

### **Operational research for communicable disease control**

#### **DCD Bulletin**

This quarterly bulletin presents important news, events, publications and announcements from various programmes of the Division of Communicable Disease Control in the World Health Organization (WHO) Regional Office for the Eastern Mediterranean. For any queries or submission of material, please write to: DCD@emro.who.int, inserting "DCD bulletin" into the subject line.

#### **Issue highlights**

- Regional strategy for health sector response to HIV 2011–2015
- Research highlights supplement
- 9th intercountry meeting of national malaria programme managers in Marrakech, Morocco

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Operational research is an integral part of any disease control programme. It provides answers to problems faced by physicians, public health specialists and other health care workers during their daily activities, whether clinical or programmatic. In order to provide reliable answers based on evidence, research should be designed according to sound scientific methods. Since 1992, the Regional Office TDR Small Grants Scheme for Operational Research in Tropical and other Communicable Diseases has aimed to introduce a research culture into national control programmes of ministries of health of the Eastern Mediterranean Region. It aims to strengthen research capacity in order that relevant research questions can be identified, sound protocols designed, projects implemented and reliable evidence-based findings obtained. Research findings need to be used to inform policy and practice.

Activities, however, have had a limited impact as they target only Regional Office-supported projects. Moreover, in almost all countries of the Region, research and health are covered by two different ministries. Health care providers from ministries of health have limited capacity in dealing with public health problems. There is, currently, no mechanism to engage academia effectively in a systematic way to address health challenges faced by ministries of health and this is a situation which needs to be addressed. Dr Amal Bassili, Focal Point, TDR/DCD, bassilia@emro.who.int

### **Programme news**

#### AIDS and Sexually Transmitted Diseases

#### World AIDS Day, 1 December

World AIDS Day this year heralds advancements and positive changes in commitment, attitudes and response to the HIV epidemic. However, the pandemic continues with persistent stigma and discrimination against those living with HIV and those most vulnerable to it. It is therefore crucial to dedicate another World AIDS Day to reflect on human rights in the context of universal access to



### World Health Day 2011

The theme of World Health Day 2011 is antimicrobial resistance, which represents a major threat to patient care and disease prevention and control. The Day will be celebrated with the slogan of "Combat drug resistance - no action today, no cure tomorrow" and urges adoption and action on a WHObacked policy package. The package includes "Committing to a comprehensive, financed national plan with accountability and civil society engagement; strengthening surveillance and laboratory capacity; ensuring medicines of good quality and regular supply; regulating and promoting rational use of medicines, including in animal husbandry, and ensuring proper patient care; enhancing infection prevention and control; fostering innovations and research and developing new tools". For details, please write to: mac@emro.who.int.

HIV prevention, treatment and care. The theme of this year's World AIDS Day is "Universal Access to HIV prevention, treatment and care is a critical part of human rights" with the slogan "I live my rights. "I respect other people's rights". Campaign material can be downloaded from www.emro.who.int/asd.



### **Programme news (cont.)**

# Regional strategy for health sector response to HIV 2011-2015

The HIV epidemic continues to expand. An estimated 50 000 to 100 000 new infections have occurred each year in the Region during the past decade. Efforts to prevent further spread of the epidemic and to expand access to life-saving antiretroviral therapy have increased substantially. However, there are still major gaps in knowledge with regard to the local dynamics of the HIV epidemic and in programmes for those at increased risk. These gaps are the main reason for the continued transmission of HIV. The regional strategy for health sector response to HIV 2011-2015, which was endorsed by the fiftyseventh session of the Regional Committee for the Eastern Mediterranean, accommodates the need for re-orientation based on better knowledge of HIV epidemiology in the Region, on lessons learnt from national HIV/AIDS programme successes and failures in the past, as well as the need to reinforce commitment and to address persisting challenges more efficiently.

**International Health Regulations** 

### Support for implementation of the International Health Regulations (IHR 2005)

Under the direction of the WHO Regional Director, a new programme which focuses on the International Health Regulations has been created in the Regional Office. This programme has been created to support States Parties in implementing the newly revised IHR (2005) in order to enhance national, regional and global public health security. The IHR will assist countries of the Region assess and ensure functionality of core capacities by 2012. In addition, the IHR programme will be involved in strengthening capacities at the points of entry, promoting bio-risk management and supporting countries in responding to other hazardous events, whether chemical, radioactive or nuclear. The programme also aims to strengthen laboratory capacities to be in line with the IHR.

# Strategy for integrated surveillance of communicable diseases

The Division of Communicable Diseases is currently in the process of developing a new initiative called the Strategy for Integrated Communicable Disease Surveillance Systems. The main goal of this initiative is to develop a holistic approach to integrating surveillance functions and activities in the Eastern Mediterranean Region to enable Member States to build the required capacities to define, detect and respond to communicable diseases and public health threats. The strategy will focus on identifying gaps, possible synergies and existing surveillance activities in national surveillance systems. This will be followed by regional consultations to discuss situation analysis findings and the development of a framework outlining strategies for integrating surveillance activities within national surveillance systems.

#### **Control of Tropical Disease and Zoonosis**

# Schistosomiasis elimination efforts supported in Yemen

After several rounds of joint meetings between WHO Regional Office and the World Bank on the 6-year schistosomiasis elimination project in Yemen, the Regional Office Geographical Information Systems (GIS) team created a database covering all 41 381 Yemeni villages. This database is to be used for all calculations, such as village population, number of houses, number of families, male and female population and was based on the collected experiences. challenges and lessons learnt from organized campaigns in the previous year. This database will automate the calculation of the targeted population subgroups for treatment, the required drug amounts for a campaign, and the operational and social mobilization cost at any desired level, from village level to national level. In addition, a national schistosomiasis risk map was prepared to be used as a decision support tool for campaign planning, monitoring and evaluation.

### Tropical disease control consultative meetings in Tokyo, Japan

Two important meetings on leprosy were held in Tokyo, Japan. The first was held from 7 to 8 November 2010 in order to review WHO regional leprosy activities in 2009 and 2010. In addition, proposals for leprosy control activities in 2011 were reviewed with the Nippon Foundation. A second meeting was held from 9 to 10 November, in Tokyo, on sentinel surveillance for drug resistance. This meeting was co-hosted by the National Institute of Infectious Diseases and WHO Global Leprosy Programme to review drug resistance surveillance data from 2009. In addition, reviews in relapses reported by national programmes were conducted along with updates on recent advances in DNA sequence technology.

An estimated 50 000 to 100 000 new infections have occurred each year in the Eastern Mediterranean Region during the past decade.

### **Research highlights supplement**

# Testing the sensitivity and specificity of the fluorescence microscope (CyScope®) for malaria diagnosis

Successful treatment of malaria relies greatly on early and correct diagnosis. The most dependable method of diagnosis is through light microscopy. Although very reliable it is time consuming, particularly in highly endemic areas. This study attempted to compare the sensitivity and specificity of novel diagnostic tool, CyScope® fluorescence microscope with traditional microscopy.

293 febrile adult patients were recruited, interviewed and gave blood samples. The samples were tested using a hospital microscope, a reference laboratory microscope and the new CyScope® microscope. The sensitivity, specificity, positive and negative predictive values of the CyScope® microscope were calculated. The results showed very high sensitivity and specificity (98.2% and 98.3%), as well as high positive predictive and negative predictive values (93.3% and 99.6%). The study concluded that due to the reliability of CyScope® and its ability to aid in rapid diagnosis, that CyScope® be used in malaria diagnosis.

# Estimating tuberculosis case detection rate in resource-limited countries: CAPTURE TB studies in Egypt, Yemen, Djibouti, and Syria

Unreliable tuberculosis surveillance systems pose a challenge to effectively monitoring the epidemiological status of tuberculosis. Indirect estimation of tuberculosis is often used to monitor performance and implementation of national tuberculosis programmes. This study aimed to assess the case detection rate of tuberculosis, as well as estimate tuberculosis incidence in Egypt, Yemen, Djibouti and Syria. Representative sample of governorates were selected by stratified cluster random sampling. Data was collected through active prospective longitudinal surveillance from public and private non-NTP (national tuberculosis programme) sector and then analysed using record linkage and 2 or 3 data source capture recapture analysis. Results showed higher case detection rates, as well as lower incidence rates, for all countries as compared to previous estimates. The study concluded that representative sampling, prospective surveillance in the non-NTP sector, record linkage, as well as capture-recapture analysis can significantly improve case detection rates and tuberculosis burden estimates.

### Efficacy of local heat therapy by thermogenerator (radiofrequency) in treatment of ACL compared with intralesional injection of meglomine antimoniate in Iran

Cutaneous leishmaniasis, manifesting itself as highly visible skin lesions, is commonly treated with intralesional injections of antimonial drugs. However, this method of treatment in Iran has been found to have low efficacy. The parasite causing cutaneous leishmaniasis is heat sensitive and heat therapy may potentially be of benefit. The aim of this study was to test the efficacy of heat therapy of cutaneous leishmaniasis using radiofrequency generator in comparison to intralesional injections. 117 patients testing positive for cutaneous leishmaniasis were enrolled and randomly assigned into two treatment groups; heat therapy and intralesional injection. The duration of treatment for both groups was four weeks. The results showed that heat therapy with thermogenerator radio frequency can be used as an efficacious treatment in lesions of cutaneous leishmaniasis. In addition, heat therapy was found to be more efficacious and had fewer adverse effects than intralesional injection. For final reports of studies, please contact TDR@emro.who.int

### Programme news (cont.)

### **Malaria Control and Elimination**

# Regional training workshop on malaria programme performance review in Cairo, Egypt

The Regional Office and Roll Back Malaria partnership are planning to conduct a training workshop for malaria programme managers and partners on malaria programme performance review and malaria strategic planning processes and tools in Cairo from 13 to 15 December 2010. The workshop aims to sensitize participants on malaria programme performance review and malaria strategic planning processes, train participants on the manual and tools and develop plan and proposals for reviews and strategic planning in 2010–2011.

#### World malaria report 2010

The World malaria report 2010 will be published



Dr Akihiro Seita, Coordinator for Tuberculosis, AIDS and Malaria, will be leaving the Regional Office and joining the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) at their headquarters in Amman, Jordan, as a Special Representative of WHO and Director of Health of UNRWA. Dr Seita has worked tirelessly in tuberculosis care in the Region for several years. The Regional Office looks forward to continuing collaboration with Dr Seita and wishes him success in his new role.

<sup>(</sup>Continued on page 4)

### Programme news (cont.)

in December. The report has been an excellent means for communicating the latest available data on the malaria burden and coverage of interventions, achievements and challenges and gaps at global level reported from malaria-endemic countries, mainly from surveillance systems but also includes surveys and other programmatic data. A more detailed regional malaria report on control and elimination, covering all countries in the Region, adopts a more analytical approach and is due to be published in January 2011.

## The ninth intercountry meeting of national malaria programme managers in Marrakech, Morocco

The ninth intercountry meeting of national malaria programme managers was held in Marrakech, Morocco, from 22 to 24 September 2010. Morocco was certified malaria free in May 2010. The previous meeting was held in Dubai when the United Arab Emirates was certified malaria-free. The objectives of the meeting were to discuss country achievements, and more importantly, the challenges for malaria control and elimination. Countries were also updated on new global strategies and technical developments.

Back to back with the malaria managers' meeting, the Regional office conducted the Intercountry meeting for members of HANMAT and PIAM-Net, two subregional networks for monitoring efficacy of antimalarial medicines, from 25 to 26 September 2010. Participants were updated on new developments on antimalarial drug resistance monitoring, status of resistance to ACTs, antimalarial drug quality and pharmacovigilance and use of PCR and serology studies.

### **Stop Tuberculosis**

## Forty-first world conference on lung health 11–15 November 2010, Berlin, Germany

The forty-first world conference on lung health was organized by the International Union Against Tuberculosis and Lung Diseases (IUATLD) from the 11 to 15 November 2010. It is the largest annual gathering of the global tuberculosis community. The Stop TB programme organized with relevant countries and partners several side meeting, which included:



# Lilly multidrug-resistant-TB (MDR-TB) partnership Round table for the Eastern Mediterranean Region

A joint meeting with Lilly MDR-TB partnership involving Afghanistan, Djibouti, Egypt, Iraq, Somalia and Sudan was held on 11 November to present and discuss the MDR-TB situation in the Region. Dr Tag El Din, the former Minister of Health of Egypt and Chair of the Eastern Mediterranean Partnership to Stop TB; chaired the session. Ms Rania Ismail (Jordanian Stop TB Ambassador) and Ms Anna Cataldi (Global Stop TB Ambassador) also attended the session.

#### Pakistan Partners Forum

The annual gathering of partners working for Pakistan was held on 13 November. The national tuberculosis control programme Pakistan chaired the session. National and international partners, including the Association for Social Development, KNCV/TBCAP, USAID, GTZ/KfW, the UNION, Indus Hospital and the Global Fund attended the meeting. The meeting participants were updated on progress in tuberculosis care in Pakistan, the post-flood tuberculosis situation and needs assessment.

#### National Partnerships Forum for the Region

A forum for national Stop TB partnerships was organized on 13 November. Countries with national partnerships in the Region attended, including: Afghanistan, Egypt, Jordan, Pakistan, Saudi Arabia, Somalia, and Sudan. National ambassadors from Jordan (Ms Rania), Saudi Arabia (Mr Mohamed Bakhrieba) and Sudan (Dr Awad) also attended the meeting. Dr Tag El Din chaired the session. Other international partners included the Stop TB partnership, Lilly MDR-TB partnership, KNCV and the Global Fund.

#### Afghanistan Partners Forum

This year's annual forum of Afghanistan, held periodically on the sidelines of this global conference, on 13 November focused on "Tuberculosis and women" as the majority of tuberculosis patients in Afghanistan are female. Partners in the forum endorsed the "Berlin declaration on commitment to tuberculosis care for women in Afghanistan." Partners attending and endorsing the declaration included: USAID, TBCAP, Lilly MDR-TB Partnership, JICA, Stop TB Partnership, BRAC, GTZ/KfW, Global Fund and IUATLD.

Association for Social Development (ASD) has received Karl Styblo Public Health Award this year from the IUATLD on the eve of this global conference on lung health. ASD, a non-profit organization from Pakistan, was awarded the prize for their distinguished tuberculosis care activities not only in Pakistan but also in other countries.

### Programme news (cont.)

# Regional drug resistance surveillance strengthening workshop, Alexandria, Egypt

A regional workshop was organized by the Regional Office to strengthen drug-resistant tuberculosis surveillance. The meeting took place in November in Alexandria, Egypt. It provided a training opportunity to countries planning to conduct drug resistance surveillance.

#### **Vaccine Preventable Disease and Immunization**

## Concomitant introduction of two new vaccines in the Expanded Programme on Immunization (EPI) in Morocco

In Morocco, about 28 000 deaths are occurring among children under 5 years old every year and 50% of these deaths are due to communicable diseases (pneumonia and diarrhoeal diseases). After reviewing technical and scientific documentation related to new vaccines. The Ministry of Health, in consultation with the national immunization technical advisory group and partners, took the decision to include pneumococcal and rotavirus vaccines in the EPI programme. Under the patronage of Princess Lalla Salma of Morocco, the EPI celebrated, on 20 October 2010, the introduction of pneumococcal and rotavirus vaccine in the national immunization programme allowing the children in Morocco to benefit from these two costly but safe, cost-effective and life-saving vaccines, in addition to Haemophilus influenza B vaccine.

# Measles supplementary immunization days in connection to flood control, Pakistan

The Vaccine Preventable Diseases and Immunization programme supported Pakistan to implement measles mass campaign in order to prevent occurrence of measles outbreaks in flooded areas. A total of US\$ 2 million was provided to reach over 7 million children. This support will go a long way to mitigate the risk of vaccine preventable disease outbreaks (mainly polio and measles). The Regional Office is assisting the EPI Pakistan with technical support. During the upcoming intercountry measles meeting, programme staff will discuss with the Director of the EPI Pakistan the current situation and development of a plan of action, particularly in the areas of service delivery, capacity-building, cold chain, reporting and surveillance. The Regional Office will be also involved in monitoring and supervising measles campaigns and advocacy in raising more funds for measles campaigns.

#### **Vector Biology and Control**

# Integrated vector management: from policy to implementation – WHO Regional Office leads the way..

The Vector Biology and Control programme participated in a global consultation in Washington DC in October to review three documents on integrated vector management (IVM) – a strategic approach for the control and prevention of vector-borne

diseases. The meeting was organized by WHO in collaboration with USAID and RTI-International. The documents reviewed and finalized were IVM policy guidance, IVM handbook and the IVM core curriculum. The documents will be available before the end of the year. This process drew heavily on Regional Office experiences – beginning with the Regional Committee resolution to endorse IVM; carrying out of vector control needs assessment and development of national IVM strategies and the successful running of a regional MSc/Postgraduate Diploma in Medical Entomology and Vector Control to develop national capacities.

### **Calendar of events**

- Fourteenth meeting of the national tuberculosis programme managers in the Region, 30 November to 2 December, 2010, Cairo, Egypt
- Intercountry meeting on measles control/elimination, 28 November-1 December 2010
- Intercountry meeting on Preparation of 2011 Vaccination Week in the Eastern Mediterranean (VWEM), 3 December 2010
- Intercountry workshop on surveillance of vaccine preventable diseases and monitoring and evaluation of national immunization programmes, 4–6 December 2010

### **Publications**

A global toolkit on public-private sector engagement has been released by the Stop TB programme. This advocacy and technical toolkit draws on previous documents and aims to outline, in a synthesized manner, strategies and interventions that may help tuberculosis programme managers and other stakeholders in engaging all relevant care providers in tuberculosis care and control. The toolkit is available in hard copy and CD from the Stop TB programme and can also be downloaded from:

www.who.int/tb/careproviders in html and Flash versions.

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