



GLOBAL IMMUNIZATION NEWS

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27 July 2007

TECHNICAL INFORMATION

GLOBAL ADVISORY COMMITTEE ON VACCINE SAFETY (GACVS)

27/07/07 from Alison Brunier, WHO/HQ: The GACVS, an expert clinical and scientific advisory body established in 1999 to respond, independently from WHO, promptly, efficiently and with scientific rigour to vaccine safety issues of potential global importance, held its sixteenth meeting in Geneva, Switzerland on 12-13 June 2007. Issues discussed were: vaccine safety monitoring; safety of vaccine formulations; a mumps vaccine virus strain repository; the safety of BCG; human papillomavirus (HPV); rotavirus and influenza vaccines; and the safety of the meningococcal vaccine Menactra®.

Safety of HPV Vaccines - Current evidence of the safety of HPV vaccines is reassuring. As with the introduction of any new vaccine, it will be important to conduct surveillance to identify possible, rare, unexpected effects, especially as good quality information on the rates of a variety of diseases before widespread vaccination introduction is generally lacking in the target age group for HPV vaccination (i.e. 9 to 26 years). Also, careful surveillance for specific adverse effects during pregnancy will be important as the target group includes females of reproductive age.

Safety of Rotavirus Vaccines - Data were presented on the Merck vaccine RotaTeq® and the GSK vaccine Rotarix®. GACVS concluded that the data regarding intussusception are reassuring, noting that most data currently relate to developed countries. It was noted, however, that the present data relate mainly to vaccines administered to young children at the recommended age. Intussusception should be monitored in developing countries as rotavirus vaccines are introduced, especially as infants are likely to present for their first dose of vaccine at slightly older ages, on average, than is the case in developed countries.

Information was also presented on rare cases of Kawasaki disease observed following rotavirus vaccination. While the evidence is at best a hint of a signal, the data do not yet permit a full evaluation of a possible risk. There is a need for careful assessment of Kawasaki disease in the existing data and to ensure that ongoing and future studies incorporate surveillance for Kawasaki disease following vaccination.

Influenza vaccines - Among other issues discussed, a brief description of allergic events occurring after administration of Grippol®, a polyoxidonium adjuvanted split virus influenza vaccine produced in the Russian Federation, was presented. There is a paucity of information regarding these events, and WHO has not been able to secure additional information on the investigation. As such it is unclear if events reported in the media were compatible with expected rates of allergic reactions or represented an increase and possibly some manufacturing problems. GACVS nevertheless recommends that countries using this vaccine put in place a surveillance system for the upcoming influenza season so that its safety profile can be better characterized. Improved information sharing regarding the safety profile of influenza vaccines is critical for pandemic influenza preparedness.

The report of the meeting was published in the WHO Weekly Epidemiological Record on 20 July and has been posted on the GACVS web site at http://www.who.int/vaccine_safety/en/

HUMAN PAPILLOMAVIRUS (HPV)

27/07/07 from Kathleen Irwin, WHO/HQ:

Recent WHO resources to guide decision-making about introduction of HPV vaccines - Two vaccines are now available to prevent infection with HPV, a group of viruses that causes cervical cancer and genital warts. Both vaccines are designed to protect against infection by the four types of HPV associated

with the vast majority of cervical cancer and genital warts worldwide. Clinical trials conducted in several continents have demonstrated that both vaccines have good safety profile and are highly effective in preventing HPV infection and HPV-related disease in persons who have not been previously infected with vaccine-related HPV types. These vaccines are now licensed in more than 70 countries and some countries have recommended routine in their national immunization programmes.

WHO-sponsored meetings about preparing for vaccine introduction have taken place with SEARO, WPRO, and EURO regions. Similar meetings are scheduled for AMRO, AFRO and EMRO regions in late 2007 or 2008. To further support countries that have already introduced HPV vaccines or are considering vaccine introduction in the future, WHO has produced several resources. These can be used to guide decisions about introducing HPV vaccine into national immunization programs or integrating HPV vaccines with other cervical cancer prevention interventions, such as screening.

These resources include:

Preparing for the introduction of HPV vaccines: Policy and Programme Guidance for Countries (2006). Available in English, Spanish, French, Chinese, Russian and Arabic.

<http://www.who.int/reproductive-health/publications/hpvpvaccines/>

Human papillomavirus and HPV vaccines: Technical information for policy-makers and health professionals (2007). Available in English now, and by 2008, in Spanish, French, Chinese, Russian, and Arabic.

<http://www.who.int/vaccines-documents/DocsPDF07/866.pdf>

Guidelines to Assure the Quality, Safety, and Efficacy of Recombinant Human Papillomavirus Virus-Like Particle Vaccines. WHO Expert Committee on Biological Standardization, 2007."

http://www.who.int/biologicals/publications/trs/areas/vaccines/human_papillomavirus/en/index.html

Comprehensive Cervical Cancer Control: A guide to essential practice.

Available in English, French, and Spanish.

http://www.who.int/reproductive-health/publications/cervical_cancer_gcp/index.htm

Cancer Control: knowledge into action. WHO Guidelines for Effective Programmes (includes a module on prevention that addresses HPV vaccines)

<http://www.who.int/cancer/modules/en/index.html>

WHO/ICO Information Centre on HPV and Cervical Cancer. This website includes information useful to countries that have introduced or are considering introducing HPV vaccine introduction. The interactive website includes global, country-, and region-specific data on cervical cancer incidence and mortality, incidence of precancerous lesions, HPV prevalence and type distribution, demographic and sexual characteristics, and data on cervical cancer screening and immunization programmes. Available at www.who.int/hpvcentre

POLIO

27/07/07 from Oliver Rosenbauer, WHO/HQ:

Polio Eradication: GAVI re-programming of funds frees up much-needed cash

On 29 June 2007, the GAVI Fund Alliance finalized a re-programming of US\$104.6 million to the Global Polio Eradication Initiative to support the current intensified eradication efforts. While these funds are not new contributions, as they had originally been earmarked for activities for the post-eradication era for 2009, they do free up much-needed cash right now, to maintain critical surveillance and campaign activities through the rest of the year.

Although these re-programmed funds, together with new contributions of US\$ 41 million, including from Austria, Japan, Italy, Kuwait, Liechtenstein, Monaco, New Zealand, UNICEF Regular Resources set-aside and the World Bank Investment Partnership for Polio (Pakistan) since May, reduce the global funding gap for 2007, the Global Polio Eradication Initiative is still short approximately US\$ 60 million for the rest of this year. A further US\$355 million is also needed for activities in 2008. These resources remain in critical need to enable to continue key polio eradication efforts, particularly also to protect the gains made in polio-free countries.

The ongoing risk polio continues to pose to populations everywhere was again highlighted this month, with confirmation that polio had been isolated in Australia from a Pakistani student returning to Australia. This case illustrates the need to rapidly make available the necessary financing means to finish polio once and for all in the remaining endemic areas, to ensure the safety of populations living in polio-free areas everywhere. The Global Polio Eradication Initiative is looking to the G8, other OECD and OIC countries to rapidly make available the critically-needed resources. For further information, please visit www.polioeradication.org

SAFE INJECTION GLOBAL NETWORK (SIGN)

27/07/07 from Selma Khamassi, WHO/HQ: The annual meeting of the Safe Injection Global Network (SIGN) will be held this year from 23-25 October 2007 in WHO/HQ Geneva, Switzerland.

Unsafe injection practices are increasingly recognized as a major source of infection with bloodborne pathogens. While it is the responsibility of all health care workers, their employers, the public, and national

governments to ensure safe and appropriate use of injections, the prevention of bloodborne pathogen transmission and other adverse events associated with injections will require improved collaboration between organizations and individuals sharing a common interest in attaining this goal.

To achieve this collaboration, SIGN was established in 1999. SIGN is a voluntary coalition of stakeholders aiming to achieve safe and appropriate use of injections throughout the world. The SIGN coalition is constituted by UN organizations (WHO, UNICEF, UNFPA), ministries of health, manufacturers (IASIT: International Association Safe Injection Technologies), CDC, USAID, research institutes, etc. The Essential Health Technologies (EHT) department of WHO provides the secretariat for the network.

The annual SIGN meeting provides opportunities to review common progress and to decide on action points for the members of the SIGN alliance. It is a priority for the network to identify ways to implement recommendations, obtain action at the lower levels of the health system, achieve behavioural change, and most importantly improve the practices of front line health workers.

The Internet is used to disseminate presentations to those who cannot attend, and user-friendly reports summarize key issues in a format that is quick and easy to read.

The following are the objectives of the meeting:

- Exchange information regarding progress towards the safe and appropriate use of injections worldwide;
- Review progress of the various injection safety country projects;
- Review progress of the health care worker protection;
- Review global progress in infection prevention and control activities;
- Review waste disposal options.

The expected outcomes from the meeting are:

- An updated strategic agenda for the SIGN network;
- Recommendations for the continuation of injection safety projects;
- Update of the WHO needle stick surveillance systems;
- Update of infection prevention and control activities;
- Update on WHO Standard Precautions for injection safety.

Those interested in injection safety and related infection control activities are welcome to attend. Please let the meeting organizers know by writing to sign@who.int

YELLOW FEVER

27/07/07 from Fenella Avokey, WHO/AFRO: Mali has become the second country after Togo to organize a risk analysis validation meeting, and thereafter submitting an application to the ICG for vaccines and funds for yellow fever preventive campaigns. The risk evaluation exercise showed a total of 5,675,367 persons in 33 districts to be at risk; the target population in 15 of these districts had been partially vaccinated.

Both applications have now been approved by the ICG. Togo's campaign is planned for early September, while Mali is planning to have its campaign in early January 2008.

PUBLICATIONS

WHO PUBLISHED DOCUMENTS

27/07/07 from Mario Conde, WHO/HQ:

Catalogue of Immunization Related Policy Recommendations Now Available - WHO's Department of Immunization, Vaccines & Biologicals (IVB) has compiled its policy recommendations into a catalogue. It is hoped that having IVB policy recommendations listed in one document, and sorted by disease and special interest topics, will prove useful to countries establishing and revising national policies and to individuals reviewing and updating global policies. Policy recommendations from 80 WHO/IVB documents were included in this catalogue.

The Catalogue is now available <http://www.who.int/immunization/policy/en/index.html>

GAVI-RELATED INFORMATION

HIB INITIATIVE

27/07/07 from Layla Lavasani, JHSPH:

Hib vaccine is a highly cost-effective intervention: an economic evaluation from Kenya - In a recent study published in the July issue of the WHO Bulletin*, researchers from Kenya and the United Kingdom sought to evaluate the cost-effectiveness of Hib Vaccine delivery in routine infant immunization services. Specifically, the objective was to estimate the incremental costs per case, death and DALY averted from the Hib vaccine.

Ms. Angela Akumu and research colleagues used extensive hospital surveillance data on childhood bacterial diseases from Kilifi district both before and after the Hib vaccine introduction to estimate the disease impact. These data were combined with the vaccine introduction costs and the costs of treating meningitis and pneumonia to show that the delivery of the Hib vaccine as part of Kenya's Expanded Programme on Immunization (KEMRI) is highly cost effective. The researchers estimated that without the Hib vaccine, the Government of Kenya would spend approximately US\$871,539 each year on hospitalizations and outpatient care of infants with invasive and non-invasive Hib disease. The study shows that each year the Hib vaccine is preventing 4,033 meningitis and 10,166 pneumonia cases, and is saving the lives of approximately 5,408 children less than 5 years of age.

Ulla Griffiths, economist and co-author of the study, comments on the results, "There is no doubt that an intervention that prevents a death for just over US\$1,000 must be considered very cost-effective. This level of cost-effectiveness is comparable with other interventions that we normally regard as cost-effective, such as bednets for malaria prevention. In addition, we must remember that Kenya for the first five years of Hib vaccine use received the vaccine free of charge from the GAVI Alliance. From the viewpoint of the Government, the vaccine has therefore been cost-saving, as its use has led to a decrease in the pressures on the public health services."

(* - Akumu, A.O., English, M., Scott, J.A.G., Griffiths, U. Economic evaluation of delivering Haemophilus influenzae type b vaccine in routine immunization services in Kenya. *Bulletin of the World Health Organization*. July 2007, 85(7))

REVIEW PROCESS

Next Review Dates:

THIRD REVIEW 2007: ISS, INS, New Vaccines & Measles 2nd Dose: The deadline for receiving applications is **28 September 2007**. The applications will be reviewed from **17-26 October 2007**.

THIRD REVIEW 2007: HSS Applications: The **deadline** to receive applications for HSS is **5 October 2007**. The applications will be reviewed from **26 October – 7 November 2007**.

MONITORING REVIEW: The Annual Progress Reports will be reviewed from **24-28 September 2007**.

COUNTRY INFORMATION¹ BY REGION

AMERICAS

REGIONAL INFORMATION

27/07/07 from PAHO:

PAHO Executive Committee Passes New Rubella Resolution - On 28 June 2007, the 140th Executive Committee recommended to the 27th Pan American Sanitary Conference the adoption of Resolution CE140.R10. The resolution highlights the invaluable contribution of PAHO member states, their health workers, and the multitude of partners who are dedicated to obtaining the elimination goal by 2010. Member States are encouraged to finalize the implementation of vaccination strategies while strengthening integrated measles/rubella surveillance and CRS surveillance. A fundamental component of the resolution is the formation of national commissions to compile and analyse data to document and verify measles, rubella and CRS elimination under the supervision of an Expert Committee. The Expert Committee, also established under the resolution, will ultimately be responsible for documenting and verifying the interruption of transmission of endemic measles virus and rubella virus in the Region.

¹ HSS= Health Systems Strengthening;
ICP = Inter Country Programme;
ISS = Immunization Services Support;
INS = Injection Safety Support;
NVS = New Vaccine Support;
DQA = Data Quality Audit;
DQS = Data Quality Self Assessment;
FSP = Financial Sustainability Plan;
RED = Reach Every District;
cMYP = Fully costed multi-year plan;

GIS Workshop - A workshop on the use of Geographic Information Systems (GIS) for immunization programs was conducted in Santo Domingo, Dominican Republic, from 8-9 June 2007. Participants included representatives from 10 countries (Costa Rica, Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, Panama, Mexico and Nicaragua). The workshop was organized and coordinated by PAHO's Immunization Unit and the Health Analysis and Statistics Unit.

The objectives of the workshop were to present general GIS concepts and their usefulness for managing the Immunization Program, to introduce PAHO's initiative for the use of GIS in public health and to teach basic functions of SIGEpi - a free software developed by PAHO's Health Analysis and Statistics Unit. The participants were trained in advanced techniques to use immunization data to create new variables, thematic maps and to carry out an analysis to identify critical areas in order to strengthen vaccine-preventable disease surveillance.

A similar workshop will be conducted for South American countries in Quito, Ecuador, 8-9 August 2007 as well as for Caribbean countries in Tobago, 14-15 November 2007.

EAST & SOUTH AFRICA

UGANDA

27/07/07 from Fiona Braka-Makmot, WHO/Uganda:

- A national **cold chain inventory and management assessment** is ongoing at health facility level with support from PATH, UNICEF and WHO.
- The country participated in AFRO regional **RED evaluation exercise** from 16-27 July 2007.
- A **MNTE validation** visit is planned by UNICEF and WHO during August 2007.

WEST & CENTRAL AFRICA

GHANA

27/07/07 from West AFRO: An **external surveillance review** was conducted from 4-13 June 2007 by six external reviewers from WHO/HQ, WHO/AFRO, IST/West C/O Sierra Leone and six internal reviewers and WHO/Ghana staff.

Based on agreed criteria, five regions (Ashanti, Brong-Ahafo, Greater Accra, Northern and Western) and 11 districts were reviewed. A desk review was carried out for the remaining five regions (Central, Eastern, Upper East, Upper West and Volta).

The analysis focused on AFP, Measles, NNT, Yellow Fever surveillance and routine EPI performance.

Key findings were identified related to:

- Organization of the surveillance system;
- Reporting sites;
- Case-based surveillance;
- Implementation of IDSR

The review team noted with satisfaction the existence and ownership of well established surveillance structure, the presence and commitment of experienced surveillance focal persons at all levels, and efforts being made to improve the effectiveness of community based disease surveillance and response system.

Good level of population immunity through a solid and sustained national performance of routine EPI constitutes a strong basis for vaccine preventable disease control, prevention, elimination and eradication.

It however, observed some weaknesses which have to be given the necessary priority to ensure the country's objective of achieving an effective and sensitive communicable diseases surveillance system.

The involvement of community based surveillance volunteers, traditional/faith healers, and private practitioners in active surveillance needs to be strengthened and sustained. It would also be necessary to ensure effective partnership at all levels, regular flow and integration of various programme funds to enhance surveillance at the operational levels.

The review noted that the foundation of a surveillance system has been laid to detect importation of wild poliovirus and outbreak of other diseases. However, the surveillance system is not sensitive enough to detect low transmission of wild poliovirus and other diseases.

Recommendations were made to address the findings on:

- Capacity building/refresher training;
- Funding mechanism, partnership and integration;
- Supervision, monitoring and evaluation;
- Planning and implementation of active surveillance;
- Additional support.

A plan of action was developed to implement the recommendations and to monitor the progress.

EASTERN MEDITERRANEAN REGION

REGIONAL INFORMATION

27/07/07 from EMRO:

Second meeting on Health Systems Strengthening - The second meeting on Health Systems Strengthening was held in Cairo, Egypt from 11-13 June 2007. The meeting was chaired by Dr. Sabri, Director, Division of Health System and Service Development, WHO/EMRO. The meeting was attended by participants from EMRO eligible countries (Afghanistan, Djibouti, Pakistan, Somalia, Sudan North & South, and Yemen), GAVI Secretariat, UNICEF HQ and ESARO, MENARO and ROSA, WHO/HQ and WHO/EMRO.

The main objective of the meeting was to build the capacity at the country level concerning the GAVI HSS guidelines for application development and implementation. The meeting also offered an excellent opportunity to learn about country interests, intentions and readiness to apply for such support, and the kind of assistance needed for applying for support as well as optimizing the use of this support to contribute to building a stronger health system.

The meeting agenda discussed several important issues relating to country progress on increasing access to routine EPI, and used the opportunity to highlight difficult situations with a special focus on health systems strengthening. Special sessions were dedicated to:

- Capacity building on GAVI HSS application development
- Process and substantive challenges for developing HSS initiatives in countries at the global level
- How to support and strengthen HSS efforts at the country level

SOUTH EAST ASIAN REGION

REGIONAL INFORMATION

27/07/07 from SEARO:

Meetings - The following meetings were held in New Delhi, India:

- The Sixth meeting of Virologists from SEAR Polio Laboratory Network on 9-10 July 2007
- The Sixth meeting of the SEARO EPI programme managers on scaling up activities to meet goals of Global Immunization Vision and Strategy (GIVS) on 10-11 July 2007
- The 12th Meeting of SEAR Technical Consultative Group (TCG) on Polio Eradication and Vaccine Preventable Diseases on 12-13 July 2007.

Some of the key issues discussed at the EPI and TCG meetings were polio eradication, strengthening routine immunization to scale up access to the millions that do not receive routine vaccines, accelerating new vaccines introduction and measles mortality reduction. Further, the meetings were also an opportunity for countries to interact with GAVI Alliance, WHO, UNICEF and other partners on a one-to-one basis. The meetings were well attended with almost 100 participants, including partner representatives.

Training Activities - Training on diagnostic procedures for bacterial pathogens causing Acute Encephalitis Syndrome (AES) is being conducted in Bangalore, India from 16-20 July 2007.

Planned Activities - The following activities are planned for the South East Asian Region:

- An NRA assessment and joint WHO DCG(I) GMP audit will be conducted in India in July/August 2007.
- An assessment of the central storage facility for vaccine and other medicines in Nepal in August 2007.
- An AEFI Monitoring workshop for PHC workers in Bangladesh in August 2007.
- An AEFI Monitoring investigation & causality assessment workshop in Thailand (September-October 2007).
- A Global Training Network (GTN) on Effective Vaccine Store Management with Khon Kaen University faculty nurses in Thailand in October 2007.
- A GTN course on Lot Release with CDL Kasauli in India in November 2007.

INDIA

27/07/07 from SEARO: An **SNID** is planned on 5 August 2007.

INDONESIA

27/07/07 from SEARO: An **SNID** is planned on 5 August 2007.

LIST OF MEETINGS & KEY EVENTS RELATED TO IMMUNIZATION

Regional Meetings & Key Events Related to Immunization: August 2007 to 2009					
Title of Meeting	Start	Finish	Location	Responsible Partner	Region
Aug-07					
First Meeting of the Virologists of the regional JE Laboratory Network and Training in Laboratory procedures for diagnosis of Bacterial Pathogens causing Acute Encephalitis Syndrome (AES)	August	August	Bangalore, India	SEARO	SEAR
South America Regional EPI Managers Meeting	06-Aug	08-Aug	Quito, Ecuador	PAHO	PAHO
SEARO GTN Advanced Course on GMP Inspection	13-Aug	17-Aug	New Delhi	SEARO	SEAR
EMRO Training on Vaccine Supplies Stock Management (VSSM) Version 2.00 software for vaccine stores	19-Aug	24-Aug	Cairo, Egypt	EMRO	EMR
Sub-Regional Symposium on New Vaccines: Pneumococcus and Rotavirus	20-Aug	21-Aug	San José, Costa Rica	PAHO	PAHO
Regional Committee for Africa: fifty-seventh session	27-Aug	31-Aug	Brazzaville	AFRO	AFR
Meeting of the European Technical Group of Experts on Immunization	29-Aug	30-Aug	tbd	EURO	EUR
Sep-07					
EMRO Inter-Country training workshop on National Regulatory Authority and Vaccine procurement systems for countries receiving vaccines through UNICEF	02-Sep	05-Sep	Cairo, Egypt	EMRO	EMR
Regional Committee for South East Asia: Sixtieth Session	02-Sep	07-Sep	Bhutan	SEARO	SEAR
EMRO Regional Working Group on Rotavirus Surveillance	10-Sep	12-Sep	Cairo, Egypt	EMRO	EMR
Polio Laboratory Network Meeting of the Russian Federation	10-Sep	12-Sep	Sochi, Russian Federation	EURO	EUR
SEARO GTN Workshop on Vaccine Lot Release	10-Sep	14-Sep	Kasauli, India	SEARO	SEAR
Regional Committee for the Western Pacific: Fifty-Eight session	10-Sep	14-Sep	Jeju Island, Republic of Korea	WPRO	WPR
European Immunization Week Meeting	11-Sep	12-Sep	Copenhagen, Denmark	EURO	EUR
GAVI Quarterly Fund Executive Committee Meeting	12-Sep	12-Sep	Washington DC	GAVI Secretariat	Specific
Regional Committee for Europe: Fifty-Seventh Session	17-Sep	20-Sep	Belgrade	EURO	EUR
GAVI Review of Annual Progress Reports	24-Sep	28-Sep	Geneva	GAVI Secretariat	Specific

Ninth Meeting of International Certification Commission for Polio Eradication	27-Sep	29-Sep	New Delhi	SEARO	SEAR
Oct-07					
Regional Committee for the Americas: Fifty-Ninth Session	01-Oct	05-Oct	Washington DC	PAHO	PAHO
SEARO Regional WHO GTN Course on Vaccine Management	15-Oct	19-Oct	Khon Kaen, Thailand	SEARO	SEAR
GAVI Review for ISS, INS, NVS & Measles 2nd Dose Applications (Deadline: 28 September 2007)	17-Oct	26-Oct	Geneva	GAVI Secretariat	Specific
Regional Committee for the Eastern Mediterranean: Fifty-Fourth Session	20-Oct	23-Oct	Khartoum	EMRO	EMR
GAVI Review for HSS Proposals (Deadline: 5 October 2007)	26-Oct	07-Nov	Geneva	GAVI Secretariat	Specific
GAVI Eastern Mediterranean Regional Working Group Meeting	28-Oct	29-Oct	Tripoli, Libya	EMRO	EMR
EMRO ICM on Measles and Rubella	30-Oct	01-Nov	Tripoli, Libya	EMRO	EMR
Nov-07					
EMRO RTAG Meeting	02-Nov	02-Nov	Tripoli, Libya	EMRO	EMR
Strategic Advisory Group of Experts (SAGE) meeting	06-Nov	08-Nov	Geneva	WHO/HQ	Global
Caribbean EPI Managers Meeting	13-Nov	16-Nov	tbd	PAHO	PAHO
European GAVI Regional Working Group Meeting	14-Nov	14-Nov	tbd	EURO	EUR
HPV Planning Policy Meeting for Latin America and the Caribbean	26-Nov	29-Nov	Rio de Janeiro, Brazil	PAHO	PAHO
GAVI South East Asian Regional Working Group Meeting	27-Nov	28-Nov	Thimphu	SEARO	SEAR
Joint GAVI Alliance & Fund Board Meetings	27-Nov	30-Nov	Cape Town	GAVI Secretariat	Specific
EURO TAG Meeting	tbd	tbd	tbd	EURO	EUR
Dec-07					
AFRO Task Force on Immunization	04-Dec	07-Dec	Madagascar	AFRO	AFRO
Global Advisory Committee of Vaccine Safety (GACVS) Meeting	12-Dec	13-Dec	CICG	WHO/HQ	Global
2008 Meetings					
Sub-Regional Laboratory Network Meeting for Countries of Central and Eastern Europe	08-Jan	11-Jan	tbd	EURO	EUR
Global Immunization Meeting	19-Feb	21-Feb	Geneva	WHO/HQ	Global
Strategic Advisory Group of Experts (SAGE) meeting	08-Apr	10-Apr	Geneva	WHO/HQ	Global
European Immunization Week	21-Apr	27-Apr	tbd	WHO/EURO	EUR
Strategic Advisory Group of Experts (SAGE) meeting	03-Nov	05-Nov	Geneva	WHO/HQ	Global
2009 Meetings					
Strategic Advisory Group of Experts (SAGE) meeting	07-Apr	09-Apr	Geneva	WHO/HQ	Global
Strategic Advisory Group of Experts (SAGE) meeting	27-Oct	29-Oct	Geneva	WHO/HQ	Global

LINKS RELEVANT TO IMMUNIZATION

GLOBAL WEBSITES

Department of Immunization, Vaccines & Biologicals, World Health Organization

<http://www.who.int/immunization/en/>

WHO New Vaccines Hib website

<http://www.who.int/nuvi/hib/>

GAVI Alliance Website

<http://www.gavialliance.org/>

PATH Vaccine Resource Library

<http://www.path.org/vaccineresources>

UNICEF Supply Division Website

http://www.unicef.org/supply/index_immunization.html

UNICEF Supply Division Product Menu for GAVI Vaccines

http://www.unicef.org/supply/files/Product_Menu_2007.PDF

Hib Initiative Website

<http://www.hibaction.org/>

Japanese Encephalitis Resources

http://www.path.org/vaccineresources/japanese_encephalitis-resources.php

Malaria Vaccine Initiative

<http://www.malariavaccine.org>

Meningitis Vaccine Project

<http://www.meningvax.org/index.htm>

PneumoADIP

www.preventpneumo.org/

RotaADIP

<http://www.rotavirusvaccine.org/>

RHO Cervical Cancer (HPV Vaccine)

<http://www.rho.org>

WHO/ICO Information Center on HPV and Cervical Cancer

<http://www.who.int/hpvcentre/en/>

SIGN Updates

www.who.int/entity/injection_safety/sign/en/

Technet

<http://www.technet21.org/>

REGIONAL WEBSITES

New Vaccines in AFRO

<http://www.afro.who.int/newvaccines/>

PAHO's website for Immunization

<http://www.paho.org/english/ad/fch/im/Vaccines.htm>

Vaccine Preventable Diseases in EURO

<http://www.euro.who.int/vaccine/>

New Vaccines in SEARO

<http://www.searo.who.int/en/section1226.asp>

Immunization in WPRO

http://www.wpro.who.int/health_topics/immunization/

Produced by WHO, in collaboration with UNICEF and the GAVI Alliance:

