

Annual Report 2007



World Health Organization

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Network for Education and support in Immunisation
Réseau d'éducation et d'appui à l'immunisation



زحت رعابة
صاحبة الجلالة الملكة رانيا العبد الله المعظمة
مؤتمر المطاعيم
خلال العقد القادم في الوطن العربي
٢٠٠٧/١٢/١١-٩
فندق المريديان
عمان/الاردن

Under The Patronage
of Her Majesty Queen Rania Al Abdullah

Conference on
Vaccination for the Next Decade
in the Arab World

From 9-11 December, 2007
Le Meredian Hotel
Amman-Jordan

Logos: nesi, Jordanian Ministry of Health



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List of abbreviations

AEFI	Adverse Events Following Immunisation
AMP	Agence de Médecine Préventive
AMREF	African Medical and Research Foundation
ARICC	African Regional Inter-Agency Coordinating Committee
CDC	Centers for Disease Control and Prevention
CSO	Civil Society Organisation
DRC	Democratic Republic of Congo
DTP	Diphtheria-Tetanus-Pertussis
ECOWAS	Economic Community of West African States
EPI	Expanded Programme on Immunization
GAVI	Global Alliance for Vaccines and Immunization
GDP	Gross Domestic Product
GIVS	Global Immunisation Vision and Strategy
GSK	GlaxoSmithKline
HepB	Hepatitis B
Hib	Haemophilus influenzae type b
HIV	Human Immunodeficiency Virus
HPV	Human Papillomavirus
HSS	Health Systems Strengthening
IRSP	Institut Régional de Santé Publique, Ouidah, Benin
MDG	Millennium Development Goal
MEDUNSA	Medical University of Southern Africa
MLM	Mid-Level Management
MoH	Ministry of Health
mOPV1	monovalent Oral Polio Vaccine 1
MYP	Multi-Year Plan
NESI	Network for Education and Support in Immunisation
NGO	Non-Governmental Organisation
OECD	Organisation for Economic Cooperation and Development
OPV	Oral Polio Vaccine
R&D	Research and Development
RCA	République Centrafricaine
RED	Reaching Every District
SAVIC	South African Vaccination and Immunisation Centre
TB	Tuberculosis
TFI	Task Force on Immunization
UCT	University of Cape Town
ULB	Université Libre de Bruxelles
UN	United Nations
UNICEF	United Nations Children's Fund
UNICEF/MENARO	UNICEF Middle East and Northern Africa Regional Office
USAID	United States Agency for International Development
VVM	Vaccine Vial Monitor
WHO	World Health Organization
WHO/AFRO	WHO Regional Office for Africa
WHO/EMRO	WHO Regional Office for the Eastern Mediterranean
WHO/HQ	WHO Headquarters

Executive summary

Vaccine preventable diseases are still a major cause of morbidity and mortality in developing countries. Nearly one quarter of the around 10 million children under the age of five who die each year in the developing world from poverty diseases, could be prevented by vaccines. Vaccination is the most cost-effective way of preventing childhood mortality against an ever increasing number of infectious diseases. The work of NESI contributes to the Millennium Development Goal 4, which aims to reduce under-five child mortality by two-thirds between 1990 and 2015.

In May 2005, the '90/80' goal was endorsed by the 58th World Health Assembly through the Global Immunisation Vision and Strategy (GIVS) for the period 2006-2015: whereby countries committed themselves to ensure full immunisation of children under one year of age, at 90% coverage nationally, with at least 80% coverage in every district.

Capacity building of health personnel in developing countries is essential for developing and maintaining sustainable immunisation programmes. NESI is involved since 2002 in capacity building for EPI managers in their respective countries, in collaboration with WHO, UNICEF and other partners. NESI also aims to improve pre-service curricula for the different faculties involved in immunisation, including medicine, nursing, pharmacy, and public health. The active involvement of local universities in the network is unique and important to achieve sustainable capacity and competence for current and future health care workers.

Highlights of 2007

Regarding 'education and training activities'; NESI contributed to four workshops in the WHO/AFRO Region, and three workshops in the WHO/EMRO Region. In comparison with 2006, NESI increased its involvement during 2007 in the WHO/EMRO Region.

The first regional vaccinology course organised by WHO/AFRO and NESI was held in Cameroon. The main objectives of this vaccinology course were to introduce participants to the various disciplines associated with vaccinology including immunology, clinical trials, new vaccines, vaccine safety, vaccination strategies, evaluation of immunisation programmes and vaccine economics.

A regional consensus workshop on integrated training package on EPI and child health was organised by WHO/AFRO in Benin. Each country represented at the meeting had to reach consensus on the process to develop integrated training programmes for child survival and child health and on a plan of action to implement the proposed training packages for their respective country.

A regional Lusophone course for Mid-level EPI managers and teachers of schools for health sciences was organised in collaboration with WHO/AFRO in Mozambique. The mid-level management course aims at providing a clear framework for EPI managers, so that they can better conduct their day-to-day managerial activities and resolve problems that arise in the achievement of their national and district EPI plans.

In South Africa, NESI participated in a workshop to review nursing immunisation curriculum. The objective of this meeting was to evaluate and update the nursing curriculum for immunisation in teaching institutions throughout South Africa. Plans of action were developed to address gaps between the prototype curricula and the existing institutional curricula.

For the EMRO Region, a vaccinology workshop was organised by the Jordan University under the Patronage of Queen Rania Al Abdullah, with support from NESI and in close collaboration with WHO/EMRO. The goal of the workshop was to establish a common understanding of the scientific and public health aspects of vaccination among EPI managers and academics of Arab countries. Delegates and representatives of the Arab League, WHO and UNICEF formulated detailed recommendations. These included topics such as informing the public on new vaccines, establishing an Arab vaccine fund, better integration of child health services, etc.

In collaboration with WHO/EMRO, a workshop on software for vaccine stock management was organised in Lahore, Pakistan. During this meeting a variety of locally developed solutions to address the needs of national EPI programmes were demonstrated and discussed. Most countries already use information technology to facilitate their vaccine management activities. This meeting was an opportunity to share the experience of EPI managers and software developers and to standardise data entry forms and reports.

A workshop on capacity building for multi-year plans was organised in Syria in collaboration with WHO/EMRO and WHO/HQ. Developing a comprehensive multi-year plan presents an opportunity to combine existing plans into a single document that addresses global, national and sub-national immunisation objectives and strategies, and that also evaluates the costs and financing of that plan. Countries participating in this workshop included Egypt, Jordan, Morocco, Syria and Tunisia.

NESI gave 'technical support' to eight activities during 2007. NESI participated in a Civil Society Consultation in Nairobi, Kenya, convened by AMREF. There is great potential of expanding the role of civil society organisations in the delivery of immunisation services. Back to back with this AMREF consultation was an in-depth discussion on new developments regarding meningococcal meningitis epidemics and their prevention in the countries of the meningitis belt in Africa.

NESI provided support for the final editing and dissemination of the Anglophone and Francophone prototype curricula for medical and nursing/midwifery schools. The release of this document and the relevant training modules and reference materials is very helpful in NESI's efforts to assist countries in updating the immunisation curriculum of health schools. Support was also given for the curriculum reform at the medical faculty of the University of Kinshasa. This is an ongoing collaboration between NESI, ARE@sant  and partners from DRC.

NESI gave technical support to the vaccinology courses in Rixensart, Belgium, as well as the vaccinology course in Ghana.

On request by WHO, NESI provided assistance for the development of 3 comprehensive multi-year plans in Lesotho, Malawi and Mozambique, and supported a capacity building process for vaccine management in Mauritania in anticipation of the introduction of Pentavalent vaccine in November 2007.

In addition, NESI participated in six 'networking activities' with EPI staff and immunisation partners which are crucial for monitoring, planning and coordinating NESI's activities and maximise their efficiency and impact.

NESI was (co)-author of several scientific publications as listed at the end of the report.

The Annual Report 2007 represents the highlights of NESI's activities during the year 2007 in capacity building in immunisation through curriculum reform, training and networking. We hope you will find the report informative and we are looking forward to receiving your comments or requests for more information about our work.

About NESI

The Network for Education and Support in Immunisation (NESI) was established in 2002. NESI was built on the experience of the International Network for Eastern and Southern Africa on Hepatitis B Vaccination, which was established in 1999 by five universities in Eastern and Southern Africa, ministries of health in Africa and the University of Antwerpen. The purpose of this network was to translate research on hepatitis B through capacity building and advocacy into universal access to hepatitis B vaccination in the partner countries.

With the development of new vaccines and increased commitment by development partners and private sector initiatives to strengthen vaccine supply and immunisation services, there are more opportunities to prevent more diseases in more children. This led to the establishment of NESI, which is a collaborative network of capacity building for the strengthening of existing immunisation systems and introduction of new vaccines with a broad technical scope and wide geographical focus.

NESI closely coordinates its activities with the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), the Global Alliance for Vaccines and Immunization and the GAVI Fund, international NGOs, the private sector, and other immunisation stakeholders.

Due to its links with universities and other health professional training institutions, which are vital to achieving sustainable capacity and competence building in the field of vaccinology, NESI is unique in its attention on pre-service training, particularly on the development of curricula and training for nurses, medical doctors, pharmacists, and other related health professionals.

A Memorandum of Understanding between NESI and the WHO Regional Office for Africa (WHO/AFRO) clearly defines the overall goals and actions of NESI in the area of capacity building and validates the position of NESI as an integral partner within the African Region.

Objectives

The mission of NESI is to improve the development, quality, and sustainability of immunisation programmes and services in low- and middle-income countries through the development of and advocacy for immunisation education and training. NESI aims to build the capacity of Ministry of Health managers and staff working in the Expanded Programme on Immunization (EPI) in their respective countries as well as to improve pre-service and post-graduate training for the different university faculties involved in immunisation, which include medicine, nursing, pharmacy, and public health.

Services

To accomplish its mission, NESI engages in a number of activities, which are grouped into three main areas: education and training, technical support, and networking and advocacy. NESI offers the following in each area:

Education and training

- Organises training events in collaboration with other organisations;
- Monitors and evaluates currently implemented education and training programmes;
- Validates the content of educational and training materials; and
- Develops up-to-date, high-quality training materials for different audiences involved in immunisation programmes.

Technical support

- Performs needs assessments for education and training in collaboration with academic and other partners;
- Provides support to universities to improve the curriculum of health professionals involved in immunisation and advises on regular refresher courses in collaboration with ministries of health;
- Assists countries in developing comprehensive training plans as part of their Multi-Year Plans (MYPs);
- Provides support to country staff to implement training activities; and
- Improves national and regional capacity to deliver education and training.

Networking and advocacy

- Facilitates a forum to discuss and coordinate actions related to education, training, and support for immunisation programmes in low- and middle-income countries;
- Maintains a network of specialists drawn from international organisations, universities in both industrialised and developing countries, national immunisation programmes, Non-Governmental Organisations (NGOs), industry, and other relevant stakeholders, to deliver high-quality training in all aspects of immunisation and at different stages of implementation of immunisation programmes;
- Collaborates with local, regional, and global training initiatives to advocate for better education and training; and
- Offers a website that houses on-line training materials and links to other relevant sites.

Structure

NESI is a public-private partnership between the University of Antwerpen and the private sector. An Executive Secretariat coordinates and implements activities for the network. The Executive Secretariat is based at the Department of Epidemiology and Social Medicine, University of Antwerpen, Belgium.

The Executive Secretariat reports to a 10-member Oversight Committee, which advises on strategy and budget allocation, and reviews outcomes. The Oversight Committee is composed of representatives from the public/private partnership, representatives from international health organisations and alliances, and international vaccinology experts.

NESI has full operational and scientific independence.

Funding

NESI is currently supported by an unrestricted educational grant from GlaxoSmithKline Biologicals and by funds from the University of Antwerpen. Additional funding, participation, or support from other national or international agencies or partners is actively being pursued.

Activities 2007

Introduction

During the year 2007 there have been several important developments in child health and vaccination. According to UNICEF, the annual number of child deaths was falling for the first time under 10 million per year, which is a record low. Immunisation played an important role in this achievement. Increased vaccination coverage through routine vaccination and mass campaigns resulted in a 91% reduction in measles mortality in Africa during the period from 2000 to 2006. Combined mass campaigns for polio eradication and measles vaccination played an important role in this achievement. Moreover, in many countries other child survival interventions such as distribution of vitamin A and deworming tablets were added to these campaigns of "child health days".

During the year 2007 three important new vaccines became available: Rotavirus vaccine, HPV vaccine and a pre-vaccine for pandemic influenza. Moreover, mechanisms were put in place by GAVI during 2007 to introduce pneumococcal vaccines in low-income countries that applied for the introduction of this vaccine. This initiative is expected to be followed by a similar introduction process for Rotavirus vaccine by 2010. The introduction of Pneumococcus and Rotavirus vaccine has the potential to significantly contribute to reduced child mortality by 2015, while the influenza pre-vaccine can play an essential role in the control of pandemic influenza.

There remain important challenges to further increase the impact of immunisation on infant mortality and life expectancy at birth. In the first place, routine vaccination needs to be strengthened as this is the only effective delivery system to timely protect all children against most vaccine preventable diseases. However, mass campaigns will remain necessary to reach previously unvaccinated children and to eradicate polio and eliminate measles.

Efforts to address structural staff shortages and under-funding of routine health services focus on improved integration of service delivery, increased community involvement and resource mobilisation for general health service strengthening. Immunisation services will be a crucial component of these integrated services, with their high impact on child mortality, strong capacities in target driven management, vaccine logistics, community outreach, monitoring, and organisation of mass campaigns. However, a better integration of specific programmes is necessary to make service delivery, monitoring, logistics, supervision and staff management more effective.

To strengthen health services in a context of structural shortages of health staff, and under-funding, efficiency of health services should be optimised. WHO, UNICEF and other partners therefore advocate for more integration of service delivery, outreach activities, training and supportive supervision. A consequence of this approach is that specific courses for EPI staff such as the regional Mid-level EPI management courses are replaced by national integrated courses for a broader range of health service managers covering a broader area of integrated disease prevention, disease management and management issues.

NESI has been well aware of the public health challenges that require integrated services and training, while NESI also recognises the specific contribution of immunisation and new vaccine introduction to public health.

In anticipation of the establishment of integrated programmes and services, NESI has specifically focused on institutional capacity building of Schools of Health Sciences to enable these institutions in preparing graduates with the appropriate competencies for delivering integrated services and in assisting their graduates in a process of life-long learning. In this context, the WHO/NESI collaboration has significantly contributed to the development of prototype curricula on immunisation for schools of health sciences. NESI also assisted several institutions of the NESI network in introducing these curricula as part of a broader curriculum reform process.

Capacity building for the introduction of new vaccines is an important component of the new regional vaccinology courses that started on the initiative of WHO/AFRO and NESI in 2007. These courses are currently the only specific regional training courses on immunisation in the African region. Through the participation of EPI managers, academics, and National Regulatory Authorities, these courses contribute to the capacity building of national advisory committees on immunisation.

In the WHO/EMRO region significant progress has been made in eradicating polio and eliminating measles. Due to the high routine vaccination coverage these countries have the potential to rapidly improve child health through the introduction of new vaccines. The high-income countries are likely to include these new vaccines into their national vaccination schedules. For the middle income countries, the current price of new vaccines is likely to delay their introduction.

During the vaccinology course organised by the University of Jordan and NESI, new vaccine introduction as well as innovative mechanisms for vaccine funding were therefore intensively debated. Practical recommendations were formulated regarding group vaccine purchasing, tiered pricing for vaccines and the establishment of an Arab vaccine fund.

NESI has the advantage of working with WHO/EMRO as well as WHO/AFRO. This enables NESI to bring together groups of countries that share a common history or culture (such as the Maghreb countries and the Arab world) but which are divided over these two regional offices. Moreover, through the technical and financial collaboration of WHO and NESI, members of non GAVI countries can be invited in technical meetings that are co-funded by GAVI.

In 2007, NESI continued its strategy of institutional capacity building in immunisation for schools of health sciences so that graduates of these schools have the required baseline competencies to provide comprehensive services. NESI has also been an important technical partner in organising vaccinology courses with WHO, UNICEF and GAVI to prepare national advisory committees of EPI staff, academics, and national regulatory authorities for decision making on new vaccine introduction.

Through the support for comprehensive multi-year planning and promoting debates on the value of immunisation and mechanisms for vaccine financing, NESI aims to contribute to high coverage and equitable access to immunisation services as this guarantees the highest public health gain for all vaccine preventable diseases.

With the extension of the Memorandum of Understanding on the unrestricted educational grant from GSK for a period of 5 years from 2008 to 2013, NESI is well positioned to continue its strategy of durable capacity building for immunisation as a major contribution to the achievement of the MDG4 objective of reducing child mortality by 2/3 by 2015.

Education and training

Education and training African Region

1. First Regional Bilingual Vaccinology course, Douala, September 2007

The vaccinology course in Douala, Cameroon, from 24 to 28 September 2007 was the first regional vaccinology course organised by WHO/AFRO and NESI in collaboration with Cameroon Universities (Yaoundé and Buea), South Africa University (Limpopo), UNICEF and the Noguchi Institute from Ghana.

Facilitators were from NESI (4), WHO (6), GSK (1) and UNICEF (1). The 34 participants came from 21 countries: Benin, Burundi, Cameroon, Cote d'Ivoire, DRC, Ethiopia, Gabon, Ghana, Kenya, Madagascar, Mali, Mozambique, Nigeria, Uganda, RCA, Rwanda, South Africa, Tanzania, Zambia and Zimbabwe and Belgium.

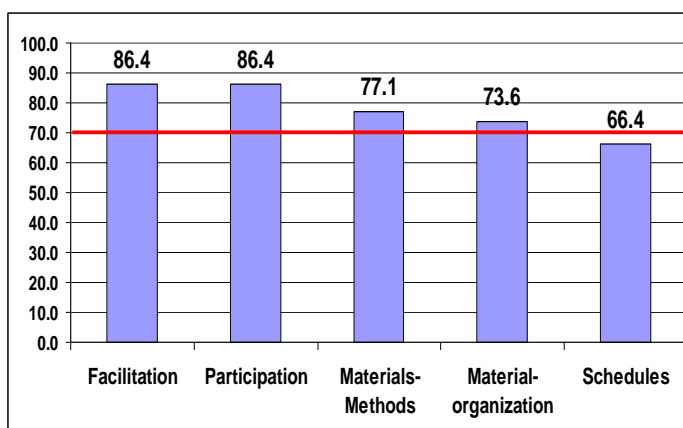


The course was opened by the Permanent Secretary of Health of Cameroon in presence of the WHO representative and was broadcasted on national television. Both were also present during the closing ceremony where the evaluation of the course was presented, the meeting conclusions were shared and the course certificates were handed out.

The course covered all critical aspects of vaccinology in a logical order of sessions on:

- The scientific basis of immunology and vaccinology
- Vaccine development, clinical trials and regulatory process
- Routine and under-utilised vaccine coverage and new evolutions
- The polio endgame
- Measles and tetanus elimination and surveillance
- New vaccines (pneumococcus, rotavirus, meningococcus, HPV)
- Group work on new vaccine trials (pneumococcus and rotavirus)
- New vaccine introduction (lectures and group work)
- Vaccine safety, post-marketing surveillance and AEFI
- Future vaccines (Malaria, TB, HIV)
- Immunisation programme management, communication and course evaluation

Fig. 1: Evaluation of vaccinology course Douala



The overall evaluation of the course was very good with high ratings for course facilitation and participation, materials and methods (see fig 1). Participants considered the topics relevant for their work. Most participants preferred to have separate English and Francophone courses. After discussion with WHO and NESI, it was agreed that separate courses for Anglophone and Francophone countries will be organised in the future.

2. Regional workshop on integrated training on child health, Ouidah, August 2007

The Regional workshop on integrated training packages took place at the Institut Régional de Santé Publique (IRSP) in Ouidah, Benin, from 6 to 10 August.

This workshop was organised as a follow-up on a recommendation of the 14th WHO/AFRO Task Force on Immunization in Africa in 2006, to organise a regional workshop on integrated training for child health. The meeting was co-organised by UNICEF, GAVI, USAID, NESI, CDC, and AMP under the direction of Dr. Evariste Mutabaruka.

The objectives of the meeting were:

- to provide child health and EPI managers, WHO and UNICEF regional staff, teachers, as well as partner representatives, with technical updates focusing on the programmatic issues related to global and regional child health efforts in the context of health systems strengthening;
- to update on progress of priority child health interventions;
- to share the policy decisions, guidelines and experiences on integration in the context of integrated primary health care;
- to get a consensus on integrated training package and process for child health; and
- to develop plan of action and to make recommendations to implement the consensus integrated training package for child health in the African region.

The meeting was attended by 94 participants and facilitators (47 Francophone, 46 Anglophone and 1 Lusophone) and included Directors of Child Health Divisions, malaria and TB programmes, child survival programmes, EPI programmes, academics (paediatrics, infectious diseases, public health), and heads of nursing schools. WHO and UNICEF staff from headquarters and regional offices provided technical input. NESI provided both technical and financial support through NESI staff as well as partners of the NESI network from South Africa and the DRC.

The importance of integrated pre-service training on child health was emphasised during a session where the partners of NESI presented their experience in curriculum reform. In addition, during this meeting, the edited CD Rom of WHO/AFRO, UNICEF and NESI on prototype curricula for medical faculties and nursing/midwifery schools was disseminated during this meeting to provide further guidance on curriculum reform to strengthen the competencies of graduates of health schools in implementing immunisation services.

The programme included an official opening ceremony, presentations followed by discussions, group work and plenary discussions to reach a consensus. For the group work, participants were divided into 4 groups: integrated in-service Anglophone/Francophone and pre-service Anglophone/Francophone. The groups had to achieve consensus on the process to develop integrated training programmes and on a plan of action to implement the proposed training packages.

The meeting reached a consensus on the content of an integrated child survival package. However, many delegates considered that this was only a minimum package and that it was essential to strengthen nursing schools and medical faculties to train graduates in comprehensive, integrated child health service delivery from birth to adolescence.

3. Regional Lusophone MLM Course, Maputo, August 2007

The Mid-Level Management course for Lusophone countries in Maputo, Mozambique, from 20 to 31 August 2007 was organised by WHO/AFRO in collaboration with the Ministry of Health of Mozambique, UNICEF and NESI.

The Mid-Level Management course aims at providing a clear framework for public health managers, especially those in the immunisation programmes: this will help them to better conduct their day-to-day managerial activities and resolve problems that arise in the achievement of their national and district EPI plans. The main objectives of the course were: (1) to describe the Global Immunisation Vision and Strategy (GIVS); (2) to explain the 2006-2009 Strategic EPI Plan for the AFRO Region; (3) to explain the Reach Every District (RED) approach; and (4) to apply the problem solving approach to immunisation service management.

A total of 34 participants of the following countries attended the course: Angola (12), Mozambique (11), Cabo Verde (4), Sao Tome e Principe (4), and Guinée Bissau (3). Facilitators included staff from the EPI programme of the Ministry of Health of Mozambique, WHO/AFRO, UNICEF and NESI.

For the meeting, MLM modules had been translated into Portuguese. Presentations were translated on a daily basis, and translation was provided by one of the local facilitators when needed. All key modules of the MLM course were addressed during the course by means of presentations, discussions and group work.

4. Workshop on nursing immunisation curriculum review and update, Vanderbijlpark, April 2007

The workshop on the nursing immunisation curriculum review and update was organised by the MEDUNSA campus of the University of Limpopo, at Vanderbijlpark, the Vaal, South Africa, from 1 to 4 April 2007.

The objectives of the meeting were to evaluate and update the nursing curriculum for immunisation in teaching institutions in South Africa: this included updating participants on the immunisation policies and strategies, including GIVS; get a consensus on the EPI curriculum prototype; and make recommendations for the implementation of the EPI curriculum revision process within the pre-service training institutions.

Vaccination is a very cost effective public health measure for control and elimination of infectious diseases. It is with this premise that teaching on immunisation needs to be comprehensive and up to date in medical and nursing institutions, ultimately to improve service delivery and research outcomes. Against this background and in line with the plan of action and recommendations of the 2006 Douala workshop (Consensus workshop on EPI curricula prototypes for medical and nursing/midwifery schools in the WHO African Region), the University of Limpopo (Medunsa campus, which includes SAVIC, the South African Vaccines and Immunisation Centre) in collaboration with the University of Antwerpen and WHO/AFRO, organised a 3-day workshop on EPI curriculum review and development for nursing educators.

This training-of-trainers workshop was attended by 50 participants from the following organisations/institutions: WHO/AFRO, South African National Department of Health, University of Limpopo, University of Witwatersrand, University of Johannesburg, University of Cape Town, South African Nursing Council, South African district EPI teams, Nursing Colleges from Gauteng, Mpumalanga, Limpopo and North West Provinces, and NESI.

The methods of the workshop included didactic lectures in information sessions, presentations and demonstrations, and group discussions. For the group work, participants were divided into 3 groups. Each group went through the EPI content curriculum of their respective institutions using the prototype curriculum, to identify gaps and any major differences in the prototype curriculum and their institutional curricula. Each group developed a plan of action for filling the identified gaps and implementation of the recommendations.

All institutions are expected to debrief and share the materials with their respective supervisors and heads of departments. Follow-up meetings need to be done by the University of Limpopo with the South African Nursing Council, other universities and other provinces. Training on immunisation and vaccinology for the health workers and nursing educators is also being pursued. In addition, an integrated approach to teaching immunisation will be adopted along the global trends of designing and implementing an integrated package on child survival.



Group work at the Workshop on nursing immunisation curriculum update at Vanderbijl Park, South Africa, organised by SAVIC.

Vaccination programmes depend to a large extent on the commitment and skills of nursing staff.

Technical assistance to local partners in updating nursing curricula is therefore one of the priorities of NESI's strategy for durable capacity building for immunisation.



Education and Training Eastern Mediterranean Region

5. First Arab Vaccinology Course, Amman, December 2007

The first vaccinology course was organised by the Jordan University and NESI under the Patronage of Her Majesty Queen Rania Al Abdullah in collaboration with WHO/EMRO. The theme of the course was Vaccination in the Arab World for the next decade.

Participants of the following countries attended the meeting: Bahrain (2), Egypt (2), Iraq (1), Lebanon (2), Libya (2), Morocco (2), Palestine (2), Sudan (2), Syria (2), Tunisia (2), United Arab Emirates (1), Jordan (32), of which 13 from Jordan Universities. Several international organisations supported and participated in the workshop: WHO/EMRO, NESI, GAVI, UNICEF/MENARO and the Arab League. Lecturers were from Jordan University, WHO/EMRO, NESI, CDC, Vanderbilt University, Jordan MoH, the American University of Beirut - Medical Centre, and Johns Hopkins University - School of Public Health.

The specific objectives included: to advocate for the value of vaccination to improve the health of the Arab child; to understand the current status, opportunities and challenges of vaccination in the Arab Region; to provide comprehensive information on new vaccines and the vaccine introduction process with the aim of fostering regional cooperation in this endeavour; and to reach a consensus among civil society partners, academics, programme directors and international organisations to help in the planning process for vaccination in the Arab Region for the coming decade.

The Arab World has made significant progress in strengthening routine immunisation and in introduction of new vaccines. However, some countries are still lagging behind. Recently, many new life-saving vaccines have become available, but major obstacles such as lack of awareness among decision makers and lack of financial resources continue to delay their introduction. Only six countries within the Arab World are eligible for GAVI support, the rest of the countries are middle and high income countries that do not qualify for GAVI support.

Queen Rania reinforced during her opening speech the issue of raising awareness through campaigns addressing the public as well as the medical community. She stressed the importance of immunisation as a top priority for health planners in the Arab Region and the need for private and public sectors to work together to achieve MDG4 particularly through reaching all children with existing and new vaccines. She reiterated the need for human and financial resources' mobilisation to achieve this goal.

Dr. Mohsni from WHO/EMRO presented an overview of immunisation in the Eastern Mediterranean Region including immunisation coverage and the status of measles elimination in the Arab countries. He emphasized the need for sustainability of ongoing programmes while trying to introduce new vaccines. He stressed the need for further cooperation between academia and the national immunisation programs with the aim of fostering exchange of ideas and utilising national expertise in evaluation and training.

Prof. Najwa Khuri, the course organiser, started the meeting with a presentation on child health and survival in Arab countries and the role of immunisation in the coming decade. Dr. Parashar from the CDC provided the latest information on rotavirus vaccines, while Dr. Hajjeh presented on HIB and Pneumo initiatives. Dr. Sheth, from UNICEF/MENARO emphasized the need for integration of child-survival interventions with immunisation. Key child-survival interventions such as vitamin A supplementation, deworming, oral rehydration for diarrhoea, distribution of insecticide treated nets in endemic areas, etc. can be linked to immunisation as a comprehensive child health package.

Dr. Halasa from Vanderbilt University presented the most recent findings in influenza and combination vaccines. NESI facilitated 4 topics: HPV vaccine; the role of universities; immunisation curriculum reform; and sustainable vaccine funding.

At the end of the meeting, detailed conclusions and recommendations were formulated by the participants on the need for increased advocacy within the Arab world for introduction of new vaccines, long term planning to strengthen immunisation services, financial planning and resource mobilisation and the role of Academia in Arab countries.

Detailed recommendations were formulated on the following topics:

- 1) Increased advocacy within the Arab World for the introduction of new vaccines: through effective national advisory committees, the use of media to raise public awareness, mobilising high-level advocacy, as well as through NGOs and CSOs.
- 2) Long term planning for Arab countries: through maintenance of established programmes and high coverage, prioritisation of vaccine for introduction and formulation of comprehensive multi-year plans.
- 3) Financial planning: through improved utilisation of existing group purchasing mechanisms of the Gulf Cooperation Council and Maghreb countries, development of innovative financing mechanisms to ensure group financing and procurement, e.g. the revolving fund and identifying venues for Arab countries to discuss vaccine financing as a group, such as during the Arab League Ministers of Health meetings.

Moreover, detailed next steps were formulated specifying how and by which institutions these recommendations should be implemented and followed up.



Queen Rania El Abdullah, a GAVI Board member, asking questions to delegates during the opening ceremony of the Vaccinology course in Amman.

(Picture: Jordan Times Amman, 10 December 2007, published on the Queens website)

6. Workshop on capacity building in vaccine management, Lahore, January 2007

The workshop on capacity building for vaccine stock management in Lahore, Pakistan, was organised by WHO/EMRO in collaboration with NESI and UNICEF from 9 to 10 January 2007.

The objectives of the meeting were to review countries progress in developing and improving vaccine stock management; to learn from the global advances in developing software for vaccine stock management; to demonstrate and discuss in detail the first edition of the software developed by WHO/EMRO and to develop a plan for installation and training of the staff in national vaccine stores in selected countries of the region.

There is a broad variation among the countries in the EMRO region regarding the target population, transport and communication infrastructure, complexity of vaccine management, the quantity of vaccines managed, the capacity of national programmes, the capacity to run reliable paper-based vaccine management systems, the resources to manage vaccination programmes and the information technology environment. Most countries have identified a need to use information technology to facilitate their vaccine management activities.

During this meeting a remarkable variety of locally developed solutions to address the needs of national EPI programmes were demonstrated and discussed. Each of these responded to specific needs in particular contexts. It therefore seems an illusion at this stage to work towards one type of "vaccine management programme" that will be flexible as well as powerful enough to fit all needs. Also within one country different systems may be used by different type of services. For example, district clinics and health centres may use a paper-based system, district hospitals/stores may use a spreadsheet-based system, while regional and central stores may use a more complex database.

At this stage, it therefore seems crucial to continue developing and supporting the ongoing efforts and to ensure that the programmes developed have the following characteristics: (1) standard definitions for vaccines and related supplies: The use of standard field names and field definitions facilitates the export of data into a standard format. This makes it easy to compile and analyse data from different programmes and systems, and to transfer collected data from one system to another. This standard list is used as a catalogue by software experts. This catalogue is not visible on the screens used by staff that will usually see a simplified list in local languages, agreed with the local software expert; (2) it is important for the EMRO region that useful software developed in one country can be adapted by local software experts for use in another country; and (3) it is important for EMRO to agree about standard reports that are important for vaccine and programme management at national level as well as periodic reports from countries to WHO/EMRO. This will facilitate the tasks for software experts as well as national programme managers.

7. Inter-country workshop on capacity building for multi-year planning, Damascus, February 2007

The Inter-country workshop on capacity building for multi-year planning took place in Damascus, Syria, from 25 February to 1 March 2007.

Multi-year planning is an essential management tool for national immunisation programmes. Developing a comprehensive multi-year plan (cMYP) presents an opportunity to consolidate existing plans into a single document that addresses global, national and sub-national immunisation objectives and strategies, and that also evaluates the costs and financing of that plan.

Traditionally the largest proportion of the cost in countries that are only using traditional vaccines is related to staff, transport cost, cold chain and campaigns. With the introduction of under-used and new vaccines, vaccine cost increases from about 5% to 20% of the total cost. Moreover, transportation and cold-chain cost increases significantly. In low-income countries these costs are mainly covered by international donors. This is not the case for most countries in the WHO/EMRO region. The countries present at the meeting (Syria, Egypt, Morocco, Jordan and Tunisia) are lower middle and middle income countries, and are not GAVI eligible.

All five countries present at the meeting intend to introduce under-utilised and new vaccines in line with the WHO/EMRO recommendations. It is therefore important that the Ministries of Health as well as the Ministries of Finance have a clear understanding of the likely health gains and the budget implications of the introduction of these vaccines. For this purpose, WHO/EMRO had invited national vaccination programme managers, directors of planning of health ministries and representatives of the ministries of finance of each of the countries.



Official opening of the regional cMYP workshop in Damascus by the WHO country representative

Facilitators explained the cMYP planning framework and introduced the participants to the principles of cost analysis and the use of the costing tool. This is an Excel-based comprehensive planning tool, with data entry sheets and linked sheets calculating cost projections and producing graphs.

The cMYP workshop used Syria as an example for the planning process. Vaccination data from Syria were critically reviewed, shared, analysed and compared with GIVS and EMRO EPI objectives. Working groups looked into specific planning aspects of Syria's multi-year plan.

Workshops on cMYP also provide a useful platform for NESI to discuss the importance of developing a training plan within the cMYP. Within the planning process, training activities are often mentioned in almost all components (eradication of polio and measles, surveillance, routine immunisation, introduction of new vaccines, etc.). However, these activities are rarely based on a training needs assessment and a comprehensive training plan. Within the budgeting process, training is only a minor component as compared to salaries, vaccine supplies, transport, etc. For budgeting purposes, it may therefore be appropriate to add a fixed proportion of the total budget for training.

The goal of preparing a first draft of the cMYP for Syria was achieved, while the other participating countries developed skills to prepare their own cMYP later this year. The immunisation cost projections for Syria, produced by the costing tool showed a considerable increase in cost in the coming years which is mainly attributable to the projected introduction of new vaccines. The Syrian Government seems to be very committed to the immunisation programme and the workshop and further technical assistance by WHO will enable the Government to plan for the sustainable increased investment in immunisation. Disease surveillance should be strengthened to document the effectiveness of the introduction of new vaccines. Additional resources should be raised for the poorer countries in the region. This is not only of interest for the poorer countries themselves, but also for the higher-income countries considering the high population movement within the region.

Technical support

1. Immunisation and Health in Africa, Civil Society Consultation, AMREF, Nairobi, May 2007

The Civil Society Organisations (CSO) consultation meeting on Immunisation and Health in Africa was organised by AMREF, Nairobi, Kenya, from 2 to 3 May 2007. The meeting was convened by AMREF and supported by GSK Biologicals and drew participants from governments, CSOs, health training institutions, the private sector and the pharmaceutical industry.

The objectives of the meeting included: (1) to inform the vaccine research and development community on the role and potential of CSOs in immunisation; (2) to inform CSOs on benefits of existing and new vaccines, and the potential of their increased involvement; (3) to strengthen the link between communities and health systems, through CSO involvement in immunisation; (4) to explore ways civil society and communities can be party to shaping immunisation policies and interventions in Africa; and (5) to identify priority areas of action to ensure that immunisation is available to everyone. NESI was invited to present a key-note on 'The Value of Immunisation', and was involved in the working groups.

The vaccine R&D community acknowledges that health systems are well below the desired capacity. Having commended the existing CSO involvement in the delivery of immunisation services, it was agreed that there is great potential for expanding civil society's role. CSOs could assist in strengthening the capacity of health systems as well as influencing the immunisation policy-making process across the African continent.

Universal immunisation is a key factor in achieving the UN MDGs which underwrite Africa's future development. All existing and new vaccines must be made available on a sustainable basis to those who need them. All African governments must be held to account for the commitments they made at the Abuja 2000 meeting. Likewise, the OECD countries must fulfil their pledge to commit 0.7% of their GDPs to aid for the developing world. Adequate, quality health care and immunisation services must also be placed high on the agenda of Africa's ministries of health and finance.

2. Consultation on Meningococcal Meningitis in Africa - 'Ending the Cycle of Epidemics', Nairobi, May 2007

Back to back with the AMREF Civil Society Consultation, an in-depth discussion on new developments in dealing with the meningococcal meningitis epidemics in the countries of the meningitis belt of Africa, was organised with support from GSK Biologicals on 4 May 2007 in Nairobi, Kenya.

Conjugate vaccine technology, recently applied to meningococcal vaccines, will be a breakthrough in combating meningitis epidemics in Africa, with the potential to prevent the disease and protect people of all ages over a much longer period of time than is possible with currently available vaccines.

A candidate conjugate meningitis vaccine (including serogroups A and C) is developed by GSK, which antigens are included into an existing paediatric combination vaccine already in use in many EPI programmes in Africa (from a pentavalent to a heptavalent vaccine). Another candidate conjugate meningococcal vaccine (covering serogroup A) is developed through the Meningitis Vaccine Project (Path-WHO) and it targets children above one year and adolescents.

Proposals from the consultation included: (1) continue to expand research on the economic impact of meningococcal meningitis, launching a network of advocates working in the meningitis belt, identifying existing resources, and working closely with WHO to set up a sub-regional forum; (2) consider as potential partners the Francophone Regional Institute for Public Health in Benin, the West African Health Organisation representing 15 countries, and the ECOWAS Ministers meeting as an advocacy opportunity; and (3) share information on meningitis advocacy efforts and identify the best way to engage in collective advocacy efforts.

3. Final editing and dissemination of the Anglophone and Francophone prototype EPI curricula

NESI provided support for the final editing and dissemination of the Anglophone and Francophone prototype curricula for medical and nursing/midwifery schools. Each of these 4 curricula includes 2 parts and a total of 15 chapters covering the technical and practical aspects of training nurses and doctors on immunisation:

Part 1 - Introductory Commentaries and technical Attachments on EPI Curriculum	
Chapter 1	Introduction
Chapter 2	Competency Profile of Immunization Service Providers
Chapter 3	Attachments
Part 2 - EPI Prototype Curriculum for Teaching a Course on Immunization	
Chapter 1	Introduction
Chapter 2	Content Topics of the Curriculum
Chapter 3	How to Use This Curriculum
Chapter 4	Practicals and How to Organise Them
Chapter 5	Fieldwork Placement of the Students
Chapter 6	Student Assessment Evaluation Options
Chapter 7	Sample Examination Questions and Exercises
Chapter 8	Using Active Teaching Learning Methods
Chapter 9	Teacher Profile for Teaching Immunization
Chapter 10	Conditions Conducive to Teaching
Chapter 11	Introduction and Implementation of the Curriculum
Chapter 12	Monitoring and Evaluation of the Curriculum

The curriculum refers to 17 content topics for which training modules are available and specifies the lesson objectives indicating what the student must know, teaching methods, time allocation, teaching materials/media, including reference materials that are available on the CD-ROM. This CD-ROM has been disseminated by WHO/AFRO through meetings and country offices and through the NESI network.

4. Support for curriculum reform at the University of Kinshasa, November and December 2007

Two workshops were organised with the support of NESI for curriculum reform at the medical faculty of the University of Kinshasa, Democratic Republic of Congo, from 5 to 9 November and from 17 to 21 December 2007.

In the context of an ongoing curriculum reform process for Schools of Health Sciences in Kinshasa, NESI worked together with the Belgian NGO Are@Santé, to support the introduction of a competence-based approach for teaching and evaluating of health sciences. The school of public health and the Medical Faculty of the University of Kinshasa are taking the lead in this process together with the Université Pédagogique Nationale, the Institut Supérieur des Techniques Médicales de Kinshasa, and the Commission Permanente des Études.

The first workshop was organised to introduce teachers on the concept of competence-based learning. For this purpose, it is important to identify which are the main competencies required of graduates at the end of their studies. For this purpose, Are@Santé has worked together with health staff working at district level in various countries on establishing a repertory of competencies (in the first place for nursing staff). There are different training methods of teaching that can be used to acquire several competencies. Often, different methods will be combined. During this first workshop, the participating teachers discussed different teaching approaches which they are currently using and were introduced to alternative teaching methods that can be used for competence-based teaching. This workshop also explored the relations between the repertory of competencies, learning objectives, teaching methods, teaching materials and evaluation of students.

The second meeting was focused on evaluation. This covered methods for evaluating the quality of teaching as well as on evaluating the competencies of students. Through these workshops commitment of key teaching staff of the University was achieved to review the curriculum and new methods of interactive, competence-based teaching and evaluation methods for students and teachers were introduced.

These two meetings were a general preparation for the development by the school of public health and NESI of an integrated competence-based course on immunisation in 2008.

5. Vaccinology Course, Rixensart, January 2007

The vaccinology course in Rixensart, Belgium, is an accredited course module of the TropEd Masters of Science Degree in International Health. The course is organised by TropEd and GSK, with support from NESI and UCT. Course participants include students from this TropEd MSc course, as well as other participants. In 2007, 40 participants attended the course. Facilitators were from TropEd, GSK, UCT, NESI, GAVI Alliance, UNICEF, MoH Ghana and Syria, ULB and Terumo.

The goal of this course was to introduce participants to the various disciplines associated with vaccinology, including the basic sciences such as microbiology, immunology and epidemiology, clinical trials, vaccine and injection safety, vaccination strategies and evaluation. For group work, students were divided into four groups. Each group focused on a specific disease (rotavirus, tuberculosis, bacterial meningitis and pneumonia and HPV), discussing specific issues for each disease: (1) review of epidemiological data on disease occurrence, burden of disease, possibilities of prevention; (2) the 'ideal' vaccine profile; (3) integration of vaccine into EPI programmes; and (4) AEFI monitoring, surveillance, vaccine scares, advocacy and communication.

6. Vaccinology course, Accra, June 2007

This vaccinology course started as a South African version of the Rixensart course on the initiative of the University of Cape Town, South Africa. It was the third course of this type, following previous courses in Cape Town, South Africa (2005) and Addis Ababa, Ethiopia (2006).

In 2007, this course was organised by UCT, NESI, TropEd and GSK, in close collaboration with the Noguchi Memorial Institute for Medical Research - University of Ghana.

This vaccinology course was intended for clinicians, public health practitioners and scientists in Sub-Saharan Africa who are involved in any aspect of vaccinology from development through implementation and evaluation.

The goal of the course was to introduce participants to the various disciplines associated with vaccinology including vaccine development, the relevant basic sciences such as immunology, microbiology and molecular biology, clinical trials, vaccine safety, ethics, the media and vaccines, vaccine-economics, vaccination strategies and evaluation of vaccines. For researchers and scientists, the main objective was to build sustainable research capacity to develop vaccines and/or to conduct quality standard phase 1 to phase 4 vaccine trials. For clinicians and public health specialists, the main objective was to provide them with the necessary expertise to support public vaccination programmes and related activities.

Fifty participants, most of them from Western Africa, attended the course. The course consisted of a series of lectures, small group work and visits to a field site, as well as laboratories involved in the conduct of vaccine trials. Participants visited the field site of the Kumasi Collaborative Research Centre, Kwame University of Science and Technology in Kumasi. They also had the opportunity to observe the ongoing malaria vaccine clinical trial.

7. Support for comprehensive Multi-Year Planning in Lesotho, Malawi and Mozambique

On request by WHO, NESI provided assistance for the development of 3 comprehensive Multi-Year Plans (cMYP) in Lesotho, Malawi and Mozambique. Based on an analysis of the national EPI Programme, the national priorities, objectives and milestones are determined. These form the basis of the plan of action that describes the strategies, activities and timeline for the multi-year plan. On the basis of this plan, the financial sustainability plans were reviewed using the cMYP costing tool using macroeconomic data from Ministries of Planning and international financial institutions. Expenditures for vaccines and equipment were based on UNICEF prices. Specific activities and campaigns were based on expenditures of similar activities in previous years.

The introduction of Pentavalent vaccines adds considerably to vaccine cost (which is only feasible with GAVI support). Additional resources are also needed to increase cold-chain capacity and improve maintenance. There is also a need to increase capacity of staff in correct and timely reporting, planning of outreach activities and campaigns, and reducing vaccine wastage.

The comprehensive Multi-Year Plans are essential documents to advocate for strengthening of immunisation programmes and provide guidance to governments and donor agencies how additional resources can best be used to optimise the impact of the EPI programme.

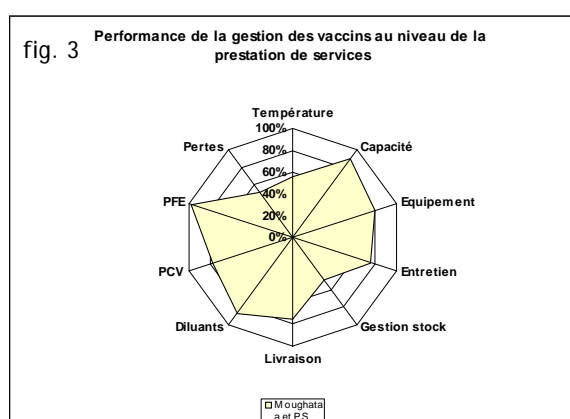
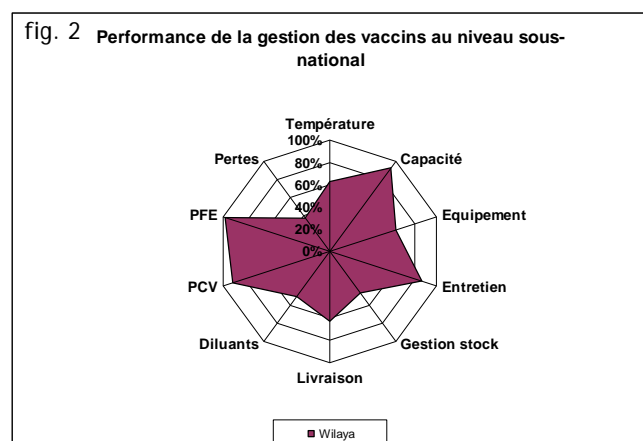
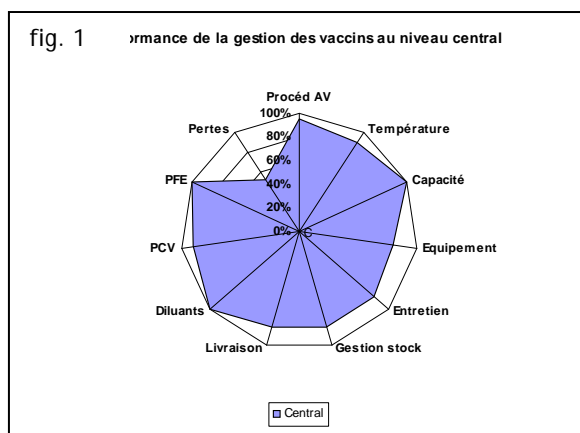
8. Capacity building in Vaccine management and new vaccine introduction, Mauritania, November 2007

Vaccine management is a critical component of immunisation. There are a range of essential functions in the immunisation system to ensure that sufficient vaccines of good quality reach the target beneficiaries. For this purpose vaccines should be well stored and transported under adequate conditions and managed by committed staff using correct procedures. Assessing and strengthening of the different components of the vaccine management and logistics system is therefore an important preparatory step in the process for new vaccine introduction.

On request by WHO, NESI supported a capacity-building process in Mauritania in anticipation of the introduction of Pentavalent vaccine in November 2007. This process consisted in three steps; an assessment of the current vaccine management system, and cold chain capacity, a calculation of vaccine and storage capacity needs and a meeting with all stakeholders to discuss the findings of the assessment teams and the needs analysis as well as the recommendations and plan of action for the introduction of Pentavalent vaccine.

At central level the vaccine management capacity was good with the exception of the management of vaccine wastage. At intermediate level, stock capacity, maintenance, the use of VVMs and the Multi Vial Policy scored well (above 80%). On vaccine wastage, temperature, equipment stock, delivery and diluents management performance was problematic. At facility level, temperature, stock, delivery and wastage management were problematic. At several occasions, there was a misunderstanding on the recommended temperature for stocking vaccines (0-8 °C in stead off 2-8 °C), with an observed risk for freezing.

This capacity-building exercise demonstrated the importance of a thorough process of assessment, analysis projection of needs and allocation of additional resources before the introduction of new vaccines.



“Spider graphs” are a useful and practical tool to present findings of vaccine management assessments. In this example from Mauritania, 11 parameters were assessed.

At central level (fig 1), management of wastage was the main problem identified.

At intermediate level (fig 2), problems were identified in wastage management, temperature control, delivery and diluents.

At health service level (fig 3), wastage management, temperature control and stock management were the main problems.

Networking and advocacy

1. Training Partnership Meeting, New York, February 2007

The 5th training partnership meeting was held in New York, USA, on 16 February 2007. This meeting involved public and private partners and academia, focusing on the identification of training needs and coordination of training activities to match the needs.

The training partnership meeting is an important opportunity for NESI to exchange experiences and materials and plan future activities with WHO, UNICEF, GAVI, academic and private partners.

The meeting started with the analysis of the web-based survey among partners. The main outcome of the survey was that: most partners provide a comprehensive package of training that includes disease and vaccine specific information, the RED approach, new vaccines, AEFI and disease surveillance, cold chain, monitoring immunisation programmes, injections safety, and waste disposal.

Some partners are focusing more on specific components such as vaccine logistics, transport management, or on specific diseases such as vaccination against Japanese Encephalitis, which are not addressed by other partners. Areas to be further strengthened include social mobilisation and advocacy and disease surveillance. Most of the training activities focused at senior, mid-level management and health workers.

Each organisation made a presentation on the objectives of their organisation, the achievements made in 2006 and the plans for 2007, followed by a discussion.

The 2007 NESI Plan of Action had been developed in close collaboration with WHO. It responds well to the specific needs of WHO/AFRO and is in line with the WHO/AFRO Regional plan of action. NESI plays an important role in promoting and supporting pre-service training. The meeting agreed that this is a very important component of durable capacity building that is often overlooked.

2. 15th Task Force on Immunisation in Africa Annual Meeting, Antananarivo, December 2007

The Task Force on Immunisation in Africa (TFI) meet once every year to review lessons learnt in implementing the EPI programme in the region, to make recommendations, to guide priority actions, and to obtain commitment of partners to support the programme.

The 15th TFI meeting took place in Antananarivo, Madagascar, from 11 to 13 December 2007. The meeting reviewed the progress achieved and the constraints faced in 2007. Most important, this meeting gave orientations for priority activities in 2008 and was followed by the ARICC meeting aimed at obtaining partners commitment to support priority actions for 2008. These meetings provide an important venue where different partners meet to review progress and make recommendations for the ensuing year and pledge commitments that are integrated into an annual action plan for the WHO/AFRO Department of Vaccines and Biologicals, which guides all training activities for Africa.

The specific objectives of the meeting included: (1) follow-up on the resolutions of the previous TFI meeting (out of the 22 recommendations of the previous TFI, 15 have been achieved while 7 have been partially achieved); (2) provide updates on the global immunisation situation and specifically in the AFRO Region; (3) look into performance of routine immunisation and the RED strategy; (4) update on the global, regional and specific national polio situations, and communication for polio eradication; (5) immunisation

financing and systems strengthening; (6) provide an update on integration of immunisation and other child survival strategies as well as integrated pre- and in-service training on child survival; (7) give an update on the status of introduction of HepB and Hib vaccine, and recent developments in the area of new vaccines.

Some of the highlights of the meeting included: (1) increased coverage for measles vaccination in Africa resulted in a reduction of measles death from more than 780,000 in 2000 to 220,000 in 2006 and represented a significant contribution to global child survival achievements; (2) DTP3 coverage increased from 73% in 2005 to 82% in 2006. Fifteen of the 46 countries reported 90% or more DTP3 coverage in 2006, while 14 countries have attained more than 80% DTP3 coverage in 80% of the districts or more. Eleven countries had maintained 90% DTP3 coverage at national level for at least 3 years; (3) mOPV1 was successfully used in 2007 for mass campaigns and a new timeline was set for polio eradication (interruption of type 1 polio by 2008; interruption of type 3 polio by 2009; certification of all WHO Regions by 2012; and cessation of all routine OPV use by 2013).

3. 14th African Regional Inter-Agency Coordination Committee Meeting, Antananarivo, December 2007

The African Regional Inter-Agency Coordination Committee Annual Meetings are usually organised "back to back" with the TFI meetings and was held on 14 December 2007. It is the most important meeting to plan and coordinate activities with WHO, UNICEF, GAVI, Rotary international, NESI, BioForce, USAID, CDC, and other partners. During this meeting statements are being made by the partners, on the areas and financial contribution for support for the activities during the following year. At this occasion NESI pledged to support capacity building in the AFRO region in collaboration with WHO for an amount of at least USD 150,000.

4. 12th meeting of the EMRO Regional Working Group and 1st meeting on Health Systems Strengthening, Cairo, January 2007

The 12th meeting of the Eastern Mediterranean Regional Working Group on the Global Alliance for Vaccines and Immunization (GAVI) and first meeting on Health Systems Strengthening took place in Cairo, Egypt, from 21 to 23 January 2007.

The objectives of the meeting were: to review country progress in finalising the national financial sustainability plans and to discuss the main constraints and support needed to assist countries submitting acceptable financial sustainability plans on time; to review country progress in implementing RED approach, and monitoring and evaluation of district performance; to discuss new vaccine introduction in Sudan (HepB) and Yemen (Pentavalent); to discuss country multi-year plans and; and to brief participants on the new GAVI window Health System Strengthening (HSS) and draft 2007 work plan related to the coordination of country's support for HSS.

The meeting was convened by WHO/EMRO and was attended by participants from member states in the EMRO Region: Afghanistan, Djibouti, Pakistan, Somalia, Sudan and South Sudan. Other participants were from WHO/EMRO, WHO/HQ, WHO/country offices, GAVI, UNICEF, African Development Bank and NESI. Out of 22 countries in the EMRO Region, only 6 countries receive GAVI support.

The first day and a half focused on immunisation services support. Dr. Mohsni from WHO/EMRO gave an overview of the regional progress, constraints and perspectives. The main targets for the Region are to eradicate polio, eliminate measles by 2010, eliminate maternal and neonatal tetanus by 2007, eliminate congenital rubella syndrome by 2010 in countries that have introduced rubella vaccine, introduce HepB vaccine in all countries by 2007, and introduce Hib vaccine in all countries that have demonstrated disease burden by 2010. By 2010, all countries should reach more than 90% DTP3 coverage at national level and more than 80% coverage in every district. The regional priority is to increase routine coverage in the 6 priority countries (GAVI support). Country progress regarding improving access to routine EPI and introducing new vaccines was presented by the respective EPI managers from Afghanistan, Djibouti, Pakistan, Somalia, Sudan and South Sudan.

The second part of the meeting focused on Health System Strengthening. Any GAVI eligible country can apply for HSS support. HSS funding is based on the number of newborn children. Expenditure can be spread over the agreed funding period as required. Three themes were suggested for HSS, but are not exclusive: health workforce, primary care infrastructure, organisation and management of services at district level and below. Requirements for HSS funding include: active health sector coordination committee, immunisation cMYP, health sector strategic plan description of main areas HSS will support, and annual action plans. GAVI-HSS vision: to achieve and sustain increased immunisation coverage in all GAVI eligible countries, through strengthening the capacity of the health system to provide immunisation and other health services. Each country presented on health system challenges, strategies and vision, and their draft country plans for HSS.

5. EPI managers meeting Eastern and Southern Africa, Harare, March 2007

The Sub-regional EPI programme managers meeting for Eastern and Southern Africa, organised by WHO/AFRO and UNICEF took place from 14 to 16 March 2007.

NESI regularly attends these meeting as it is an opportunity for planning joint activities and networking with national EPI staff, staff of WHO, UNICEF and other partners. The objectives of the meeting were:

- To update EPI staff on resolutions taken during several key meetings in 2006 (previous programme managers meetings in Lilongwe and Mombasa, TFI and ARICC meeting in Maputo);
- To receive technical updates (for example on the new protocol for polio surveillance and on the progress in malaria vaccination);
- To review the progress in EPI programme implementation, in particular regarding polio eradication, measles control and elimination of maternal and neonatal tetanus;
- To discuss different approaches and best practices in the implementation of integrated activities (such as child health days and outreach services) as well as opportunities for health service strengthening (such as data quality self assessments and use of hand held computers for data capturing during supervision).

During the evening hours, country teams came together with WHO, UNICEF and all interested partners, including NESI, to discuss their annual country plans of action.

6. North West EPI Symposium, Rustenburg, South Africa, August 2007

The North West Symposium was organised from 22 to 23 August 2007 in Rustenburg, South Africa. The symposium was organised by the South African Vaccination and Immunisation Centre (SAVIC), in partnership with North West Province Department of Health, in the context of an Academic-Public Alliance between the University of Limpopo and the University of Antwerpen (Belgium) with the National Department of Health of South Africa.

The meeting assembled experts and practitioners in the field of vaccinology and immunisation from academia, public and private health care workers and officials, scientists, WHO, UNICEF, Vaccine Industry and other stakeholders as appropriate. The meeting blended the EPI special interest areas of socio-behavioural science, health systems management and policy issues, curricula and training, and epidemiology of vaccine-preventable diseases, providing the audience with an advanced knowledge and understanding of the current and future challenges of vaccinology and immunisation at a local, regional and global level.

MEDUNSA, as the host of SAVIC, has been playing an important role in capacity building of EPI staff from the 4 highly populated provinces of Gauteng, Mpumalanga, Limpopo and North-West provinces. The first day was dedicated to training of nurses. During the second day there were academic lectures and discussions on the WHO/AFRO Strategic EPI plan (WHO Country office), Ethics (Prof. Rautenbach, Law and Ethics), New Vaccine Introduction (Dr. Van der Veen, NESI), Polio Eradication and Challenges Associated with OPV (Prof Schoub), Progress of Polio eradication (Dr. Khomo, Chair NCC), Updating Medical and Nursing curricula (Prof. Hoosen), and presentations on different research projects of MEDUNSA including Rotavirus, social mobilisation and immunisation of HIV positive children and response to HepB.

Publications

Evaluation of Mid-Level Management Training in Immunisation in the African Region. Under revision by WHO/AFRO.

Hepatitis B vaccination in Africa; mission accomplished? G. François, C. Dochez, M. J. Mphahlele, R. Burnett, G. Van Hal and A. Meheus. *The Southern African Journal of Epidemiology and Infection* 23(1): 24-28.

Burden of Hepatitis B virus infection in Belgium. A. Meheus and C. Dochez. *The Southern African Journal of Epidemiology and Infection* 23(1): 45-49.

Vaccination in the line of fire. G. François, A. Kramvis, G. Van Hal, A. Lambin, C. Dochez and A. Meheus. *The Southern African Journal of Epidemiology and Infection* 23(1): 53-57.

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