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Indicators to assess National Immunization Technical Advisory Groups (NITAGs)☆

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ABSTRACT

A National Immunization Technical Advisory Group (NITAG) is an expert advisory committee that provides evidence-based recommendations to the Ministry of Health (MoH) to guide immunization programs and policies. The World Health Organization (WHO), the Initiative for Supporting National Independent Immunization and Vaccine Advisory Committees (SIVAC) at Agence de Médecine Préventive (AMP) and the US Centers for Disease Control and Prevention (US CDC) engaged NITAG stakeholders and technical partners in the development of indicators to assess the effectiveness of NITAGs. A list of 17 process, output and outcome indicators was developed and tested in 14 countries to determine whether they were understandable, feasible to collect, and useful for the countries. Based on the findings, a revised version of the indicators is proposed for self-assessment in the countries, as well as for global monitoring of the NITAGs.

1. Background

As an independent expert advisory committee, a National Immunization Technical Advisory Group (NITAG) provides evidence-based recommendations to the ministry of health (MoH), policy makers and program managers to guide policies and formulate strategies. NITAGs aim to support and empower the government and national authorities evidence-based decision making. As such, they serve to promote the adoption of policies based on national priorities, help resist pressure from interest groups, reinforce the credibility of national vaccine and immunization strategies, and enhance the ability to secure government or donor funding.

An important question, however, is how would we know if NITAGs are meeting their intended purpose? Most stakeholders, including policymakers, managers, providers and consumers of vaccines and immunization services, are indeed interested to know if and how establishing an independent body of experts would

Abbreviations: AMP, Agence de Médecine Préventive; EPI, Expanded Program on Immunization; JRF, Joint Reporting Form; NIP, National Immunization Program; MoH, Ministry of Health; NITAG, National Immunization Technical Advisory Group; SIVAC, Supporting Independent Vaccine Advisory Committees; SOPs, Standard Operating Procedures; ToRs, Terms of Reference; US CDC, United States Centers for Disease Control and Prevention; WHO, World Health Organization.

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make any difference in improving immunization services and the health of the population.

This paper is intended to reflect on this complex issue and suggest a self-assessment tool. This tool is not designed to provide all the evaluative answers as priorities, interests and capacities vary from one country to another. It does, however, suggest a list of indicators for various stakeholders to consider as they assess the contributions of NITAGs in their respective settings.

The proposed tool was developed with an understanding and recognition of the diversity of various perspectives and the different level of development of NITAGs (long-time ago established ones versus more recently ones). The users of this tool, at any level, will decide which of the proposed indicators best fits their needs and priorities. For example, global experts and leaders may be focusing on the industry's role in the overall decision making process, whereas, national authorities and their constituents may want to know if introduction of new vaccines are cost-effective in the long run. Moreover, managers and providers may be interested in the efficacy of a particular vaccine in a certain population, whereas consumers and the general population may be concerned about the risks or adverse events of vaccines.

Accordingly, the World Health Organization (WHO), the Agence de Médecine Préventive (AMP) through the Initiative for Supporting National Independent Immunization and Vaccine Advisory Committees (SIVAC [1]), in collaboration with the US Centers for Disease Control and Prevention (CDC) and NITAG members from 14 countries, developed a set of output and outcome indicators based on the stakeholders' perspectives methodology [2]. As mentioned, the primary objective of the tool is to provide the countries with an opportunity to evaluate their NITAGs by incoporating various perspectives and interests. It can also serve as a tool for WHO, SIVAC, technical partners and the immunization community to identify gaps and opportunities related to NITAG strengthening [3].

This article describes the process of developing NITAG indicators, presents the pilot testing results, and concludes with the final list of 17 indicators proposed for self-assessment in the countries.

2. Methods

2.1. Development of the NITAG indicators

In 2009, the WHO, AMP/SIVAC and the CDC developed 6 process indicators that were included in the WHO/UNICEF Joint Reporting Form (JRF) [4,5]. As a monitoring system adopted by the WHO and UNICEF in 1998, the JRF collects self reported national-level data on selected vaccine-preventable diseases cases, immunization coverage, recommended immunization schedules, vaccine supply and other information on the structure, and policies and performance of national immunization systems.

NITAG process indicators included in the JRF included existence of: formal written terms of reference; legislative or administrative basis establishing the committee; core membership with at least 5 main expertise areas represented among members; committee meeting at least once a year; agenda and background materials distributed ahead of meetings; and declaration of interests by committee members. In developing the process indicators, WHO, AMP and partners aimed to create a mechanism to assess the basic functionality of NITAGs. While these process indicators are advantageous because of their simplicity and applicability for all regions and allow for monitoring of progress at regional and global level, they do not capture information to assess the effectiveness and impact of NITAGs.

In 2010, WHO and AMP together with other partners and several countries decided to apply a different methodology, the stakeholders' perspectives methodology, to develop a set of output and outcome indicators [2]. This approach recognizes that there are a number of individuals and organizations with possibly different expectations for how a NITAG should perform and what it should deliver. Accordingly, we need to look at NITAG effectiveness through multiple lenses, and talk about it in terms that are relevant to the various interested parties.

As an example of how this methodology is applied, if one considers what the value of vaccinating a child is, the answer will depend on who we ask–a parent, in addition to having a peace of mind that her child doesn't get sick and suffer, may also express relief for not having to take time off from work to attend to a sick child; a provider may feel good about offering a safe product to the family, establishing long term relations and providing additional services in the future; a manager or scientist may be focused on protecting the vulnerable populations and preventing outbreaks through building herd immunity; a vaccine producer may be concerned about its reputation and a return on its investment; and a national authority may be driven by savings through prevention of hospital visits, etc. In other words, every individual and organization has a particular interest in the aftermath of a vaccinated child.

The stakeholders' perspectives approach focuses on 5 categories of stakeholders: authorities, managers, implementers, recipients and beneficiaries. Their interests and perspectives typically reflect a value chain of inputs, activities and outputs/outcomes. Inputs are the funding, staffing, directives and constraints that are provided to a NITAG. Activities or the various work efforts undertaken by a NITAG may include: holding meetings, collecting data related to local and regional needs and responding to questions from decision-makers. Activities produce outputs, which in turn, contribute to outcomes. In terms of a NITAG, the main output is considered to be the "evidence-based recommendations" given directly to the recipients, i.e. ministry of health and other decision-makers. After receiving the evidence-based recommendations, the ministry of health may accept and implement them, which in turn, should contribute to the intended improvements in population health.

For example, if a NITAG was to recommend the introduction of a new vaccine, a policymaker or authority may decide not to introduce it because of concerns about the funding implications (i.e. input) of this decision, whereas a parent may worry about the vaccine safety (i.e. intermediate outcome). So, how do we decide on the effectiveness of a NITAG when each stakeholder may have a different interest? The stakeholders' perspectives methodology adeptly allows for these varying interests to be incorporated and analyzed so that the agreed-upon indicators can be meaningful and useful to all involved parties.

After brainstorming with a number of current and former NITAG members, a total of 31 indicators were considered. From the 31 indicators originally considered, 17 were selected based on the following inclusion criteria: understandability, ease of collection and perceived usefulness. The inclusion criteria are described in the article. The excluded indicators are listed in Appendix 1.

The 17 selected indicators are classified in 3 categories and include 10 *process or activity indicators* to monitor the functionality of a NITAG, based on global recommendations and best practices; 3 *output indicators* to assess the quality and relevance of evidence-based recommendations; and 4 *outcome indicators* to evaluate the impact of technical recommendations on government policies and strategies.

2.2. Piloting of the NITAG indicators

In 2011, a protocol and questionnaire were developed for piloting the 17 indicators in the countries. The indicators were tested in 14 countries (Table 1), which were selected to ensure representation of a broad range of socio-economic development, as well as