Update on the dissemination of WHO technical guidance on malaria control and elimination

August 2013

Efficient global dissemination of technical guidance on malaria is key to achieving a high level of policy adoption at country level, as well as successful implementation of WHO recommendations. The success of dissemination depends on a range of factors, including the timeliness of product releases, the availability of translated versions, the quality of strategies to engage National Malaria Control Programmes (NMCPs) and partners, and the overall quality of knowledge management plans (including launch plans) around particular products. In addition to the quality of dissemination, the success of guidance uptake is greatly influenced by factors such as the strength of health systems, the degree of national political commitment to control and eliminate the disease, the availability of adequate financial resources, as well as WHO's ability to engage countries through advocacy and capacity building and its ability to offer and mobilize technical and financial support.

In parallel with the establishment of the MPAC, the WHO Global Malaria Programme (GMP) embarked on a process to improve the way it disseminates guidance documents. These efforts have been embedded in a larger exercise to strengthen knowledge management within the global malaria team (which includes staff at WHO headquarters, Regional Offices and Country Offices) in order to improve WHO's operational effectiveness at all levels of the organization. During the first 18 months, the work focused on improving the communications infrastructure, as well as on building new channels for electronic and hardcopy dissemination. This pre-read describes how guidance is currently disseminated and summarizes changes that have been implemented during this period. It has been prepared in response to the MPAC's suggestion in March 2013 to hold a discussion about the dissemination strategy and to explore how MPAC could potentially support GMP in these efforts.

1. Dissemination of policy recommendations and MPAC meeting reports

Global guidance dissemination is a shared responsibility between the three levels of WHO, with a clear division of labour. The Global Malaria Programme is primarily responsible for leading the development of global guidance documents, while Regional Offices lead on disseminating these to regional partners, including developing regional implementation plans and providing technical assistance. Country-based staff work on country-level advocacy, the provision of technical assistance as well as monitoring and assessment. In the WHO African Region, sub-regional Inter-country Support Teams provide an additional layer of support. The Roll Back Malaria (RBM) Partnership – and its working groups – are fundamental to ensuring a wide dissemination of WHO technical recommendations and to building partner support for implementation.

During the past 18 months, policy recommendations issued after MPAC sessions have been circulated to WHO Regional Advisers and country-based staff, who have in turn informed NMCPs and partners. The documents were circulated to all key technical partners and international donors through RBM Working Group mailing lists and were explained at a number of key technical meetings attended by GMP staff and Regional Advisers. These include regional and sub-regional programme managers' meetings, including those organized in the African region under the aegis of RBM. They were also discussed at relevant RBM Working Group meetings, for example at the meeting of the Harmonization Working Group, co-chaired by GMP. All of WHO's new and updated guidance documents are listed in the *World Malaria Report* each year, including an overview of all existing policy recommendations. The 2012 report included a lengthy section about the MPAC's first year.

The issuance of recommendations on SMC and IPTp was followed by the development of detailed policy briefs (including implementation guidance) which greatly facilitated policy dissemination. In addition, a series of inter-country workshops were held in Africa where the recommendations were explained in depth. The IPTp meetings were also attended by managers of reproductive health programmes, who are responsible for the delivery of the intervention. The workshops became an essential part of the policy dissemination process and are deemed to have been a critical step that set in motion the process of national consensus building in countries. The success of this process has confirmed that guidance dissemination is more successful if face-to-face meetings and workshops are held in affected regions, and that recommendations should be released together with a package of supporting documents, such as Q&As, policy briefs and implementation guidance, where possible.

The MPAC meeting reports have become "highly accessed" reports in the *Malaria Journal*. The September 2012 report has been accessed 5100 times to date, while the most recent one was accessed 3300 times. On the WHO website, the MPAC section (updated and streamlined in February 2013) received over 8,000 visits during the past ten months. All policy recommendations that were issued by WHO after MPAC deliberation are available through a single webpage, and – following MPAC's request – all policy recommendations have been linked together on different thematic pages. (For example, the publication page for the *Guidelines for the treatment of malaria. Second edition* now has a link to all related recommendations.) Recommendations and meeting reports have also been disseminated at a number of high-level events (further details below).

General WHO malaria document dissemination

MPAC-endorsed recommendations have been distributed in print and electronic format together with other WHO malaria documents through an expanded GMP presence at international conferences and scientific meetings. In the last 18 months, GMP publication stands were set up at the ASTMH 2012 in Atlanta, the Malaria 2012 conference in Australia, the World Health Assembly 2012 and 2013, the African Union summit in Abuja, and the AFRO Regional Committee meeting in Brazzaville. In the remaining four months of this year, there are plans to be present at the 8th European Congress on Tropical Medicine and International Health in Copenhagen, the 6th MIM Pan-African Malaria Conference in Durban, and the ASTMH 2013 in Washington DC. At MIM and ASTMH, GMP will also hold symposia to present the latest WHO guidance on malaria.

In addition to the global dissemination managed by the three levels of the organization, many guidance documents are available for purchase through the WHO online bookshop (for example the *World Malaria Report* series, *Management of Severe Malaria – A Practical Handbook*, and the *Global Plan for Insecticide Resistance Management in malaria vectors*). These publications are disseminated by WHO Press to a larger audience of global subscribers, UN agencies, Ministry of Health libraries, university libraries, peer-reviewed journals and audience groups specific to the subject.

To further improve guidance dissemination, GMP plans to send regular memos to WHO Heads of Country Offices to keep them informed, and will share news through a newly-established internal mailing list for WHO staff. There are also plans to produce a set of powerpoints for all document releases, which can be adapted and used by Regional and Country staff. The powerpoints will be accompanied by a one page "Just published" announcement which Regions and Countries can use for meetings until the hardcopies reach them.

High-level advocacy

Over the past year, several initiatives have led to a better understanding, or articulation, of bottlenecks that hinder progress or guidance adoption at country level. For example, a detailed analysis of the weakness of malaria surveillance systems (in the *World Malaria Report 2012*) has led to a better understanding among partners of the challenges in monitoring and evaluation, and prompted the adoption of an RBM ministerial statement on the importance of improving surveillance. A meeting of the RBM Malaria in Pregnancy Working Group has culminated in a consensus document on optimizing the delivery of malaria interventions during pregnancy. The launch of the *Emergency Response to Artemisinin Resistance in the Greater Mekong subregion* in April 2013 raised awareness about WHO recommendations on preventing the emergence of artemisinin resistance globally.

MPAC outcomes were referenced in WHO reports for the WHO Executive Board and the World Health Assembly, and the WHO annual progress report for the United Nations General Assembly. African Ministers of Health were briefed about key recommendations at the ministerial session of the RBM board meeting in December 2012, while some documents – for example *Larval Source Management – a supplementary measure for malaria vector control. An operational manual* – were on the agenda of the WHO/ RBM/ ALMA ministerial side event of the African Union special summit in Abuja, Nigeria in July 2013. Other high-level events included the Malaria 2012: Saving lives in the Asia-Pacific conference in Sydney, Australia (November 2012), and the launch of the *World Malaria Report 2012* in Monrovia, Liberia (December 2012) by the President of Liberia and the Regional Director of AFRO. This year's *World Malaria Report* will be launched in Washington DC and New York to engage US-based partners, UN diplomats and the US congress.

2. Upgrading the external communications infrastructure

Over the past year, GMP has upgraded the basic communications infrastructure that is used to publish and disseminate technical guidance and other malaria-specific information. The central WHO malaria website (www.who.int/malaria) has been redesigned and re-built on a new content architecture and navigation system. A dynamic frontpage was created to prioritize content, and a

news archive was established to help readers track document releases and announcements. All thematic pages were updated and time-stamped, and numerous new sections were added. Key initiatives such as the Malaria Situation Room, *T3: Test. Treat. Track* and the Rapid Access Expansion 2015 (RAcE) Programme were highlighted.

A new Document Centre was created, with document lists that are searchable according to 1) year of release, 2) type (e.g. global strategies or meeting reports) and 3) topic (e.g. treatment or surveillance). All policy guidance documents are now listed on one page (see: www.who.int/malaria/publications/policy/en/index.html). In addition, all 220+ malaria publications were retagged, and about half of these documents were archived and moved to a separate section. Archived documents continue to be available on the website but are clearly marked as containing outdated guidance. A new Media centre has been created to provide top-line figures to journalists and the advocacy community.

GMP has also looked at the presentation of content from a multi-lingual perspective, and is in the process of creating a French malaria site which completely mirrors the English site. This is a major improvement in the way material is presented to NMCPs and partners in Francophone countries. The content on the Spanish, Russian, Chinese and Arabic mini-sites has also been updated. After the new website went live (in April 2013), a part-time consultant joined GMP to regularly update content and assist with electronic dissemination and the use of web technologies.

Overall, the above-described efforts have addressed the concern about a previously "unmanaged cycle of documentation," and have brought the site in line with WHO corporate style, allowing better linking with regional websites and other WHO programme sites. Work is still ongoing to ensure that all links are updated on regional pages, and archived documents are removed from third-party sites. GMP is actively scanning the online space for outdated versions of documents, and asking for those to be removed or re-linked as necessary. The long-term vision is to build a global information hub on malaria that pulls together all WHO malaria information, including from other programmes and regional sites.

Monitoring website statistics

GMP is now actively monitoring web statistics to analyse what users are looking for. The latest set of web statistics (see Annex) reveal that the *World Malaria Report* and the *Guidelines for the treatment of malaria. Second edition* are by far the most downloaded products – with 35,000 and 10,000 downloads respectively over the last ten months. The malaria website gets between 25,000 to 30,000 visitors a month who view a total of 85,000 to 100,000 pages. On an average day, between 900 to 1200 visitors come to our site. The two peaks for visits are in April (World Malaria Day) and in December (World Malaria Report). Most visitors come from the developing world and not from endemic regions. Since its launch in April, the Global Malaria Mapper website (worldmalariareport.org) – a collaboration between GMP and the Medicines for Malaria Venture (MMV) – has received about 220 - 600 visits per day, which is impressive for a new website.

Digital engagement

At present, WHO Headquarters does not have a corporate newsletter through which subscribers can sign up for topic-specific news or web updates about WHO's work. All technical departments need to build their own mass mailing platform and mailing lists. A GMP newsletter is ready to launch in September 2013 and will contain summaries of news stories and announcements that have been published on the WHO malaria website. Given that most malaria partners are on Twitter, GMP is also considering the creation of a Twitter account to alert followers to new documents.

In October 2013, GMP plans to launch a webinar series to update Regional and Country Offices about new guidance. Each webinar will be held at least twice or three times to allow participation from different time zones as well as an adaptation of the presentations to regional specificities. To keep up with the digital revolution, GMP has also started developing a digital engagement plan to explore how WHO's malaria information can be optimized for tablet and mobile users. Among others, the creation of tablet-compatible flipping books is being considered, as well the creation of a WHO malaria "app" (for iPad and other tablets), containing all GMP publications. The bulk of this work is scheduled for 2014.

3. Improving internal communication

During the past year, GMP and Regional Advisers have held joint planning meetings on the margins of MPAC meetings. These have significantly improved internal communication. In May 2013, an internal mailing list was set up for all WHO malaria staff (including all HQ staff, Regional Office and Country Office staff working on malaria) to facilitate information sharing and communication within the global malaria team. In August 2013, a survey was circulated to all regional and country staff on guidance dissemination. The full results are not available at the time of writing. Efforts will be made to further strengthen dialogue with Regional Advisors and Country Staff about the local reception of new guidance documents as well key challenges in implementation.

GMP has started working with the Division of Country Focus in the Director General's Office in sending out memos to all WHO Heads of Country Offices ahead of major announcements (such as World Malaria Day and the launch of the World Malaria Report). Going forward, GMP plans to circulate regular updates to Heads of Country Offices about document releases. GMP may also consider commissioning a comprehensive study to look at the operational and political challenges of guidance uptake for all intervention areas, which could inform the future knowledge management process. In the meantime, GMP will seek to improve the way it gathers and shares intelligence generated through the Malaria Situation Room and workstreams such as Malaria Programme Reviews.

4. MPAC-related information management

MPAC meeting reports are valuable reference material but there may be a need to document additional MPAC-related issues that need tracking. Consideration could therefore be given to the

idea of creating a publicly available document which tracks progress and possible bottlenecks with regard to all recommendations, suggestions and requests made by the MPAC, including follow-up items emerging from expert group meetings. A "*Tracking record of recommendations and action points*" is already being used by SAGE (see Annex) which allows regular updating of progress by the Secretariat. A similar product for MPAC could become an efficient way to manage MPAC-related information for both the MPAC, WHO and observers.

Questions for MPAC

1. Do MPAC Members have suggestions on how to further improve current dissemination processes?

2. Do MPAC Members wish to become more actively involved in the dissemination of guidance (i.e. by attending technical meetings, programme managers' meetings, or providing quotes for news releases and updates)?

3. Can the MPAC offer guidance as to how a comprehensive analysis should be conducted on the operational challenges of implementation across all intervention areas?

4. Does the MPAC recommend using a SAGE-type tracking sheet?

Annexes

Web statistics (www.who.int/malaria) covering last ten months
SAGE live document: "*Tracking record of recommendations and action points*" (excerpt)

ANNEX I.

WEBSITE STATISTICS
WWW.WHO.INT/MALARIA
AUGUST 2013

Google analytics overview of web stats (between 1 September 2012 and 31 July 2013)

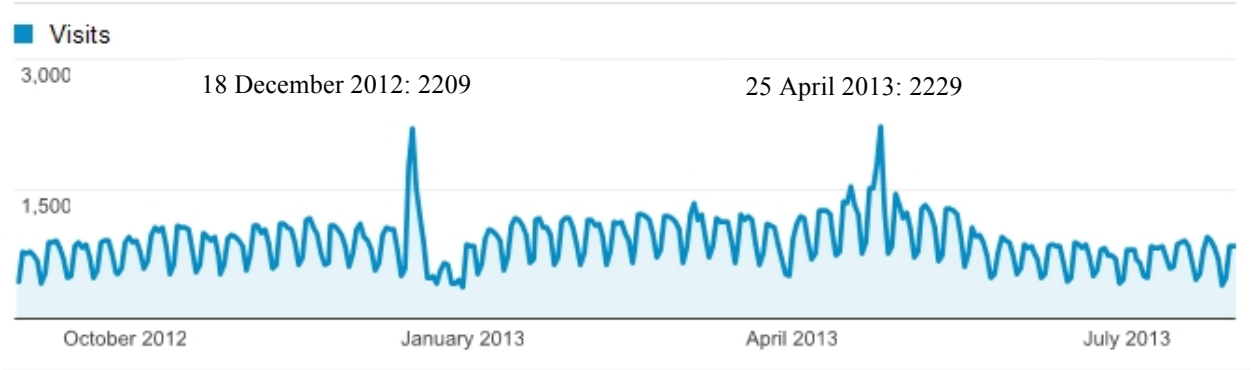
1. Total number of page views

Page views	1,087,504
Average pages per visits	3.65

2. How many visits are registered on the site each month?

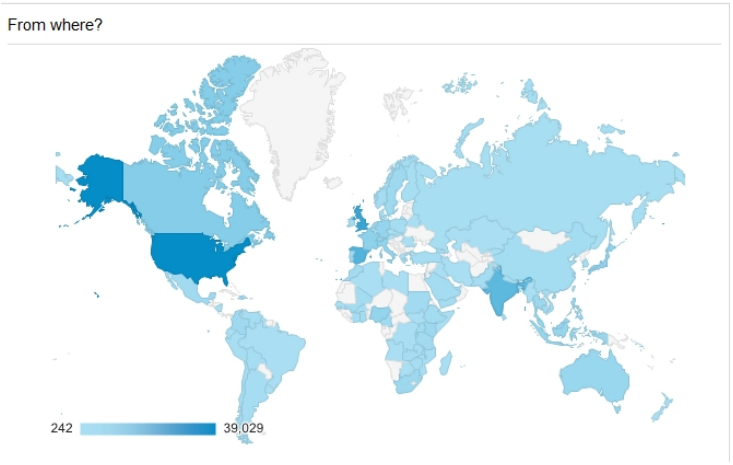
Month of Year	Page views	Visits
October 2012	98,193	26,795
November 2012	101,879	27,560
December 2012	87,743	26,160
January 2013	100,795	28,535
February 2013	98,588	27,925
March 2013	105,906	29,850
April 2013	**135,694**	**35,601**
May 2013	109,819	29,944
June 2013	82,171	21,162
July 2013	87,667	22,889

3. How many visits have occurred daily?



4. Where do most visitors come from?

Country/Territory	Visits
United States	**39,029**
United Kingdom	**26,908**
Spain	**20,848**
(No set location)	19,151
India	18,181
Canada	8,969
France	7,030
Japan	6,303
Italy	5,818
Germany	5,333



5. What were the most visited pages under PUBLICATIONS during the past 10 months?

Page	Page views
World Malaria Report 2012	**101,063**
Treatment guidelines 2010	**74,715**
WMR Country profiles	**30,330**
Document centre	20,138
World Malaria Report 2011	9,239
Management of severe malaria – A practical handbook. Third edition	6,280
World Malaria Reports new landing page	5,950
Treatment guidelines FRENCH 2010	5,511
Universal access to malaria diagnostic testing	5,492

7. What were the top PDF downloads during the past 10 months?

Document	Total
World Malaria Report 2012 (PDF without profiles)	**12,606**
Treatment guidelines 2010	**9,939**
World Malaria Report 2012 profiles	**9,212**
World Malaria Report 2012 full report	12,363
WMR 2012 Country profile India	5,818
WMR 2012 Country profile Thailand	3,879
WMR 2012 Country profile Kenya	3,636
World Malaria Report 2012 factsheet	3,636

Total for World Malaria Report 2012 key PDFs (not counting country profiles and factsheet): 34,181

SAGE TRACKING RECORD OF RECOMMENDATIONS AND ACTION POINTS

Topic	Recommendations/Action item	Category	Meeting Date	Status	Comments and Follow up
General	SAGE requested that a paper be developed, highlighting the circumstances under which off-label use of any vaccine can be recommended, while clarifying the differences between regulatory decisions and public health recommendations. Legal and programmatic implications of off-label recommendations and the need for clear communication should be considered.	Action	Apr 2012	Pending	Advice being sought through the ECBS - added to agenda of next meeting, 15-19 October 2012.
General	SAGE requested that cold chain and vaccine management, thiomersal and the non-specific effects of vaccines also be discussed by SAGE in the future.	Agenda item	Nov 2011	Pending/Ongoing	A specific session Information on vaccines for an Intergovernmental Negotiating Committee to prepare a global legally binding instrument on the use of mercury took place at the April 2012 SAGE meeting. It discussed thiomersal and alternative preservatives and presentations. A session on the non-specific effects of vaccines is under preparation and tentatively slotted for April 2013. Other agenda items have been added on the master list of items to be discussed by SAGE and will be ready for discussion in the next 2 years.
General	SAGE recommended that new approaches, such as periodic intensification of routine immunization, be carefully evaluated prospectively to determine their effectiveness and cost-effectiveness.	Action	Apr 2009	Ongoing	Work with Immunization Basics to document country experiences is wrapping up. Mission to observe Zimbabwe Child Health Days which included routine catch up doses was undertaken in June 2009. Final report available (17 June 2010). Mission to Macedonia was undertaken in April/May 2010 to document the European Immunization Week (EIW) (draft report has been reviewed by WHO and will be finalized shortly). This topic has been referred to the WHO Immunization Practices Advisory Committee (IPAC) which has discussed it intensively at its meetings June and November 2010, particularly the issue of no longer being able to use the delivery strategy to reliably disinguish whether a dose is routine and supplementary. Jointly WHO & UNICEF prepared a Guidance Note outlining four criteria to determine if a given vaccination is a routine or supplemental dose. IPAC endorsed the Guidance Note at its meeting September 27-28, 2011. WHO/UNICEF are now proceeding to disseminate the criteria and consult with stakeholders regarding the consequences.
General	SAGE encouraged the European region to document and share its experiences in country profiling, tailoring responses and using novel communication strategies to effect behaviour change.	Action	Nov 2010	Ongoing	The WHO European Region inaugurated its Immunization Communication Working Group in December 2010. EURO is working to give countries tools to address vaccine hesitancy at the individual level. These include: 1. Development of the Tailoring Immunization Programs to Profile Susceptibles “TIPPS” Toolkit, which allows a country or sub-national level authority to segment/profile a population based on behaviors rather than background characteristics. The resulting group profile can help inform programmatic responses that could be communication oriented or on the service/demand side. Best practices from other disease programs are included that can be adapted for country-specific issues. TIPPS was piloted in Sweden and Bulgaria The Toolkit is being further pilot tested and will hopefully be rolled out in more countries next year. 2. Strengthening the ability of member states to handle crises in vaccine confidence and trust through a guidelines document on vaccine safety communication. It is currently under peer-review. This was done at the request of EPI managers. 3. Advocating through Immunization Week, which began in 2006. Activities are independent for each country. 4. Strengthening the use of new media. Well-ranked bloggers who write in Russian and English will be brought in to dialogue about how to better engage around vaccine confidence.

Topic	Recommendations/Action item	Category	Meeting Date	Status	Comments and Follow up
General	WHO to organize a special teleconference for SAGE to discuss action given by WHO in follow-up of SAGE recommendations.	Action	Nov 2011	Completed	Rather than organizing a specific teleconference, it was finally agreed with SAGE members that this would be featured in the second preparatory teleconference for the April 2012 SAGE meeting. During the conference as time was limited, it was proposed that the Chair and Vice-Chair of SAGE would review in detail the SAGE tracking sheet of action items and recommendations and would review if recommendations were given adequate follow-up and if not if these were high or low priorities in the context of the necessary prioritization of WHO activities in a context of limited resources. The Chair of SAGE will reported on this during the second preparatory teleconference for the November 2012 SAGE meeting and the very few areas for necessary additional attention were flagged.
General	SAGE recommended that ways to improve curricula for medical personnel should be explored.	Action	Nov 2008	Ongoing	The African region started to work with academia to develop a pre-service curricula for nursing and medical staff. Annual courses for medical and nursing staff take place in collaboration with Network for education and support in immunization (NESI). An evaluation of the impact of pre/service training and curricula changes is ongoing in 9 countries in AFRO. An evaluation was conducted in late 2011 and a draft report has been prepared but it is not available for wider circulation yet. It first needs approval from countries involved. Expected early 2013.
General	SAGE noted the important potential of immunization programmes for strengthening the overall health system, suggesting that good examples be documented and shared.	Action	Nov 2011	Ongoing	An analysis of health systems impact of new vaccine introduction was presented to SAGE in April 2012. SAGE endorsed revised principles for adding a vaccine to a national immunization system while strengthening the immunization and health systems and endorsed the proposal that the 2005 WHO Vaccine Introduction Guidelines be updated to assist decision-makers and managers with identifying and taking opportunities to strengthen the health system through new vaccines introduction.
General	SAGE encouraged the Regional Office in EMRO to pay special attention to countries affected by political turmoil and requested specific monitoring for any adverse impacts on immunization programmes in GAVI graduating countries.	Action	Apr 2011	Ongoing	There are no GAVI graduating countries in the EMR. EMRO is working closely with and is paying special attention to the countries affected by political turmoil. During the past few months: EMRO provided extensive support to Libya for procuring vaccines for routine immunization to avoid stock out and drop in routine immunization coverage as well as to respond to the measles outbreak; EMRO has conducted 2 training workshops on vaccine management in Egypt, attended by officers from all governments (provinces) Effective vaccine management assessment in Egypt will be conducted in September 2011 with EMRO support; EMRO continues to provide extensive technical and financial support to Yemen for conducting outreach and mobile activities to maintain and improve the routine immunization coverage; EMRO is working closely with Syria and is currently providing the necessary technical support for evidence-based decision on new vaccines introduction, including supporting surveillance of new vaccines and provision of information on vaccine availability and vaccine prices.
General - GVAP	SAGE requested consideration of the establishment of a SAGE standing working group to monitor GVAP implementation.	Action	Apr 2012	Ongoing	Draft Terms of Reference for a SAGE DoV-GVAP standing working group have been drafted. They will be discussed at the November 2012 SAGE meeting. Following finalization of the group's ToRs we will proceed with a call for nominations and selection of working group members.

Topic	Recommendations/Action item	Category	Meeting Date	Status	Comments and Follow up
Accessibility of affordable vaccines: gaps and WHO's role in supporting emerging manufacturers	SAGE suggested to monitor gaps and opportunities and consecutively develop a systematic process to responds to these needs in collaboration with keys partners. A perspective is to be presented at a future SAGE meeting on accessibility of affordable vaccines.	Pending	Nov 2010	Pending	Activities to lead to better vaccine price information and vaccine pricing transparency are being considered and under discussion for funding. Contribution of WHO to the DoV work stream on global access. IVB staff are actively participating in the annual DCVMN meeting to update them on new developments, concerns and issues related to vaccine presentations, prequalification, regulation financing and priority country need. Discussions have taken place with DCVMN as such and individual DCVMN members to consult on potential and actual role of emerging manufactuers in supplying affordable vaccines . This could be followed by offering the possibility for bilateral meetings with manufacturers to discuss this issue as well as exchange on strategic orientations as this is already being done with some members of The International Federation of Pharmaceutical Manufacturers & Associations (IFPMA). General discussions on the process of technology transfers are taking place under the leadership of the Evidence Information and Research Cluster. IVB has launched a new project on vaccine product, price and procurement. The purpose of the project is to support GAVI graduating and lower and middle income countries to accelerate the introduction of new vaccines through the provision of improved vaccine product and price information for decision-making. It is a 3-year project funded by the BMGF.
Childhood mortality	SAGE noted the recommendation by QUIVER that WHO would encourage countries to collect local data at country level and not only estimated age specific mortality rates by epidemiological modeling or expert elicitation.	Action	Nov 2010	Ongoing	All models reviewed by QUIVER are hampered by the lack of primary data, and more efforts should be made to make such data readily available. Specically, for pertussis disease burden estimation QUIVER suggests validating the parameter estimates against data from Senegal and Europe as a first step, although primary data from developing countries that is currently not publicly available would provide a more compelling comparator for validation. For polio more primary data should be made available for all models. QUIVER recommends that polio related data should be made available for multiple modeling groups to encourage comparison of results using different approaches.
Cholera vaccines	Oral Cholera Vaccines(OCVs) - SAGE will further consider their use in endemic countries and whether a stockpile should be developed, particularly as current manufacturing capacity is limited.	Action	Apr 2011	Ongoing	A meeting on use of oral cholera vaccines in complex emergencies was held in early May 2011, and the WHA passed a resolution on mechanism for cholera control and prevention was passed in the May 2011 assembly. In addition, a meeting on cholera vaccine stockpile was held in Geneva from 6 to 7 September 2011. A meeting on the experience of Zanzibar to use cholera vaccine as a preventive tool was held in February and the Zanzibar Government is keen to use the vaccine island-wide if support is forthcoming. Further, in May meeting on the finalization of cholera stockpile was held and the building of a cholera vaccine stockpile is now a reality. In the meantime, cholera vaccine has been introduced as a pilot in Haiti as well as in Guinea. The preliminary reports from both appear highly encouraging on the utility of vaccine to prevent cholera.

Topic	Recommendations/Action item	Category	Meeting Date	Status	Comments and Follow up
Decade of Vaccines	SAGE proposed stronger emphasis on consequences for non-delivery of programmes, and sustained funding for quality monitoring and surveillance. SAGE stressed the opportunity provided to use immunization programmes as the focus for health system strengthening and as a key pillar of primary health care. Specifically noted was the need to integrate vertical vaccination programmes and horizontal health care programmes to maximize the impact on improving health. SAGE supported the draft Global Vaccine Action Plan (GVAP) but sugguested that it needed to be more exciting and innovative, extending the benefits of immunization to populations beyond the traditional EPI childhood age group. SAGE felt that the DoVC should strongly address the emerging global challenge of vaccine hesitancy, which posed a major threat to immunization programmes worldwide. Innovative communication strategies and grassroots advocacy are required if community demand for immunization as a health right is to be mobilized. SAGE requested the planning teams to identify a few major “game-changers” which, if implemented, would have a significant impact.	Action	Nov 2011	Completed	All comments were taken into consideration in the revised version of the GVAP that was then used for the broad consultation process. Draft 3 was discussed during a SAGE extraordinary meeting in February 2012.
Decade of Vaccines	IVR was encouraged to contribute actively to the research component of the DoV.	Action	Apr 2011	Ongoing	IVR participates in the Research and Development subgroup, and tracks research issues emerging from delivery group. R&D working group meeting was held on 29 September 2011. Tentative list of research priorities short, mid and long-term was developed. IVR leads on coordinating R&D agenda with partners agencies. Progress on establishing a vaccine research forum; progress on establishing R&D related indicators for the GVAP.
Feasibility of measles eradication	SAGE requested that progress towards meeting the 2015 global targets and regional elimination goals be monitored.	Action	Nov 2010	Ongoing	See update provided with respect to the measles rubella working group.
Feasibility of measles eradication	SAGE requested that the measles and rubella working groups should merge and monitor progress, oversee the research agenda required for eradication and report back to SAGE regularly. The working group should liaise with QUIVER and IPAC to address relevant quantitative issues as well as those related to immunization practices. This activity has been included in the draft terms of reference for the combined measles and rubella working group.	Action	Nov 2010	Ongoing	The working group on measles and rubella was formed in late 2011. Peter Figueroa is the chair of the working group and as of 27 September 2012, the group has held monthly conference calls and 2 face-to-face meetings (22 March and 20-21 September 2012). The working group is preparing for a session on measles and rubella at the November 2012 SAGE meeting. The session will include a report on progress, challenges, lessons learnt, and opportunities for achieving measles and rubella targets. In addition, there will a presentation on aeorsol measles vaccination and a brief update on the planned outputs from the working group in 2013.
Feedback from IPAC	IPAC update.	Information	Nov 2011	Ongoing	The last IPAC meeting was held in October 2012, and feedback will be provided on this meeting as well as the April 2012 meeting, to SAGE in November 2012. The next IPAC meeting will occur April 2013, one week prior to the SAGE meeting. Key topics on IPAC upcoming agenda include solar refrigeration guidance to countries, development of unvaccinated framework, health worker checklist piloting and controlled temperature chain (CTC) application with Meningococcal A vaccine MenAfriVac.

Topic	Recommendations/Action item	Category	Meeting Date	Status	Comments and Follow up
Financing	SAGE identified the need to support countries that become ineligible and lower middle income countries through pooled procurement.	Action	Oct 2009	Ongoing	Various activities are conducted at global and regional level to support non GAVI and Lower Middle Income Countries (LMICs) - At global level: a study to enhance global knowledge and understanding of the challenges that Lower Middle Income Countries face as they explore potential adoption of new vaccines. Some key areas of the study: What are the barriers/challenges that limit the rate of new vaccine adoption by LMICs? What are the potential options to address these rate limiting constraints? And what are the likely costs, benefits and implications of various options for supporting countries to address identified rate limiting constraints? Based upon these analyses the study will develop prioritized strategies and suggest practical measures at the global, regional, and national level to support non GAVI and LMICs in their decisions to adopt new vaccines. An Advisory Group for the study team was set up with representatives from WHO, BMGF, GAVI, UNICEF, NVI (Netherland Vaccine Institute) and vaccine manufacturers (IFPMA&DCVMN). The study began in November 2009 and was completed in March 2011. Finding and preliminary conclusions and recommendations were presented to the SAGE in November 2010. An operational plan to implement is under discussion with various agencies and donors - At regional level: EMRO is working with LMICs in the region to set up a pooled procurement system with the support of UNICEF and other partners. AFRO is conducting a feasibility study on regional pooled procurement. Identification of graduating countries and their potential constraints and issues is ongoing with GAVI and UNICEF to define measures and activities to overcome the obstacles et develop transition plans. 2 regional assessment were already conducted on GAVI graduating countries (EURO and PAHO), 2 others will be undertaken by the end of 2011. A full set of activities has been approved for 2012 to support countries transitioning from GAVI support. 6 countries are on the top of the list: Angola, Congo Rep, Bhutan, Sri Lanka, Moldova and Georgia. The establishment of a pooled procurement in EMRO is still on the agenda and technical development despite the unstable political situation in most of the concerned countries. New efforts are necessary in mid 2012. EMRO Regional Committee will discuss in the October 2012 session the official estalishment of a pooled procurement mechanism with the support of UNICEF. WHO and GAVI partners are conducting situation analysis in GAVI graduating countries and developing transition plan (6 countries are on the 2012 agenda). The challenges are financial but also link to pricing, procurement, reliable data and decision making processes.

Topic	Recommendations/Action item	Category	Meeting Date	Status	Comments and Follow up
Financing	SAGE requests that WHO conduct further situation analysis of financial challenges for low or middle-income countries and consultation with countries concerned & partners to distil issues to more actionable activities.	Action	Apr 2008	Ongoing	A Request for Proposal (RFP) has been drafted and submitted to the BMGF for funding. This was accepted, the RFP was issued in March 2009 and selection was made in June 2009. R4D was selected to conduct the study on LMIC to be launched early November 2009. Preliminary results were presented at the GIM and NUVI meeting in 2008 and 2010, findings and initial conclusions and recommendations will be presented to the SAGE in November 2010. Actionable activities will be then adopted and discuss with partners for implementation. Work is now underway to consider ways of addressing the potential obstacles and issues faced by the 16 graduating countries from GAVI support. A Sharepoint on Middle-Income Countries and new vaccine introduction was created by IVB-WHO to facilitate data collection and exchange between the Middle-Income Country working group members. A Middle-Income Country presentation by EMRO during the 2009 WHA took place and was well received - the May 2008 WHA resolution on immunization referred explicitly to Middle-Income Countries. Sessions on Middle-Income Country was held during the NUVI meeting in June 2008 and 2010, an updated background document was discussed and an action plan for 2009-12 was approved with all concerned parties (vaccine industry, country and region representatives, WHO and UNICEF, Gates Foundation, ...). Ongoing discussions are taking place with UNICEF, BMGF and other entities to implement the R4D study recommendations. The draft GVAP has partly addressed some the issues but more clarity and consistency is needed. A brainstorming meeting was organized on the lower-middle-income countries activity information and coordination on 12-13 March at HQ. On this occasion we discussed concepts, general approaches and specific plans for MIC with the ultimate objective of developing a platform and way forward for engagement and co-ordination with partners. We are planning to present the results of this consultation and others to follow at the November 2012 SAGE. A session is now planned on Middle income countries at the November SAGE meeting.
GRADing and review of evidence	SAGE emphasised that SAGE working groups should identify the specific questions for grading early for endorsement by SAGE. SAGE also noted the need for training of working group members on the review of evidence process.	Action	Apr 2011	Ongoing	This information has been communicated to the SAGE working groups. As an illustration special effort was made by the hepatitis A WG to validate the PICO questions for GRADing with SAGE members way ahead of the SAGE session to discuss the recommendations that took place in November 2011. Due to limited resources, and need to limit time investment for working group members, it is proposed that support be provided by the secretariat by the working groups. Training organized by WHO will be advertised and offered to staff and WG members. Brief video training sessions (2-4 hours)developed by WHO, the CDC and the Cochrane Collaboration were reviewed for their suitability and usefulness. As a result of further discussions with SAGE members and considering that these videos were not adequately targeted for our intended audience and sill long, SAGE requested the development of a brief video that could also be useful for other immunization related advisory groups. A 15 minutes and 20 seconds duration video was developed in the summer 2012 and the video has been circulated and posted on the SAGE website.
GRADing and review of evidence	SAGE endorsed the preparation of a shorter version of guidelines for peer-reviewed publication after incorporation of their guidance and using a few specific examples such as meningitis C conjugate vaccine.	Action	Apr 2011	Completed	Following the pilot testing of the guidance document (with conjugate meningococcal vaccines, measles, TBE and pertussis) and incorporation of resulting final adjustments, the guidance document has been circulated and posted on the website. A shorter version of this guidance was prepared with the GRADE discussion working group and published in Vaccine in early 2012. The general guidance document was also revised and version 2 posted on the SAGE website in March 2012.