

## USP Drug Quality and Information Program (USP DQI)

### Third Quarter Program Report – FY 2006

April – June 2006

A new Director for USP DQI was hired on June 19, 2006. Catherine Wachira, BSc., MBA., brings 14 years of experience in the pharmaceutical industry, in addition to more than six years public health consulting experience on USAID funded programs with Family Health International, The Futures Group International, e Catholic Medical Mission Board and United Nations Development Programme, Bureau for Development Policy. Nancy Blum, former USP DQI Director, will continue at USP as Vice President, International Affairs, with oversight responsibility for USP DQI.

#### Common Agenda

- USP DQI exhibited at the 33<sup>rd</sup> Annual International Conference on Global Health at the Omni Shoreham Hotel, Washington DC, May 30-June 2, 2006; ten USP DQI staff volunteered responding to the numerous inquiries from visitors and distributed USP DQI brochures, pamphlets, and fact sheets, as well as copies of the Matrix of Drug Quality Reports, Operational Guides, and Reviews of Drug Quality in Asia.
- N. Davydova developed GC and upgraded TLC theoretical materials for in-country training modules
- J. Carpenter and M. McGinnis revised the *Matrix of Drug Quality Reports in USAID-assisted Countries*
- A. Smine, V. Pribluda, N. Blum and C. Wachira participated in an exploratory meeting with USAID on drug quality initiative in LAC
- M. Hajjou attended specialized training in microbiology at York College in New York
- J. Murphy provided a detailed update to Anthony Boni, Kama Garrison, and N. Blum on the outcomes of the ANEQAM meeting, held in March 2006 in Bangkok, Thailand
- The abstract submitted by J. Murphy and S. Phanouvong for presentation at the annual APHA November 2006 meeting, was accepted for oral presentation; J. Murphy will be providing an oral presentation along with N. Blum as part of a panel
- S. Phanouvong oversaw the ongoing field testing of *Ensuring the quality of medicines in low-income countries: an operational guide* in Cambodia and Laos.
- S. Phanouvong drafted a document on *Rapid Assessment of a Medicines Quality Assurance in a Supply System and Distribution Practices*

#### SO 3 (Child Survival)

- E. Toledo and A. Smine visited Nutriset and assisted the company to meet the UNICEF audit requirements for pre-qualification as the zinc supplement supplier.
- The revised zinc tablet monograph that includes the new data on disintegration has been reviewed by the USP expert committee and now is up for public review
- J. Carpenter organized and moderated a panel session on zinc, addressing its safety, efficacy, quality and roll-out implementation strategies at the GHC 2006 annual conference; A. Smine participated as speaker
- M. Foster co-developed A. Smine's presentation on *Addressing Product Quality* for the Global Health Council zinc panel discussion
- A. Smine and J Carpenter revised and submitted the Zinc Guidelines paper to WHO for review
- J. Carpenter, M. Foster, and M. McGinnis submitted an article on the benefits of zinc to children with diarrhea, to *Perspectives*, an "e-zine" published by OneWorld. The July issue features articles concerning international public health topics; USP DQI is included in the list of "Additional Resources"
- J. Carpenter, M. Foster, and M. McGinnis submitted an article discussing zinc monographs and GMP audits for the HIDN newsletter

#### SO 4: HIV/AIDS

- D. Seyoum continued to follow up the process of development of a USP/NF monograph for Nevirapine Oral Solution and Nevirapine Tablet
- D. Seyoum continued work on the development of information on antiretroviral drug interactions
- D. Seyoum reviewed HIV/AIDS related articles for the USP DQI website monthly update
- D. Seyoum reviewed abstracts for the International AIDS Society AIDS 2006 Conference

#### SO 5: AMR/Infectious Diseases

- L. Santos finished the Abacavir sulfate monograph and Efavirenz monograph
- L. Santos coordinated the review of WHO documents: QAS/05.137 - General Guidelines for the Establishment, Maintenance and Distribution of Chemical Reference Substances; QAS/06.160 with Annexes 1 and 2 - Monograph for Artesunate and Artesunate Tablets; QAS/06.161 - Monograph for Lamivudine Tablet; QAS/06.162 - Monograph for Lamivudine Oral Solution; QAS/06.163 - Monograph for Zidovudine and Lamivudine Tablets
- M. Foster and M. McGinnis revised/wrote 25+ website pages for [www.uspdqi.org](http://www.uspdqi.org)
- D. Seyoum finalized the work of setting up a symposium on “Antimicrobial Drug Resistance” for the Annual FIP Congress to be held in August 2006 in Salvador De Bahia, Brazil
- D. Seyoum continued working on clinical information on antimicrobial drug resistance
- D. Seyoum reviewed AMR/Infectious Diseases-related articles for the USP DQI website monthly update
- S. Phanouvong, K. Burimski, and E. Ushkalova conducted a symposium on medicines quality at the “Man and Drug” Conference in Moscow, Russia
- S. Phanouvong, K. Burimski, and E. Ushkalova participated in a round table on improving the effectiveness of Distance Learning Continuing Education at the “Man and Drug” conference
- E. Ushkalova reviewed AMR/Infectious Diseases-related articles for the USP DQI website monthly update
- Three students in Russia completed the Distance Learning Continuing Education Course provided by the Smolensk Medical Academy; twenty students are currently enrolled. One student completed the Distance Learning Continuing Education Course provided by secondary Distance Learning Continuing Education Centers and twenty-seven are currently enrolled. In total, 264 students from Russia and the NIS have completed the course, including sixteen students trained by secondary Centers
- The Smolensk team presented results of the Distance Learning Course to 1200 health care professionals at seven conferences and in one article published in the textbook “Innovation Technologies of Organization of Education in Technical University: the Way to New Quality of Education”
- On the [www.antibiotic.ru](http://www.antibiotic.ru) website, 55 new topics were added, including three devoted to HIV infection, three to TB, two to STDs, and eleven to AMR. Titles of selected topics include: “New WHO strategy in the fight against TB”, “Risk factors for pulmonary tuberculosis in Russia”, “Efficacy of nonoccupational postexposure prophylaxis against HIV”, “Controlling methicillin-resistant *Staphylococcus aureus*”, and others
- Eleven electronic drug bulletins from [www.antibiotic.ru](http://www.antibiotic.ru) were e-mailed to 2440 subscribers
- The Smolensk team moderated antimicrobial therapy e-forums for health care professionals on the [www.antibiotic.ru](http://www.antibiotic.ru) site
- The on-line version of the Infectious Diseases Textbook was visited 334,311 times during this quarter, bringing the total number of visits to 3,312,450
- The on-line version of the *Guide to Infection Control in the Hospital* was visited 23,654 times this quarter, bringing the total number of visits to 211,945
- The Smolensk team began development of the third edition of the *Infectious Diseases Textbook*
- E. Ushkalova wrote and published two articles on the rational treatment of infectious diseases in the medical journal *Vrach* and pharmaceutical journal *Pervii stol*: “Norfloxacin in the treatment of acute cystitis” and “Problems of quality of antibacterial drugs”

- E. Ushkalova participated in discussions on rational drug use in the Russian-language e-conference “E-lek”, a derivative of “E-drug”
- S. Phanouvong, K. Burimski and E. Ushkalova met with the Russian Health Foundation (which is The Global Fund partner in Russia that receives and distributes multimillion grants from The Global Fund) and WHO/Moscow and continued discussions on collaboration in the area of antiretroviral drugs quality

#### SO 5A: Tuberculosis

- D. Seyoum continued working on antituberculosis drug resistance and multidrug-resistant tuberculosis (MDR-TB)
- D. Seyoum reviewed tuberculosis-related articles for the USP DQI website monthly update
- S. Phanouvong, K. Burimski and E. Ushkalova met with the Russian Health Foundation and WHO/Moscow and continued discussions on collaboration in the area of anti-TB drugs quality
- USP DQI sponsored 5 physicians and pharmacists from Russia, Moldova and Uzbekistan to participate in TB training on Drug Management, Quality and Rational TB Treatment. The workshop was conducted in collaboration with Moscow Medical Academy, Russian Health Foundation and WHO/Moscow. The main topics included rational use of TB drugs, problems of drug resistance, multidrug-resistant tuberculosis, selection of the second-line TB drugs and drugs for symptomatic therapy, quality control of TB drugs, and others

#### SO 5B: Malaria

- N. Blum participated in the Medicines for Malaria Venture annual meeting May 6-8, in Livingstone Zambia, this included active participation in special session focused on MMV’s new objective in drug delivery, increasing access to antimalarial medicines. Discussions were held with several pharmaceutical industry representatives at the meeting on collaborative monograph development for malaria drugs including Novartis, Ranbaxy, GSK and Holley
- A. Smine and M. Hajjou organized a regional meeting of six countries of West Africa (Senegal, Guinea, Guinea Bissau, Mauritania, The Gambia and Capo Verde) on assuring the quality antimalarial drugs.
- Dr. Smine met with National Pharmaceutical manufacturers in Morocco to discuss ways of better supporting GMP manufacturing of essential drugs that are of interest to WHO, UNICEF and USAID
- A. Smine coordinated the training of two staff members on pharmacovigilance in the Pharmacovigilance Center in Morocco
- N. Davydova and S. Bradby participated in the U.S. President’s Malaria Initiative (PMI) – Government of Uganda (GOU) Stakeholder Meeting
- N. Davydova and S. Bradby assessed the drug policy, regulations, procedures and resources of the National Drug Authority (NDA) – Uganda
- N. Davydova and S. Bradby assessed the facilities, laboratory equipment, staffing, and working procedure of the National Drug Quality Control Laboratory (NDQCL) – Uganda
- N. Davydova and S. Bradby conducted a meeting with Ministry of Health (MOH) – Uganda staff about the activities which USP DQI will provide to support the PMI and possible collaboration to further strengthen drug quality control activities in Uganda
- N. Davydova worked with NDQCL – Uganda to determine the specifications of the laboratory equipment to better serve the needs of the NDA for testing antimalarial medicine and insecticides

#### Vladivostok DIC staff:

- Responded to 412 inquiries from health care professionals, including 93 inquiries on antimicrobials
- Prepared information on the request of health care professionals of Primorski Krai on the following subjects: “Therapy of viral hepatitis“, “Treatment of fungal endophthalmitis”, “Pharmacoeconomic rationale use of drugs used for preparation for delivery”, “Use of analgesics in pregnancy”, and others

- Conducted retrospective analysis of rationality of antibiotics prescribing of all (30 persons) participants of the Rational Antibacterial Therapy Course for Russian Far-East health care professionals that was conducted within the framework of the USAID project START. The analysis showed significant improvement in antibiotic regimes selection for initial empiric therapy; reduction of polypragmasia; reduction of prescribing of antibacterial drugs with safety problems, especially aminoglycosides; reduction of use of injections; implementation of step-down antibacterial therapy and international standards of perioperative prophylaxis
- Analyzed rationality of prescribing narcotic, psychotropic and antibacterial drugs in the Central Regional Hospital of Primorski Krai (26 case reports). The results of the analysis were presented to the Hospital Medical Council
- Sent 20 reports about serious adverse drug reactions not listed in the drug package insert to the Federal Adverse Drug Reactions Center in Moscow
- Analyzed rationality of pharmacotherapy for 5 lethal cases in Craevaya hospital
- Prepared report on rationality of pharmacotherapy for lethal cases in Craevaya hospital in 2005 and in the first quarter of 2006
- Developed, published and distributed among health care professionals 100 copies of new issue of Drug Bulletin. The main topics of the Bulletin included analysis of rationality of antimicrobial therapy, evaluation of rationality of medicines prescribing for the exempt groups of population, news of [www.antibiotic.ru](http://www.antibiotic.ru), and others
- Consulted physicians of Craevaya Hospital on rational pharmacotherapy of various diseases—70% of consultations concerned rational antimicrobial therapy

Ryazan Medical University staff:

- Conducted 2 seminars for physicians on rational drug use, including antimicrobials
- Conducted a students' conference on rational pharmacotherapy of urinary tract infections
- Actively participated in the Ryazan Oblast Formulary Committee.

Ryazan Oblast Hospital DIC staff:

- Responded to 394 inquiries from health care professionals and consumers, including 136 inquiries on antimicrobials
- Analyzed 15,096 prescriptions for the exempt groups of the population
- Sent 5 reports on serious adverse drug reactions not listed in the drug package insert to Federal Adverse Drug Reactions Center
- Wrote 2 articles for the book devoted to the 25-th anniversary of Ryazan oblast hospital: "Ten Years of Ryazan Oblast Hospital formulary", "Role of Drug Information Center in Monitoring of Adverse Drug Reactions"

Novgorod DIC staff:

- Responded to 123 inquiries from health care professionals and consumers, including 47 inquiries on antimicrobials
- Participated in the development of new Oblast Formulary List for centralized medicines purchases
- Participated in the development and publication of Annual Report of Novgorod Oblast Health Care
- Participated in the development and publication of the Report of Novgorod Oblast Population Health
- Sent 2 reports about lidocaine-associated deaths to Federal Adverse Drug Reactions Center
- Analyzed the list of subsidized medicines for exempt groups of population

### Russia Far East Project

- Eleven students are enrolled currently in two Vladivostok Distance Learning Continuing Education Centers; to date twelve have completed the course.

### RDM/A1 and 4: Mekong and Mekong Expansion

- S. Phanouvong provided guidance on how to manage (i.e. implement, supervise, coordinate, follow-up and report) the expansion of drug quality monitoring for ARVs, anti-TBs, antimalarials, and antibiotics in Cambodia, Laos, and Vietnam
- S. Phanouvong, A. Timmermans and J. Murphy coordinated a meeting with the Thai FDA, Bureau of Vector Borne Diseases – Malaria Cluster, Bureau of Narcotics and Drugs, Pharmaceutical System Research & Intelligence and WHO-Roll Back Malaria to further discuss and plan a survey to obtain base-line data on the quality of selected ARVs, anti-TBs, and antibiotics as part of the Mekong expansion activities, June 30
- S. Phanouvong, C. Wachira, J. Murphy and A. Timmermans, met with representatives of the Thai FDA, Bureau of Vector Borne Diseases – Malaria Cluster, Bureau of Narcotics and Drugs and Pharmaceutical System Research & Intelligence to discuss on the process of how to resume the implementation of the antimalarial medicines quality monitoring in Thailand, June 25-28
- S. Bradby and S. Phanouvong managed the purchase of lab equipment (1 HPLC and 1 UV-Spectrophotometer) for Laos National Food and Drugs Quality Control Center

### RDM/A-3: AMR Survey

- J. Murphy contacted several experts in the field of antimicrobial resistance regarding a literature review paper and possible collaboration on a subsequent AMR-medicines quality project to explore a study methodology that seeks to respond the relationship if any between AMR and poor medicines quality.

### RDM/A-5: Centers of Excellence in Quality Assurance of Medicines

- J. Murphy organized the follow-up meeting to the first Centers' meeting, now referred to as the Asian Network of Excellence in Quality Assurance of Medicines (ANEQAM), to be held June 28-29, in Bangkok, Thailand
- S. Phanouvong, J. Murphy, C. Wachira and A. Timmermans attended the second meeting for ANEQAM to discuss the draft work plans for each organization (Chulalongkorn University (Thailand), Mahidol University (Thailand) and University of Santo Tomas (Philippines)) where a memorandum of understanding was signed
- J. Murphy and E. Toledo organized the GMP assessment for Mahidol University, scheduled for August 18, 2006 in Bangkok
- J. Murphy worked with participating organizations of ANEQAM to develop a logo for the ANEQAM website
- S. Phanouvong prepared to organize, in close collaboration with Vietnamese counterparts, a stakeholders' meeting in Danang City, Vietnam, which will convene Ministries of Health, Trade, Interior, Customs and national priority health programs (Malaria, TB, HIV/AIDS) to exchange experience and lessons and discuss the way forward for more effective USP DQI support in ID medicines quality in Vietnam
- J. Murphy drafted a concept paper for the Philippines Mission, expounding on the activities of the ANEQAM, specific to the Philippines

### RDM/A-6: HIV/AIDS

- K. Burimski and J. Murphy drafted a concept paper for PEPFAR funding for Ho Chi Minh City, Vietnam to strengthen the technical capacity and priority health programs of the country toward improving ARVs and other medicines for infectious diseases

- K. Burimski and S. Phanouvong followed up on the implementation of the ARV quality monitoring pilot project in Ho Chi Minh City
- S. Phanouvong participated by presenting *Medicines Quality Surveillance for Detection of Substandard and Counterfeit ARVs* at the HIV Conference for Community Pharmacists, Faculty of Pharmacy, University of Medicine and Pharmacy, Ho Chi Minh City, Vietnam, June 26-27, 2006. USP DQI cosponsored this event, including sponsoring four international participants and covering some administrative costs of the conference

#### Cambodia

- J. Murphy and K. Burimski drafted a concept paper outlining activities for five years in Cambodia, requesting funds for support from the Global Fund to Fight AIDS, Tuberculosis and Malaria
- S. Bradby and S. Phanouvong managed the purchase of lab equipment (1 UV-Spectrofluorometer) for Cambodia National Laboratory for Drugs Quality Control

#### E&E-1: Freedom Support Act/Moldova/NIS

Moldova DIC of the National Institute of Pharmacy:

- Responded to 195 inquiries from pharmacists, physicians, and nurses
- Developed, published and distributed 3500 copies of Drug Bulletin among health care professionals this publication focuses on rational drug use, including antimicrobials
- Organized and conducted a seminar entitled *Role of Information in Rational Drug Use*. There were sixty participants, including chief physicians of Moldova medical and pharmaceutical institutions, specialists responsible for medicines supply, representatives of the Ministry of Health and Social Defense of Moldova and Department of Health of Chisinau, and a representative of the Drug Information Center of Cluj-Napoca (Romania). The presentations at the seminar included the role of evidence-based drug information and pharmacovigilance in the process of medicines purchases, rational drug use, the problems of drug quality and protection of consumers' rights, and the role of DICs in these processes. The presentations were delivered by leading specialists of Moldova in the area of Drug Quality, Pharmaceutical Inspection, and Drug Registration, and by the staff of Moldova and Romania (Cluj-Napoca) DICs
- Developed DIC webpage at the site of the National Agency for Medicines – [www.inf.md/cim.am.html](http://www.inf.md/cim.am.html) Information displayed at webpage includes DIC introduction, a request form for health-care professionals to email their questions to the DIC, drug bulletins, contacts and useful links
- Conducted two presentations for physicians, pharmacists and nurses of Chisinau on various drug information related issues
- E. Ushkalova consulted RPM Plus on the essential drug list of Azerbaijan
- E. Ushkalova delivered a lecture on the formulary system, rational drug use, and implementation of clinical pharmacology service for Ulyanovsk Regional Health Care Committee and chief physicians of Ulyanovsk hospitals

#### E&E-2: SEED

- The DIC in Cluj, Romania received and responded to a total of 35 inquiries . The inquiries were on specific details about drugs (15), pediatric dosage (4), drug interactions (5), and therapeutic efficacy (4). These queries mostly came from pharmacists and some from patients. The DIC was used by 9% of students in medicine and pharmacy
- The DIC team visited schools near Cluj-Napoca (Capuso Mare, Floresti, Gilau, Apahida, Bontida, Jucu, Feleacu, Valcele) during April and May to educate and inform schoolchildren about avian flu. A total of 2274 schoolchildren received the leaflets as well as free soap and “wet wipes” provided by the university

- C. Macavei, manager of the DIC, was invited by TVR Cluj to talk about avian flu, its risks, symptoms, and prevention, on the 6pm local network news.
- A team of reporters accompanied the DIC team on April 30 when the staff visited schools in Valcele and Feleacu. The visit was broadcast on the 6 pm local news the same day. The visit was also carried on the press news and in the Journal informing people about the avian flu program of the DIC
- 350 copies of the March 2006 bulletin were reprinted and sent out to all family doctors in Cluj
- C. Macavei was invited to make a presentation entitled *Drug Information Center Romania-two years experience* on June 23, 2006 at the DIC established by USP DQI in Chisinau, Moldova last year. The event marked the first year anniversary of the Moldova DIC

#### LAC-1-Amazon Malaria Initiative

- A. Smine attended the AMI technical meeting and steering committee meeting in Ecuador
- A. Smine, A. Barojas, and S. Bradby analyzed and presented a report about drug quality data from Guyana; A. Smine presented the data to AMI partners and sent the report to the MOH of Guyana and to PAHO
- A. Smine participated in a working meeting to draft two reviews about AMI progress and activities

#### LAC-2- South American Infectious Diseases Initiative

- A. Barojas participated in the SAIDI-Paraguay Regional Meeting held in Asuncion, Paraguay
- A. Barojas reviewed QC data for antibiotic and anti-tuberculosis medication from CEMIT-DGICT-UNA
- M. Hajjou, S. Bradby, and A. Barojas tested five anti-tuberculosis medications sampled from public hospitals in La Paz, Bolivia
- A. Smine attended a SAIDI partners meeting in Lima, Peru
- A. Smine coordinated drug testing with the QC lab of Peru

#### Madagascar

- A. Smine coordinated the preparation for a Pharmacovigilance (PV) training in Madagascar by Moroccan PV experts; the training was carried out in Madagascar and over 60 staff of the MOH were trained
- A. Smine reviewed the first report of data from 4 provinces in Madagascar and the budget for continued activities

#### Senegal

- A. Smine and M. Hajjou traveled to Senegal and reviewed the proposal from the National QC lab of Senegal to conduct a comprehensive study of the quality of artesunate in the private sector in Senegal. The Lab staff were trained on the development of quality assurance and quality control SOP drafting, revision and adherence.
- A. Smine met with USAID mission staff in Senegal and discussed the possibility of hiring a USP staff person to be based at the University of Dakar in collaboration with RTI

#### Other activity

- S. Phanouvong co-authored an article *Manslaughter by Fake Artesunate in Asia—Will Africa Be Next?* published in PLoS Medicine in June 2006
- S. Phanouvong, A. Smine and N. Blum co-authored an article *Counterfeit and substandard antimalarial drugs in Cambodia* published in Royal Society of Tropical Medicine and Hygiene in June 2006
- D. Seyoum reviewed articles submitted to the Bulletin of WHO. Articles reviewed include those related to tuberculosis

### Planned for Next Quarter

- Continue follow up discussions with the pharmaceutical industry regarding monographs for malaria drugs and other medicines for neglected diseases
- N. Blum will introduce the new USP DQI director to various offices within USAID; arrange training in USP/NF within USP, and work with USP DQI staff during transition to new leadership
- N. Blum will participate in IMPACT meetings held by WHO to plan action against counterfeit medicines based on the Declaration of Rome
- Hold USP DQI work planning retreat to draft plan for activities to be completed in FY 07
- Perform second round of sampling and drug quality testing of antibiotic and anti-tuberculosis medication in Paraguay
- Follow-up on antibiotic and anti-tuberculosis drug quality testing in Bolivia
- Continue working on clinical information on antimicrobial drug resistance
- Continue reviewing the development of information on antiretroviral drug interactions
- Continue working on antituberculosis drug resistance and multidrug-resistant tuberculosis (MDR-TB)
- Participate at the ACT Malaria training in Manila, the Philippines
- Make a presentation at the AIDS 2006 Conference in Toronto, Canada
- Co-chair the FIP symposium in Salvador Bahia, Brazil
- Present at the FIP symposium in Salvador Bahia, Brazil
- Submit the paper *Validation of TLC Methods for the Determination of Six Anti-retroviral Drugs* for the J. of Chromatography A
- Purchase analytical equipment specified by NDQCL and take responsibility for shipment and installation
- Provide training to NDQCL – Uganda staff on good laboratory practices and major testing methods, such as HPLC, GC, Dissolution, and UV according to International pharmacopeias
- In collaboration with partners in East Africa, develop concept paper for the much needed drug information and drug quality strengthening initiative to better support USAID programs in REDSO.
- Finalize the revised zinc tablet monograph
- Finalize the zinc specification guidelines
- Follow-up on antibiotic and anti-tuberculosis drug quality testing in Peru, Paraguay, and Bolivia, and review the testing reports
- Upgrade training materials for TLC and GLP Modules
- Revise and disseminate the *Matrix of Drug Quality Reports in USAID-assisted Countries*
- Assist UNICEF by testing the zinc samples received in July 2006
- Participate in the publication of two peer-reviewed papers about AMI studies
- Prepare the workshop on drug quality in Africa in collaboration with WHO and RPM Plus
- Coordinate drug testing with Senegal and finish testing samples of ACT from Senegal
- Follow-up on progress and obtain data on quality of ARVs, anti-TBs, antibiotics and antimalarials from country counterparts (i.e., Cambodia, Laos, Yunnan Province of China, Vietnam and if possible, Thailand) for drug quality monitoring project
- Follow-up specifically on drug quality monitoring project in the Yunnan province and work with WHO to obtain official clearance from the Chinese government to resume the project implementation
- Operationalize the Asian Network of Excellence in Quality Assurance of Medicines ANEQAM by September (at the earliest) where the finalization and implementation of the work plan will take place
- Assist participating organizations of the ANEQAM to determine appropriate clients
- Develop ANEQAM website
- Organize training workshop on GMP in Cambodia (July)
- Follow-up on comments on the *Operational Guide* field testing
- Continue to focus on obtaining a formal clearance to conduct a survey to obtain base-line data on quality of antibiotics and some antituberculosis agents in Thailand, working with the Thai FDA
- Explore possible opportunities for collaboration with the KIASIA group, based out of Bangkok, Thailand
- Develop an outline for a subsequent paper on AMR to be published in a peer-reviewed journal



- Organize stakeholders' meetings to reinforce the regulatory measures taken by the relevant medicines regulatory agencies in Vietnam, Laos, and Cambodia in July, August, and September
- Continue development of the third edition of *Infectious Diseases Textbook*
- Work on clinical information on antimicrobial drug resistance
- Publish annual report of Moldova DIC
- Buy additional equipment for Moldova DIC