

# A review of the functionality of Technical Working Groups (TWGs) in enabling Evidence Informed Decision Making (EIDM) within Malawi's Ministry of Health and Population: A cross-sectional qualitative study

Melody Sakala (✉ [msakala@mlw.mw](mailto:msakala@mlw.mw))

Malawi-Liverpool-Wellcome Trust Clinical Research Programme <https://orcid.org/0000-0002-7827-8438>

Marlen Stacey Chawani

Malawi-Liverpool-Wellcome Trust Clinical Research Programme

Isabel Kazanga-Chiumia

University of Malawi College of Medicine

Hleziwe Hara

African Institute for Development Policy

Leila Abdullahi

AFIDEP: African Institute for Development Policy

Dzinkambani Kambalame

Ministry of Health

Josephine Banda

University of Malawi College of Medicine

Collins Mitambo

Ministry of Health

Anja Terlouw

Liverpool School of Tropical Medicine

Rose Oronje

AFIDEP: African Institute for Development Policy

---

## Research

**Keywords:** Technical advisory groups, technical working groups, functionality, evidence, decision making, health policy, LMIC

**Posted Date:** February 23rd, 2022

**DOI:** <https://doi.org/10.21203/rs.3.rs-1314717/v1>

**License:**  This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

---

**Version of Record:** A version of this preprint was published at Health Research Policy and Systems on June 6th, 2023. See the published version at <https://doi.org/10.1186/s12961-023-00987-7>.

# Abstract

## Background

The roles and functionality of Technical Working Groups (TWGs) in the health sectors varies across countries, but they generally aim to support government and ministries in formulating evidence informed recommendations for policies and facilitate dialogue and alignment of activities among stakeholders within the health sector. Thus, TWG's have a core role to enhance functionality and effectiveness of the health system structure. However, in Malawi the functionality of TWGs and how they utilise research evidence to contribute to decision making is not monitored. This study sought to understand the TWGs performance and functionality in enabling Evidence Informed Decision Making (EIDM) in Malawi's health sector.

## Methods

A cross-sectional descriptive qualitative study employing qualitative methods. Data was collected through interviews; documents review and observation of three TWG meetings. Qualitative data was analysed using a framework analysis approach.

## Results

TWG functionality varied in the Ministry of Health in Malawi. The reasons for those perceived to be functioning well included meeting frequently; diverse representation of members; and the membership consisted of highly technical people; and their recommendations to MoH were usually taken into consideration when decisions were made. For the TWGs that were perceived as not functioning well, the main reasons included lack of funding, irregular meetings and discussions that did not provide clear decisions on the actions to be taken. In addition, evidence was recognized as important in decision-making and research was valued by decision makers within the MoH. However, some of the TWGs lacked reliable mechanisms for generating, accessing, and synthesizing research. They also had limited capacity to review and use the research to inform the decisions they made.

## Conclusions

TWGs are a key decision-making structure within the MoH in Malawi. However, TWGs functionality will need reliable interventions for evidence informed decision making and sustainable funding to facilitate performance of TWGs.

# Background

Designing policies and programmes based on rigorous evidence increases transparency and accountability in the policy-making process, and can reduce wastage of public resources, minimizes unintended risks or harm from well-intended policies and enhances monitoring and evaluation of health interventions- leading to better health and development outcomes (1, 2). Evidence informed Decision

Making (EIDM) is a process in which high quality, available evidence from research, local data, patient, and professional experiences are synthesized, disseminated, and applied to decision-making in healthcare practice and policy (3). Overall, there is a paucity of literature particularly in low- and middle-income countries (LMICs), on how EIDM is used in practice in policy processes and how this is enabled.

In the health system, established decision-making structures where evidence use is expected, include Technical Working Groups (TWGs), task forces, Technical advisory committees, and Scientific advisory committees. Whilst there is no universal definition of TWGs, they primarily consist of a group of multidisciplinary individuals with relevant technical expertise to provide advice to policymakers (4, 5). TWGs functionality and effectiveness may vary across different countries, sectors, and programmes. Among other things, TWGs are mandated to provide independent evidence-informed advice to the government to assist in policy formulation(6) but also function as a coordination structure for facilitating dialogue and alignment of activities among stakeholders within the health sector. Due to the multiple roles of TWGs, it is important to review the functionality and effectiveness of TWGs in fulfilling their defined mandates.

Largely, there is insufficient literature on the general functionality of TWGs for various programs (4), and there are no international guidance or standardised tools for these assessments. However, extensive literature assessing the functionality of TWGs, particularly National Immunization Technical Advisory Groups (NITAGs), in different countries reveal that NITAGs provide valuable independent evidence-based decision-making guidance at national level to support evidence use and valued local data (5, 7). In addition, TWGs contribute to increased country ownership on use of local data in decision making and added value to programs (8, 9), but have limited capacity to generate and use research evidence (8), and lack standardised operations to promote EIDM in TWGs (4, 7), they meet infrequently (7), and most relied heavily on donors, and there was limited knowledge about their features. The NITAG assessments used the WHO/UNICEF Joint Reporting Form (JRF) to assess the functionality and effectiveness of technical advisory groups(10). The JRF is a standardised tool used to collect annual data for TWGs country performance. The form highlights 6 functionality indicators related to availability of TORs, a legislative basis, frequency of meetings, areas of expertise for members, distribution of documents prior meetings and disclosure of conflict of interest(11) (11). Despite the development of these tools, quality especially from the JRF indicators in countries without financial support was poor and TWGS were not regularly monitored (11).

In Malawi, previous assessments of the functionality of TWGs revealed a plethora of TWGs in the health sector which posed challenges to the functioning of the Ministry of Health (12). In 2015, the sector had 14 TWGs, 26 Sub-Committees, 13 Task Forces with 12 Task Teams (TTs) and / or Expert Groups and it was recommended that 6 Thematic Working Groups and 6 subsidiary Steering Committees should be established instead to align with WHO Health system building blocks. Whilst it was expected that TWGs would feed into decision-making of the Health Sector Working Group (HSWG), there was lack of clarity on how discussions from TWGs were processed and contributed to decision-making at higher levels as only a few pertinent issues were put forward for discussion in the HSWG (12). Instead, TWGs were noted to

report mainly to the MOH Senior Management Team. Nevertheless, the TWGs were effective as a platform for sharing projects' information but less effective as a coordination and decision-making structure.

Despite the gap and challenges on the structure and the functionality of TWGs in Malawi and several other countries, there is lack of clarity on how research evidence is utilised in different TWG platforms to inform decisions, and how the TWG discussions are processed and contribute to decision-making at higher levels (9, 12, 13). This calls for a need to understand the functionality and effectiveness of TWGs in fulfilling their defined mandates, thus the aim of this study. The study also assessed the importance of TWGs decision making roles and their use of research evidence, within the Malawi Ministry of Health.

## **Methods**

### **Study Context**

This study was conducted within the Ministry of Health and Population (MoHP) in Malawi, categorised as a low-income country in Sub-Saharan Africa(14). The Ministry is responsible for developing, reviewing, and enforcing health-related policies and standards for the health sector (15). MoH performs its functions through 14 directorates which include a Planning and Policy Development Department and a Research department. The MoHP has made some efforts to promote and strengthen EIDM by housing a Knowledge Translation Platform (KTP-Malawi) within the Research department (16) developing guidelines for Evidence Use in Policymaking for both researchers and policy makers and training technical staff in EIDM (17)

### **Study Design**

This study adopted a cross sectional descriptive qualitative approach to allow for a deeper understanding of the performance and functionality of TWGs within the MoHP, and the challenges and opportunities for strengthening EIDM within these structures. The study was conducted between January and February 2020.

### **Study Setting and Target Population**

This was a national level study involving top-level and mid-level decision makers from the MoH, development partners, training institutions as well as health researchers. Top-level decision-makers at the MoHP consisted of the directors and deputy directors of various directorates, national programme managers. Mid-level policymakers at the MoHP comprised officers heading divisions, units, and programmes. For development partner agencies, research and training institutions, the study targeted the leaders of these institutions

### **Sampling and sample size**

A purposive sampling technique was employed to select participants from the Ministry of Health, research and training institutions, and development partners in Malawi to provide different, anonymized,

perspectives. A sample size of 57 participants was targeted. The participants were selected based on their professional positions and this was guided by: (i) the need to speak to individuals who possessed ample knowledge and experience of decision-making processes and systems within MOH; (ii) the need to maximize triangulation of information sources; and (iii) the attainment of data saturation. Selection of study participants was done in consultation with the MoHP.

## **Data Collection**

Data was collected through interviews with key informants, document review and observation of TWG meetings. The data collection instruments were prepared by the HIGH-Res Consortium partners (AFIDEP, CoM, and MLW). Prior to data collection, the instruments were pre-tested on a few top-level policymakers and researchers. Feedback from the pre-test informed the revision and finalisation of the tool. The data collection instruments used in the study included separate interview guides for MoHP top-level policymakers, mid-level officers, interview guides for leaders of training institutions, research institutions, and development agencies.

In addition to the individual in-depth interviews (IDIs), observations of 3 TWG meetings were conducted to obtain an understanding of the use of research evidence within the TWG decision-making structure. The meetings observed were opportunistic to the data collection period. A TWG observation guide was developed and used by the team during observation of the meetings. The IDIs and TWG interviews were conducted between January 21, 2020, to February 10, 2020. All interviews were recorded upon getting consent from the study participants.

Additionally, a desk review of policy documents, research and other reports was also conducted to provide an understanding of the existing institutional structures and their functionality. The documents reviewed included relevant national strategies, guidelines and previous TWG assessment reports, among others.

## **Data Management and Analysis**

Data from interviews was transcribed by the research team. Qualitative data was analysed using a thematic content analysis approach with a combination of inductive and deductive coding using framework Analysis. This involved immersion in the data; identification of codes; indexing the data to codes and identifying emerging themes and sub-themes. The variety of meanings, attitudes and perceptions were interpreted while also drawing reference from the wider literature.

## **Ethics**

The study was conducted in accordance with the ethical principles and guidelines in Malawi. Ethical clearance was obtained from the National Health Sciences Research Committee (NHSRC). Written consent was obtained from everyone prior to the interview whilst verbal consent was sought from TWG Chairs for observation of their TWG meetings. Each interviewee was assigned a code number that was used on all information collected.

# Results

## Interview Response Rate

Forty-four participants completed the in-depth semi-structured questionnaires (77% response rate). The table below summarises the interviews conducted.

Table 1  
Interviews conducted

Type of Respondent	Planned	Interviewed n (77%)
Top-level policymakers at MoHP	19	15
Mid-level officers at MoHP	18	8
Leaders of development agencies	5	3
Leaders of Research institutions	5	7
Leaders of training institutions	5	5
Technical Staff in Development Agencies	5	2
Researchers	5	6
<b>Total</b>	<b>57</b>	<b>44</b>

## Functionality of TWGs

### Structure and mandate of TWGs

A review of documents and key informant interviews found that TWGs are a key decision-making structure within the MoHP. Figure 1 below depicts the official TWG structure within MoHP and how it links to other decision-making structures.

Source: MOH TWG Briefing Pack

Overall, there are six TWGs formulated alongside the WHO health system building blocks, namely: Service Delivery, Medical Products, Health Financing, Health Information, Health Workforce and Leadership and Governance. The six TWGs report to the Senior Management Team, which reports to the Health Sector Working Group that is chaired by the Secretary of Health. Under each of the six main TWGs, there are various sub committees, task forces, or expert groups that are generally referred to as sub-TWGs, where they report to the main TWGs. In this paper, TWGs will also refer to the sub-TWGs that operate under each of the six main TWGs. These TWGs are created based on tasks at hand, and so their roles and mandates are specific to each TWG.

Table 2  
Description of Ministry of Health and Population purpose of the six TWGs

#	TWG Name	Purpose/Mandate
1	Service delivery	To provide input in and facilitate the review of the delivery of health services at all levels in line with identified health needs, the demand for health services and the affordability of the Essential Health Package as well as professional standards for quality-of-service provision.
2	Medical Products, Vaccines, Technologies, and Infrastructure	To provide input in and facilitate the development of standards and specifications of pharmaceuticals to be included in the national Essential Drugs List including the recommended antigens for the national EPI as well as standards and specifications of medical equipment and health infrastructure
3	Health Financing	To provide technical input in and facilitate the development of a comprehensive but prioritised range of policy options for health system financing in Malawi for the medium and longer term.
4	Health Information	To contribute to establishing an integrated health information system for the Malawi Health Sector that ensures the availability of accurate, reliable, and timely information for planning, management and decision making
5	Health workforce	To provide technical input and advice on health workforce issues relevant to the implementation of the HSSP, especially the implementation of the overall health workforce strategic plan
6	Leadership and Governance	To inform the MoH of changes that require appropriate responses / actions related to the health sector and MoH leadership and governance processes

During the interviews, it emerged that one of the main directives of TWGs is to provide advice on technical matters, make recommendations, give policy guidance, endorsement and produce policy documents such as strategic plans and guidelines.

Another mandate for TWGs that emerged from the interviews is the convening of all relevant partners implementing activities to share progress and challenges, and to support the implementation of the Health Sector Strategic Plan through technical and financial assistance.

Other mandates of TWGs that emerged from the data included to manage collection of data, deliberate on the different sources of data (e.g., DHS), discuss and harmonize information for decision-making, respond to public health emergencies and epidemics in the country and monitor policy implementation and service provision to ensure that the government is keeping to its commitments.

General TORs were available for each of the six TWGs. The custodian of these TWGs was the Department of Planning and Policy which acted as the central coordinator within MoH. Specific components included their purpose, functions, membership, frequency of meetings, reporting and delegation of authority. Each main TWG had specified indicators to track, however, no timelines were indicated for the activities.

# Composition of TWGs and Roles of Members

A review of documents and key informant interviews established that membership of the TWGs is multi-sectoral, diverse, and clearly outlined in the existing ToRs of each TWG. Broadly, the TWG membership comprised MoH staff from relevant departments, development partners, civil society, private sector, and academic institutions. In some TWGs, membership is multi-sectoral.

Even though the roles and responsibilities of all members in the TWGs are clearly elaborated in the ToRs, however the respondents outlined the following roles: the MoH leadership chairs TWG meetings and coordinates the meetings, researchers represent their institutions on TWGs as members and play the role of technical personnel, who often provide technical papers, reports, and present data to TWGs. A few researchers act as secretaries on their TWGs. In addition, development partners represent their institutions as members who provide technical advice to TWGs. In one instance, one development partner reported that they chair the Population and Development TWG. Some development partners are given opportunities to support in hosting the TWGs based on MoH requests.

## TWG Meetings

Even though TWGs are scheduled to meet once every quarter according to their ToRs, it was established that most TWGs are not able to meet regularly according to schedule. For instance, one TWG reported meeting only once in the past year, whereas some TWGs reported meeting only twice in the past year. Some TWGs only meet when there is a need e.g., emergencies and stop meeting when the emergencies have been resolved.

*“Meetings depend on arising emergency issues”* (Top-level Policymaker, MoHP, February 11, 2020)

Respondents indicated that the agenda of the TWG meeting is set by the MoH with inputs from members. The agenda is often informed by arising issues and/or the updates on annual programme implementation. Following the meetings, TWGs either submit reports or make presentations to the Senior Management Team (SMT) of MoH. In some cases, respondents indicated that reporting channels used include emails and WhatsApp groups.

## Performance of TWGs

The data shows the perceived performance of TWGs varied. For the TWGs that were perceived to be performing their mandates well, this was mainly because their recommendations to MoH were usually taken into consideration when decisions were made; they met frequently as required; there was good representation of members; and the membership consisted of highly technical people.

For the TWGs that were perceived as not performing their mandates well, the main reasons included fewer meetings (less than the required quarterly meetings) and fragmented discussions that do not provide clear decisions on the actions to be taken. For such TWGs, their actions are not implemented and therefore follow-up is not satisfactory.

*“Most of the TWGs are performing fairly well but there is a need for some improvements”* (Top-level Policymakers, MoHP, Jan 27, 2020).

*“Membership is a problem. As the technical capacity to contribute is not considered when institutions that are members delegate people to attend TWG meetings”* (Top level Policymakers, MoHP, January 30, 2020).

## Discussion

Overall, the findings of this study show that TWGs are a key decision-making structure within the MoHP<sup>3</sup>, whose main mandate is to provide advice on health systems technical matters, make recommendations, give policy guidance, and develop policy documents. These findings are consistent with results from other studies (6, 11, 12). Since TWGs are expected to provide independent and evidence-based guidance to MoH in decision and policy making, integration of EIDM into TWGs is therefore crucial to ensure effective decision and policy making (18).

The findings further show that the TWG structure for the health sector in Malawi is well defined and has become more streamlined over the years; the official number of TWGs reduced to six from 14 in 2015, as presented in the functional review of TWGs report(12). Consequently, the number of sub-TWGs under each TWG is more controlled, ranging from 2 to 11 sub-TWGs, in contrast to over 39 sub-committees and task forces that existed in 2015. This has the potential to reduce duplication of activities and enhance efficiency in operations of TWGs. Nevertheless, there is still a challenge in coordination, collaboration and sharing of information across different TWGs. It is thus necessary to strengthen coordination and communication mechanisms at different levels. Previous studies done in other countries (6, 8, 19, 20) have stressed the importance for TWG to have a secretariat to coordinate its activities. A viable TWG structure with a secretariat and legally established TORs is essential for effective functioning of TWGs (9). In Malawi, the secretariat role for each TWG rests with the responsible MOH departments/programmes for the specific technical area, which was also the case in 2015 (12). Furthermore, in line with previous recommendations to establish a Partners and Coordination division within the Department of Planning and Policy Development (DPPD) to function as the HSWG secretariat (12), the DPPD has the responsibility to centrally manage and coordinate the overall HSWG/TWG structure. It is recommended that the MoHP should ensure that the DPPD is equipped with adequate personnel and infrastructure to strengthen coordination and collaboration across the different TWGs.

The study further established that TWGs for the health sector in Malawi operate based on clearly defined Terms of Reference (ToR) which was an improvement to the situation in 2015. The TORS indicate the need for TWGS to conduct research, identify and propose new areas of focus, thereby highlighting the importance of research evidence in setting priorities for the health sector. However, the TORS do not adequately promote systemic use of research evidence throughout decision-making processes in all TWGs. Rather, the role of research evidence is mainly emphasised within the Health Information TWG. It

is therefore recommended that the TORs for each TWG should be updated to incorporate roles that explicitly promote Evidence-Informed decision-making within the TWGs.

In relation to the composition of the TWGs, this study revealed that membership for the health sector TWGs in Malawi was diverse and multi-disciplinary. Members included representatives from various MoHP departments, development partners, technical expertise from NGOs, civil society, academia, and research institutions. Availability of diverse and appropriate technical expertise in TWG has a huge influence on their functionality as it impacts the credibility of the recommendations made (4, 20). In addition, having researchers in TWGs provides reliability of research used to inform local solutions (9) and is therefore vital in promoting EIDM. Previous studies observed a lack of relevant expertise from groups in most advisory groups in LMICs (7). For some TWGs in Malawi, the required technical expertise was lacking in discussions due to delegation of the membership to junior personnel. Furthermore, membership is mostly through invitation from MoH which may be influenced by the nature of the existing relationships between MoH and the stakeholders, rather than technical expertise. Hence, there is a need to develop TWG membership selection guidelines to be used when nominating participants for TWGs in order to ensure the necessary range of expertise are included in the MoHP TWGs, as was done for NITAGs in various countries (9). Additionally, reputation and integrity of members is also an important aspect to consider in the selection process (19). In addition to strengthening the technical expertise in the TWGs, it is essential to strengthen the credibility of the decision-making process by ensuring rigour and transparency in the process as recommended by (21).

The number of meetings held per year is one of the indicators of the functioning of advisory groups such as TWGs (22). This study revealed that the meetings across all MOH TWGs were irregular despite the recommended quarterly time frame. The frequency of the meetings depended on the availability of resources. These findings are consistent with a systematic review on the functionality of NITAGs in Africa (7) where the number of TWGs who met annually was low. Furthermore, it was observed (9) that TWGs with adequate funding were associated with regular meetings and their deliberations were most likely to inform decision making at high levels. Well planned and resourced meetings have a major effect in the functionality of TWGs as they drive the goals and objectives to discuss relevant health issues leading to recommendations. Specifically for low-income countries like Malawi, alternative ways of increasing the frequency of meetings should be explored. In this era of COVID 19 use of virtual platforms for meetings should be promoted to increase participation and ease financial constraints for TWGs without support. Physical TWG meetings would still be necessary, potentially held bi-annually, to provide opportunities for networking and relationship-building among stakeholders working in the sector which is essential for good coordination of activities. Additionally, meetings need to be pre-planned, and enough notice given to participants rather than scheduling or announcing them ad-hoc as previously recommended (19). This is particularly important in promoting EIDM as it may allow members to adequately prepare by reviewing, in advance, evidence that is useful to inform decisions. Regular meetings may be achieved by ensuring annual work plans have clear timelines for meetings and stakeholders identified to fund the meetings.

The use of research evidence in decision making was valued highly by decision makers within MOH. However, the extent to which research was used to inform decisions was perceived to vary, some TWGs were considered to use evidence fairly well and others very well. The barriers to use of evidence included lack of reliable mechanisms and capacity for generating, accessing, synthesizing, and using research. Other study findings show similar barriers (7, 20). In addition, uptake of recommendations based on evidence was affected by political interests and financial constraints. These findings resonate with Bell's (8) study on the effectiveness of TWGs in LMICs, where development of recommendations varied across groups and was hampered by lack of a systematic way to arrive at conclusions as noted in Uganda, Senegal, and Indonesia (9).

The study established variations in the capacity of TWGs to generate, synthesize and use research evidence, and this means that efforts to build technical capacity should further be strengthened. These results are consistent with findings of other studies(7–9, 13). Bell (9) further noted that time and publication languages were barriers to use of evidence by decision and policy makers including TWGs. In Malawi, initiatives to strengthen individual and institutional capacity in research synthesis and evidence use are being explored. However, tracking and monitoring of these initiatives is lacking. Perhaps targeted capacity building for motivated staff who can act as champions can be explored. To strengthen capacity within TWGs, other studies recommend visits to other NITAGs which can facilitate cross-learning, capacity building training and a repository to access relevant materials for TWGs (9).

Overall, there were perceived variations in relation to how TWGs functioned in Malawi and there was no common framework of assessment. Some scholars (20) expressed the need for a well-defined framework to assess the functionality of TWGs. Most published research on functionality has used data on meetings and self-assessment and fails to capture full TWGs effectiveness (9). The WHO-UNICEF Joint Reporting Form (JRF) has been extensively used as the analytical framework in most literature on National Immunisation Technical Advisory Groups (NITAGs) (10). The JRF is a standardised tool used to collect annual data for TWGs country performance. The form highlights six functionality indicators related to availability of TORs and a legislative basis, frequency of meetings, areas of expertise for members, distribution of documents prior to meetings and disclosure of conflict of interest (11). Despite the development of these tools to assess functionality of advisory groups, quality, especially from the JRF indicators in countries without financial support, was poor and NITAGs were not regularly monitored (11). In Malawi, to monitor and effectively strengthen functionality, MoH should consider adapting the WHO-UNICEF JRF for TWGs assessment. The tool can be used by the TWGs for self-assessment of their functionality annually to improve monitoring of their performance.

Inadequate funding emerged as a major challenge affecting functionality and sustainability of TWGs. Currently, funding is hugely dependent on donor aid. As observed by two global studies (7, 9) financial challenges noted in many African countries affect the functions and mandate of TWGs and their sustainability in the long run. This points to the need for the Malawi and other African governments to commit and support financial resources for the sustained functionality of TWGs.

## **Limitations**

This work was based on key informant interviews with mostly MoH staff and TWG members who self-assessed the platforms, and this has potential for bias. However, their views were aligned with the reported findings from those interviewed working outside the MoH. Another limitation was that most literature reviewed focused on National Immunisation Technical Advisory Groups (NITAGS) which might not be representative of the general functionality of TWGs. Nonetheless TWGs mandates, operations and procedures are similar.

## **Conclusion**

TWGs are a key decision-making structure within the MoH in Malawi. While this is the case, TWGs lack reliable mechanisms for accessing research and for reviewing and synthesizing research to inform the decisions they make. TWGs are also inadequately funded and often rely on development partners, which affects their operations. This therefore calls for the need for MoH to urgently find sustainable ways of raising funds for the work of TWGs. TWGs also have weak capacity for synthesis of existing research, as well as in translating and communicating research effectively, both of which are critical for enabling EIDM. To strengthen TWGs functionality, there is a need for urgent interventions that will capacitate them to be able to conduct analysis of existing data, and review and synthesize existing research, to inform their decisions as and when needed. In addition, there is also a need to institute within MOH a viable TWG structure that has a sustainable financial mechanism to develop, to develop TWG monitoring tools, and ensure provision of technical support. To gain most out of the TWGs, future efforts by MoH in low-income countries should focus on regular monitoring to improve functionality and track levels of recommendations used for decision making and strengthen the integration of EIDM processes in these structures.

## **Declarations**

## **Availability of data and materials**

Applicable data generated or analysed in any way during this study is made available through the supplementary files. However, the recorded and transcribed notes are not made available to the public to ensure confidentiality of participants.

## **Ethics approval and consent to participate**

This study was approved by the College of Medicine Research Ethics Committee, reference number 2439. Informed consent was sought from participants before interviews. All data was recorded, kept confidential and anonymously.

## Consent for publication

Not applicable

## Availability of data and supplementary Materials

All analysed data is available upon reasonable request from the corresponding author.

## Competing interests

We declare no competing interest.

## Grant information /Funding

This study has no funding attached to it.

## Authors' contributions

MS, MSC, IKC and AT led drafting of the manuscript, with critical inputs from HH, LA and DK. LA, RM, JP and RO reviewed several drafts of the manuscript.

## Acknowledgements

Authors thank all participants for their time. Mostly the Ministry of Health, particularly the department of Research for their support throughout. The study was a collaboration among partners of the Heightening Institutional Capacity for Government Use of Health Research (HIGH-Res) partners in Malawi i.e., African Institute for Development Policy (AFIDEP), College of Medicine (CoM), and Malawi Liverpool Wellcome Trust Clinical Research Programme (MLW).

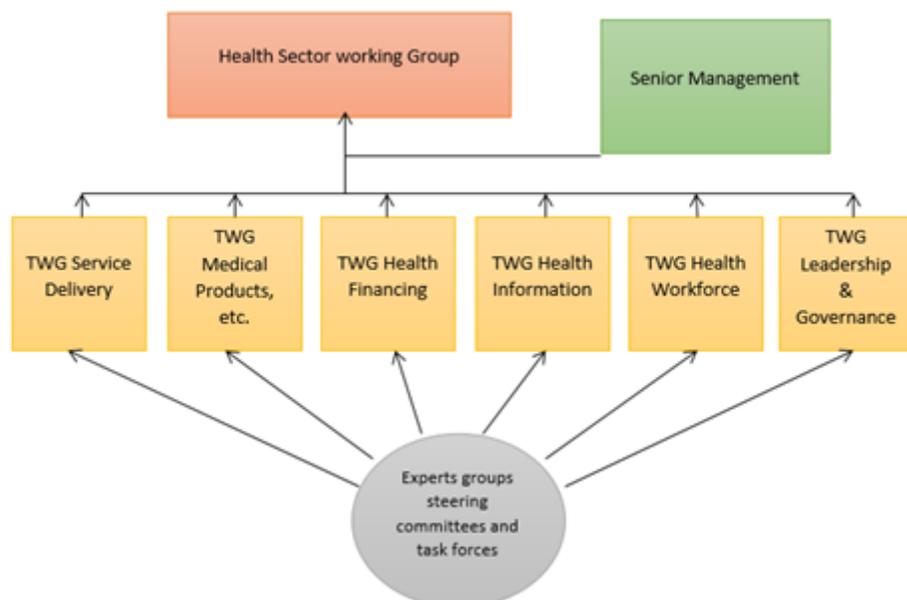
## References

1. Southern Africa D, Stewart R, Langer L, Erasmus Y. An integrated model for increasing the use of evidence by decision-makers for improved development. 2018 [cited 2022 Jan 14]; Available from: <https://www.tandfonline.com/action/journalInformation?journalCode=cdsa20>.
2. World health organisation. World Report on Health Policy and Systems Research [Internet]. Geneva; 2017. 56 p. Available from: <https://www.who.int/alliance-hpsr/resources/publications/worldreport-hpsr/en/>.

3. Belita E, Yost J, Squires JE, Ganann R, Burnett T, Dobbins M. Measures assessing attributes of evidence-informed decision-making (EIDM) competence among nurses: a systematic review protocol. *Syst Rev* [Internet]. 2018 Dec 3 [cited 2019 Jul 11];7(1):181. Available from: <https://systematicreviewsjournal.biomedcentral.com/articles/10.1186/s13643-018-0849-8>.
4. Hoffman SJ, Ottersen T, Tejpar A, Baral P, Fafard P. Towards a Systematic Understanding of How to Institutionally Design Scientific Advisory Committees: A Conceptual Framework and Introduction to a Special Journal Issue. *Glob Challenges*. 2018;2(9):1800020.
5. Howard N, Bell S, Walls H, Blanchard L, Brenzel L, Jit M, et al. The need for sustainability and alignment of future support for National Immunization Technical Advisory Groups (NITAGs) in low and middle-income countries. *Hum Vaccines Immunother* [Internet]. 2018;14(6):1539–41. Available from: <https://doi.org/10.1080/21645515.2018.1444321>.
6. MacDonald NE, Duclos P, Wichmann O, Henaff L, Harnden A, Alshammary A, et al. Moving forward on strengthening and sustaining National Immunization Technical Advisory Groups (NITAGs) globally: Recommendations from the 2nd global NITAG network meeting. *Vaccine*. 2017 Dec;35(50):6925–30.
7. Wiyeh AB, Sambala EZ, Ngcobo N, Wiysonge CS. Existence and functionality of national immunisation technical advisory groups in Africa from 2010 to 2016. *Hum Vaccines Immunother* [Internet]. 2018;14(10):2447–51. Available from: <https://doi.org/10.1080/21645515.2018.1475815>.
8. Bell S, Blanchard L, Walls H, Mounier-Jack S, Howard N. Value and effectiveness of National Immunization Technical Advisory Groups in low- and middle-income countries: A qualitative study of global and national perspectives. *Health Policy Plan*. 2019;34(4):271–81.
9. Howard N, Walls H, Bell S, Mounier-Jack S. The role of National Immunisation Technical Advisory Groups (NITAGs) in strengthening national vaccine decision-making: A comparative case study of Armenia, Ghana, Indonesia, Nigeria, Senegal and Uganda. *Vaccine* [Internet]. 2018;36(37):5536–43. Available from: <https://doi.org/10.1016/j.vaccine.2018.07.063>.
10. Duclos P, Dumolard L, Abeysinghe N, Adjagba A, Janusz CB, Mihigo R, et al. Progress in the establishment and strengthening of national immunization technical advisory groups: Analysis from the 2013 WHO/UNICEF joint reporting form, data for 2012. *Vaccine* [Internet]. 2013;31(46):5314–20. Available from: <http://dx.doi.org/10.1016/j.vaccine.2013.08.084>.
11. van Zandvoort K, Howard N, Mounier-Jack S, Jit M. Strengthening national vaccine decision-making: Assessing the impact of SIVAC Initiative support on national immunisation technical advisory group (NITAG) functionality in 77 low and middle-income countries. *Vaccine* [Internet]. 2019;37(3):430–4. Available from: <https://doi.org/10.1016/j.vaccine.2018.11.070>.
12. Taylor A. REVIEW OF THE FUNCTIONALITY OF SECTOR WORKING GROUPS IN MALAWI No Title [Internet]. Lilongwe; 2014. Available from: [https://info.undp.org/docs/pdc/Documents/MWI/Final Report - 14 11 25 \(2\).doc](https://info.undp.org/docs/pdc/Documents/MWI/Final Report - 14 11 25 (2).doc).
13. Buffardi AL, Njambi-Szlapka S. Questions for future evidence-informed policy initiatives: Insights from the evolution and aspirations of National Immunization Technical Advisory Groups. *Heal Res Policy Syst*. 2020;18(1):1–9.

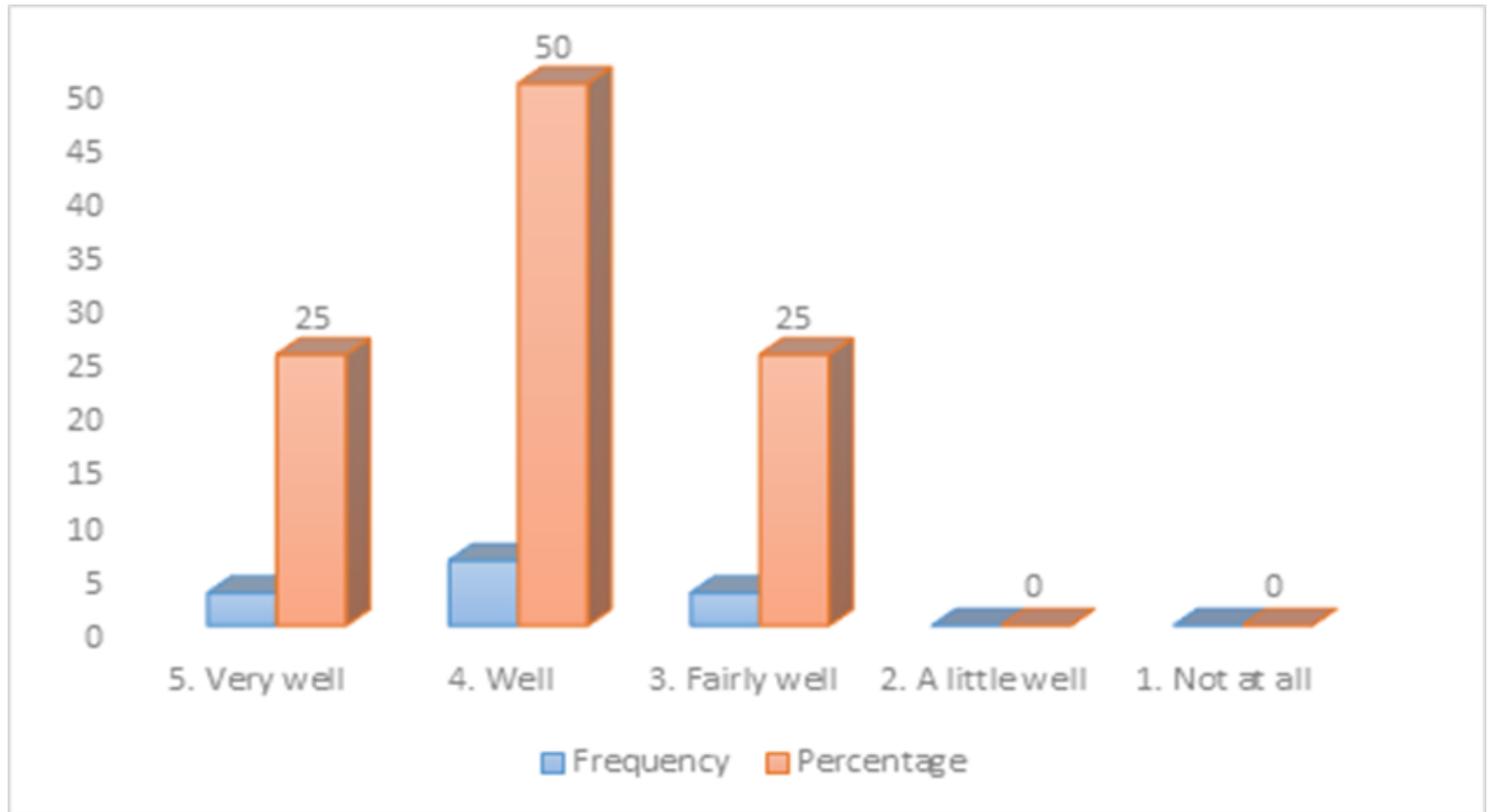
14. Fantom N, Serajuddin U. The World Bank's Classification of Countries by Income [Internet]. The World Bank's Classification of Countries by Income. Washington DC; 2016. Report No.: 7528. Available from: <http://hdl.handle.net/10986/23628>.
15. Ministry of Health M. Health Sector Strategic Plan II 2015/16–2019/2020. 2015.
16. Berman J, Mitambo C, Matanje-Mwagomba B, Khan S, Kachimanga C, Wroe E, et al. Building a knowledge translation platform in Malawi to support evidence-informed health policy. *Heal Res Policy Syst* [Internet]. 2015;13(1):1–5. Available from: <http://dx.doi.org/10.1186/s12961-015-0061-4>.
17. Oronje RN, Murunga VI, Zulu EM. Strengthening capacity to use research evidence in health sector policy-making: experience from Kenya and Malawi. *Heal Res Policy Syst* [Internet]. 2019;17(1):101. Available from: <https://doi.org/10.1186/s12961-019-0511-5>.
18. Stewart R, Langer L, Wildeman R, Erasmus Y, Maluwa LG, Jordaan S, et al. Building capacity for evidence-informed decision making: An example from South Africa. *Evid Policy*. 2018;14(2):241–58.
19. John TJ. India's National Technical Advisory Group on Immunisation. *Vaccine* [Internet]. 2010;28(SUPPL. 1):A88–90. Available from: <http://dx.doi.org/10.1016/j.vaccine.2010.02.041>.
20. Adjagba A, Senouci K, Biellik R, Batmunkh N, Faye PC, Durupt A, et al. Supporting countries in establishing and strengthening NITAGs: Lessons learned from 5 years of the SIVAC initiative. *Vaccine* [Internet]. 2015;33(5):588–95. Available from: <http://dx.doi.org/10.1016/j.vaccine.2014.12.026>.
21. Kienny MP, Moorthy V. Systematic Analysis of Evidence and Sound Expert Assessment: Two Enablers of Evidence-Based Decision-Making in Health. *Glob Challenges*. 2018;2(9):1800022.
22. Blau J, Sadr-Azodi N, Clementz M, Abeysinghe N, Cakmak N, Duclos P, et al. Indicators to assess National Immunization Technical Advisory Groups (NITAGs). *Vaccine*. 2013 May;28(23):2653–7. 31(.

## Figures



**Figure 1**

*Ministry of Health and Population Decision Support Structures*



**Figure 2**

*Extent to which structures discuss research and data for evidence-based decision making*