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Conference report

Moving forward on strengthening and sustaining National Immunization Technical Advisory Groups (NITAGs) globally: Recommendations from the 2nd global NITAG network meeting

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ABSTRACT

National Immunization Technical Advisory Groups (NITAGs) provide independent, evidence-informed advice to assist their governments in immunization policy formation. This is complex work and many NITAGs face challenges in fulfilling their roles. Inter-country NITAG collaboration opportunities have the potential to enhance NITAG function and grow the quality of recommendations. Hence the many requests for formation of a network linking NITAGs together so they can learn from each other. The first Global NITAG Network (GNN) meeting, held in 2016, led to a push to launch the GNN and grow the network. At the second GNN meeting, held June 28–29, 2017 in Berlin, the GNN was formally inaugurated. Participants discussed GNN governance, reflected on the April 2017 Strategic Advisory Group of Experts (SAGE) on Immunization conclusions concerning strengthening of NITAGs and also shared NITAG experiences in evaluation and inter-country collaborations and independence. They also discussed the role of Regional Technical Advisory Groups on Immunization (RTAGs) and regional networks. A number of issues were raised including NITAGs and communications, dissemination of recommendations and vaccine implementation as well as implications of off-label recommendations. Participants were alerted to immunization evidence assessment sites and value of sharing of resources. They also discussed potential GNN funding opportunities, developed an action plan for 2017–18 and selected a Steering Committee to help move the GNN forward. All participants agreed on the importance of the GNN and the value in attracting more countries to join the GNN.

In 2017, National Immunization Technical Advisory Groups (NITAGS) were recognized by the World Health Assembly as an important element for a strong and effective immunization program [1]. However, the development of evidence-based policy recommendations on the use of vaccines by a NITAG is complex, often demanding work that requires not only quality data but also significant time and resources, and broad committee expertise [2]. In 2016, recognizing that NITAGs could potentially benefit from inter-country collaboration, 26 countries met to discuss the formation of a Global NITAG Network (GNN) [3]. Participants recommended that a GNN be established and developed a proposed governance structure. A small steering committee, one NITAG member from each World Health Organization (WHO) region, was formed from volunteers to advance the establishment of a GNN.

Following the first GNN meeting, work was carried out on the GNN strategic document containing the network's terms of reference. This document was reviewed by the steering committee and experts from partner organizations for their input in advance

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of the second meeting. A logo for the GNN was designed and the agenda for a second meeting developed. Over the year, the GNN's potential for moving forward and becoming formalized faced several challenges including loss of members of the steering committee as several members rotated out of their country's NITAG, hence were no longer eligible, lack of financial resources and challenges to secure secretariat support through partner institutions. Despite these obstacles, a second meeting took place in Berlin on 28–29 June 2017 hosted by the Robert Koch Institute with the support of the German Federal Ministry of Health. Funding from the WHO to support attendance was available for a limited number of countries. WHO, the United States Centers for Disease Control and Prevention, the Robert Koch Institute and the Agence de Medicine Preventive Health Policy and Institutional Development (AMP-HPID) provided technical and program planning support. Twenty-six countries attended with a NITAG member or chair and/or a representative from the NITAG secretariat (for these and other attendees see Table 1).

During the meeting the following ten areas were addressed:

1. GNN governance and formalization of the GNN

While respecting each NITAG's autonomy, the participants finalized, with some minor modifications, the GNN governance document that had been shared with all participants ahead of the meeting [4]. Participants emphasized that this was not a static document but one that will change over time as the GNN evolves. The contribution of the GNN in promoting NITAG collaboration, innovation and trends was highlighted as a major thrust. Countries voluntarily participate in the GNN and there is not fee. Each member country determines what NITAG relevant information, processes and lessons learned will be shared and how this will be done i.e. what materials added to the NITAG Resource Centre, what shared directly with another country or countries and what not shared. The GNN is not prescriptive to WHO regional NITAG network functions nor in individual country NITAG decisions. The WHO announced that it accepted the role of secretariat and would provide for the main secretariat support. This is reflected in the five page *Strategic Document of the Global NITAG Network* that outlines

Table 1
Participants in GNN Meeting, June 2017, Berlin Germany.

COUNTRY	YEAR NITAG ESTABLISHED	COUNTRY NITAG MEMBER OR CHAIR; OR NITAG SECRETARIAT
ALBANIA	2015	Najada Como, NITAG member; Iria Preza, NITAG Secretariat representative
ARGENTINA	2000	Pablo Bonvehi, NITAG Chair; Daniel Stecher, NITAG Secretariat representative
ARMENIA	2011	Anna Chobanyan, NITAG Chair; Gayane Sahakyan, NITAG Secretariat representative
AUSTRALIA	1997	Madeline Hall, NITAG Member
BELGIUM	1991	Yves Van Laethem, NITAG chair
CANADA	1964	Caroline Quach-Thanh, NITAG Chair; Gina Charos, NITAG NITAG Secretariat representative
CHINA	1982	Feng Zijian, NITAG member
COSTA RICA	2001	Roberto Arroba, NITAG NITAG Secretariat representative
COTE D'IVOIRE	2009	Emmanuel Bissagnene, NITAG Chair; Issaka Tiembre, NITAG Secretariat representative
EGYPT	2003	Hamed El-Khayat, NITAG secretariat representative
ETHIOPIA	2016	Yemane Berhane, NITAG Chair
FRANCE	1985	Daniel LEVY-BRUHL, NITAG member
GERMANY	1972	Thomas Mertens, NITAG Chair; Ole Wichmann, NITAG secretariat representative
INDIA	2001	Saurabh Gupta, NITAG Secretariat representative
JORDAN	2010	Najwa Kuri, NITAG Chair
MONGOLIA	2010	P.Nymadawa, NITAG Chair
MOZAMBIQUE	2011	Jahit Sacarlal, NITAG Chair; Antonio Nhambombe, NITAG secretariat representative
NEPAL	2010	Rupa Rajbhandari Singh, NITAG member; Rajendra Prasad Pant, NiTAG secretariat representative
NETHERLANDS	1902	Gwen Soete, NITAG member
SAUDI ARABIA	2008	Aisha Alshammary, NITAG member
SENEGAL	2013	Mamadou BA, NITAG member
SPAIN	1991	Aurora Limia, Head of Area Immunization Program
SWEDEN	2016	Helen Englund, NITAG Secretariat representative
UNITED KINGDOM	1963	Anthony Harnden, NITAG Member, Andrew Earnshaw, NITAG secretariat representative
VIET NAM	1998	Nguyen Minh Hang, NITAG secretariat; Nguyen Xuan Tung, NITAG secretariat representative
ZIMBABWE	2011	N.A.Gonah, NITAG Chair
ORGANIZATION	OTHER PARTICIPANTS	
Dalhousie University, Canada	Noni MacDonald, Meeting Chair and Facilitator	
Robert Koch Institute	Ole Wichmann, Carsten Martel, Sarah Wetzel	
AMP- HPID	Martin Mengel, HPID Director	
Johns Hopkins University, USA	Lois Privor-Dumm, RAVIN	
London School Hygiene and Tropical Medicine, United Kingdom	Helen Burchett, Sandra Mounier-Jack- SYSVAC	
Partnership for Influenza vaccine introduction	Jane Seward, consultant	
USAID	Endale Beyene, Immunization technical advisor	
US-CDC Global Immunization Division	Kathy Cavallaro, Abigail Shefer	
Wellcome Trust, UK	Alexis Gilbert, Specialty Registrar in Public Heath, Policy Unit	
WHO Headquarters	Philippe Duclos, Louise Henaff	
WHO AFRO	Blanche-Philomene Melanga Anya	
WHO AMRO/PAHO	Ana Gabriela Felix Garcia	
WHO EURO	Adam Finn, ETAGE Chair	
WHO SEARO	Gagandeep Kang, SEAR TAG	
WHO WPRO	Nyambat Batmunkh	

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major points on Vision, Mission, Objectives; Values and Principles; Type of Network and Regional Links as well as Membership, Functions, Governance, Secretariat Functions and Sustainability and Resilience [4]. The responsibilities of GNN Steering Committee members, selection of a chair and the duration of terms were also defined. As every country needs to participate and play a role in the GNN, given the length of terms and the need for regional representation, every NITAG is expected to be on the steering committee every 6 years or so. Developing the agenda for the annual GNN meeting is the responsibility of the GNN Steering Committee along with the Secretariat and includes suggestions from member countries.

The ceremony to formalize the creation of the GNN took place on the evening of the first day when Karin Knufmann-Happe for the German Federal Ministry of Health gave the inauguration speech and the GNN steering committee members signed the inauguration document. All participants at the meeting were invited to sign the cover sheet. All documents will be held at WHO headquarters.

2. Reflection on the April 2017 SAGE conclusions concerning strengthening of NITAGs

The participants deliberated and commented on WHO's Strategic Advisory Group of Experts (SAGE) on Immunization recommendations on NITAG that had been issued in April 2017 [5]. These highlighted the importance of NITAGs as core institutions for immunization program success and of the need for countries, WHO, global partners and the donor community to continue to provide support and facilitate their work. SAGE noted that while good progress has been made in the number of countries having met the six process indicators (Table 2) for the functioning of NITAGs, the trajectory for meeting the 2020 global goal of all countries having a functional NITAG is still off track. The interactive map available on the NITAG Resource Centre (NRC) site (http://www.nitag-resource.org/who-we-are, accessed October 2017) provides information on which countries have a NITAG, when the NITAG was created and if it meets some or all of the six process indicators noted in Table 2. The interactive map also notes what materials have been contributed to the NRC by a country. Small countries are particularly lagging in NITAG formation and many countries who do have a NITAG are not able to meet the conflict of interest process indicator. SAGE also recognized the importance of regional and global NITAG collaboration and recommended continuous support for the GNN and the NITAG Resource Centre (NRC) (http://www.nitag-resource.org/, accessed October 2017). The NRC is an interactive collaborative web platform, established in 2014, that is a gathering place for all NITAG related information [7]. It makes available all publications produced by NITAGs as well as technical reports from partners and scientific publications useful to NITAG members. As of September 2017, the NRC has been supported and managed by WHO.

Table 2
Six Process Indicators for functioning NITAG; assessed annually in the WHO UNICEF Joint Reporting Form [6].

	Indicator
1	Legislative or administrative basis for the advisory group
2	Formal written Terms of Reference
3	Diverse expertise/representation among core members (in terms of paediatrics, public health, infectious diseases, epidemiology, immunology or other health-care professionals)
4	Number of meetings per year
5	Circulation of the agenda and background documents at least one week prior to meetings
6	Mandatory disclosure of any conflict of interest

During the second GNN meeting, participants underlined the value of information-sharing amongst NITAGs especially via the NRC and of funding support of NITAGs for their formation and for support of their work in country. Potential solutions raised by participants for the countries with small populations included the use and adaptation of recommendations from a neighboring country's NITAG that they can relate to, partnership with another NITAG or the formation of a sub-regional group of small countries where recommendations could be developed jointly and then shared in the member countries. Some NITAGS take the SAGE reviews, ascertain how relevant the epidemiology and context for the vaccine are to their population and then craft a recommendation but this can be problematic if specific vaccine preventable disease data is lacking. Another area of concern was the difficulty in conducting systematic reviews when there is a lack of relevant data and the resources/expertise to do the reviews are limited. This undermines a NITAGs ability to produce evidence-based recommendations.

3. Sharing of NITAG experiences in evaluation and inter-country collaborations

The following are examples of success stories shared during the meeting.

During a moderated discussion, Mozambique, Cote d'Ivoire and Armenia each shared their experiences with external evaluation of their NITAG using the NITAG Evaluation tool developed by AMP-HPID (http://www.nitag-resource.org/media-centre/document/1517-evaluation-tool-for-national-immunization-technical-advisory-groups-nitags). This NITAG Evaluation tool focuses on assessment of three areas: (1) functionality: do NITAG's structure and operations foster the timely generation of recommendations, (2) quality: has the NITAG developed formalized and implemented appropriate processes to ensure quality recommendations and (3) integration: is the NITAG fully integrated into the decision making system. The structured tool provides a template and guidance on data to be collected in these three areas, how to analyze and assess the data and on how to present the results.

Use of this tool enabled these three NITAGs to identify gaps and work on potential solutions. Mozambique, for example, now uses graduate students under the guidance of a NITAG working group to help develop required systematic reviews. This has expanded expertise and the time available to commit to the reviews as well as helping to prepare potential future members for the NITAG.

Australia noted that they were using the NITAG Evaluation tool for self-evaluation to good effect.

The value and success of cross country collaborations was also highlighted by the panel. The Chair from the Mozambique NITAG was involved in the establishment of the NITAG in Angola and participated in the training of members of their newly established NITAG. The Chinese representative reported on the study tour of the Chinese NITAG members to the US and Canadian NITAGs in September 2016 and the workshop in China where NITAG members from the United Kingdom, the United States and from Germany were invited to share their expertise in NITAG functioning and help China build up their new NITAG structure. The Australian NITAG participant noted that their NITAG has endorsed a strategic document stating that international collaboration was an asset and that they were committed to foster it and work with NITAGs in other countries (http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/FC7BB2DC63225F8ACA257D770012DBF7/$File/ATAGI-Strategic-Intent.pdf). Saudi Arabia noted that with the approval of their Ministry, the NITAG is planning to post documents on a website to promote the work

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of the committee. These are in Arabic and may well be helpful to other Arabic speaking countries.

4. Discussion on the role of Regional Technical Advisory Groups on Immunization (RTAGs) and regional networks

Following break out and then plenary discussions, the participants highlighted that NITAG chairs and secretariats as well as GNN steering committee members should be encouraged to attend RTAG meetings. The GNN should help regions access resources, share data and make links between the regions, while Regional NITAG Networks should encourage collaboration between NITAGs in the region, mobilize resources, share challenges and information with the GNN and participate in envisaged annual GNN meetings. NITAGs need to be encouraged to link with other countries in their region (and beyond) to work on the same topics and identify training opportunities. Virtual meetings could be set up for NITAGS in a region as they are often in the same/similar time zone. The aim of the regional NITAG networks is to bring together NITAGs from the same region, exchange lessons learned, discuss challenges as well as identify common priorities and resources that could be shared. To date, only one WHO Region has a formally established regional NITAG Network, the South East Asia Region. While Regional NITAG Networks may not be possible in all regions, in several regions NITAG chairs are systematically invited to the RTAG meetings as a means of supporting learning and sharing of information. Participants emphasized the importance of collaboration beyond the regions, through sharing materials and information via the NRC as well as through direct country to country collaborations. By having NITAGS share their work plans through the NRC, a NITAG would know whom to turn to if necessary when starting work on a new topic.

5. Sharing of NITAG experiences on independence

In a panel discussion, representatives from Belgium, Costa Rica, Nepal and Canada shared how their NITAG functions, highlighting how their committees balance independence from government and integration of the NITAG decisions into government policy. The models in the four countries showed marked contrasts emphasizing how one size does not fit all.

In Belgium the NITAG, which was established in 1991, is independent but located within the Ministry of Health. Experts to serve on the NITAG are approved by the Ministry of Health. The NITAG decides on the work plan and responds to specific questions from the Ministry of Health. The Working Groups are established by the NITAG, develop consensus recommendations and report to the High Council of Health and to the Ministry of Health, who then have two weeks to decide on a response.

In contrast, in Costa Rica the NITAG, which was established in 2001, is presided over by the Minister of Health. The NITAG develops draft recommendations and collaborates closely with the Pan American Health Organization to conduct cost-effectiveness reviews. The results are presented to the Ministry of Health with the recommendation of the NITAG. The Ministry of Health then presents to the social security system who can decide on whether to fund the vaccine. The Costa Rica NITAG acts as both a NITAG and an Interagency Co-ordinating Committee. There are currently no processes in place to assess and address conflicts of interest of members but these are being developed.

Nepal provided an example of a NITAG with more independence from the Ministry of Health. In Nepal the NITAG was established in 2009 and it now fulfills all the six WHO indicators (including the declaration of interests) and provides independent technical guidance on optimal immunization to the Ministry of Health. The NITAG is supported by a secretariat in the Ministry of Health.

A further variation was provided by Canada whose NITAG dates from 1964. All 14 NITAG members are appointed by the Public Health Agency of Canada with the disciplines of members stated in the terms of reference to ensure breadth and depth of membership. Direct and indirect conflicts of interests must be disclosed, are well scrutinized and then publically posted. The meetings are not open to the public but several relevant specialist organizations attend meetings as liaison members but are not allowed to vote. There are also two reporting liaison seats for the Canadian provinces/territories. The NITAG provides recommendations to the Public Health Agency of Canada but implementation is up to the provinces as Canada is a federation with the provinces and territories responsible for health programs and delivery while the federal level is responsible for guidance and standards making immunization a shared jurisdiction.

6. Reflection on NITAG off-label recommendations

During the Canada NITAG presentation, it was noted that NITAGs, based upon evidence, often make off-label recommendations on the use of vaccines that can be in conflict with those of the National Regulatory Authorities for drugs including vaccines. Off label use of vaccines means any use of an authorized product not covered by the terms of its marketing authorization and thus not in accordance with the monograph labelling [8]. This is the case Canada. This precipitated a brisk participant discussion as off-label recommendations have been prominent recently in many NITAGs and in SAGE recommendations e.g. fractioning of doses of injected polio vaccine doses and of yellow fever vaccine. Such off-label decisions by NITAGs are important as the value of the NITAG is to maximize the benefit and public health value of a given vaccine in general or specific circumstances, including during vaccine shortages. However, this is a complex area with many facets (e.g. liability of physicians and of manufacturers or lack of coverage by insurance companies) that prevents NITAGs in some countries from making off-label recommendations. The United States and the United Kingdom NITAGs shared their respective experiences with off-label recommendations. Both noted that their NITAGs often make such recommendations when there is evidence supports these. In contrast, in Germany the NITAG can only issue off-label recommendations under rare exceptions. More commonly, the manufacturer is asked to submit an application to the respective regulatory authority to change the label (as successfully happened with the licensure of Tdap-vaccines for the use in pregnancy).

This discussion culminated with a proposal that it would be beneficial if GNN members shared experiences and the evidence on which off-label recommendations are based (e.g. systematic reviews or single studies on alternative schedule or specific populations). Off-label use was then highlighted as a topic for the anticipated 3rd GNN meeting.

7. Discussion of NITAG roles in communications, dissemination of recommendations and vaccine implementation

Representatives from Mozambique, UK, Australia, and Germany shared their lessons learned on communications and dissemination of recommendations with respect to building credibility and trust in their NITAG.

In Mozambique, the NITAG holds more 10 meetings a year, these are closed. The NITAG prepares an annual report to Ministry of Health and also is active in disseminating recommendations locally. All the recommendations are posted on the NRC. In the

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United Kingdom, the NITAG posts an interim statement and asks for feedback on big decisions. Three meetings are held each year, all closed but the minutes are published shortly after each meeting on the Public Health England website. In Australia, the NITAG has a self-developed work plan and holds three general meetings where working parties present their findings and recommendations. The meeting decisions are available online (http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/atagi#bulletins) and at the NRC. Pharmaceuticals companies are invited to one special NITAG meeting each year where their scientists, not their marketing people, outline new vaccine developments and refinements. The NITAG recommendations inform the online Australian immunization handbook which is updated twice a year. The NITAG provides technical advice to the government and a separate committee the cost effectiveness. The government needs to approve such recommendations and such approval can be delayed. In Germany, the NITAG develops recommendations following a standard operating procedure and applying evidence-based methodologies. A draft recommendation and the respective background paper is sent to professional societies, the 16 federal states, and the Federal Joint Committee (a self-government body of physicians, dentists, hospitals and health insurance funds in Germany) for review and comments within a 6-week period. The final decision is then independently published and does not require endorsement by the Ministry of Health. Once in the schedule, this forms the basis for vaccines to be paid for by the social insurance companies. They have three months to decide on this but must provide good reasons to reject. If a NITAG member has a conflict of interest related to a vaccine under consideration, this person leaves the room and cannot vote on issues related to the specific vaccine. The meeting minutes are published online (www.stiko.de/en) and since September 2016 as a pocketbook to be purchased in book stores and on a smartphone app (STIKO.app; https://itunes.apple.com/de/app/stiko-app/id1113590161?mt = 8 https://play.google.com/store/apps/details?id = com.boerm.bruckmeier.robert_koch_institut_stiko&hl = de), developed by the NITAG secretariat at the Robert Koch Institute, mainly intended for use by physicians. It contains recommendations and guidelines on how to implement the recommendations and communication messages. The app also includes around 230 frequently asked questions with answers, push messages to inform about new recommendations and warn about rumours, an algorithm on catch-up vaccination, and a resource centre (e.g. advice on how to address vaccination arguments). As of June 2017, the app has been downloaded by more than 40,000 users.

Following this panel presentation in follow up to communication, participants stimulated lively a discussion on vaccine hesitancy as NITAGs play an important role in addressing hesitancy. The rates of vaccine refusal are quite low in Australia (5%). A web page has been developed for the public (parents), presenting the risks of not vaccinating and comparing this to the risks of vaccinating. In Australia, the legislation supports the NITAG. "*No jab, no pay*" = no receive the child benefit funds if the child is not immunized. "*No jab, no play*" = a child is no allowed to be enroll in kindergarten or school if not vaccinated (http://www.ncirs.edu.au/consumer-resources/no-jab-no-play-no-jab-no-pay-policies). In the United Kingdom, Germany and Mozambique, the vaccine refusal rates are also quite low. As hesitancy maybe due to concerns about vaccine safety, panelists were asked if their NITAGs have a representative from the vaccine safety program at the NITAG meetings who report on safety issues. The United Kingdom NITAG asks the safety program to give an update once a year. This is included in the minutes that are published. This is similar for Germany. Australia has a committee on vaccine safety and one member sits on the NITAG and reports are included in the minutes. Jordan raised the issue of bloggers who increase the anti-vaccine sentiments. Panelists noted that engaging with conspiracy theorists may increase anti-vaccine issue. However, giving access to experts that the media can trust can enable the press to prevent the media from publishing overt lies and having them cross-check their information. The United Kingdom NITAG does contact the press and are in regular touch with journalists.

8. Alert on evidence assessment and sharing of resources

The SYSVAC (http://Immunization.hpru.nihr.ac.uk/sysvac), a database of systematic reviews on vaccines and Immunization developed by the London School of Hygiene & Tropical Medicine, has been integrated in the media centre of the NRC (http://www.nitag-resource.org/). The SYSVAC database collects a list of all systematic reviews on human vaccines registered on Prospero, Embase and Cochrane, including those on the epidemiology of the target disease, vaccine safety, immunology, coverage and economics. This integration within the NRC should make it easier for NITAGs to search for systematic reviews. Currently the SAGE systematic reviews are not registered on Prospero yet and this needs to be remedied by WHO. A representative from the German NITAG secretariat shared experiences on how existing reviews can be utilized in the process of assessing the available evidence as a basis for a new recommendation [9]. Participants noted that such rigorous assessment and review processes (e.g. review of systematic reviews) need to be shared via the NRC. The NRC should regularly send a list of updated resources to all GNN members, including (but not only) systematic reviews including those done by SAGE.

9. Discussion on GNN funding and development of an action plan

WHO provided a brief summary on support for the GNN secretariat. The Supporting Independent Immunization and Vaccine Advisory Committees (SIVAC) Initiative; to support the establishment of NITAGS in low income countries and the development and strengthening of NITAG tools to support NITAGs e.g. the NRC, the NITAG evaluation tool; from the Bill and Melinda Gates Foundation ended in 2016 [3]. Currently there are limited dedicated resources to support the establishment of new NITAGs or for travel of NITAG members to future GNN meetings. However, GAVI eligible countries can include the establishment of NITAGs in their work plans which could ensure some targeted technical assistance for the establishment and/or support of a NITAG. All countries must be encouraged to fund and support a NITAG. This is backed up by the 2017 World Health Assembly recommendation that emphasizes the importance of NITAG work. Participants noted that for the GNN, NRC and NITAGs to thrive there must be country and partner support. While the NRC will now be supported by WHO, further development and sustainability will require more resources and support. The possibility of requesting funding from professional societies to support the GNN and the NRC was put forward for consideration. However, this was seen as concerning as some societies may have received unrestricted funds from vaccine manufacturers and hence have conflicts of interest. Many participants expressed discomfort with this option. Other sources need to be sought.

An action plan for the GNN for the 2017–18 was developed by participants with a priority focus on the NRC manager regularly sending (a) reminders to NITAGS to share information via the NRC and (b) the NITAGs the newest publications (recommendations, guidelines, systematic reviews) including those that are just for members only on a regular basis; and for the GNN secretariat to (a) undertake a survey of NITAGs on the usefulness of the NRC, (b) develop a rolling list of key work plan elements of each NITAG and

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Table 3
2017 GNN Steering Committee members by WHO Region.

WHO European Region	Anthony Harnden (**Chair of GNN Steering Committee**), NITAG member, United Kingdom
WHO Eastern Mediterranean Region	Aisha Alshammary (**Vice-chair of GNN Steering Committee**) NITAG member, Saudi Arabia
WHO African Region	Jahit Sacarlal, NITAG Chairperson, Mozambique
WHO Region of the Americas	Roberto Arroba Tijerino, NITAG Executive Secretary, Costa Rica
WHO South East Asian Region	Rupa Rajbhandari Singh, NITAG member, Nepal
WHO Western Pacific Region	Madeline Hall, NITAG member, Australia

a global work plan noting which NITAGs is working on what topics and (c) set up an index so NITAGS can contact other NITAGs working on the same subject and also stimulate development of topic interest groups and for NITAGs. As well, member countries and the GNN secretariat were pressed to work to increase GNN membership. Participants emphasized that more countries need to be apprised of the GNN and that there is no membership fee to join. The GNN needs to be discussed at RTAG meetings so more countries are alerted to it and to initiate discussions about the establishment of regional networks and the role of RTAGs in such networks.

10. Selection of the steering committee members, alternates, chair and deputy chair. Identification of priority activities for the GNN and its global partners

As per the governance document, the GNN volunteer steering committee members and alternates were approved with a chair and vice-chair (see Table 3). Meeting participants suggested that the Chair and Vice Chair be invited to attend the SAGE meetings. Participants strongly supported having an annual GNN meeting. A discussion ensued about the site and timing of the 2018 GNN meeting. Given that the NITAG member and the country representative who come to the GNN must be self-funded, there was concern that to date, the GNN meetings have only taken place in the European Region. In order to make the GNN accessible to more countries, participants suggested that meeting venues rotate from region to region with the annual date for the GNN to be settled by surveying the members. Participants emphasized the importance of growing advocacy for the GNN and NRC in different settings as GNN functions and NRC work must become a priority of WHO, partners, donors and also for countries.

In conclusion, the GNN was formally launched in June 2017 has a membership of 35 countries coming from all WHO Regions. Given that there is no charge to join or belong to the GNN, membership is expected to grow as NITAGs learn about the opportunity and value added of membership. As participants emphasized, the GNN provides an important forum for networking, sharing lessons learned and NITAG documents, for developing partners for NITAG evaluations and for wrestling with complex issues such as how to manage conflicts of interest and off-label use of vaccines. The 3rd GNN meeting is tentatively scheduled for 26–27 June 2018.

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