consolidated the PPI framework with an overall HPAI and EPT framework and placed it in the appropriate context of the new USAID/Vietnam Mission Strategy. In October 2009, MEASURE Evaluation met with USAID/Vietnam, implementing partners, and other stakeholders to collect inputs and present a draft results framework and indicators list for the PMP.

Exhibit 5. Meeting with USAID/Vietnam, implementing partners, and other stakeholders

The final PMP, covering activities and results for 2010 through 2014, was delivered in April

2010. The document described the overall global and national situation of HPAI and EPT and outlined a framework for organizing intermediate result (IR) and sub IR-level objectives in animal health, human health, and policies and systems. The PMP detailed a monitoring strategy, including relevant indicators, potential data sources, and M&E processes for these core IR and sub-IR levels. In addition, the PMP used the Government of Vietnam's new national AHI M&E framework as a basis in order to draw on and strengthen national AHI information systems. Following development of the PMP, MEASURE Evaluation developed standard MS Excel data collection forms to gather data on the PMP indicators. The initial data collection under the PMP took place in spring 2011.

Due to the constantly evolving nature of the HPAI and EPT portfolio of work, in 2014, USAID and partners decided to review the PMP to assess the appropriateness of the PMP indicators in light of programmatic changes and the feasibility of collecting each of the indicators. Thus, MEASURE Evaluation, in collaboration with USAID/Vietnam and other implementing partners, conducted a formal review of the PMP. MEASURE Evaluation used the results of the review to lead the finalization of the PMP indicators and accompanying indicator reference sheets.

2.6 Guidance from SE Asia Spurs Development of M&E Framework in Egypt

In 2008 Denise Johnson, MEASURE Evaluation's Activity Lead for Regional API, presented on the project's M&E activities in the region at the Avian Influenza Partners Meeting in Bangkok, Thailand. In the room was a USAID/Egypt staff member, who hoped to gain insights from the SE Asia experience to aid Egypt's fight against the H5N1 virus. She recognized the value of the M&E strategies developed in the region and shortly thereafter invited MEASURE Evaluation to assist in the development of an M&E strategy for the animal health component of the USAID-funded Strengthening Avian Influenza Detection and Response (SAIDR) project. The project had reached the end of its first year without an adequate M&E strategy for the animal health component, a significant portion of the project's funding. The SAIDR project itself represented the majority of the government of Egypt's programmatic response to avian influenza.

MEASURE Evaluation traveled to Egypt for a series of consultative meetings with the SAIDR project's M&E staff, staff from the Government of Egypt's General Organization of Veterinary Services, and FAO. Based on these meetings, MEASURE Evaluation drafted an M&E strategy for the animal health component of the SAIDR project, identifying a results framework, associated indicators, and potential data sources. The guide, developed in Southeast Asia, constituted an important resource to identify indicators for this framework. The framework was adopted by the SAIDR animal health team in 2009.

3. LESSONS LEARNED

3.1 Compelling Need for Investment in Animal Health Systems

Disease outbreaks in animals affect livelihoods and economic growth. They also pose a clear danger to the health of human populations. More than 75 percent of newly emerging diseases are zoonotic in nature. Despite this, there has been a long-standing underinvestment in veterinary services and animal health surveillance systems throughout the region. The resource disparities between the human health and animal health sectors are striking, with animal health lagging significantly behind. One of the clear lessons learned for avian and pandemic influenza programs since 2006 has been the compelling need for ongoing strengthening of outbreak surveillance and response, not only for poultry but for other key animal species as well. While much has been achieved in the animal health sector through avian influenza funding, much remains to be done, and the gains that have been achieved will need to be maintained.

3.2 Importance of a Developmental Evaluation Mindset

As Michael Patton has noted in his work on developmental evaluation, traditional monitoring and evaluation approaches assume a set of well-established, effective interventions responding to a relatively stable operating environment.[3] Emerging infectious diseases, like other complex and rapidly evolving program areas, require a different set of approaches. These approaches need to be adaptive and balance the accountability aspects of M&E with the learning aspects. Over the course of our work in the region, MEASURE Evaluation adopted an agile approach with frequent releases and iterations of the different guidance documents, plans, and tools. We placed a strong focus on using the data to make needed adjustments in program management, with the understanding that avian and pandemic influenza programs need to respond to a constantly evolving environment, both in terms of the dynamics of virus transmission and the scientific knowledge base regarding effective interventions. We recommend that future work in API M&E draw from the innovative work being done in the field of developmental evaluation along with more traditional M&E approaches.

3.3 Sustainability

Sustainability represented a clear challenge for all of the avian and pandemic influenza programs with which MEASURE Evaluation worked. Because programs initially were established on an emergency basis, program planning and design were focused primarily on meeting short-term objectives. The M&E reflected this focus, with frameworks focused strongly on monitoring specific interventions in animal health surveillance, biosecurity, and outbreak response; human health case management and infection control; and risk communication. As global funding declined significantly in recent years, programs were faced with the challenge of sustaining the outcomes of these efforts with far less donor funding and international technical assistance. The M&E frameworks developed, like the programs themselves, did very little to anticipate this phase and were not easily adapted to provide indicators of

[3] Patton, Michael Quinn. Developmental evaluation: Applying complexity concepts to enhance innovation and use (Guilford Press, 2010).

sustainability. Sustainability needs to be considered in both program design and the corresponding M&E framework from the start of programs, even those that are initially mounted on an emergency basis.