Infection control emerging as a leading health issue

Infection control is becoming increasingly more important as one of the world’s leading emerging health issues. The issues are complicated and pose a risk to everyone seeking medical care, putting them at risk for acquiring additional health problems. For example, the threat of antimicrobial resistance, a pressing issue for the control and prevention of Hospital Acquired Infection (HAI), is “arguably as important as climate change,” according to England’s Chief Medical Officer. Studies conducted by the World Health Organization (WHO) and other international organizations show that from 3.5 to 10 percent percent of HAIs occur among inpatients. In Vietnam, the Ministry of Health (MOH) conducted cross-sectional studies on HAI in 1998, 2001 and 2005. The study in 2005 showed that in 19 hospitals the point prevalence of HAI was 5.7 percent, with more than 55 percent of these cases developing pneumonia. In 2003, a SARS outbreak occurred mainly in a hospital setting with 63 cases including five deaths.

In October 2009, Vietnam’s MOH issued Circular 18 which provided guidelines on enhancing infection control in health care facilities. One of the biggest challenges to implementing the Circular is the capacity of available human resources: only 44 to 59 percent of infection control team leaders in health care facilities have been trained on infection control. Of those who have been trained, more than 85 percent of them received less than one months’ training. Prior to 2012, the MOH did not have any official training materials for healthcare workers in Vietnam’s more than 700 district hospitals.

Vietnam’s first official training materials on infection control at grassroots level

To contribute to Vietnam’s efforts, the
United States Agency for International Development’s Avian and Pandemic Influenza Initiative (USAID/APII) developed a curriculum and related training materials for healthcare workers from grassroots medical facilities on infection control. The MOH officially approved the curriculum and training materials for in-service training of healthcare workers, and distributed them to provincial Departments of Health (DOHs) and training facilities throughout all 63 provinces and cities of Vietnam in 2012. The curriculum and training materials are now being applied for training of healthcare workers by DOHs throughout the country. They have also been adopted by a number of medical and nursing schools in Vietnam.

**About the infection control curriculum and training materials**

Using materials developed during the USAID/Al Mekong Initiative’s infection control trainings in four pilot districts in Can Tho and Hung Yen provinces, USAID/APII developed training materials to support the introduction of the Circular 18 to infection control specialists and health workers at district/commune levels in Can Tho and Kien Giang provinces. In 2011, the training curriculum was further developed through pilot activities in eight district hospitals in five provinces: Thoi Lai (Can Tho), Duy Tien (Ha Nam), Khoai Chau and Tien Lu (Hung Yen), Tan Hiep and Go Quao (Kien Giang) and Hai Lang and Gio Linh (Quang Tri).

Through a partnership with the Vietnam Nursing Association (VNA), in 2012 the project shared the training curriculum and the results of the pilot activities with MOH, including a cost-benefit assessment, and advocated for the official adoption of the training materials. Three regional review workshops for this activity were held in March and April 2012. The training curriculum and training materials were then revised and reviewed by a special MOH scientific review board. During the review process, the target of the infection control training model was expanded to cover all health facilities at grassroots level, including district hospitals, commune health centers and public/private clinics. MOH officially approved the infection control training curriculum and training materials for in-service training courses with the release of official letter No 5771/BYT-K2DT dated August 30, 2012. The training materials are the first comprehensive infection control training curriculum and materials in Vietnam issued by MOH and sent to all 63 provincial DOHs and medical education centers for replication.
Expanding the model to healthcare facilities throughout Vietnam

On March 30, 2012, MOH issued Decision 1014 on the National Action Plan on Strengthening Infection Control in Health Care Facilities by 2015. One of the objectives of the national plan is to train at least 80 percent of health care workers in health care facilities on basic infection control by 2015. The infection control training materials developed with USAID/APII support are the official standard documents for training for the health system nationwide.

In 2012, the project began to develop the required group of trainers to deliver this training throughout the country through three six-day regional Training of Trainer (TOT) courses covering 75 participants from 12 provinces. In 2013, three additional regional infection control TOT courses were organized in Hanoi, Hue and Ho Chi Minh City for about 60 participants from 17 new provinces, increasing the pool of qualified trainers and promoting awareness of the training materials with provincial DOH. After attending the regional TOT courses, the provincial DOH are conducting diffusion training in their respective provinces as a part of the national action plan on strengthening infection control at health care facilities. The USAID/APII has provided about 6,000 printed copies of the infection control materials and 2,500 copies of the curriculum, as well as technical assistance for development and implementation of provincial plans on infection control.

The USAID/APII has been working closely with the VNA to encourage the integration of infection control training model in medical and nursing training institutions. In 2012, seven teachers from two schools joined the TOT courses. In 2013, further TOT courses were conducted for 32 more trainers and facilitators from 18 schools. Following the training courses, these institutions are adopting and adapting the infection control training materials for use within the training programs of their institutions. The project has also provided specific technical support for two institutions to develop their lesson plans.

In addition, the project has conducted a one-day national workshop on strengthening infection control training for 45 participants from 18 medical and nursing schools as well as officials from MOH, the Ministry of Defense and WHO on the infection control training situation in medical and nursing schools and how they can introduce, discuss and review the infection control training materials and lesson plans at these institutions. USAID/APII has supported the printing and dissemination of MOH’s approved infection control training materials to medical and nursing universities, colleges and schools throughout the country.

Key elements of the USAID/APII infection control model

The infection control model is focused on the application of the infection control training materials developed by USAID/APII and approved by MOH for use by district, commune health care facilities and public/private clinics. These materials are introduced to provincial DOH staff through TOT courses. The provincial DOH staff then use the them to provide training to health care workers from district and commune medical facilities. Where possible this training is extended to private medical facilities as well.

Other elements of USAID/APII’s infection control model being applied in the eight pilot facilities include:

✦ Establishing and/or reinforcing hospital infection control committees, networks and departments with clear roles and responsibilities.

✦ Using BCC materials as well as the provision of handwashing facilities to promote handwashing by doctors, nurses, other hospital personnel and caregivers.

✦ Supporting the development and/or updating of hospital regulations on proper infection control, such as the regulations on hand washing and hospital solid waste management.

✦ Strengthen the activities of infection control monitoring team in hospital, conduct regular meeting to review and discuss emerging and pending issues in infection control in the hospital.
Outcomes and impact of the infection control training model

Replication in the health system
After attending the TOT courses, provincial DOHs are conducting follow-up diffusion training using their own funds. For example, in 2012 the Can Tho DOH conducted four training courses on infection control for 140 participants from all 21 hospitals in Can Tho, including nine district hospitals, nine provincial specialized hospitals and two private hospitals. One private hospital from a neighboring province also participated.

Private hospitals have also been willing to pay for designated infection control staff to participate in the training courses.

On February 27, 2013, the MOH issued a letter to DOHs in all 63 provinces on infection control strengthening at health facilities. This letter emphasized the requirement for establishing infection control training plans for all health care workers in the public and private sectors.

Replication in medical/nursing schools
Until 2012 there was no official infection control training materials approved by the government. The training materials supported by USAID/APII have fulfilled the need for official materials covering updated infection control knowledge, skills and practices. As of now, 20 medical and nursing schools have issued decisions or official letters on adopting the infection control training materials. This includes six private schools.

Improving the quality of hand washing in health care facilities
Evaluation of the USAID/APII infection control activities found that the infection control intervention improved the quality of hand washing in the treatment group of hospitals by 13 percent compared to non-intervention hospitals in the same provinces (statistically significant at a one percent level of confidence).

Notes:
2. Infection control training materials for health care workers at grassroots levels, MOH, 2012
4. Survey on infection control activities in health facilities, MOH, 2011
5. MOH Official letter No. 5771/BYT-K2ĐT dated August 30, 2012


USAID/APII has developed practical, effective and affordable models for bio-security improvements in poultry farms, slaughtering facilities and markets; field animal health worker training; enhanced infection control in healthcare facilities; pandemic preparedness planning; behavior change communications; and surveillance of human and animal diseases. Provinces and other local partners throughout the country are now adopting these models.

More information about the project is available at: USAID’s Avian and Pandemic Influenza Initiative 2nd Floor, 72 Xuan Dieu, Tay Ho, Hanoi, Vietnam. Tel: (+84.4) 3 7193139 Fax (+84.4) 3 7182531 Website: http://www.fluvietnam.com/