SAGE EVALUATION - SUMMARY OF INTERVIEW RESPONSES

Mission and Scope of SAGE

Respondents found general consensus in stating that SAGE’s current mission and scope were being met successfully. In qualifying the success of SAGE, people discussed the importance of its independent advisory role with high impact on a global scale. One person stated that SAGE was “extremely valuable” as “an excellent validating mechanism. (...) SAGE needs to be kept. It is well respected with SAGE guidance often treated like ‘gospel.’” Others emphasized the added value of SAGE a group of external experts who provide technical guidance to the DG of WHO.

Despite the majority of respondents reporting SAGE’s success in terms of its mission and scope, several concerns were raised. These included difficulties in translation of SAGE recommendation in countries, emphasizing that SAGE should not lose sight of public health challenges faced in providing primary healthcare in vulnerable populations particularly in low and middle income countries. In other words, this meant, focusing on vaccination programs as well besides vaccines. Respondents noted a need for clearer definitions of SAGE’s role and mission, with one stating that there was “not so much clarity between WHO and SAGE recommendations.” Several respondents stressed the need for adding additional expertise to SAGE, suggesting that SAGE could benefit from the involvement of social scientists, economists, primary healthcare providers, health communication experts, implementation scientists, and from additional performance evaluations.

SAGE Interactions with RITAGs, NITAGs, and Country Implementation Needs

Striking a balance between achieving immunization needs and recommendations from a global perspective while also recognizing the role of Regional and National Immunization Technical Advisory Groups in their implementation was discussed by more than most (75% -approximately 30) of the participants as being an area with room for improvement. Respondents noted that SAGE has proven its importance, relevance, and impact as a leading global voice in immunization and mentioned how improvements had already been made in finding this balance. Among the items mentioned as currently working well are SAGE members’ involvement at RITAG meetings, RITAG chairs being in the inner circle, the inclusion of global and regional reports in the Yellow Book, presentations on regional issues during the first day of SAGE sessions, and involving RITAG and NITAG members by inviting them to attend SAGE sessions.

Discussions about areas for improvement varied with the themes revolving around issues of the need for geographic diversity and contextual relevance to be addressed, an increased need for bottom-up approaches to more effectively feed country and regional level inputs into SAGE, more direct involvement of SAGE in RITAG meetings and sessions, and an expressed desire for more clarification about roles and responsibilities of WHO and its Secretariat, SAGE, RITAGs, NITAGs, and other immunization stakeholders, such as Gavi. A recurring theme in these discussions was that SAGE needed to be “savvier” when it comes to implementation science and finding a way to “get closer to the problems” by involving experts providing user, and parents’ perspectives and local priorities.

Respondents discussed that the current mechanism of involving RITAG and SAGE on a regular basis might serve as a potential solution in ensuring that regional immunization issues are addressed. There were several suggestions for improving this process, such as increasing the amount of time allotted to discussing these issues during sessions, with brief (i.e. 10 minute) presentations from every RITAG in order to sensitize others to region-specific issues, and providing simplified and easy-to-use reports.
tailored to country needs. Others discussed how improvements could come about at an operational level by encouraging RITAG participation by SAGE members at an earlier stage, involving RITAGs in the harmonization and alignment of agenda setting procedures, making agenda setting more transparent, and continuing to have RITAG chairs involved in the inner circle. The following quote exemplifies many of these issues around the shortcomings of dengue vaccination planning:

“We have no direct insight but from private conversations around a handful of recommendations. There is an impression that SAGE does not take into account feasibility or real-world applicability of its decisions. Both SAGE recommendations for dengue vaccines have been essentially meaningless in terms of implementability. It would be interesting to know if the RITAGs, who appear to have the job of implementing recommendations, had any earlier opportunity for input or influence into those recommendations.”

Additional concerns revolved around perceptions of varying roles and responsibilities in translating knowledge from SAGE to regional and national levels, and vice-versa. Whereas some participants felt that SAGE was not effectively communicating, others felt that regional and country-level implementation needs were the responsibilities of RITAGs, NITAGs, and other stakeholders, such as Gavi or countries’ Ministries of Health. One respondent explained, “SAGE must listen to implementation needs but implementation aspects should be the primary focus of RITAGs and NITAGs,” with others echoing the sentiment that RITAGs should take more ownership of implementation. Some, however, expressed concerns about the capacity and expertise of certain NITAGs in being able to adequately assess their needs and effectively communicate them. Further role clarification will likely be key in addressing these complex issues.

Composition of SAGE and SAGE Working Dynamics

Diversity, members, and chair selection

Less than half (around 15) of those interviewed expressed current satisfaction with the diversity of SAGE, with one remarking how diversity had improved over time. Of note, people discussed the utility of the rotation mechanism among working groups and of the importance of having 6-year term limits. Of those with favorable views towards the current situation of diversity in SAGE and among working groups, respondents differentiated between diversity in terms of expertise and diversity in terms of gender or geographical representation. Some respondents felt that expertise was more important than geographic or gender diversity within SAGE as well as within working groups.

The majority (25) of respondents expressed mixed feelings about SAGE diversity or suggested issues where there was room for improvement. Chair selection and chairmanship were also discussed by several people. Participants noted how diversity could be both a strength and a weakness, with one explaining, “The need for geographical diversity may clash with a need for specific expertise, which is currently concentrated in some regions.” Another reiterated this sentiment by explaining a need to listen to “people who are really immunization and vaccine experts, with less emphasis on regional or other diversity.”

Concerns about geographical representation and diversity were common. Respondents noted that, despite SAGE being aware of this issue, its composition and participation appeared nonetheless “too dominated by centers of the US and Europe.” An issue underscoring this concerned the use of the English language at meetings. One person expressed a need for full translation services into all 6 WHO languages.
A handful of respondents commented on gender diversity, with several noting that gender diversity was currently being addressed adequately, particularly in the composition of the working groups.

Several participants expressed a need to better integrate different types of expertise into SAGE. Recommendations and suggestions ranged and included increasing expertise and knowledge diversity in terms of primary health care, ethics, health economics, social science, communication science, and civil society representatives. One person cautioned against including only senior experts that potentially implied including those who are closer to retirement and thus “more distant from the real field operations.” Further reflecting this idea, several participants noted a need for stronger expertise from those working on “the implementation side of things.”

Several respondents made comments about chair selection, noting that well-defined criteria should be laid out and followed. One person noted how transitions between the chairs could be difficult and warned against political nominations, since this would likely prompt members to “choose the most outspoken person,” as opposed to the “person who could invest enough time and energy.” Others commented on the importance of the chairperson’s role in leading discussions and encouraging members to participate in order to adequately address some of the gaps in diversity. Some recommended improved membership grooming processes and guidance from the chairperson to enable better discussions and deliberations.

**SAGE’s Working Dynamics**

Overall, respondents reported positive group dynamics within SAGE and described cohesive working relationships, opportunities for socializing, collegiality, ability to work as a team, relatively easy integration for new members, respectful interactions, and an ability to find consensus without conflict. One person noted, “SAGE members refer to themselves as a ‘family,’ which is good. There seem to be intense connections among some of the members.”

On the other hand, several people highlighted the potential benefits of having respectful arguments or disagreements. One explained how SAGE members “should actually challenge each other more and not be too friendly with each other,” in order to have “frank, detailed, and challenging discussions.” Another respondent reiterated this sentiment, noting the important role that chairs could do to challenge participants: “Dissenting voices are crucial, debates are important, but these need to be facilitated well.”

**Conduct of SAGE Sessions**

**Agenda Setting and conduct of meetings**

Respondents noted the importance of SAGE members in ensuring that the agenda and topic selection was well prepared in a transparent manner, with several people noting that SAGE chairs have been making attempts at being inclusive of the various stakeholders. One noted that the Yellow Book was a “great source,” for transparency of both the agenda and how it was set. As previously discussed, the majority of respondents expressed an interest in having regional and country specific needs being integrated into SAGE session agendas.

Furthermore, about 10 respondents made additional suggestions about the conduct of SGAE meetings, which ranged and included better time management, too many agenda items, short time schedules, the risk of having too many stakeholders in an open session, too much time spent on clarifying technical points about evidence, the current question-and-answer format being too confusing, a lack
of opportunities for wider audience members to partake in the discussion, and a need for clear distinctions between decisions made at the SAGE sessions and those made within the working groups.

Open Sessions

People generally expressed mixed feelings about the format of open sessions. Those who expressed positive feedback about open session formats discussed the importance of the transparency the open sessions allowed and the opportunities created for stakeholders to participate and contribute. While recognizing the beneficial aspects of open sessions, some respondents expressed a need for a clear distinction between deliberations among the inner and outer circle and the format of how these are presented to others. Several participants highlighted the importance of non-voting consensus, noting that SAGE never had to take a vote. Some recognized that the consensus approach might be “challenging” but overall thought it was “good.”

Misgivings about open sessions primarily dealt with their potential to impede “robust” discussions, particularly when stakeholders are present who might have conflicts of interest, such as industry. One respondent succinctly summarized this:

“Having stakeholders in the room at SAGE is important. This causes, however, a dilemma that a lot of time is spent without saying anything, only to making the world feel involved. But not many stakeholders actually participate in the discussions. Some of the agencies should perhaps be directly involved in a more defined process, specific experts in the room should be approached for specific questions. Having industry in the room in a listening mode is helpful and useful but public perception will be questionable.”

Others explained how the open session format might “intimidate” inner circle members and others from voicing their perspectives, particularly with more than 200 people in attendance. Some felt that the open session might bring SAGE members to use “diplomatic language” instead of clearly expressing their thoughts, potentially leading to “superficial discussions.” In order to mitigate this, several people suggested structured time for closed sessions, which would allow SAGE members to discuss openly and frankly with respectful dissent if required on all issues ‘in camera’.

Participation of Stakeholders

There was a general agreement that the inclusion of wide range of stakeholders into SAGE sessions brought an added value to the dialogue, with numerous people commenting that SAGE overall benefits from broad, diverse, relevant experience as a complement to the value brought by the 15 SAGE members. General concerns about stakeholder participation in SAGE sessions related to the current participation format, geographical representation of those who participate in the discussion, the expenses and environmental impact incurred by the need to travel to Geneva twice a year, and the need for moderation that allows different stakeholders’ voices to be heard. One participant highlighted some of these issues: “The reach of stakeholders’ engagement is a key strength of SAGE. What is lost is the role of the different stakeholders. It is not bad to engage, but this should be managed much better. (...) The role of industry is problematic, as well as the role of donors, particularly Bill and Melinda Gates Foundation and Gavi.” Despite this comment, other commentators noted the added value of the perspectives of donors, with several people mentioning the strengths that manufactures brought by providing additional expertise, particularly in terms of new vaccines.
SAGE Working Group, Decision-Making Process, and Evidence Synthesis

Overall, participants had positive things to say about SAGE working groups, decision-making processes, and evidence synthesis in preparing information to be shared with SAGE; more than half of the participants felt that the current situation was working well in this regard. The others made some suggestions to improve the current conduct of working groups and evidence synthesis, but such suggestions were minor adjustments to the current status quo.

Working Group Composition and Functioning

It was common for participants to stress the importance of working groups in focusing on specific topics which could then be used to provide evidence, advice, recommendations, to SAGE. One person explained, “Working groups are critical. Otherwise, SAGE work would be overwhelming. They are needed, and SAGE needs to be operating at a higher level than those groups.” Furthermore, respondents tended to appreciate the selection process for choosing working group experts and the transparency of the documentation of the closed working group meetings.

There were some suggestions for improvement about the working group composition and functioning. Some noted the potential for decisions “being pushed and resulting in strange outcomes,” with an example of IPV and dengue vaccines being provided. Others noted that working groups might sometimes be set up too late, which leads them to be “very rushed and with insufficient lead time and background alignment of working group members on the nature of the policies in question.” In order to remedy some of these issues, one person suggested that SAGE and working groups should hold a meeting the day prior to the SAGE meeting, and several people suggested a stronger role played by SAGE members in familiarizing themselves adequately with the content of the working group’s findings in closed discussions.

Evidence Synthesis (GRADE) and Evidence-to-Recommendations (EtR) Framework

Respondents provided generally positive feedback about both the GRADE and EtR frameworks for working groups. Some noted that the use of these frameworks was a clear improvement and provided consistent guidelines for working groups to follow in examining evidence. One person explained, “The evidence to recommendations framework and GRADE works really well. There is good transparency on available evidence. The consensus process works well to make sure that all angles are taken care of and more time is taken if needed.” Additionally, people noted an appreciation for the process that allows working groups to prepare decisions, whereas SAGE “then does the final polishing and cleaning.”

There were several suggestions for improvement. One person commented on the importance of GRADE as a guiding principle but noted that “a little bit of grey zones is important. Decisions should not be done by ‘robots,’ but true expert advice and judgement is asked for.” Several people mentioned that they would appreciate clarifications about the proper use of such evidence synthesis frameworks, particularly in “making the GRADE process comprehensible for country people.” A few people expressed difficulties, even when looking at methodologically sound data, in assessing operational issues and in deciding how to properly weight certain factors, such as safety or cost, when synthesizing information according to the GRADE and EtR frameworks.
SAGE and other WHO Advisory Bodies

Only several respondents noted that SAGE and other WHO advisory bodies were currently working in an optimal fashion. A little more than half (24 respondents), however, noted the importance of the other advisory bodies, PDVAC, IVIR-AC, IPAC, GACVS, but expressed confusion about roles and responsibilities of each body in regards to SAGE and wondered what to do about potential areas of overlap. For some issues, there appeared to be “clear alignment,” but others felt that overlapping agendas and missions could be better harmonized: “We cannot see that they work well together. There seems to be no integration of topics or jointly managing issues. Linkages are not apparent.” There were only a small handful of practical solutions suggested, all of which dealt with having a clearer overview and clarification of the different advisory bodies’ roles, scope regarding immunization and their reporting lines. One suggestion included better integrating the SAGE Secretariat into helping manage and harmonize areas of potential overlap.

Dissemination of SAGE Outputs and Stakeholder Awareness of SAGE

Approximately half of the respondents noted that SAGE was well known within the fields of immunization in their regions and countries, with some noting that awareness had spread outside of immunization and vaccination circles. One person commented that SAGE was “well known within WHO and partners in the region and considered as a credible mechanism and structure, with a known mandate.” Several people mentioned that SAGE information was important for other stakeholders, such as industry and manufacturers, and that it was reaching these audiences. Generally, people expressed an appreciation for the dissemination of SAGE outputs, such as in the Weekly Epidemiological Record and the timely publication of meeting summaries and recommendations. Whereas one person stated that the communication and dissemination worked well, with there being “enough to review,” others suggested better dissemination strategies, such as the use of social media, Wikipedia pages, and using languages in addition to French and English.

The other half of the respondents made suggestions or comments about a need to increase awareness of SAGE’s work outside of those working specifically on immunization and vaccination. Additional stakeholder mentioned as potentially being included in an improved dissemination strategy included RITAG and NITAGs, government health ministries and agencies Ministers of Finance and financial institutions, and the general public. Suggestions for including these stakeholders involved inviting medical journalists more broadly to SAGE events and encouraging more general interactions with the media. Several people commented on finding ways to make information sources, such as the WER, the Yellow Book, or position papers, to be more accessible to those not working in the field of immunization. Finally, several respondents commented that more attention should be paid about how to better leverage insights generated by other stakeholders, such as the Gavi Board and PPC.

Conflict of Interest Management

More than half of those interviewed (approximately 25) expressed favorable opinions about maintaining the status quo in regard to the conflict of interest policy. Many respondents mentioned the importance of having such a policy in place and felt that conflicts of interest were “handled well” and not “hindering effective decision-making processes.” Although in favor of maintaining current policies, respondents recognized the need for rigorous, transparent, and clear protocols for declaring conflicts of interest. One person explained, “There is a lot of money at stake related to vaccine choices and recommendations. Large companies with enormous budgets are devoted to influence these
decisions. Most SAGE members are exposed to these marketing campaigns and may be influenced by these perceptions. Conflict of interest therefore needs to be taken extremely seriously.

Some participants reported concerns that strict conflict of interest declaration policies might prevent SAGE from including stakeholders with specific types of expertise. One noted that current policies might promote the selection of academics, whereas those with “boots-on-the-ground experience,” such as those working for WHO or UNICEF, are not eligible because of declared interests. One respondent noted that the current policies might have served as an exclusionary purpose because SAGE and working groups were not allowed to have discussions with some vaccine manufacturers, stating the difficulties of not including experts from industry into the discussions. This respondent did, however, note that the conflict of interest policy may have provided more credibility to both SAGE and various working groups.

Several participants echoed the importance of including experts from industry into discussions, while further highlighting a need for transparency in the reporting of potential conflicts of interest. Several respondents reinforced that declared conflicts being immediately published on the WHO or SAGE websites. Others suggested a need for further clarification of what actually constitutes a conflict of interest and a need for innovative and creative ways to deal with conflicts of interest, such as a “special members category with no voting rights” or potential “closed sessions.”

SAGE in the Next Decade

About half of the telephone interview participants stated that SAGE was adequately prepared for the next decade. Such statements reiterated the successes mentioned above about SAGE’s scope and mission and touting its global importance: “SAGE has gained respect, trust, and status in the global health community. This is a critical foundation.” Those who felt that SAGE was prepared for the next decade did not believe any drastic reforms were necessary in order to continue having SAGE operational. Rather, they suggested “a little tweaking,” that SAGE be better equipped to react to a fast-changing world, continue focusing on strong leadership, and that SAGE “must stick to its integrity and credibility, and to science.” There are clear overlaps from what has been discussed above in the bullet points below, but it is here important to highlight the points that were most important for telephone interview participants to discuss when thinking about the next decade of SAGE.

Secretariat Support and Communication Technology

Throughout the interviews, the Secretariat was mentioned as playing in instrumental role in the functioning of SAGE. People mentioned the importance of making sure that the Secretariat was adequately financed, equipped, and staffed in order for SAGE to function more smoothly in the future. A recurring point of contention for respondents dealt with the quality of the communication technology available during the open sessions. One person exclaimed, “This is embarrassing? Why is it this way? This is an issue of performance management within WHO. The technology is outdated. We need to do anything to improve this.” Others expressed a desire for live streaming of SAGE sessions or improved options of teleconferencing for those who cannot physically attend meetings or sessions.

SAGE Financing

Several respondents discussed concerns that emerging funding constraints might affect SAGE impact, with one person mentioning, “Funding of SAGE should be looked at to avoid a donors’ driven agenda.” Other financial issues emerged when discussing how WHO prioritized the support that it provided to SAGE: “Too many other things are prioritized. SAGE is overall well respected and has raised the credibility and visibility of the department. But, resources are dismal in comparison.”
Reputation of SAGE within WHO

Slightly more than 25% (12 respondents) discussed the roles and reputations of SAGE and WHO while moving ahead into the next decade. These respondents recognized “a major shift in WHO towards a much stronger sense of a single organization,” with suggestions including ways to better align and integrate immunization policies with other domains where there are potential overlaps, such as more inclusion of maternal, newborn, child, and adolescent health, reproductive health and research, nutrition, the sustainable development goals, focus about immunization as a human right, and universal health coverage. Two commented on SAGE’s role and reputation vis-à-vis WHO. One mentioned that it was “a bit of a shame that [SAGE] is apparently not taken equally seriously within WHO. SAGE recommendations are faster than WHO and are sometimes the ones to be taken into account until the WHO PP is produced. There is need for better harmonization.” Another person expressed a desire for clarification about SAGE’s role: “What is SAGE officially advising the WHO DG on? On policies, or on strategic issues. Is SAGE fulfilling its role of shaping WHO strategies?”

Improving RITAG/NITAG Inclusion

In addition to the discussion above concerning balancing global immunization strategy with RITAG and NITAG implementation needs, 6 respondents again mentioned this issue in their recommendations for a subject to be addressed in the next decade. One explained, “SAGE should consider the realities on the ground and suggest, on a global and, with RITAGs, a regional level, which programs to prioritize. Each country will ultimately decide on its own, but regional and global priorities matter.”

Increasing Diversity of Expertise

When moving into the next decade, respondents mentioned a need for increased diversity in expertise. They mentioned a need for primarily healthcare specialists, social scientists, economists, implementation scientists, and noted that expanding SAGE’s mandate would also mean more people on SAGE. These participants recommend the continued working groups in order to fully take advantage of increasing expertise.

Better Recognition of Other Stakeholders’ Involvement

There was no clear view emerging from the discussions. Several respondents mentioned that SAGE should better recognize the added benefits of some of the stakeholders moving forward into the next decade. Three individuals mentioned Gavi’s role moving forward, and one mentioned the Bill and Melinda Gates Foundation. One of these individuals explained how SAGE could improve working relationships with GAVI: “SAGE needs to recognize that Gavi could eventually set up their own system. So, it is necessary to assess ways of how the Secretariat and Gavi can better interact.” This individual and another both expressed the challenges of not being able to work with donors on working groups: “It cannot be explained that working group members, if in their personal capacity, should not be allowed to come from these [donor] organizations. This is increasingly a challenge.”

Staying Abreast of Changing Science, Technologies, and Trends

Final comments about SAGE’s next decade dealt with the increasing demands brought about an ever-changing, fast-paced world. Ten participants (25%) mentioned how SAGE would need to take this into account moving forward, citing flexibility and strategic planning that accounts for fast-changing environments.
Other issues mentioned dealt with preparedness in cases of emergencies or pandemics, with Ebola mentioned as an example. There was a widespread feeling to think innovatively, particularly in terms of new vaccine technologies and other socio-medical trends, such as personalized public health, social interactive communications, and vaccine hesitancy.

One person in particular emphasized the importance that strategic planning would involve:

“Somebody in SAGE should step back and think about the next decade. What will be the topics in the next few years? The future in vaccination will be remarkably dynamic, there will be new techniques, multiple vaccines, new delivery technologies, vaccines for things like cancer or atherosclerosis. This asks the question about which mechanisms will need to be in place to cover issues related to ethics, society, inequality, and technology. This work should be outsourced to a working group or others. Everybody is running to keep up with today, but this needs to be taken as a serious task, and SAGE will benefit from a thoughtful process and well-developed document. This should not to be done in someone’s spare time.”
<table>
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<th>Topic</th>
<th>Emerging Themes</th>
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| **Mission and scope** | 1. SAGE extremely valuable; need for re-branding SAGE  
2. Avoid expanding the role and scope too much; likely to dilute its impact  
3. Diversity of expertise  
4. Regional representation & perspectives  
5. Context specific recommendations rather than sweeping approach; developed and developing countries require differentiation for recommendations; region specific recommendations for vaccines  
6. Structure & Functioning of WGs  
7. Vaccines and immunization programs both to be considered; all types of vaccines – CD and NCD  
8. Synthesis and balance between academic advice and programmatic issues  
9. More programmatic focus is important: helping to reach vulnerable populations; strengthening capacities of weaker systems, personnel & member states; focus on developing countries  
10. Lack of clarity and overlap of roles and responsibilities of Advisory Committees; possibility of delegating responsibility to specific committees; lack of clarity of the role of other partner and donor agencies  
11. Engaging and Integration of immunization with other primary care programs: particularly MCH |
| **Agenda**       | 1. Agenda setting needs to be more interactive & transparent; who take what decision on what basis should become transparent  
2. Regional and national priorities to be taken in to consideration; RITAGs & NITAGS can contribute shaping the agenda to give regional and country specificity  
3. Other stakeholders should also be involved  
4. Agenda should not be individual driven  
5. A transparent agenda setting process will also influence agenda setting exercise at the regions  
6. The current process driven by Secretariat is fine (few responses) |
| **Selection of chair** | 1. Need for transparent criteria for selection of Chair & Vice-Chair with clear expectations and roles |
| **Conflict of interest** | 1. Current system is working fine; too strict CoI will make it difficult to find subject experts  
2. Col process to be made dynamic and address as new issues arise with changing times  
3. More specificity to be given in terms of what constitutes a Col (industry and beyond industry relationship e.g. academic, national etc.)  
4. Process of declaration of Col made more transparent (available before meeting & material in public domain)  
5. Col should be applicable to all advisory committees |
| **Diversity in SAGE** | 1. Current diversity and representation is fine (few statements)  
2. Balancing diversity of regional representation and expertise versus technical needs for SAGE and WGs: some regions and countries poorly represented  
   a. Members irrespective of the region represented must participate in discussions; may need some mentoring if required  
   b. Institutional backgrounds and networks also to be viewed to avoid clustering  
3. A balanced mix of all age groups  
4. Continue with current practice of rotating membership  
5. Need for expanding the expertise base for SAGE & WGs: PHC and quality, ethics, health economics, social science, communication science, obstetrics and maternal health; |
| Stakeholders' participation | 1. Clear definition of inner circle and the rest  
2. Participation of stakeholders other than inner circle during SAGE meeting: purpose of their presence; process of obtaining their views  
3. Revisiting engagement of industry: transparency; pre-defined contours of engagement; input particularly about new vaccines critical  
4. Close sessions for inner circle versus open sessions of SAGE: possibility; influence on agenda  
5. GAVI a critical partner: relationship and terms of engagement need to be taken up at strategic level |
| Meeting global immunization needs | 1. Need for insight into contextual issues and thereby outlining the operational aspect of translating recommendations in different settings  
  a. This will require greater regional and national participation  
2. A legal framework for vaccination  
3. Social framework (e.g. immunization as human right) |
| Decision making | 1. Current process of decision making is appropriate; consensus based; no decision ever reversed by DG  
2. Decision making is not always transparent  
3. No voting: policy making is not straight forward; some decisions forced by loud individuals.  
4. Contentious issues – how final decision arrived  
5. Need for additional expert opinion in case of evidence gaps  
6. Perception that occasionally decisions pushed  
7. Process of review of decisions with minimal delay when required rather than waiting for several years |
| Conduct of SAGE meetings | 1. Re-visit duration of the SAGE meeting  
2. Improvement on subject & session preparation;  
  a. Use of uniform template for all presentations  
  b. Circulation of presentation & draft recommendations before meeting for technical preparation of SAGE members  
  c. Invitation of comments from a wider audience  
3. More structured close door meetings (vide supra): members should be prevue to recommendations before the open session  
  a. Shall lead to better session preparation and outcomes  
4. Chair to encourage participation and seeking proactively views of all SAGE members during discussion  
5. Greater regional participation: short presentation by the regional representatives  
6. Improve and modernize communications methods  
  a. Will ensure better participation and pre-SAGE preparation of SAGE members specially for contentious issues  
  b. May obviate travel when required  
  c. Use of most modern video and audio technology for live streaming of sessions for wider participation |
| TCs/communications technologies | • See above summary |
| SAGE working as a team | 1. Sustain current practice of SAGE working as a team  
2. Beyond respect, the members need to be more open, frank and explicit during both closed and open sessions  
  a. Team spirit may not be actually required |
b. Members to mingle and have more informal discussions with participants
3. Discussions focus on science and programmatic issues; political issues and context to be carefully chosen

| SAGE-RITAG interactions | 1. Regional & National participation emerging repeatedly  
2. Process of engagement:  
   a. Current momentum to engage regions and countries to be maintained  
   b. Taking up regions specific questions at SAGE  
   c. Involvement in agenda setting: process to be discussed for alignment of global, regional and national requirements: both for the SAGE and RITAG  
   d. Regions present their own update  
   e. Transparent process for inter-regional coordination  
   f. Open discussion and engagement with RITAGS for implementation of recommendations  
   g. Regular Pre-meeting teleconferences with RITAGS & NITAGS RITAGS & NITAGS have a session on the summary of last SAGE meeting & discussion to make these operational at regional and the country level  
   h. Need for better SAGE-RITAG-NITAG conversation: working out strategies for multi-directional flow of experience and feedback; considered as key partners for each other; important for translating SAGE recommendations at both regional and country level  
   i. Sustained funding of NITAGS for their functioning and maintaining independence  
   j. Policy briefs from SAGE secretariat for NITAGS to accelerate translation  
   k. IPAC might be given task of supporting implementation  
3. SAGE should maintain its scientific and advisory role lest it loses its credibility; keep away from facilitating implementation and let RITAG and NITAG take this responsibility after due diligence to local contexts |

| Country implementation needs | Refer to above section for cumulative emerging themes |

| Relevant stakeholders aware? | 1. SAGE – functioning and role known a large extent in immunization community  
2. Need for greater and wider awareness of the existence of SAGE and its functioning, role in vaccine and immunization related challenges to traditional and non-traditional constituencies involved in policy and program development |

| Dissemination | 1. Meeting with DG and the higher-level WHO management, is important and should be kept.  
2. Dissemination of recommendations and their subsequent translation: Dissemination strategies requires constituency tailored approach and beyond the traditional methods being used so far  
   a. Immunization community,  
   b. Policy and decision making constituencies including finance ministries;  
   c. Donors;  
   d. CSOs;  
   e. Academics;  
   f. Communities  
   g. Media  
4. Use of modern communication channels like social media more effectively and maintaining language sensitivity |

| How should SAGE evolve | 1. Clear split in the views between those that feel that SAGE just needs a little tweaking and those that feel that SAGE need to do much more than what has been doing so far (Larger proportion appears to favor the later)  
2. Preparing and aligning SAGE agenda, role and processes with SDGs and gearing itself to address major shift in health and wellness agenda of UHC  
3. The points and themes emerging in the previous sections provide the sense of directions that SAGE might consider for its re-engineering |
4. Vaccine related agendas are likely to have makeover; vaccine safety and hesitancy to be taken up at greater level and stimulate generation of robust scientific evidence; these will require re-thinking the process and content of agenda setting
5. Need for enlarging the secretariat strength both manpower and financially to cope with enlarged scope
6. Setting up institutional mechanisms to bring consistency in immunization program across the regions and countries but keeping context in consideration (without other factors like industry)
7. SAGE will need to enhance its brand and authority and visibility to become the place which the world looks to for guidance.

| Secretariat support | 1. Resources for the secretariat (both SAGE and WGs) are not adequate  
|                     | 2. Secretariat to have recruitments from wider base in the context of proposed refinement of SAGE roles and agenda |
| Secretariat support | 3. Need for performance evaluation of SAGE activities and its members |

| Functioning of SAGE Working Groups | 1. WG perform critical support to SAGE functioning and must be key mechanism for evidence synthesis  
|                                   | 2. Need to re-visit the life, time frame, diversity of expertise and regional balance same as SAGE  
|                                   | 3. Transparency in the process of evidence synthesis and arriving at recommendations |

| Evidence synthesis: quality of data and use of GRADE methods | 1. Need for periodic re-visit to the process of evidence synthesis: quality, availability from different regions; gray versus published material; public health perspective |

| Advisory committees | 1. Relationship between Advisory Committees and SAGE not clear: reporting and responsibility needs clarity  
|                     | a. It shall improve accountability for both SAGE and AC and harmonize their activities and recommendations  
|                     | b. Independent visibility of the committees versus as part of the SAGE process: clarity will help the performance |

| Dengue and malaria vaccines | This issue has been taken up in previous section |