GLOBAL MEETING ON IMPLEMENTING NEW AND UNDER-UTILIZED VACCINES
31/05/2012 from Hemanthi Dassanayake and Carsten Mantel, WHO HQ

The sixth WHO Global Meeting on Implementing New and Under-utilized Vaccines was held in Marrakesh, Morocco from 15-17 May 2012 with 116 participants including representatives from Ministries of Health from 12 countries, WHO and UNICEF Headquarters, Regional and Country Offices, partner agencies including Agence de Médecine Préventive, The Bill and Melinda Gates Foundation, US CDC, Clinton Health Access Initiative, GAVI Secretariat, MCHIP|JSI, Project Optimize, PATH, Sabin Institute and USAID, as well as participants from four universities, two NGOs, eight vaccine manufacturers, and three independent consultants.

The objectives of the meeting were to review and discuss among global, regional and country immunization partners, key issues related to the introduction of new and under-utilized vaccines, and to review progress in the implementation of the Global Plan of Action for New and Under-Utilized Vaccines Implementation. The meeting had plenary sessions to review lessons learned with the introduction of pneumococcal, rotavirus and Meningococcal A conjugate vaccines, and hosted seven workgroup sessions on the following areas: Pneumococcal and rotavirus vaccines – experiences with implementation; Immunization programme planning and monitoring; New vaccines, immunization and health systems strengthening; Supply chain and logistics; Country preparedness for delivery of Human Papilloma Virus vaccines; Assessing the disease impact of new and underutilized vaccines; and strategies for middle-income and GAVI graduating countries.

The meeting evaluation by participants showed that most attended in order to receive updates on the subject matter and to discuss key issues related toNUVI, to share information with countries and partners and to informally interact and network. The workshop character of the meeting, the mix of people and professions and the variety of topics was highly appreciated.

Some key issues to be taken forward from the meeting are the following: Communication around loosening of rotavirus vaccine age restrictions; Improved capacity for economic evaluation through the PROVAC initiative; Support to middle income countries, development of a DoV GVAP companion paper; the revision of the comprehensive multiyear planning process and guidance; Support to health systems now targeting immunization goals; real-time monitoring of supply chain performance and professionalization of supply management; Use of a comprehensive cervical cancer prevention and control costing tool for decision-making on HPV vaccine introduction; and the need for special studies on nasopharyngeal carriage and pneumonia end points when assessing the impact of pneumococcal and Hib vaccines.

The full meeting report is now available on this link.
Technical Information

CCL TASKFORCE UPDATE: CONSULTATION HELD POST GLOBAL NUVI MEETING
31/05/2012 from Dmitri Davydov, UNICEF New York

The Taskforce used the global NUVI meeting (15-17 May 2012) to convene a consultation on (a) temperature monitoring; and (b) ‘solarization’: see below.

The consultation was also an opportunity to introduce participants to the Vaccine Modelling Initiative’s HERMES model. This is a discrete event simulation model to help optimize supply chain, by simulating what happens when changes are made to the system. It can also link with costing model to develop cost-effectiveness estimates to assess a range of different changes to system design, processes, and inputs (e.g., human resources, type of vaccine, etc.). The impacts of ‘solarization’ and systematic temperature monitoring can also be modelled. The potential role of serialization and barcodes to improve vaccine stock and quality management was also discussed in the context of PATH being awarded a Bill and Melinda Gates Foundation (BMGF) grant that can feed into the work of the joint Vaccine Presentation and Packaging Advisory Group (VPPAG)-CCL Taskforce group that is looking at how to implement barcodes.

Please contact Dmitri Davydov to express your interest in joining the CCL Taskforce working group, or otherwise engage with us, to make this vision become reality for the benefit of the child.

Temperature Monitoring Systems

There was strong support to improve temperature monitoring, usually amongst the worst performing areas in the Effective Vaccine Management (EVM). It was agreed that the immediate priority is to implement active temperature monitoring: Multi-loggers that give advance warnings of potential failures for Cold Rooms; 30-Day Temperature Recorders (30DTRs; called 30-day loggers in WHO Performance, Quality and Safety (PQS) system) that record ‘alarm events’ for all other vaccine fridges; and Freeze-tags (or removal of frozen ice-packs) for transport.

The consultation consensus on temperature monitoring included the principles of simplicity, sustainability of adoption by health workers, and incremental rollout towards systematic and active temperature monitoring. Substantive change requires adjustments over time from both technological and human systems perspectives, hence the decision to adopt a phased approach. During the first phase, the following points had consensus support: Health workers need to continue twice-daily temperature recording; and learn how to read the temperature and alarms of 30DTRs; Monthly 30-day cycle reporting of alarms is acceptable, despite the 31-day months: Temperature reporting systems need to be revised to enable recording of alarms and response to alarms; Country experiences need to be documented to inform the development of a global guidance and technology innovations. The vision for the subsequent phase of the introduction is to introduce 'double-zero’ reporting (number of heat and freeze alarms per month – which should be ‘double-zero’). Such reporting would be the first step in developing 'data-generating systems', where routine data produced by the system show not only system performance, but also managerial responses to failures – for example how long it takes to repair a fridge.

'Solarization’

Direct-drive solar fridges, that use ice instead of a battery to store energy, considerably ease one of the main problems of previous systems: lack of maintenance leading to failures. Although the technology is young, there was consensus on the readiness to proceed with solarization of the cold chain (in places with less than 4.5 hours of electricity per day, electric ice-lined fridges remain the preferred option). However, given the early experiences of failures, support will be needed to implement and monitor performance. The establishment of Solarization Group of the CCL TF; a presentation at the October 2012 IPAC meeting; and the development of a tool for countries to use their data, to inform the economic case for solarization will be the key 2012 activities.

LANDSCAPE ANALYSIS OF ROUTINE IMMUNIZATION IN NIGERIA (LARI) STUDY
31/05/2012 from Julie Buss, Johns Hopkins School of Public Health

Last month, the International Vaccine Access Center at Johns Hopkins University released the results of a series of interviews conducted in collaboration with the government of Nigeria looking at gaps and solutions to full routine immunization in that country. The Landscape Analysis of Routine Immunization in Nigeria (LARI) study identifies the key barriers keeping vaccines from reaching Nigerian children and explores a range of potential high-impact solutions in the areas of financing and vaccine security, transportation, cold chain technology, performance management, advocacy, leadership and demand creation that together have the potential to significantly improve vaccine access. Visit this page to read more about how the study helps to identify Nigerian solutions for Nigerian problems.
Technical Information

IVI MODELING MEETING ON VACCINATION STRATEGIES FOR DENgue
31/05/2012 from Luiz da Silva, Dengue Vaccine Initiative

On 3-4 April 2012, the Dengue Vaccine Initiative convened a meeting of modelling experts as a part of the planning process for the near- and longer-term use of a dengue vaccine. Participants considered the most efficient vaccination strategies and expected impacts on dengue in different settings.

The results of the first efficacy trial for the tetravalent dengue vaccine, developed by Sanofi Pasteur, are expected in the second half of 2012. If the vaccine proves to be safe and effective, vaccine introduction in endemic countries could possibly begin earlier than 2015, once the vaccine is licensed. Optimal vaccination strategies for endemic countries therefore need to be developed urgently. Participants at the meeting included representatives from the Dengue Vaccine Initiative (DVI), WHO, Center for Statistical and Quantitative Infectious Diseases (CSQUID), Johns Hopkins School of Public Health (IVAC), Imperial College, Sao Paolo University, Sanofi Pasteur, Oxford University Clinical Research Unit Vietnam, University of Florida, Universidad Nacional Autonoma de Mexico, Universidad de los Andes.

The meeting confirmed that modelling can help to inform careful decision making, particularly for determining appropriate immunization strategies. Models predict that an ideal strategy for dengue vaccination will include routine vaccination at a young age to obtain and maintain a good level of disease control, and a catch-up programme to reduce incidence rapidly. A technical meeting of modellers will be held in the second half of 2012 to refine models and validate assumptions, and in 2013 the WHO will convene a broader meeting of programme and policy makers, once preliminary vaccine efficacy data is available, to address the programme and planning challenges that endemic countries will face.

MATERNAL AND NEONATAL TETANUS ELIMINATION (MNTE) PROGRESS
31/05/2012 from Rownak Khan, Azhar Abid Raza and Flint Zulu, UNICEF New York

The first quarter of 2012 ended on a positive note for the Maternal and Neonatal Tetanus Elimination (MNTE) programme with two more countries, Burkina Faso and Guinea Bissau, added to the list of countries that have achieved MNT Elimination. This brings the total number of countries that have eliminated MNT to 25 out of 59 that were at high risk since 1999. In addition, 15 states out of 33 in India, Ethiopia (all except Somali Region) and 29 provinces out of 33 in Indonesia have eliminated MNT. The most recent validation surveys have been conducted in Tanzania and Timor Leste and official results are expected soon. Furthermore, a pre-validation assessment was conducted in Cameroon and the country is scheduled for validation survey in 2012.

As of end April 2012, MNT still remains a public health problem in 34 countries. Ethiopia, Guinea Conakry, Madagascar, Niger, Philippines and Somalia conducted Tetanus Toxoid Supplementary Immunization Activities (TT SIAs) between February and April 2012. Cambodia, Cote d’Ivoire, Iraq, Laos PDR, Mauritania, and Sierra Leone have completed TT SIAs and are awaiting the pre-validation assessments. Funding for MNTE activities was made possible through the successful partnerships with National Committees for UNICEF, P&G Pampers and Kiwanis International.

PATH–WHO PARTNERSHIP HONORED WITH VACCINE INDUSTRY EXCELLENCE AWARD
31/05/2012 from Hayatee Hasan, WHO HQ

PATH and the World Health Organization (WHO) have been named winners of the 2012 Vaccine Industry Excellence Award for best vaccine partnership in recognition of their unique collaboration, the Meningitis Vaccine Project (MVP), that led to the introduction of a new meningitis A vaccine. Created in 2001, MVP developed MenAfriVac™, a vaccine that protects people against deadly meningitis A and could end a century of meningitis epidemics in sub-Saharan Africa. Since its introduction in 2010, more than $4 million Africans across six countries have received the vaccine. Not a single case of group A meningococcal meningitis has been reported among those vaccinated. For more information, click on this link.
Ministers of Health from 194 countries at the 65th World Health Assembly endorsed the Global Vaccine Action Plan (GVAP), a roadmap to prevent millions of deaths by 2020 through more equitable access to vaccines for people in all communities. In addition, Member States also designate the last week of April as World Immunization Week.

Thirty-eight speakers including country delegates, partners such as UNICEF and GAVI Alliance and civil society organizations took the floor in massive support of the GVAP.

The delegates commended the high quality GVAP report, which was developed through extensive consultations with 142 countries and 1100 immunization partners worldwide. Delegates expressed broad support for the GVAP guiding principles, strategic objectives and stakeholder responsibilities. Delegates also congratulated WHO for the successful implementation of the first-ever World Immunization Week in 2012.

Several countries highlighted their achievements in: increasing vaccination coverage; reaching more children with existing vaccines; preventing disease outbreaks; using new vaccines against diarrhoea and pneumonia; and implementing advocacy events such as immunization weeks to highlight the importance of vaccines and immunization in saving lives. Delegates also highlighted several key issues including the need to mobilize more resources to support low and middle income countries to implement GVAP and monitor impact; ensure that support to countries to implement GVAP include a strong focus on strengthening routine immunization; and facilitate vaccine technology transfer to developing countries and promote strategies to bring down vaccine prices.

Following today’s endorsement by the Health Assembly, WHO will lead efforts — using existing partnership and coordinating mechanisms — to support regions and countries to adapt the GVAP into national action plans. In addition, WHO and partners will establish a monitoring and accountability framework for discussion at the Health Assembly in 2013.

Other immunization-related topics for discussion by delegates at the Health Assembly include the sharing of influenza viruses and access to vaccines; intensification of the global polio eradication initiative; and the progress report on cholera control and viral hepatitis.

**Related links**

Draft global vaccine action plan. [Report](#) by the Secretariat.

Pandemic influenza preparedness: sharing of influenza viruses and access to vaccines and other benefits: [report on the work](#) of the Advisory Group.

Poliomyelitis: [intensification](#) of the global eradication initiative.

[Progress report](#) on cholera control and viral hepatitis.
Technical Information

WHO’S WORK IN ENSURING HEALTHY PEOPLE AT ALL STAGES OF LIFE
31/05/2012 from Hayatee Hasan, WHO HQ

WHO’s work to improve family and community health is key to achieving the health-related Millennium Development Goals (MDGs) three (promote gender equality and empower women), four (reduce child mortality), five (prevent early and unwanted pregnancy and improve maternal health), and six (combat HIV/AIDS, malaria and other diseases).

The Family, Women’s and Children’s Health (FWC) Cluster addresses the health needs of vulnerable populations at all stages of life, from pregnancy, birth through childhood, adolescence, adulthood, and older age.

This was the main message highlighted by WHO staff interacting with delegates visiting the FWC exhibit at the 2012 World Health Assembly.

An information sheet on the various activities undertaken by FWC in support of reaching the MDGs were handed out to representatives of ministries of health, technical partners and non-governmental organizations, as well as a CD containing key technical and strategic documents which are available in several languages.

Related links
Healthy people at all stages of life. Achieving the health-related Millennium Development Goals.

Des populations en bonne santé à toutes les étapes de la vie. Réaliser les objectifs du Millénaire pour le développement liés à la santé.

Draft global vaccine action plan. Report by the Secretariat.

Monitoring of the achievement of the health-related MDGs. Report by the Secretariat.

WHO PREQUALIFICATION NEWS

NEW VACCINES PREQUALIFIED
One- and ten-dose presentations of DTwP-HepB-Hib (fully liquid presentation) vaccine manufactured by Biological E. Ltd India was prequalified on 18 May 2012.

It has been added to the list of prequalified vaccines.

New Publications

SAMPLE DESIGN AND PROCEDURES FOR HEPATITIS B IMMUNIZATION SURVEYS: A COMPANION TO THE WHO CLUSTER SURVEY REFERENCE MANUAL (WHO/IVB/11.12)

This IVB document is now online. This document is designed to supplement the sample design, sample selection and sample size determination guidance provided by the World Health Organization (WHO) documents, “Immunization Cluster Survey Reference Manual” (WHO, 2005) and “Assessing the impact of Hepatitis B vaccination: Strategies and overview of issues” (WHO, 2006). This report is written as an aid to researchers and health professionals who are preparing to conduct a Hepatitis B vaccination programme impact assessment or HBV sero-prevalence survey. The discussion emphasizes practical issues related to sample design choice, sample selection methods and procedures for minimizing both sampling and no sampling errors in the survey data.
During its meeting of 10-12 April 2012, the Strategic Advisory Group of Experts (SAGE) on immunization discussed issues including polio eradication, seasonal influenza vaccine, rotavirus immunization schedules and information on vaccine for an Intergovernmental Negotiating Committee on mercury.

**Polio eradication**
SAGE was seriously alarmed by the polio eradication funding gap for 2012-13 and urged all governments and partners to act immediately to fill the funding needs to wipe out polio. SAGE welcomed the Global Polio Emergency Action Plan and notes the progress made in developing and implementing the national plans for Afghanistan, Nigeria and Pakistan, aimed at reaching missed children with polio vaccines and in articulating the accountability processes at all levels. SAGE emphasized the need for close monitoring of the rollout of the national plans in the coming months to ensure that maximum impact is achieved. SAGE also welcomed the much needed emphasis on the synergy between polio eradication activities and the strengthening of routine immunization.

**Seasonal influenza vaccine**
SAGE discussed seasonal influenza vaccination and recommended pregnant women as the most important risk group for seasonal influenza vaccination. SAGE also supported the recommendation, in no particular order of priority, of vaccination of the following targeted populations: healthcare workers; children 6 to 59 months of age; the elderly; and those with high-risk conditions. SAGE recommended that countries with existing influenza vaccination programmes targeting any of these groups should continue to do so but incorporate immunization of pregnant women into such programmes. Countries should decide which other risk groups to prioritize for vaccination based on burden of disease, cost-effectiveness, feasibility and other appropriate considerations.

**Rotavirus immunization schedules**
Following a review of new evidence on rotavirus disease burden, timeliness of vaccination and the safety and effectiveness of different immunization schedules, SAGE continues to recommend that the first dose of rotavirus vaccine be administered as soon as possible after 6 weeks of age as this maximizes disease protection and along with diphtheria-tetanus-pertussis (DTP) doses. Early immunization is favored but the current age restrictions for the first and last dose of rotavirus vaccines would prevent vaccination of many vulnerable children in settings where the DTP doses are given late (i.e. after 15 weeks for DTP1 or after 32 weeks for DTP2 or DTP3). By allowing children to be immunized at any time with DTP, programmes will be able to immunize children who are currently excluded from the benefits of rotavirus vaccines. However, timelines of vaccination remains a key attribute of effective immunization programmes. SAGE recognized that countries have different burdens of disease and may or may not have introduced rotavirus vaccines. As such, countries that have already introduced rotavirus vaccines, should develop specific plans on vaccine administration in a manner that supports existing programmes and encourages early protection of infants against rotavirus infection.

**Information on vaccine for an Intergovernmental Negotiating Committee on mercury**
Whilst SAGE supports global moves to minimize mercury releases to the environment, it is essential that access to thiomersal-containing vaccines is not restricted under this global initiative. SAGE reaffirmed that thiomersal-containing vaccines are safe, essential and irreplaceable components of immunization programmes, especially in developing countries. Removal of these products would disproportionately jeopardize the health and lives of the most disadvantaged children worldwide. Global advocacy and communication efforts at the highest level of government and by stakeholders are urgently needed to ensure continued availability of thiomersal-containing vaccines. SAGE requested WHO to produce a report on the security of the supply of affordable vaccines and encouraged donors to invest in the development of new vaccine technologies that facilitate the delivery of effective, affordable vaccines to populations most at risk.

Other topics discussed at the meeting included the impact of introduction of new vaccines on immunization and health systems; vaccination in humanitarian emergencies and hepatitis A vaccine.

Full report

Background documents and presentations

More information on SAGE
Technical Information


This document is now online. This Strategic Plan explains how countries, working together with the Measles & Rubella Initiative and its partners, will achieve a world without measles, rubella and congenital rubella syndrome (CRS). The Plan builds on the experience and successes of a decade of accelerated measles control efforts that resulted in a 74% reduction in measles deaths globally between 2000 and 2010. It integrates the latest WHO policy on rubella vaccination which recommends combining measles and rubella control strategies and planning efforts, given the shared surveillance and widespread use of combined measles-rubella vaccine formulations. The Plan presents clear strategies that country immunization managers, working with domestic and international partners, can use as a blueprint to achieve the 2015 and 2020 measles and rubella control and elimination goals.

PROCEEDINGS OF THE TENTH GLOBAL VACCINE RESEARCH FORUM AND PARALLEL SATELLITE SYMPOSIA, GENEVA, 26-29 JUNE 2011 (WHO/IVB/12.06)

The meeting report of the Global Vaccine Research Forum held from 26-29 June 2011, Geneva, Switzerland is now online.

ASSESSMENT OF EIGHT HPV VACCINATION DEMONSTRATION PROGRAMMES IMPLEMENTED IN LOWEST INCOME COUNTRIES

This study on the results of and key concerns of eight HPV vaccination demonstration programmes conducted in seven lowest income countries through the Gardasil Access Programme (GAP), was recently published in BMC Public Health. The eight programmes analyzed initially targeted a total of 87,580 girls, of which 76,983 received the full three-dose vaccine course, with mean programme vaccination coverage of 87.8% and mean adherence between the first and third doses of 90.9%. Three programmes used school-based delivery models, two used health facility-based models and three used mixed models that included schools and health facilities. The study found that mixed models that incorporate both schools and health facilities appear to be the most effective at delivering HPV vaccine. The full article can be accessed here.

INFORMATION SHEETS ON VACCINE REACTION RATES - NOW AVAILABLE IN SPANISH!

31/05/2012 from Philipp Lambach, WHO HQ

To help strengthen the capacity to introduce vaccines in Member States, WHO has published WHO Information Sheets on Observed Rates of Vaccine Reactions online to provide details on selected vaccines that are relevant to the analysis of reported events. Due to increased demand, Spanish versions are now made available at this link.

The information sheets aim to provide details on observed rates of vaccine reactions of selected vaccines and have been developed with the Global Advisory Committee on Vaccine Safety (GACVS). They can be used in the evaluation of Adverse Events Following Immunization (AEFI) reported during national immunization programmes, but also in preparing communication materials about specific vaccines. Primarily, the information sheets are designed for use by national public health officials and immunization programme managers but may appeal to others interested in such information.

Currently, three information sheets have been made available. The website will be continuously updated as information sheets on additional vaccines become available. To receive a notification on upcoming information sheets please send an email.

HEALTH WORKER TRAINING MATERIALS

Waiting for little text from Jhilmil
Country Information by Region

AFRICAN REGION

AMP COLLABORATES TO DIAGNOSE MENINGITIS OUTBREAK IN BENIN WITH ‘LABOMOBIL©’
31/05/2012 from Berthe-Marie Njanpop-Lafourcade, Agence de Médecine Préventive (AMP)

The Agence de Médecine Préventive (AMP) pulled together resources in Benin, Burkina Faso, Côte d’Ivoire, and Togo to send its LaboMobil© mobile laboratory to investigate a meningitis outbreak in northern Benin from 16-28 April 2012. The mission was requested and supported by WHO HQ.

The epidemic was declared in week ten after the mass vaccination campaign against meningitis A was launched (7-12 February 2012).

AMP laboratory expert Dr Berthe-Marie Njanpop-Lafourcade directed the entire mission over the phone. The technician from IPCI tested 196 samples (184 from local health centres, 12 newly collected) and 59 frozen strains in the LaboMobil©. The etiology of 55 cases was confirmed as Neisseria meningitidis (13 NmY/W135, 7 NmX, 34 NmW135) and one as Haemophilus influenzae type B (Hib) (eight-month-old baby). These findings confirmed that NmW135 was at the origin of the outbreak, enabling appropriate vaccination strategies (from 26-28 April 2012). The conservation of live strains posed a final challenge, as Benin did not have the necessary equipment (-80°C freezer). AMP coordinated with authorities in Benin and Togo to send the isolates to the laboratory at the Regional Hospital Center (CHU) in Dapaong, Togo. A biologist from Dapaong met the LaboMobil© in Benin and took the samples back in highly secured packaging. These strains will be shipped to the WHO Collaborating Centre in Paris for genotyping. Analysis of cerebrospinal fluid (CSF) and inoculated trans-isolates is currently being conducted with PCR or culture at IPCI.

This LaboMobil© mission is an example of multi-country collaboration.

For more information about AMP.

STRENGTHENING ROUTINE IMMUNIZATION IN UGANDA
31/05/2012 from Modibo Kassogue, Sanjiv Kumar, Eva Kabwongera, Nasir Yusuf, Maria Costales, Flint Zulu, UNICEF Uganda, ESARO and New York

Uganda, once a high performing country in routine immunization in the Eastern and Southern Africa region in the 1980s and early 2000, has seen a decline in routine immunization coverage since 2005 as revealed by the Expanded Programme on Immunization (EPI) review conducted in 2010. This was further echoed by the joint WHO/UNICEF Assessment mission conducted in January 2012.

The country experienced outbreaks of polio in 2009 and 2010, and measles outbreaks in 2012. The major bottlenecks identified by the various reviews were health system related: inadequate human resource, funding, waning political will, poor data management and compounded further by vaccine stock-outs due to erratic gas supply for the cold chain. To address the situation the country is making herculean efforts by ensuring that routine immunization is revitalized.

A number of activities are now in progress to stem the declining immunization trend: 1) Data Quality Self-Assessment has been conducted in 39 districts in the first quarter 2012 and the report is being finalized. This is a necessary exercise given the data quality issues with routine immunization data in Uganda 2) Funds have been released by UNICEF to Uganda National Expanded Programme on Immunization (UNEPI) to support Effective Vaccine Management improvement plans. 3) Immunization cards for routine immunization, which have been erratic in supply in the last three-five years, have been printed by the government and distributed 4) Micro-planning for quarterly promotional activities to create demand for immunization activities through Faith Based Organizations (FBOs) have commenced. These activities are linked with the Child Health Days to reinforce routine immunization 5) Strengthening of Reaching Every District (RED) strategy implementation in poor performing districts and 6) Advocacy with parliamentarians to lobby for increased budget allocation for routine immunization and to garner political support.
Country Information by Region

AFRICAN REGION

SAHEL CRISIS: WHO AND PARTNERS VACCINATE IN REFUGEES CAMPS
31/05/2012 from Crepin Hilaire Dadjo, WHO/IST West Africa

Since January 2012, the Sahel region has been facing a persistent displacement of population due to poor harvest and increasing food insecurity over the past months even years. Moreover a socio-political crisis which occurred in Mali in March 2012 aggrivated the turmoil. According to the most recent figures available, over 132,000 persons have been internally displaced in Mali while over 186,000 have crossed over into the neighbouring countries of Burkina Faso, Mauritania and Niger. In addition to the humanitarian situation posed by these movements, these populations are also vulnerable to endemic and epidemic-prone diseases in these countries. From the regions affected by the crisis, there have been reports of meningitis, cholera and measles. For the period from January to March 2012 according to data compiled by WHO IST West, 5,749 cases of meningitis, 424 cases of cholera and 6,696 cases of measles were reported from the regions affected by the crisis in Burkina Faso, Chad, Mali, Niger and Senegal.

Given the increased risk of epidemics among these displaced populations, the vulnerable age groups of children zero-five years for Polio and nine months to 14 years for measles have been offered vaccination, organized with the support of WHO and partners, among other interventions, targeting the displaced population in the camps in Burkina Faso, Mauritania and Niger. Vaccinations were conducted against meningitis, yellow fever, measles, polio and Vitamin was distributed. In Niger, for instance, 9,351 children aged from nine months to 14 years were vaccinated against measles in February 2012 in refugee camps. For the two rounds of Polio campaigns held in March and May 2012, Burkina Faso vaccinated 8,745 children under five years old. Again, all these interventions were made possible thanks to collaboration between WHO and other UN agencies and humanitarian Non-Governmental Organizations.

TRAINING OF TRAINERS COURSE IN EPI MANAGEMENT IN DR CONGO
31/05/2012 from Auguste Ambendet, WHO IST Central and Evariste Mutabaruka, AFRO

The Ministry of Public Health (MSP) of the DRC has requested assistance from WHO AFRO to organize a training course for trainers in EPI management (MLM). The training was held from 10-23 May 2012, preceded by a facilitators' orientation o 8-9 May 2012. This course aimed to train a pool of trainers among the EPI managers at central, provincial, district level and EPI focal points from UNICEF and WHO.

The course was conducted by 16 facilitators, they were from Maternal and Child Health Integrated Programme (MCHIP) / USAID (1), UNICEF / WCAR (4), UNICEF / Nigeria (1), UNICEF/DRC (3), WHO / DRC (5), WHO / IST Central (1) and AFRO (1).

The targets of the training were: Managers at the Ministry of Public Health (EPI, Directorate for the Fight against Disease, Directorate of Education of Health Sciences, Division of Continuing Education); Managers in the Higher Education and University (School of Public Health in Kinshasa, Higher Institute of Medical Technology Kinshasa); and Partners of the Ministry of Health (WHO, UNICEF, MCHIP, and others).

Selected participants must have been trained in public health, held a post relating to any of the training modules and be able to transmit the knowledge and concepts. At the end of the training, 16 facilitators and 44 national trainers were trained. The period of 8-9 May 2012 was devoted to briefing the 16 facilitators. The training of 44 trainers was held from 10-19 May 2012 and was followed from 21-23 May 2012 by learning about systematic planning of an MLM/EPI lesson (basic concepts and learning objectives, instructional design of a lesson and development of a course syllabus).

Subsequently, the pool of trained trainers will be responsible for organizing, from August 2012, training in cascades at the provincial pools of Kinshasa / Bandundu / Ecuador; Goma / Bukavu / Kindi; and Lubumbashi / Kasai.
Country Information by Region

AMERICAN REGION

PAHO/WHO SUPPORTS SINT MAARTEN OPEN HOUSE HEALTH DAY EVENT
31/05/2012 from Cristian Morales, Gladys Ghisays, WHO PAHO Venezuela

The Pan American Health Organization / World Health Organization (PAHO/WHO) had the privilege to actively support the Ministry of Health (MOH) of Sint Maarten on the Open House Health Day that took place on 19 May 2012 in its capital, Philipsburg. This activity was organized within the Vaccination Week in the Americas; which this year celebrated its Tenth anniversary with millions of children vaccinated all over the Region. Since the dissolution of the Netherlands Antilles in 2010, Sint Maarten is one of the constituent countries of the Kingdom of the Netherlands located in the Caribbean.

PAHO/WHO was represented in this activity by Dr Cristian Morales who, on behalf of Dr Jorge Jenkins (PAHO/WHO chief of mission for Venezuela, Aruba, Curacão, Sint Maarten and the Insular Territories of the Kingdom of the Netherlands), shortly addressed the audience during the inauguration and joined Mr Cornelius de Weever, Minister of Health, in offering a certificate of recognition to the non-governmental organizations and Ministry of Health (MoH) staff who participated in the event, consecrating their time and energy to make this event a big success.

Not only were there nearly 200 children checked and 75 vaccinated but the community benefited from a wide range of health information and promotion initiatives covering nutrition, HIV/AIDS, Alzheimer's disease, diabetes, etc.

A workout session, at the rhythm of Zumba, put the participants on the move by emphasizing the importance of exercise as a good intervention to help fight against obesity and nurture healthy behaviour among the youth and the community as a whole.

WORKSHOP TO DEFINE THE MAIN INDICATORS AND VISUALIZATIONS FOR THE IMMUNIZATION MODULE OF THE REGIONAL HEALTH OBSERVATORY
31/05/2012 from Carolina Danovaro, PAHO

From 21-25 May 2012, participants from selected countries of the Americas, WHO, EURO, PATH-Optimize met to discuss the main indicators and visualization to be included in the Immunization Module of the Regional Health Observatory, as well as redesign PAHO’s immunization data dissemination products. Guidance on what PAHO should recommend to countries for improving immunization data quality, analysis, monitoring and evaluation, and use of the information for decision-making was also sought.

Participants discussed how current data collected in the PAHO-WHO/UNICEF Joint Reporting Form is collected in centralized and decentralized countries and how the process could be optimized by taking advantage of new information and communication technologies. Immunization indicators were revised and new visualizations and informational products, including a Regional immunization dashboard were proposed. Finally, a roadmap for developing and implementing the recommendations of the workshop was proposed. This workshop is one of the many activities aimed at streamlining the integration of immunization programmes and surveillance systems, improving data quality and promoting evidence-based decisions in the Region of the Americas.

This project was supported by Grant Number GHSGH090017-01-00 from Health Diplomacy Programme, Office of Global Affairs, US Department of Health and Human Services (HHS)
Country Information by Region

AMERICAN REGION

FIRST PAN-AMERICAN VACCINE SAFETY SUMMIT
31/05/2012 from Pamela Bravo and Carlos Castillo-Solorzano, PAHO

On 10 May, public health officials from across the Americas converged on the Anschutz Medical Campus at the University of Colorado for the first Pan American Vaccine Safety Summit. The purpose of the two-day summit, organized by the Pan American Health Organization, World Health Organization and the University of Colorado, was to create new ways of delivering immunizations safely.

Country representatives from ten countries defined the framework, mission, objectives and results of a proposed Pan American Vaccine Safety Network. Participants also determined the terms of reference of the Pan American Committee on Vaccine Safety (PACVS), a regional body of experts and institutions in vaccines that will provide evidence based recommendations and guidance to countries dealing with vaccine safety issues. Representatives also discussed how their nations deliver vaccines and the challenges of confronting rumours that can endanger immunization programmes. Proactive and honest communication was highlighted as critical measures in managing vaccine-related crisis.

A web-based platform titled e-SAVI was presented during the meeting. The platform allows reporting Events Supposedly Attributable to Vaccines and Immunization (ESAVI), storing and analyzing case information. The e-SAVI platform will be available without any cost to all the countries of the Americas. This platform will also look for effective mechanisms for harmonizing current country-interfaces to capture vaccine safety data. For further inquiries on the system, please contact Fernando Revilla and Pamela Bravo.

In addition, representatives recommended preparing a five-year work plan on vaccine safety issues that provide a set of regional strategies and activities to strengthen vaccine safety monitoring as well as crisis prevention and management. This work plan will serve as a tool to effectively identify and mobilize financial resources, and will seek the endorsement of PAHO’s Member States and partners. Finally, representatives recommended continuously fostering of exchange of information and expertise among PAHO’s Member States and partners by establishing formal mechanisms for delivering vaccine safety technical information.

FOURTH INTERNATIONAL WORKSHOP ON GOOD PRACTICES FOR SAFE INJECTION AND COURSE ON COLD CHAIN OPERATIONS AND MAINTENANCE
31/05/2012 from Nora Lucia Rodriguez and Nably Castillo, PAHO

On 26-29 March 2012, the fourth International workshop on Good Practices for Safe Injection and a Course on Cold Chain Operations and Maintenance were held in Tegucigalpa, Honduras. The purpose of the Workshop was to train and update health professionals on safe injection practices, new technologies, good storage practices, and preventing risks associated with needle accidents. The objective of the Cold Chain Course was to train personnel on good practices for managing and storing vaccines, transportation and distribution, temperature control, operating and maintaining refrigeration equipment and determining the volume and storage capacity of vaccines. The events were attended by 60 participants: immunization personnel, coordinators of the Expanded Programme on Immunization (EPI) of the 20 health department regions, cold chain technicians, epidemiologists, physicians, representatives of the Honduran Institute of Social Safety (IHSS) and the central EPI team and a delegate of the Ministry of Health of Guatemala.

The Workshop highlighted the importance of disseminating acquired knowledge to all regions by replicating the national information in the respective immunization programmes. The event also presented Bolivia’s experience in waste management and pilot recycling programme as part of the rubella elimination campaign in 2006 (Immunization Newsletter, August 2007: Vol. XXIX, No. 4: Solid Waste Recycling Contest in Bolivia). Honduras presented their progress, challenges and perspectives on EPI safe injection practices. Guatemala presented its experience on the management of hospital solid wastes.

Likewise, the Course on cold chain conducted group exercises, video presentations, day evaluations and a final evaluation. The results of a test after the course indicated that nearly 100% of participants improved their knowledge compared to a pre-test.

As a result of the two events, a series of issues and challenges for Honduras’ EPI were established with respect to the different topics discussed in the workshop and the course. A survey will also be conducted on safe injection practices to identify the degree of compliance and impact, including identifying potential needle-stick injuries. The EPI of Honduras, the US Centers for Disease Control and Prevention (CDC) and PAHO will coordinate the implementation of this survey.
Country Information by Region

AMERICAN REGION

IMMUNIZATION PROGRAMME EVALUATION IN FRENCH GUIANA

25/05/2012 from Jean-Marc Fischer and Rocco Carlisi, Agence Régionale de Santé de Guyane, Rémy Pignoux, Conseil Général de Guyane, and Philippe Tabard and Andrea Vicari, PAHO

From 9-18 May 2012, the local Regional Health Agency and PAHO jointly evaluated the immunization programme of the French Department of Guyane. French Guiana is located in the North-east of South America and shares borders with Brazil and Suriname. With 236,250 inhabitants in 2011 and a surface of 83,500 km², it is sparsely populated (2.8 persons per km²).

This evaluation sought to assess the coordination among private and public partners, investigate options for vaccination data collection in a territory where private practitioners perform a significant proportion of all vaccinations, and review the integration of the local programme with those of the Americas. Teams visited 16 of the 27 public and non-governmental clinics providing vaccination and interviewed private practitioners, administrative and health authorities, and departmental cold chain facilities.

Vaccination generally follows the national French immunization schedule, which currently includes 15 main antigens. Specific adjustments for French Guiana include yellow fever vaccination from nine months of age and Bacillus Calmette-Guérin (BCG) vaccination at birth. Based on the national structure for delivery of curative and preventive health services, vaccination occurs in four different settings—namely, private medical practices (40–45% of all vaccinations), a public child and maternal health programme, and public and Red Cross health care centers. Improvements are needed in the coordination of activities by age and/or geography and in the harmonization of data collection among partners. Administrative coverage data is not available and surveys are periodically carried out (most recently, a school-based survey showed in 2009 85% coverage for the second Measles, Mumps and Rubella (MMR) dose). Although recommended, uptake of PCV and HPV vaccines remains very low.

Whilst showing a well-performing immunization programme, the evaluation in French Guiana demonstrates the challenges of maintaining coordinated immunization activities and vaccination coverage evaluation in an administrative territory where advanced health care services and dispersed rural population coexist.

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Country Information by Region

EASTERN MEDITERRANEAN REGION

SEMINAR ON “THE INTRODUCTION OF NEW VACCINES INTO NATIONAL IMMUNIZATION PROGRAMMES”
31/05/2012 from Mohammed Bouskraoui (University of Marrakech), Carine Dochez (NESI, University of Antwerp)

A seminar on “The introduction of new vaccines into national immunization programmes” was jointly organised by the Faculty of Medicine, Cadi Ayyad University of Marrakech, and the Network for Education and Support in Immunization (NESI), in Marrakech, Morocco, from 27-28 March 2012.

The seminar was intended for Francophone countries from Northern Africa/Middle East: Algeria, Lebanon, Mauretania, Morocco, Tunisia. Vaccine preventable diseases are still a major concern in these countries and the introduction and widespread use of new and under-utilized vaccines can contribute significantly to achieving MDG 4 of reducing the under-five mortality by two-thirds by 2015, compared to 1990. The objectives of the seminar included: (1) to provide participants with the latest updates on routine immunisation, under-utilised and new vaccines; (2) to emphasise the importance of capacity building activities in the area of vaccines and immunisation; (3) to discuss the essential factors in the decision making process for new vaccine introduction; (4) to discuss the financial challenges and programmatic aspects of new vaccine introduction; and (5) to discuss the challenges for the management of vaccination programmes, in particular the adaptation of vaccination schedules/calendars.

A total of 44 participants with following profile attended the meeting: Expanded Programme on Immunization (EPI) managers and other EPI staff, academics, paediatricians, clinicians and National Immunization Technical Advisory Group (NITAG) members. Speakers included national and international vaccinology experts from universities, Ministries of Health, WHO and NESI.

The seminar was well appreciated by the participants (evaluation scores: excellent (58%); very good (36%); good (6%); mediocre (0%); unsatisfactory (0%)) and created lively discussions and exchange of experience among experts of the different countries present. A request was made to organize such a seminar on new vaccine introduction on an annual basis.

SOUTH EAST ASIA REGION

EVALUATION OF IMMUNIZATION TRAINING OF MEDICAL OFFICERS, COLD CHAIN HANDLERS AND TECHNICIANS
31/05/2012 from WHO Country Office, National Polio Surveillance Project, India

India’s national immunization training guidelines and curricula for immunization training of medical officers (MOs) were developed in 2007-08 with the help of immunization partners WHO, UNICEF and IMMbasics. The finished product, the Immunization Handbook for Medical officers, accompanying facilitator’s guide and three-day training kit have been distributed to all states. Likewise, the Handbook for Vaccine and Cold Chain Handlers (CCH) was developed through UNICEF support and distributed to states. The process of training India’s estimated 60,000 public sector medical officers has been modest (~ 50% trained) and wide variation exist between states.

To better understand the differential progress between states to train MOs and CCHs, the National Institute of Health and Family Welfare (NIHFW) with technical support from WHO and UNICEF, are conducting an evaluation to identify factors that affect both the progress and quality of training of these personnel. The evaluation is being conducted in two phases and employs both qualitative and quantitative methods to ascertain relevant information. Phase 1 of the study has been completed in 12 states and entailed in-depth interviews with state-level officers and master trainers. The second phase included in-depth interviews with key personnel at the district level as well as investigated the knowledge, attitudes and practices of trained and untrained MOs and CCHs. Phase 2 was completed in 12 districts of a sub-sample of Phase 1 states.

Although not surprising, preliminary results from Phase 1 indicate that better performing states placed greater importance on training of health personnel. This resulted in high state level engagement to track progress of training activities, better coordination between state directorate and training centres and timely release of required funds. With field work already completed for Phase 2, the final report will be available by the end of June 2012. Recommendations from the study will guide the government of India to improve future immunization training in the country.
**Country Information by Region**

**SOUTHEAST ASIA REGION**

**STRENGTHENING AEFI SURVEILLANCE AND INVESTIGATION, MAHARASHTRA STATE, INDIA**

31/05/2012 from WHO Country Office, National Polio Surveillance Project, India

Improving overall vaccine safety including Adverse Event following Immunization (AEFI) reporting and response in India is a priority for the Ministry of Health and Family Welfare and immunization partners alike. Since 2007, WHO has provided technical support to Union and State governments to conduct AEFI sensitization workshops and establish and strengthen national and state AEFI committees. In 2010–11, India’s National AEFI Surveillance and Response guidelines were revised and standard operating procedures for medical officers and health personnel disseminated.

Also in 2011, Maharashtra state joined WHO’s global Post-Marketing Surveillance (PMS) network of newly prequalified vaccines. WHO is providing technical support to State and Mumbai Municipal Corporation health departments to build the capacity of health personnel and implement international standardized data collection procedures for AEFI. To further improve AEFI reporting, additional steps are being taken by State government with support from WHO. In November 2011, WHO organized a causality assessment and AEFI monitoring workshop facilitated by international experts. Overall, 33 national and Maharashtra state experts – including pediatricians, pathologist, clinicians and epidemiologists – were trained.

Following this activity, three workshops were organized and facilitated by WHO to train district immunization officers (DIOs) and Civil Surgeons from all 33 districts of the state as well as WHO Surveillance Medical Officers working in the state. The three one-day workshops trained 94 participants on key aspects of AEFI reporting, case investigation, vaccine risk communication and dealing with media.

It is expected that the concerted efforts being made in Maharashtra to strengthen the AEFI surveillance and response, including the initiation of PMS, will provide valuable lessons for AEFI system improvement and PMS when scaled up to additional states.

**MYANMAR TRAINING WORKSHOP ON ADVERSE EVENTS FOLLOWING IMMUNIZATION MONITORING, INVESTIGATION AND CAUSALITY ASSESSMENT, 26-30 APRIL 2012, NAY PYI TAW**

31/05/2012 from Vinod Bura, WHO Myanmar

As part of Pentavalent vaccine introduction, Ministry of Health, Government of Union of Republic of Myanmar with the technical support of WHO conducted a national workshop on Adverse Events Following Immunization (AEFI) Monitoring, Investigation and Causality Assessment. The workshop aimed at strengthening the capacity of national programme manager, national AEFI committee members and the Food and Drugs Administration to detect, to investigate, to manage, to respond to AEFI cases and conduct causality assessment.

The five-day workshop was attended by senior health officials from Ministry of Health, Food and Drug Administration (FDA), Public health universities, Senior Paediatricians, Field Epidemiologist and National Health Laboratory. In his opening remark Dr Htun Naing Oo, DG Department of Health highlighted the importance of safe and effective vaccination programme for all children in Myanmar. As Myanmar is introducing Pentavalent (DTP-HepB-Hib) vaccine soon, he stressed the need for revitalization and reorientation of existing AEFI committee and substitution, development of training guidelines, training modules and strengthening of AEFI surveillance, investigation and management.

Addressing the participants WHO Regional Director of SEARO Dr Samlee Plianbangchang stressed the need for building country capacity for robust AEFI, vaccine preventable diseases surveillance systems and for institutionalizing the training programmes for the EPI in order to ensure sustainability. WHO EPI staff from HQ, SEARO, Country Office and senior experts from Canada, India and Sri Lanka facilitated the workshop. Myanmar plans to introduce Pentavalent vaccine and measles second dose vaccines provided at 18 months in its routine programme by the middle of 2012.
Country Information by Region

SOUTH EAST ASIA REGION

TYPHOID IN INDONESIA: SURVEILLANCE AND POLICY UPDATE
31/05/2012 from Leah Harvey, Sabin Vaccine Institute, Magdarina D. Agtini, Julitasari Sundoro, Nyoman Kandun, Ministry of Health Republic of Indonesia, Immunization Technical Advisory Group (ITAG) WHO/SEARO

The First Lady of Indonesia, Ani Yudhoyono, was hospitalized in late December 2011 with typhoid fever, demonstrating the pervasive effects of typhoid in all social strata. Current surveillance data estimate between 600,000 – 1.3 million cases of typhoid in Indonesia each year, causing over 20,000 deaths. This data is considered to be an underestimate due to uncertainty from misdiagnoses and uneven case reporting. A recent surveillance study conducted in two sub-districts of North Jakarta found extremely high incidence rates among children aged six-14 years (486/100,000), and that nearly 20% of cases required hospitalization for an average of seven days. The cost of hospitalization can be devastating for low-income families, and school absenteeism can have significant impacts on children’s futures. A survey associated with a 2004 typhoid vaccine demonstration project revealed significant community interest in typhoid vaccines and that a majority of parents considered typhoid to be a potentially devastating illness for their families.

While typhoid vaccine was included in the 2011 schedule of recommended vaccines by the Indonesian Paediatric Association, typhoid vaccination has not been widely implemented. At this point, the Indonesian Immunization Technical Advisory Group (ITAG) has yet to make a recommendation regarding the use of typhoid vaccines.

MYANMAR: PROTECTING FUTURE GENERATIONS WITH MEASLES VACCINATION
31/05/2012 from Vinod Bura, WHO Myanmar

Myanmar conducted a nationwide National Measles follow up Campaign to immunize 6.4 million children aged between nine months to five years. This mass measles immunization campaign was spearheaded by the Ministry of Health with support from the World Health Organization (WHO), UNICEF, UN Foundation, CDC and the American Red Cross. This Immunization campaign is part of Myanmar’s measles elimination efforts and intensification of Routine Immunization in 2012.

A strength of this national immunization campaign was the excellent coordination seen within various Ministries, UN agencies, International and local NGOs and other agencies which had a major impact on the implementation. Military helicopters flew sorties to many townships to deliver vaccines and in hard to reach areas, inland water transportation, railways, and even guards using elephants made sure all villages and hamlets got measles vaccine for their children.

Print and broadcast media departments helped to spread the campaign message to the public. Village heads were also heavily involved and supported by local health workers and volunteers distributed individual family invitation cards to all 6.4 million children prior to the immunization dates. The WHO country office coordinated an international monitoring team to monitor and supervise the activity.

International monitors from WHO SEARO, WHO Country Office India, Nepal, Bangladesh, and partner agencies like UN Foundation, Measles Initiative and GAVI took part in the monitoring process. The monitors’ feedback was very encouraging and reported good micro planning, trained health workers, and enthusiastic community participation. The overall achievement of the nationwide mass measles campaign 2012 was 97% coverage. However, independent monitors found few children missed in house to house verification surveys. Organizing an evening campaign at Monastries/Pagogas in major cities will help to better cover the target children. The country has a plan to introduce Pentavalent and Measles second dose vaccines in July 2012.
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<td>EURO Invasive Bacterial Disease (IBD) surveillance sub-regional meeting</td>
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<td>Immunization Practices Advisory Committee IPAC</td>
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## Links Relevant to Immunization

### Global Websites
- Department of Immunization, Vaccines & Biologicals, World Health Organization
- WHO New Vaccines
- Immunization Financing
- Immunization Monitoring
- Agence de Médecine Préventive
- EPIVAC
- GAVI Alliance Website
- IMMUNIZATION basics (JSI)
- International Vaccine Institute
- PATH Vaccine Resource Library
- Dengue Vaccine Initiative
- SABIN Sustainable Immunization Financing
- SIVAC Program Website
- UNICEF Supply Division Website
- Hib Initiative Website
- Japanese Encephalitis Resources
- Malaria Vaccine Initiative
- Measles Initiative
- Meningitis Vaccine Project
- Multinational Influenza Seasonal Mortality Study (MISMS)
- RotaADIP
- RHO Cervical Cancer (HPV Vaccine)
- WHO/ICO Information Center on HPV and Cervical Cancer
- SIGN Updates
- Technet
- Vaccine Information Management System
- PneumoAction

### Global Websites
- International Vaccine Access Center
- American Red Cross Child Survival
- PAHO ProVac Initiative
- NUVI Website
- Gardasil Access Program
- Maternal and Child Health Integrated Program (MCHIP)

### Regional Websites
- New Vaccines in AFRO
- PAHO’s website for Immunization
- Vaccine Preventable Diseases in EURO
- New Vaccines in SEARO
- Immunization in WPRO

### Newsletters
- PAHO/Comprehensive Family Immunization Program-FCH: Immunization Newsletter
- The Civil Society Dose - A quarterly newsletter of the GAVI CSO Constituency

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