
MID-TERM REVIEW OF THE PERFORMANCE OF THE NATIONAL HEALTH RESEARCH AGENDA

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MID-TERM REVIEW OF THE PERFORMANCE OF THE NATIONAL HEALTH RESEARCH AGENDA

This research report has been produced by the
African Institute for Development Policy (AFIDEP)

In collaboration with

College Of Medicine-Research Support Center

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National Commission For Science And Technology



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List of Abbreviations and Acronyms

AFIDEP	African Institute for Development Policy
ARI	Acute Respiratory Infections
CHRC	Caribbean Health Research Council
COMREC	College of Medicine Research and Ethics Committee
CPR	Contraceptive Prevalence Rate
CSO	Civil Society Organizations
EHP	Essential Health Package
GoM	Government of Malawi
MGDS	Malawi Growth and Development Strategy
MMR	Maternal Mortality Ratio
NCDs	Non-Communicable Diseases
NCST	National Commission for Science and Technology
NGOs	Non-Governmental Organizations
NHP	National Health Policy
NHRA	National Health Research Agenda
NHSRC	National health Science Research Committee
NTDs	Neglected Tropical Diseases
SADC	Southern Africa Development Community
TFR	Total Fertility Rate
IDRC	International Development Research Centre
WHO	World Health Organisation
DHO	District Health Officer

Definition of Terms and Concepts

Leprosy: A chronic infection caused by the bacteria *Mycobacterium lepra* and *Mycobacterium lepromatosis*.

Moral Capital: The degree to which stakeholders possess interlocking sets of values, virtues, norms, and practices that mesh well with evolved psychological mechanisms and thereby enable stakeholders make cooperation possible.

Salmonellosis: Is a type of food poisoning caused by the *Salmonella enteric* bacterium, symptoms include diarrhoea, fever and abdominal cramps.

Trauma: An emotional response to a terrible event like an accident, rape or natural disaster.

Trypanosomiasis: The name of several diseases in vertebrates caused by parasitic protozoan trypanosomes of the genus *Trypanosoma*, in humans this includes African trypanosomiasis and Chagas disease.

Acknowledgement

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Executive Summary

In 2011, the government of Malawi adopted a National Health Research Agenda (NHRA) for 2012-2016 to guide investments in health research in order to enable the generation of research that is responsive to the health needs and priorities of the country, with the ultimate aim of improving the health status of its people. The Agenda was expected to contribute to the overall goal of the second Malawi Growth and Development Strategy (MDGS II) and the achievement of the Millennium Development Goals. The specific objectives of the NHRA included to: Promote the conduct of health research responsive to the priority health needs of Malawi; Facilitate the mobilization of resources for the conduct of locally relevant health research; Promote multi-disciplinarity and collaboration in the conduct of research; Facilitate the coordination of health research conducted by various stakeholders; Promote the strengthening of capacity for conducting research in Malawi; and Facilitate translation of research findings into policy and practice.

This rapid assessment, conducted in 2015, set out to establish how effective the research agenda had been in meeting its objectives in the first three and half years of its implementation. Specifically, the assessment sought to establish whether the research conducted following the issuing of the Agenda was aligned to the Agenda's priorities; how the implementation of the research Agenda had enhanced local capacity research conducting; the extent to which the Agenda enabled the uptake of evidence in decision-making; and the extent to which the Agenda facilitated coordination of health research conducted by various stakeholders.

The results of the assessment show that on average, the NHRA is failing to achieve most of its objectives. The only objective that the Agenda had made relatively good progress compared to the other objectives was the one on enabling the generation of research that is responsive to the country's health priorities identified by the Agenda. Study respondents attributed this lackluster performance to the lack of a comprehensive implementation plan for the Agenda and a mapping of resources required to implement the Agenda. Other challenges reported as hindering the effective implementation of the Agenda included poor coordination of implementation efforts among different actors, and poor dissemination of the Agenda, with many actors not being aware of the Agenda and therefore lacking ownership and impetus to play a role in its implementation.

Based on the results of the assessment, the following recommendations were made:

1. Define a comprehensive implementation plan – The lack of a comprehensive implementation plan for the Agenda was repeatedly noted as a gap that is hampering its implementation. The MoH and NCST should spearhead the development of a comprehensive implementation plan that clearly defines the roles and responsibilities for different actors, and provides timelines for various milestones. The development of the implementation plan should be done in a participatory manner with all actors who have a role in the implementation to enable ownership of the Agenda and understanding of actor roles and responsibilities.

2. Map resources required for the implementation of the Agenda – The lack of clarity on where the resources for implementing the Agenda would come from was highlighted by many respondents as a key barrier to its implementation. This study recommends the urgent need to map resources required to implement the Agenda. The mapping of resources should go further to generate commitment and action from the government and external research funders on increasing funds for research in the priority areas set by the Agenda.

3. Improve the coordination of the implementation of the Agenda – Many respondents did not know the government agency leading the implementation of the Agenda as well as its coordination. They also noted that the coordination of the implementation of the Agenda was poor. These are important challenges that need to be addressed if the Agenda is to be effectively implemented. This study recommends the need for clarity on the government agency under whose docket the Agenda falls. This Agency then needs to take leadership in spearheading the implementation of the Agenda, including improving the coordination of the implementation of the Agenda, creating awareness about the Agenda, and raising funds for its implementation.

4. Disseminate the Agenda widely to create awareness, ownership and stimulate action – The results of this study showed that some key actors did not know anything about the Agenda and therefore their role in its implementation. This study recommends the need to conduct an extensive dissemination of the Agenda in order to create awareness among key actors as well as generate ownership and stimulate action among actors expected to implement the different aspects of the Agenda.

5. Improve the M&E of the Agenda – Although the Agenda has an M&E framework, respondents argued that its M&E needs to be strengthened to enable continuous learning and improvement alongside its implementation. For instance, various respondents suggested the need for annual reviews of the implementation of the Agenda as opposed to waiting for the mid-term and end-term reviews. They argued that annual reviews would have generated learning that would have been used to address gaps in its implementation as opposed to waiting for three years for this mid-term review to generate this learning. This study therefore recommends the need to review and revise the Agenda's M&E framework to ensure that it enables more regular learning and improvement of its implementation.

I. Introduction

The Malawi National Health Research Agenda (NHRA), issued in 2011, represents nationally set and agreed upon priorities for health research in the country over a period of five years, 2012 to 2016. Its purpose is to guide the generation of research that is responsive to the needs and priorities of the government and the country at large. The government of Malawi recognises the importance of health and health research for socio-economic development. The second Malawi Growth and Development Strategy (MGDS II), which is an overarching national development agenda for the country, acknowledges that a healthy population is necessary if the country is to achieve sustainable economic growth. It is against this background that the NHRA was developed. The Agenda was implemented alongside the Health Sector Strategic Plan (HSSP) and the National Health Policy (NHP), which guide the implementation of interventions in the health sector for the period 2011-2016. The Agenda reflects Malawi's extended Essential Health Package (EHP), which includes: HIV and AIDS; Acute Respiratory Infections (ARIs); Malaria; Diarrhoeal Diseases; Perinatal Conditions; Non-Communicable Diseases (NCDs); Tuberculosis; Malnutrition; Cancers; Vaccine preventable diseases; Mental illness (including epilepsy); Neglected Tropical Diseases (NTDs); and Eye, Ear and Skin infections.

Malawi's health indicators have generally improved over time. The infant and under-five mortality rates have been decreasing from 76/1000 and 133/1000 to 53/1000 and 85/1000 live births in 2004 and 2014, respectively. The maternal mortality ratio (MMR) has declined from 807 in 2006 to 574 per 100,000 live births in 2014. The total fertility rate (TFR) is estimated at 5.0 and the contraceptive prevalence rate (CPR) is at 58.6%. Despite the improvement in these indicators, Malawi still faces major health challenges due to a persisting high burden of preventable and treatable diseases, and significant limitations of the health system to respond. For example, the number of tuberculosis case notifications increased from 5,000 in 1985 to 25,000 cases in 2010. Malaria also remains a major cause of morbidity and mortality in the country. The number of presumptive cases of Malaria increased from 3.7 million in 2005 to 6.1 million in 2009. The burden of NCDs in Malawi is an emerging problem and account for at least 12% of the Total Disability Adjusted Life Years, which is fourth behind HIV and AIDS, other infections and parasitic and respiratory diseases. NCDs are thought to be the second leading cause of deaths in adults. At the time of developing the Agenda, it was noted that a lot of research was being done in Malawi. However, the research was mostly commissioned, conducted and funded externally and in most cases did not align with the national health priorities as outlined in the EHP.

McGregor et al (2014) have argued that the absence of priority setting risks research topics being determined by funders for their own purposes. Such research often fails to respond to the urgent evidence needs of a country. Multi-bi financing¹ through multilateral agencies and new multi-stakeholder initiatives risk imposing the priorities of powerful states on poorer countries, weakening the opportunity for national priority setting. Therefore, while donor or global initiatives provide momentum and financial support, it should not be at the expense of national health priorities.

The purpose of Malawi's NHRA therefore was to guide investments in health research in order to improve the health status of people in Malawi and contribute to the overall goal of the second Malawi Growth and Development Strategy (MGDS II) and the achievement of the Millennium Development Goals. The specific objectives of the NHRA are to:

- Promote the conduct of health research responsive to the priority health needs of Malawi.
- Facilitate the mobilization of resources for the conduct of locally relevant health research.

¹This is the practice whereby donors choose to channel earmarked funding through multilateral agencies and new multi-bi...

- Promote multi-disciplinarity and collaboration in the conduct of research.
- Facilitate the coordination of health research conducted by various stakeholders.
- Promote the strengthening of capacity for conducting research in Malawi.
- Facilitate translation of research findings into policy and practice.

Several other countries have developed national health research agendas including Cameroon, Philippines, Cuba, The Gambia, Brazil, the Caribbean, and Peru (see Appendix 1, which summarises the focus of these countries' health research agendas). Even with these agendas, there are various documented challenges to their implementation including, poor stakeholder engagement, data limitation on published information, and limited capacity to implement priorities set in the agendas (McGregor et al., 2014). Despite research priority setting being highly important for health services improvement and resource optimization, most national agendas rarely include implementation and evaluation plans (Bassalobre et al., 2015). Yet, implementation and evaluation plans are equally important for effective operationalization and enhancement of the research agenda. It is also imperative for research agendas to align the development of health human resources towards the specific priority areas defined in the agenda.

Literature suggests that some research agendas establish specific research issues/questions, whereas others only establish broad areas or sub-areas of priority without determining what is actually needed. A review of international and regional health research agendas illuminate the fact that countries share many common health research needs. The Table below shows a list of health research agendas addressing specific research questions and/or health research human resources in Latin America and the Caribbean

Table 1: Health Research Agendas Addressing Specific Research Questions and/or Health Research Human Resources in Latin America and the Caribbean, by Country and year (2002-2012)

Country/Area (Year)	Specific Research Questions	Health Research Human Resources
Argentina (2007 - 2008)	Yes	Yes
Bolivia (2009)	Yes	Yes
Brazil (2008)	Yes	-
CHRC (2010)	Yes	Yes
Chile (2010)	No	No
Colombia (2011)	No	Yes
Costa Rica (2004)	No	Yes
Cuba (2010)	No	Yes
Guatemala (2004)	-	-
Guyana	No	Yes
Mexico (2007 -2012)	No	Yes
Panama (2007)	Yes	Yes
Paraguay (2008 - 2012)	-	-
Peru	Yes (for specific topics)	Yes

1.1. Study Rationale

Health research provides evidence for informed policy and decision-making. It is acknowledged the world over that research generation requires significant resources. When operating in an environment with limited resources, it becomes prudent to set research priorities to help target and make the best use of these resources. With the health research agenda, the government therefore expected that stakeholders would conduct and support research in the identified priorities. To ensure that this happens, the Agenda included a monitoring and evaluation (M&E) framework.

The M&E framework was set to track stakeholders' adherence to the Agenda. The tracking was to be informed by specific tools, including: Tools for Tracking Adherence to the Agenda; Checklist for Submission of Review of Research Protocols, which includes a question to check whether the study is addressing any of the priority areas; Catalogue of Protocols Developed from the Priority Areas; M&E Reports; Progress and Final Reports; and Database and Directory of Research Studies. Ultimately, this tracking would bench mark the review of the Agenda.

The Agenda has a lifespan of five years in line with the HSSP, from 2012 to 2016. The Agenda states that "Informed by emerging issues in health and the above stated indicators for tracking stakeholders' adherence to the implementation of the Agenda, there would be a midterm evaluation followed by a final review of the Agenda after five years". This rapid assessment, therefore, conducted in 2015, aimed to assess how the national health research agenda had performed for the last first three years of implementation (2012, 2013 and 2014) in order to provide learning on how its implementation could be improved.

1.2. Study Objectives

The overall purpose of the rapid assessment was to measure how effective the Agenda has been in meeting its objectives. The findings of this assessment will form the basis of the revision of the National Health Research Agenda. The specific objectives were to assess:

- The extent to which the research agenda met its objectives.
- Whether the conducted research was aligned to the priorities stipulated in the Agenda.
- How the implementation of the Agenda has enhanced local research capacity.
- The extent to which the research Agenda promoted research uptake in decision-making processes.
- The extent to which the Agenda facilitated coordination of health research conducted by various stakeholders in the country.

2. Methodology

2.1. Methodological Approach

The assessment employed a cross-sectional descriptive audit aimed at collecting both quantitative and qualitative data. The audit was designed to have at least 30 semi-structured interviews completed through face-to-face interviews with top and middle level decision-makers from the Ministry of Health (MoH), health sector researchers, and representatives of relevant development partners, non-governmental organisations, and civil society involved in health research in Malawi.

An important part of the study design was the formation of a taskforce by MoH to contribute to study design. The taskforce was chaired by the MoH's Research Directorate. Other members include National Commission for Science and Technology (NCST), MoH Planning Directorate, and the SECURE Health Programme partners (including AFIDEP and the College of Medicine). The names of people representing these institutions are provided in Appendix 2. The taskforce held a meeting to brainstorm on how to conduct the review and to identify the key questions for the study to focus on. Following this meeting, a concept note and data collection tools were developed by some of the taskforce members. AFIDEP led the data collection, analysis and report writing processes. The rest of taskforce members reviewed and provided inputs into earlier versions of the study report.

The study was conducted mainly in Lilongwe and Blantyre because this is where most of our target group for the study is found. However, there was flexibility in case a participant is in other parts of the country. In such cases, an electronic questionnaire was sent in advance and then followed up with telephone or email conversations.

Sampling was conducted through purposive selection of respondents and the snow-bowling technique was used to identify additional respondents. The study sample was drawn from a total population of 53 people.

2.2 Data Collection Methods

2.2.1 Document and Data Review

Secondary data was collected from Catalogue of Protocols, M&E Reports; Progress and Final Reports, Database and Directory of Research Studies and other peer reviewed as well as grey literature.

2.2.2 Key Informant Interviews

Primary data gathering activities employed a mix of both quantitative and qualitative approaches. A semi-structured interview schedule was used to collect data from key informants. We collected both qualitative and quantitative data using a questionnaire. We used the first few interviews to pre-test the tool, following which the questionnaire was revised to incorporate issues arising from the pretesting exercise. The MoH provided authorization to conduct the interviews. The questionnaire was emailed to participants ahead of the interview date to enable them to prepare and gather the relevant information required by the questionnaire. For instance, there was one question, which required the participants to mention study/studies conducted from 2012, which addressed any of the following research priority areas; Communicable Diseases (HIV and AIDS, Malaria, Tuberculosis, Pneumonia, Diarrhoeal diseases, and Neglected Tropical Diseases); NCDs (Cardiovascular Diseases, Cancer, Diabetes, Sexual and Reproductive, Trauma, and Mental Health); Environmental Health and Health Systems. Most of the information on such questions was made available through secondary sources from the NHRSC and COMREC. All interviews conducted were promptly recorded.

2.3 Data Management and Analysis

The data collected was entered into the Survey Monkey online database, which was also used for preliminary analysis. Data entry was done alongside the interviews by the study team. Initial data analysis involved checking for completeness and quality of the data, and this resulted in some follow-up interviews to fill data gaps. For quantitative data, the software produced tables and charts, which were then analysed further for meaning by the study team. For qualitative data, these were categorised into thematic issues arising from the data. Both quantitative and qualitative data were discussed critically by the study team to draw out meaning, relationships and patterns. The findings in this study were then validated through a workshop convened in November 2015 and attended by top and middle level decision-makers from MoH, College of Medicine, Parliamentary Committee on Health, NGOs, CSOs, and development partners.

3. Results

3.1 Results from the Review of the NHRA and Other Documents

3.1.1 Summary Results from the Review of the NHRA

The NHRA identifies nine (9) priority areas, including:

- i. Communicable diseases
- ii. Non-communicable diseases
- iii. Sexual and reproductive health
- iv. Trauma
- v. Mental health
- vi. Environmental health
- vii. Nutrition
- viii. Health systems
- ix. Community systems strengthening

Under each of these priority areas, the Agenda has well-articulated research questions, which have also been categorised into four groups, including, epidemiology, prevention, diagnostics, and treatment.

The NHRA also includes an implementation plan, but this lacks detail required for it to effectively guide implementation.

The Agenda also has an M&E framework that is well-articulated, with tools to track adherence, including:

- Checklist for Submission of Review of Research Protocols with NHSRC and COMREC.
- Catalogue of Protocols Developed from the priority areas using the database of the NHSRC, COMREC and institutional databases.
- M&E Reports (NHSRC and COMREC undertaking M&E visits to sites where the approved studies are being conducted).
- Submission of progress and final reports to an ethics committee that approved the study.
- Compilation of database and directories of approved research studies.

The Agenda, however, fails to provide programme and resource mapping necessary to facilitate its implementation.

3.1.2 Results from Analysis of Approved Research Proposals vis-a-vis NHRA Priorities

This study intended to conduct a cross-reference analysis of the list of research proposals submitted to both COMREC and NHSRC against the NHRA priorities. However, COMREC only provided a list of submitted protocols for the years 2012, 2013 and 2015, which failed to indicate if submitted protocols had been approved or rejected. Efforts to get complete information from COMREC failed, and so the analysis presented here only focused on data from the NHSRC. The NHSRC provided a list of approved research proposals for the years January 2012 to September 2015. Table 2 overleaf presents the results of this analysis.

Table 2. Approved Research Proposals against NHRA Priorities

NHRA Priority Areas	2012	2013	2014	2015
	100 proposals approved	114 out of 115 proposals approved	132 proposals approved	86 out of 107 proposals approved
Communicable diseases	44	44	57	26
HIV/AIDS	26	23	43	18
Tuberculosis	9	8	6	2
Malaria	8	8	7	6
Diarrhoea	1	0	1	
Pneumonia	0	5		
Neglected tropical disease (e.g. Ebola)	0	0	0	1
Non-Communicable diseases	5	7	7	4
Cardiovascular	2	1	2	
Cancer	2	4	2	1
Diabetes	0	2	3	1
Sexual & Reproductive health	9	14	28	15
Trauma	1	0		
Mental health	0	0	2	2
Environmental health	2	5	1	1
Water & sanitation	1	1	0	0
Occupation health & safety	1	3		1
Pollution control	0	1	0	0
Food safety & hygiene	0	0	1	0
Nutrition	8	5	2	15
Health systems	28	35	30	24
Healthcare service delivery	13	22	13	9
Human resource	5	4	3	4
Health financing	4	0	1	0
Medical products & technologies	0	4	6	4
Governance	1	2	1	1
Health information system	0	3	6	6
Community systems strengthening	3	4	5	0

3.1.3 Review of Funding allocated to Research

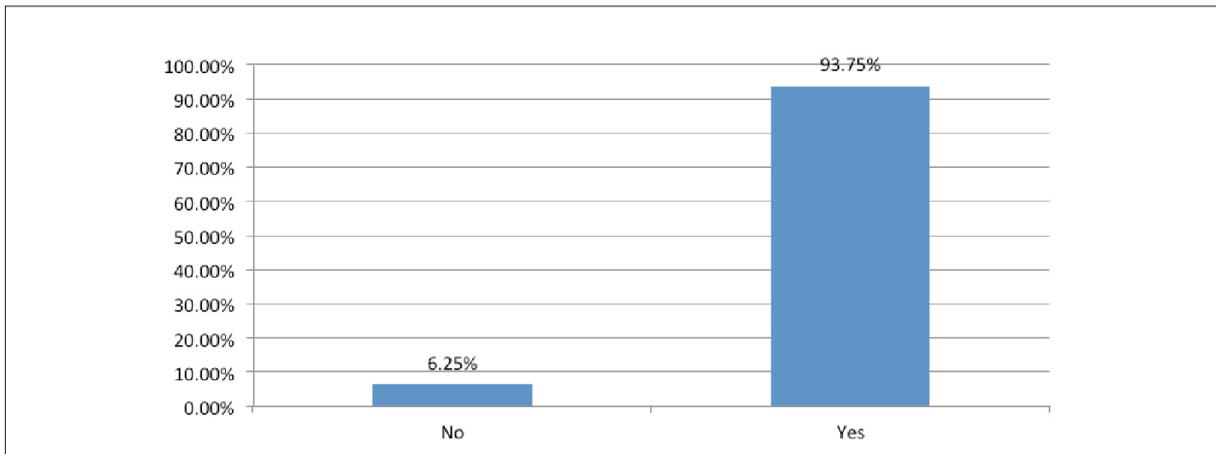
The assessment intended to map out the amount of funds dedicated to research in the country by both the government and non-governmental organizations. However, this exercise was not possible because all the institutions approached declined to disclose their financial status in relation to research activities, citing security reasons.

3.2 Results from Key Informant Survey

3.2.1 Stakeholder's Views on Effectiveness of NHRA

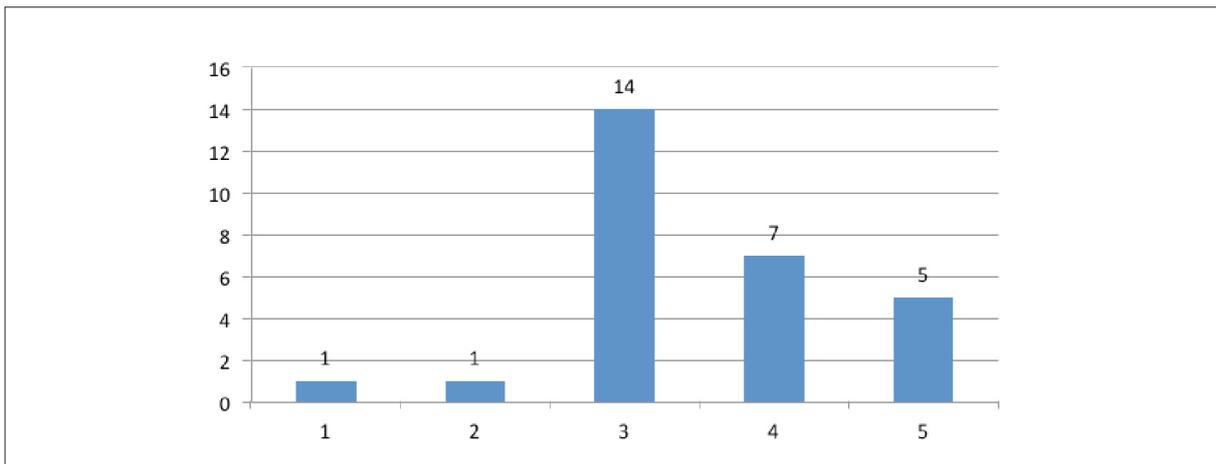
Regarding stakeholder individual awareness of the goals and objectives of the agenda, results show that 93.75 per cent (30 individuals) of the stakeholders were aware of the goals and objectives of the agenda, whereas 6.25 per cent were not (see Figure 1).

Figure 1. Awareness on the Goal and Objectives of the NHRA



Aside from awareness, stakeholders were asked to rate their knowledge of the NHRA goals and objectives on a scale of 1 to 5, with 1 being the lowest and 5 the highest. The weighted average score was 3.50, which is above average. Figure 2 shows the individual ratings on the stakeholders' knowledge about the goals and objectives of the NHRA. On average, 26 out of 28 individuals who responded to this question rated their knowledge above average.

Figure 2. Ratings on Knowledge of the NHRA Goals and Objectives



3.2.2 Achievement of Expected Objectives and Commitments

Results show that on average, the NHRA has not achieved its expected objectives. The weighted average on the achievement of goal and objectives was 2.92; the ratings were on a scale of 1 to 5, with 1 being lowest and 5 being the highest. This indicates that overall, the implementation of the NHRA is still lacking in many areas. Respondents attributed this lackluster performance to the lacking proper implementation plan including programme and resource mapping aligned to its objectives. Indeed, many respondents were sceptical and argued that the NHRA would not achieve most of its objectives. Figure 3 provides the weighted average score on the achievement of the specific objectives under the NHRA². The rating shows the achievement of NHRA objectives rotates around the average rating of 2.5, which is not impressive.

Figure 3. Rating on the Achievement of Specific Objectives and Commitments

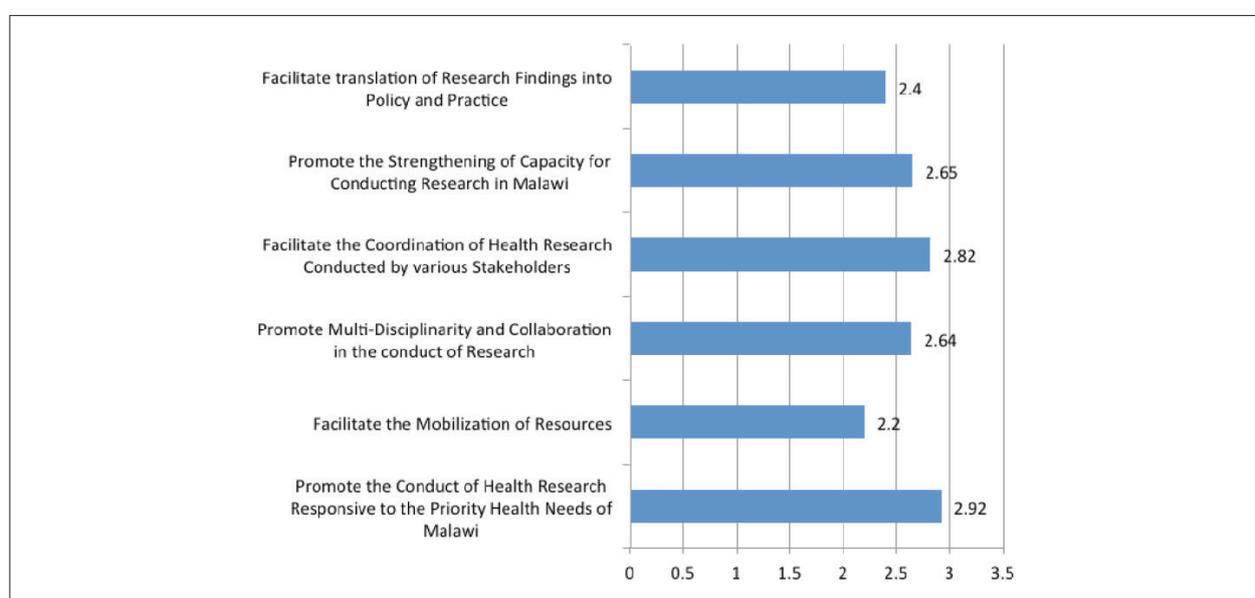
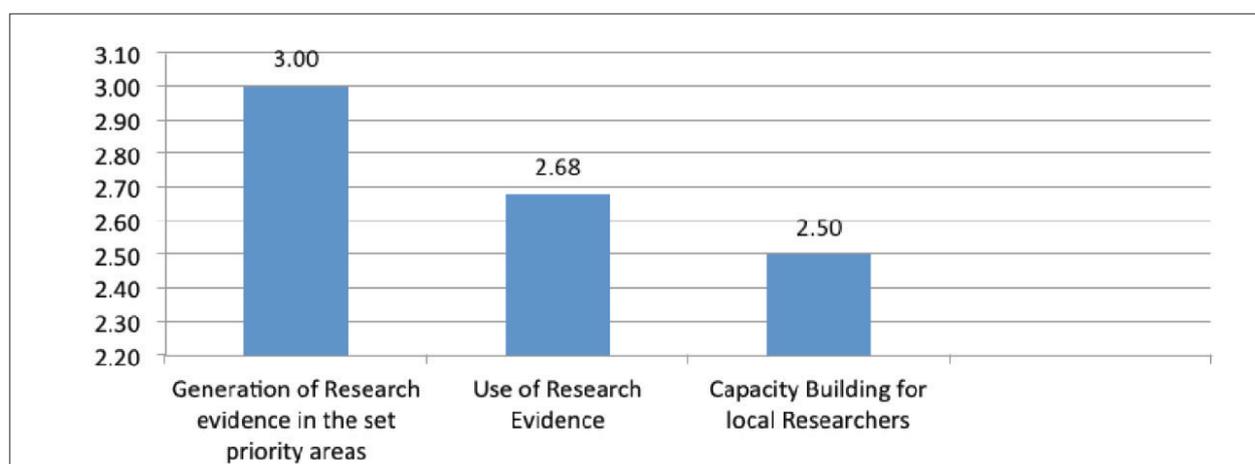


Figure 4 overleaf shows that the NHRA had most influence on research generation, followed by by evidence utilization in decision-making, and least impact on capacity building.

Figure 4. Rating on the General Effect of NHRA on Specific Areas

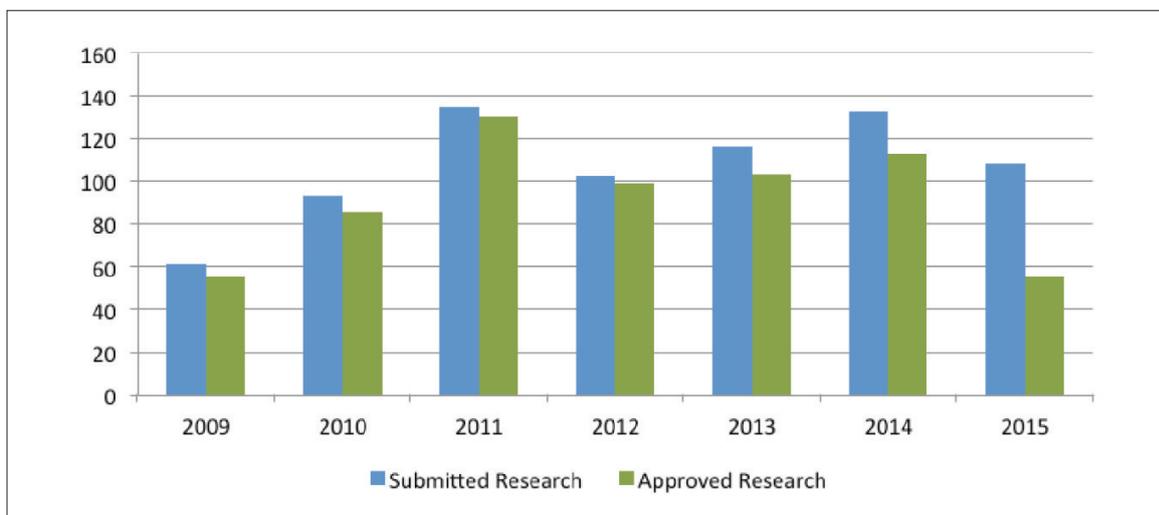


²On a scale of 1-5, with one being the lowest and 5 the highest.

3.2.3 Achievements of the NHRA on Generation of Research in Set Priority Areas

There has been some strides with regards to generation of research evidence in the set priority areas. There was a significant increase in the number of research studies in 2011, with a total of 135 research studies having been submitted of which 130 were approved. This might have been due to availability of funding and anticipation of research funding following the production of the NHRA. Since 2011, there has been a consistent approval of research studies with an average of at least 100 studies per year³.

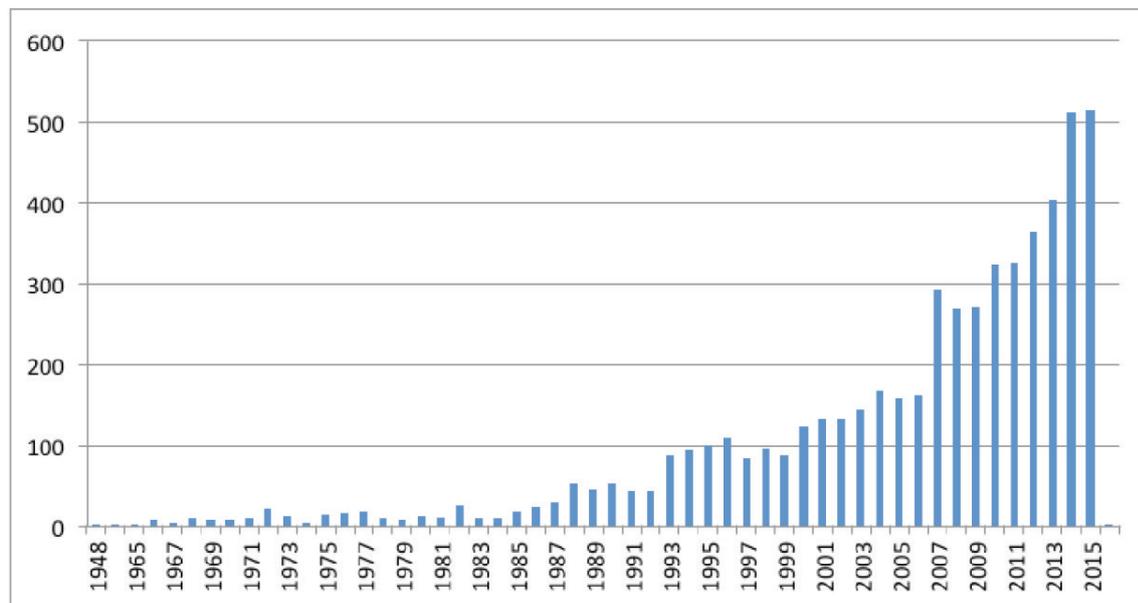
Figure 5. Number of Research Studies Submitted and Approved 2009-2015



Source: Researcher’s Calculations from MoH Research Unit Documents

As of 6th November 2015, the number of publications on PUBMED shows that over time, research on health has increased. Figure 6 gives indicative figures on the number of publications done by both local and international researchers.

Figure 6. Number of Publications on Malawi

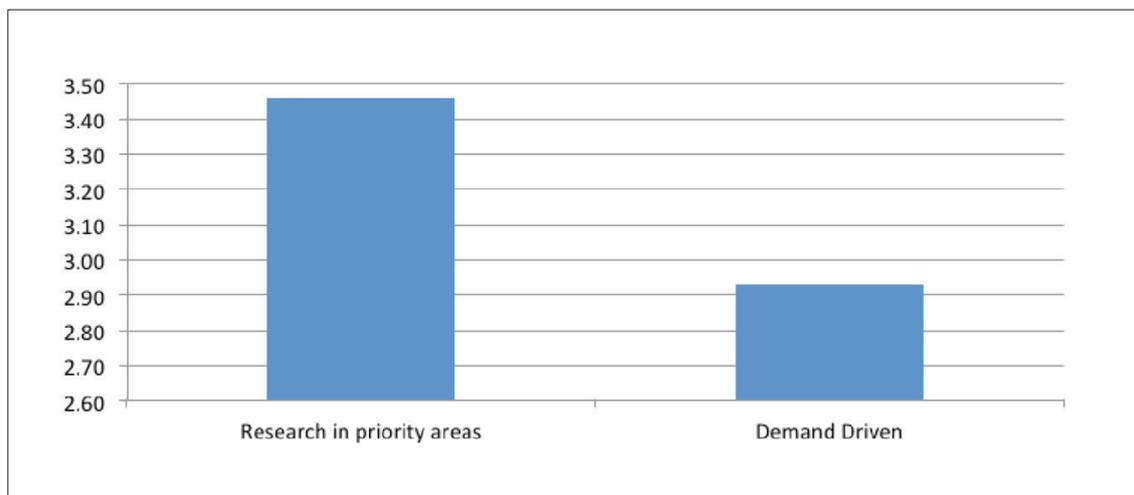


Source: PUDMED

³However, more data is needed to determine the focus areas for these studies.

Overall, the agenda has performed very well in regards to giving direction for health research within the priority areas. Stakeholders commend the NHRA in regards to its contribution towards research prioritization. below shows the weighted average scores on the NHRA's contribution to research prioritization⁴.

Figure 7. NHRA's Contribution to Research Prioritization



However, there is need for more awareness about the NRHA and the need to incorporate wider stakeholders. For instance, experts under palliative care reported their lack of involvement during the development and implementation of the Agenda. A critical review of the NHRA showed that palliative care is not detailed in the Agenda. Despite a detail section in the Agenda on Medical Products and Technologies, medical engineers at the MoH argued that they were not aware of the Agenda and its implementation. However, they were keen to be involved in the Agenda implementation, given the need for research in assessment of medical technologies. For instance, there is need for research on the distribution, quality and development of appropriate technologies.

In addition, it was imperative to consider some of the research priorities, which have not been adequately researched on. According to stakeholders, priority areas such as HIV/AIDS, Malaria have been highly researched on because of availability of funding. To validate this assertion, 100 publications from PUBMED were sampled by latest date of publication. Figure 8 confirms that most publications in Malawi focus on HIV/AIDS and Malaria. Out of 100 publications, 30 publications were on HIV/AIDS, 13 on Malaria. Research on HIV/AIDS should be commended given the diversity of the research topics conducted, from the PUBMED publications. For instance, research topics range from issues to do with epidemiology, prevention, diagnostics, treatment, care and support. The demographic distribution has also been well represented (studies covering both male and female, adults and children). Therefore, availability of funding to all the priority areas under the Agenda would be an ideal incentive in enabling generation of research in set priority areas.

Health Systems, Maternal Health, Nutrition, Salmonella, Tuberculosis, Burns, Gut inflammation and Meningitis form part of the top ten frequently researched areas. Ten publications were on Health Systems, 8 on Maternal Health, 4 on Nutrition (Figure 8).

⁴Respondents were asked to rate the agenda on research prioritisation and also on demand driven research.

Figure 8. PUBMED Research Publication by Topic/Category

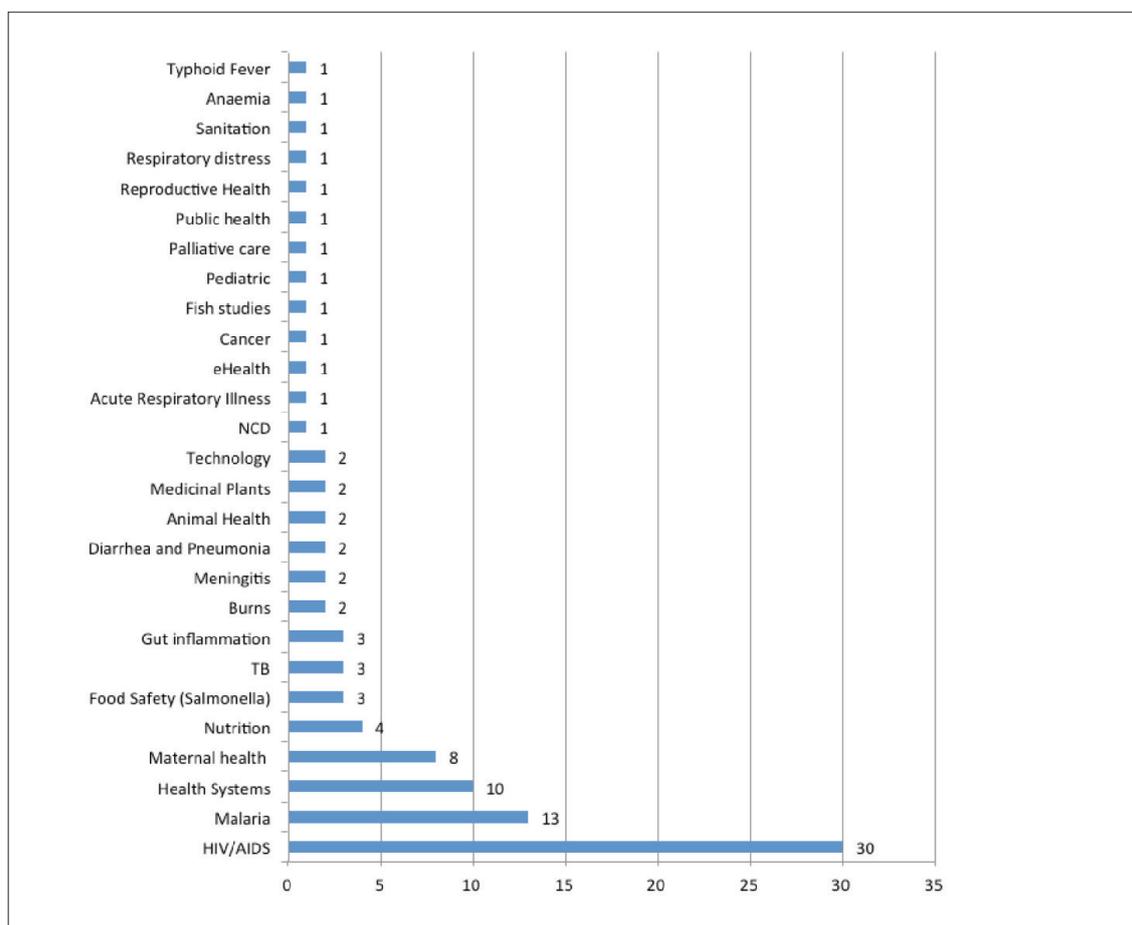


Table 3 provides some of the priority areas that were not adequately researched. Stakeholders argued that priority areas such as NCDs and mental health were among the top under-researched areas in the Agenda. The generation of research under NCDs and mental health seems to be demand-driven given that stakeholders outside the field also concurred on the need for research in such areas.

Table 3: Research Priorities not adequately researched

1. NCDs such as cardiovascular disease, obesity
2. Mental Health
3. Infectious Disease such as Bilharzia
4. Pollution Control
5. Health Systems
6. Culture and Development
7. Trauma
8. Environmental Health
9. Health financing such as insurance and levies
10. Leprosy
11. Trypanosomiasis

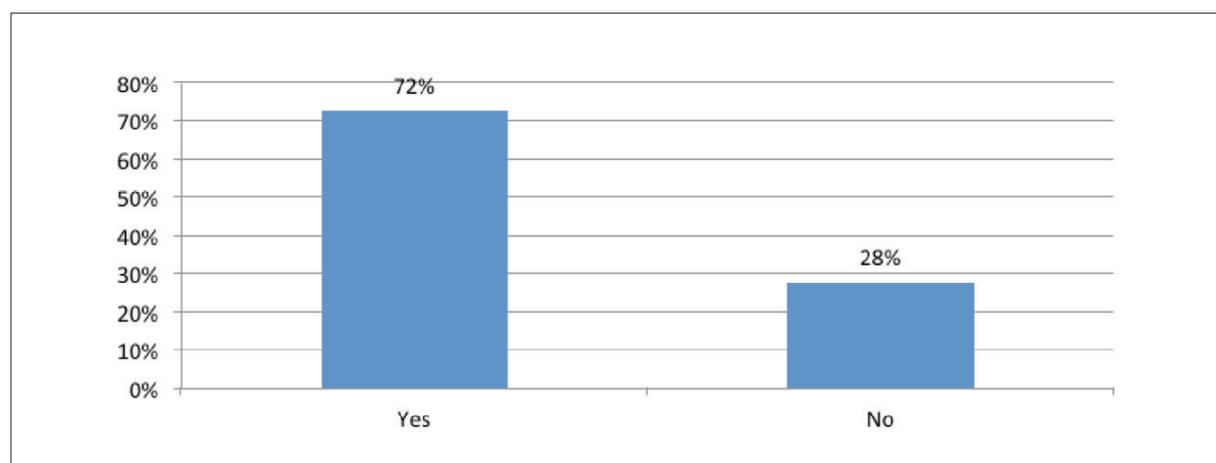
According to some stakeholders, most of the research conducted has neglected to tackle issues of animal health⁵. Most of the research studies have been more of clinical and medical studies. There is need to consider the broad health spectrum to include all aspects such as animal health and environmental health.

3.2.4 Achievements of the NHRA on Research Capacity Building

As noted earlier, the NHRA had the least impact on capacity building. Stakeholders argued that there is need for more initiatives under capacity building for local researchers. Given the previous finding that the NHRA performed well in increasing the generation of research in priority areas, this finding on capacity building for local research implies that most of the research generated was conducted by non-local researchers since capacity of local researchers remained low.

Despite the need for more to be done under capacity building, the number of local Principal Investigators has been increasing over time as seen in Figure 9 below. Out of the 29 stakeholders who responded to this question, 21 respondents (72.41 per cent of the stakeholders) affirmed that there has been an increase in the number of local Principal Investigators overtime. However, it is not clear whether this increase is because of the NHRA or not.

Figure 9. Perception on Whether the Number of Local PIs has Increased or Not



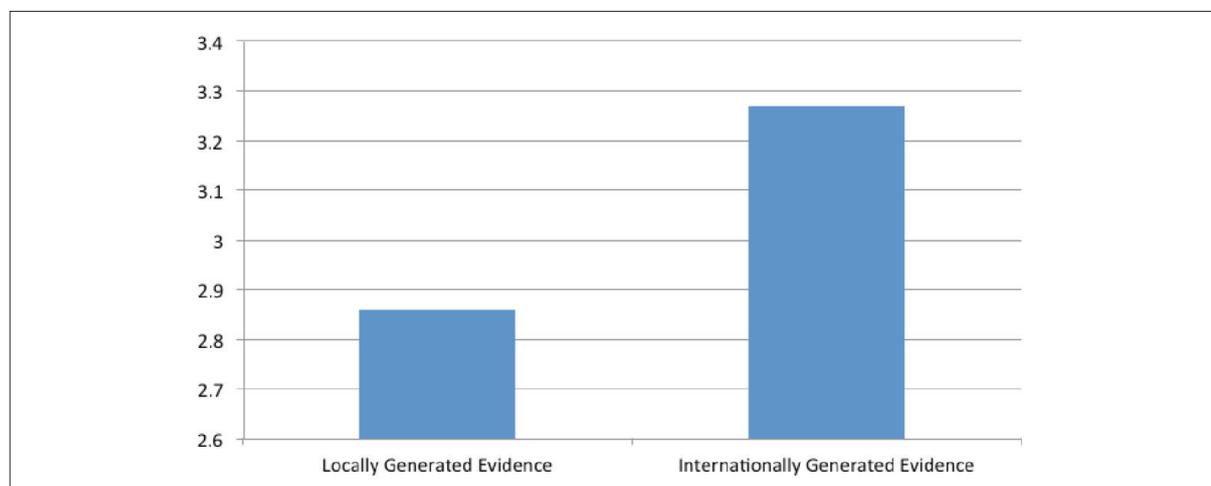
3.2.5 Research Utilization

Respondents argued that research prioritization is still influenced by availability of funding. Researchers and institutions mostly conduct research in areas that are heavily funded rather than national priority areas. The NHRA needs to balance up on facilitating local priorities and also providing an enabling environment for research outside the Agenda.

Utilization of research evidence in decision-making was reported to have been very minimal. Respondents argued that it was too early to see the effects of the NHRA, since research was long-term and the NHRA had not been in existence for long enough. Respondents commended the existence of knowledge translation platforms and recommended the continued support towards such initiatives, which they argued would improve research utilization in decision-making.

The assessment also found that most of the research used was that which had been internationally generated as opposed to locally generated research (see Figure 10 below). The major challenges hindering the utilization of locally generated research were reported as including inadequate capacity to effectively disseminate locally generated research as well as lack of financing for the locally generated research. Respondents argued that there was a lot of unpublished research in Malawi with researchers not knowing how to effectively disseminate their work. Internationally generated research is highly utilised because it is readily available on a number of platforms including online platforms and journals.

⁵Experts argue that most diseases are of animal origin.

Figure 10. Rating on the Use of Research Evidence in Decision-Making

3.2.6 Implementation of the Research Agenda

Several respondents identified some deficiencies in the way the NHRA was coordinated. Concerns were raised on the NHSRC's inability to clearly and effectively communicate to key stakeholders about the existence of the NHRA. Majority of study respondents reported not to know how the NHRA was coordinated. Effective coordination of the implementation of the NHRA is critical to its success, and so this finding points to an important gap that needs to be addressed with urgency. To address this challenge, respondents suggested the need to set aside funds to facilitate NHRA coordination and a focus on neglected priority areas. These funds would also facilitate regular review by key stakeholders of the progress of implementing the NHRA in order to address challenges as implementation continues rather than waiting to review the NHRA towards the end of its implementation.

3.2.7 Financing of the National Health Research Agenda

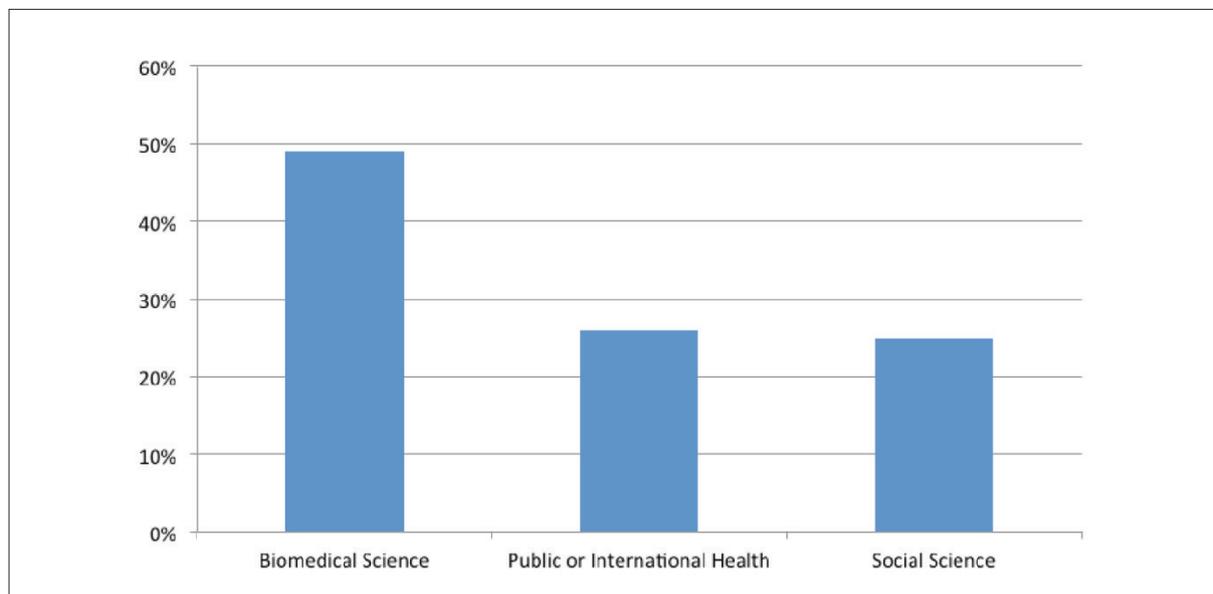
Research generation in Malawi is mostly guided by international funding. This is in spite of having the NHRA. There is indeed no government funding provided for the implementation of the Agenda. The lack of funding could be because the Agenda did not have an implementation (except the M&E framework). The NHRA was devised as part of the DFID-funded Health Research Capacity Strengthening Initiative (HRCSI), which was also supported by the Wellcome Trust.

Initial grants to researchers as part of efforts to implement the NHRA were provided with funds from DFID and the Wellcome Trust. These institutions each injected nearly USD 8 million into the Agendawor, with a focus on research generation and capacity building. The Health Research Capacity Strengthening Initiative funded 15 Doctor of Philosophy, 41 Master of Science, 3 Junior and 7 senior researchers, 1 multidisciplinary and 10 intern research projects. Out of the 77 projects, 49 per cent were in biomedical sciences (Clinical chemistry, microbiology, molecular, bio-statistics), 26 per cent in public or international health (epidemiology, demography and informatics), and 25 per cent in social sciences (anthropology and economics) (see Figure 11 overleaf). The HRCSI also funded undergraduate⁶ programmes (Kirigia et al., 2015).

The NCST was supposed to continue this initiative of providing research grants via locally mobilised funds, but not much has been done. According to the MoH's Research Unit, Government is supposed to allocate at least 1 per cent of the ministry's budget to research for health. However, government funding is not automatic, the District Health Officers need to put a budget and submit to Treasury. According to Kirigia et al., (2015), the government planned to spend 0.26 per cent of its total health budget (of MK 252.154 billion) on research for health over a period of 5 years, from 2011-2016.

⁶NCST has supported more than 286 undergraduates.

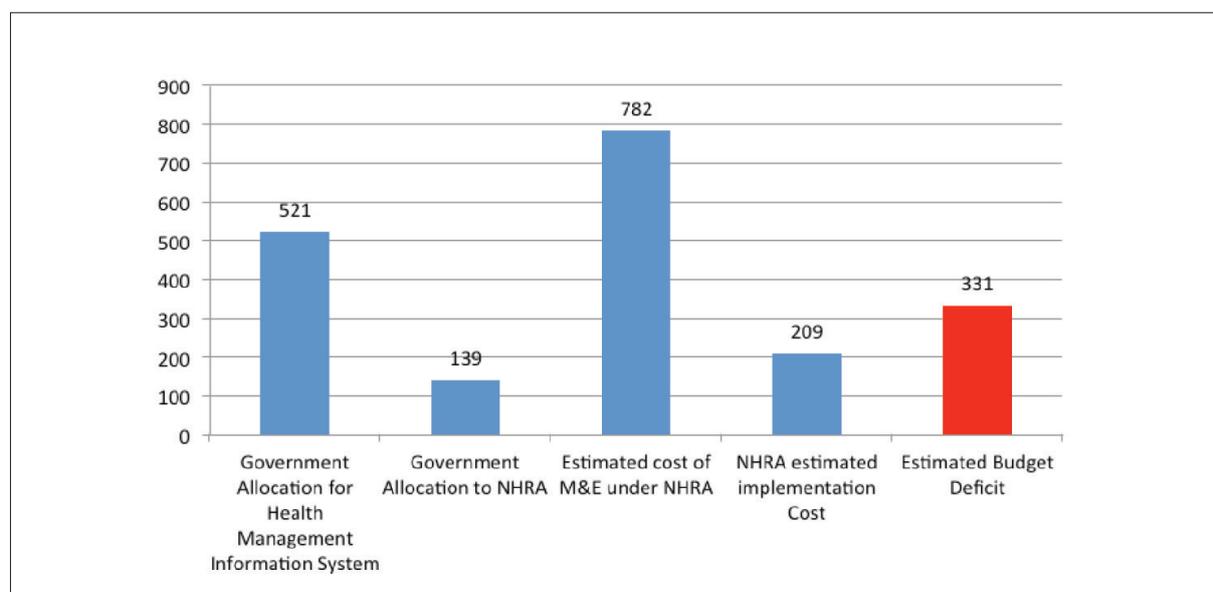
Figure 11. Sectoral Distribution of Research Funding (2008-2013) from HRC SI



Source: Kirigia et al., 2015.

Over the period 2011-2016, the MoH budgeted MK 521 million (US\$ 3.42 million) for the health management information system to provide reliable, complete, accessible, timely and consistent health-related monitoring and evaluation information. The NHRA was allocated MK 139 million (US\$ 0.913 million). This was against the estimated cost for monitoring and evaluation approximated at MK 782 million (US\$ 5.15 million), while the cost for the implementation of the NHRA was approximated at MK 209 million (US\$ 1.37 million). This presented a deficit of about MK 331 million (US\$ 2.17 million) for research for health (see Figure 12 below).

Figure 12. Government Allocation on Health Research and Estimated Costs (Million Kwacha)



Source: Kirigia et al., 2015.

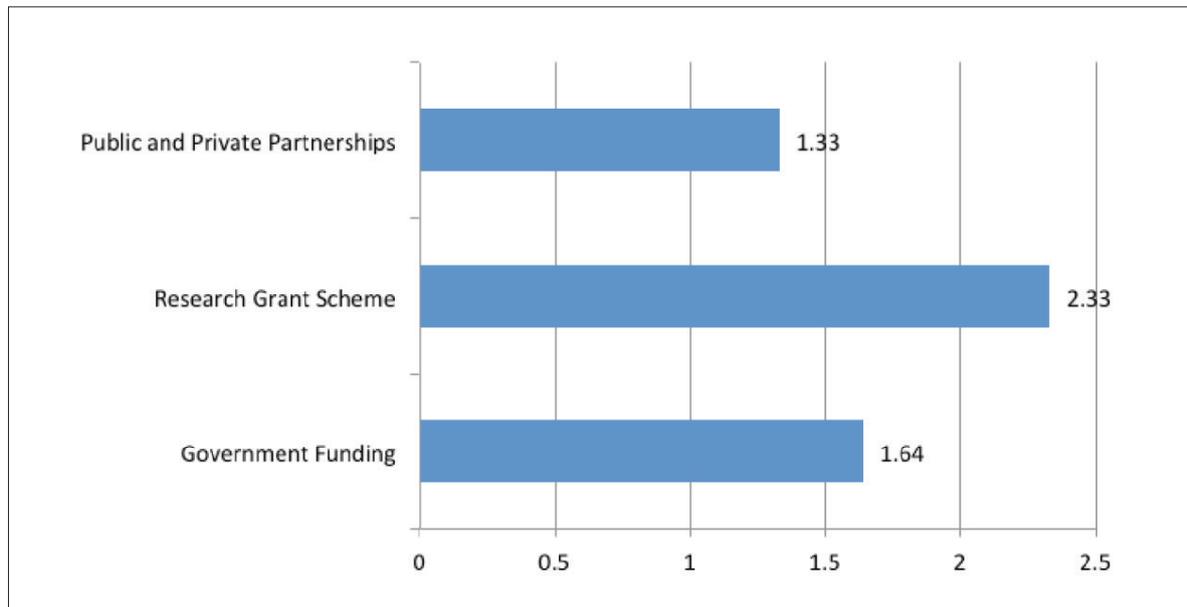
⁵Experts argue that most diseases are of animal origin.

On a national level, Malawi lacks research grant schemes. Research grant schemes are available online and mostly accessed by tertiary institutions such as the College of Medicine, Polytechnic, Lilongwe University of Agriculture and Natural Resources, and Chancellor College. Institutions such as the World Bank⁷ provide research grants, but these are usually highly competitive on an international level. Other grant schemes include those from Wellcome Trust, WHO, Bill and Melinda Gates Foundation, and IDRC. Local researchers need to utilise these facilities rather than waiting for government funding for research.

Despite providing a profound image on government funding going into research, fails to establish the aggregate amount of funding going into research. Other institutions such as IDRC, the Wellcome Trust, and John Hopkins conduct a lot of research on health, but this is not accounted for in the figure due to unavailability of data. The COMREC and NHSRC checklists contain sections on funding source and amount, but most of this information is not available to the public domain and not consolidated. Therefore, there is need to facilitate and fast track the development of a health research database. It is imperative that the database should, as much as possible consolidate all the information captured on the checklist.

The MoH through the relevant stakeholders should facilitate and utilise private sector driven health research. Conversely, the NHRA needs to be used as a tool for lobbying with the relevant private sector actors to generate funding for research in the set priority areas. Figure 13 shows that public and private partnerships (PPP) have not been utilised as a means for funding for health research. PPPs are one of the upcoming funding mechanisms in which the NHRA needs to tap into.

Figure 13. Funding Mechanisms for NHRA



3.2.8 Dissemination of Research Findings

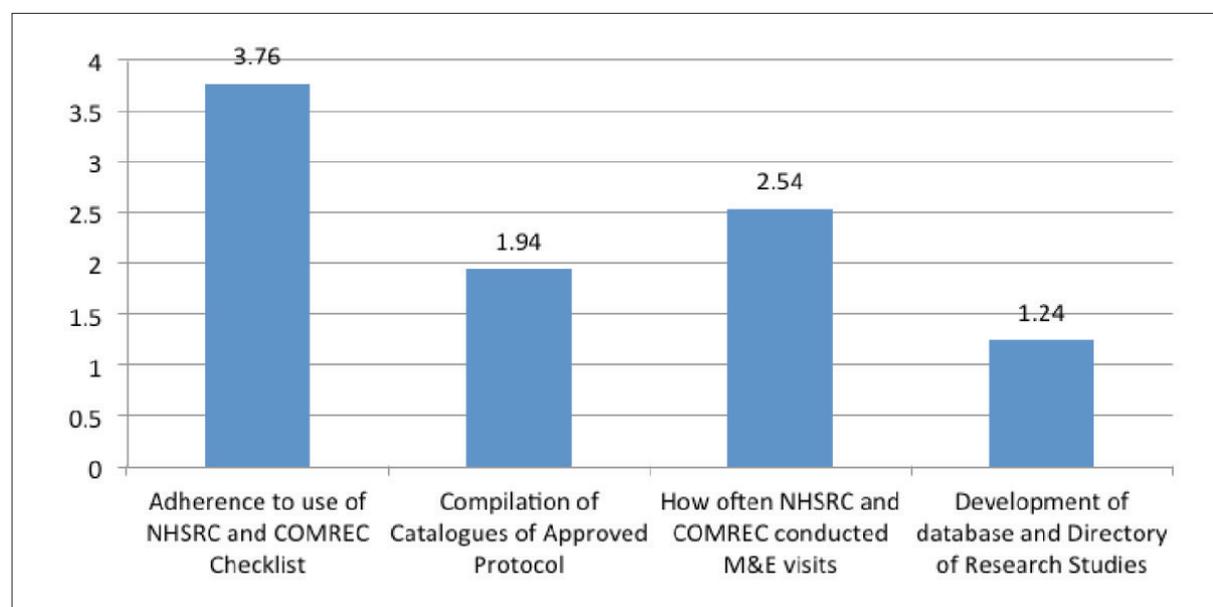
As the importance of dissemination of research becomes increasingly recognised, researchers in Malawi need to use more innovative dissemination methods that go beyond the traditional journal article and/or conference presentations. Currently, research findings are mainly disseminated through presentations at the annual dissemination conference held by National AIDS Commission (NAC) and College of Medicine. This method, however, only serves the academia but fails to sow seeds of change in policies, services, and beliefs and behaviours of studied populations. The weighted average score on the dissemination of research findings of the set priority areas under the NHRA was 3.03.

Stakeholders voiced their concerns over the importance of addressing the ethical questions that arise from how research findings are disseminated in the country. For instance, majority of the interviewees acknowledged that researchers have an ethical duty to make their research findings widely known, and if possible acted upon. Nevertheless, very few comply with this requirement. Researchers who attempt to comply face challenges due to poor or lacking capacity in effective research dissemination to non-technical audiences.

3.2.9 Monitoring and Evaluation of the Agenda

From the results of this study, the M&E of the NHRA is wanting and needs to be improved. This is because M&E is an important part of adoptive management that provides critical learning for future improvement of programmes. Figure 14 shows that researchers in the country adhere to the use of NHSRC and COMREC checklists for submission of protocols for ethical review. However, more needs to be done on the part of the ethics review boards by developing tighter screening measures. Currently, COMREC has a two-tier system for screening submitted research protocols. This screening activity is done once every month for eleven months in a year.

Figure 14. Rating on the M&E Process of the NHRA



4. Conclusion and Recommendations

This study assessed the overall performance of the NHRA using both qualitative and quantitative methods. Overall, the NHRA is yet to fully achieve its objectives. This is mainly because of lack of an implementation plan and resource mapping. However, the government through the MoH, the NCST, and the support from partners has made substantive efforts towards research prioritization, and the strengthening of capacity for generation of research evidence. Results indicate that the NHRA has a lot of untapped potential and there is need for policymakers, researchers and relevant stakeholders to utilize the Agenda to improve the generation of research that is responsive to the country's urgent health needs and enable its utilization in decision-making. Based on the study's results, the following key recommendations are made:

1. Define a comprehensive implementation plan – The lack of a comprehensive implementation plan for the Agenda was repeatedly noted as a gap that has hampered its implementation. The MoH and NCST should spearhead the development of a comprehensive implementation plan that clearly defines the roles and responsibilities for different actors, and provides timelines for various milestones. The development of the implementation plan should be done in a participatory manner with all actors who have a role in the implementation to enable ownership of the Agenda and understanding of actor roles and responsibilities.

2. Map resources required for the implementation of the Agenda – The lack of clarity on where the resources for implementing the Agenda would come from was highlighted by many respondents as a key barrier to its implementation. This study recommends the urgent need to map resources required to implement the Agenda. The mapping of resources should go further to generate commitment and action from the government and external research funders on increasing funds for research in the priority areas set by the Agenda.

3. Improve the coordination of the implementation of the Agenda – Many respondents did not know the government agency leading the implementation of the Agenda as well as its coordination. They also noted that the coordination of the implementation of the Agenda was poor. These are important challenges that need to be addressed if the Agenda is to be effectively implemented. This study recommends the need for clarity on the government agency under whose docket the Agenda falls. This Agency then needs to take leadership in spearheading the implementation of the Agenda, including improving the coordination of the implementation of the Agenda, creating awareness about the Agenda, and raising funds for its implementation.

4. Disseminate the Agenda widely to create awareness, ownership and stimulate action – The results of this study showed that some key actors did not know anything about the Agenda and therefore their role in its implementation. This study recommends the need to conduct an extensive dissemination of the Agenda in order to create awareness among key actors as well as generate ownership and stimulate action among actors expected to implement the different aspects of the Agenda.

5. Improve the M&E of the Agenda – Although the Agenda has an M&E framework, respondents argued that its M&E needs to be strengthened to enable continuous learning and improvement alongside its implementation. For instance, various respondents suggested the need for annual reviews of the implementation of the Agenda as opposed to waiting for the mid-term and end-term reviews. They argued that annual reviews would have generated learning that would have been used to address gaps in its implementation as opposed to waiting for three years for this mid-term review to generate this learning. This study therefore recommends the need to review and revise the Agenda's M&E framework to ensure that it enables more regular learning and improvement of its implementation.

⁷Grants such as the African Centre for Excellence.

References

- Ali, N., Hill, C., Hill, C., Jsselmuiden, C., & Kennedy, A. (2006). What Factors influence National Health Research Agendas in Low and Middle Income Countries?
- Garcia, A., Cassiani, S. H., & Reveiz, L. (2015). A Systematic review of Nursing research Priorities on Health system and services in the Americas. 37 . Rev Panam Salud Publica.
- Kirigia, J. M., Kathyola, D. D., Muula, A. S., & Ota, M. M. (2015, March). National Health Research system in Malawi: Dead, moribund, tepid or flourishing.
- McGreor, S., Henderson, K. J., & Kaldor, J. M. (2014). How Are Health Research Priorities Set in Low and Middle Income Countries? A Systematic Review of Published reports. Sydney, Australia.
- MoH. (2011, September). Malawi Health Sector Strategic Plan 2011-2016.
- MoH. (2012, January). The National Health Research Agenda.
- Reed, g. M. (2010). Shaping a Research Agenda to Solve health Problems. 12.
- Reveiz, L., Elias, V., Terry, R. F., Alger, J., & Becerra-Posada, F. (2013). Comparison of National health Research Priority-Setting Methods and Characteristics in Latin America and The Caribbean, 2002-2012. 34 (1), pp. 1-13.

Appendices

Appendix 1: Health Research Agendas of other Countries

Cameroon: External funding undermines internal coordination in Cameroon. For the most part, research in Cameroon is supported by development partners. This resulted in donor driven research as opposed to priority driven research. Health Research in Cameroon is characterised by lack of coordination between and among key health research players. Three Ministries are primarily involved in health research activities: Ministry of Public Health, Ministry of Animal Husbandry and Fisheries, and Ministry of Scientific Research. These ministries are unaware of each other's research projects, a situation that contributed to lack of clearly defined national health priorities.

To improve communication between researchers and Ministry of Public Health, a local hub of the health research database, SHARED, was established. This became an important vehicle for facilitating information sharing among researchers and decision makers.

Philippines: When compared with other developing countries, the Philippines is characterised by a reasonable amount of internal funding, better infrastructure, higher health expenditure per capita and more institutional capacity. Following the introduction of the Health Sector Reform Agenda, health research decision-making was devolved to local Levels. Despite the increased interface between the local government and international agencies, there were fears of inefficiencies due to agencies sidestepping the National Department of Health to fund local level priorities. The argument is that it is crucial that priorities and projects should not be founded in a vacuum.

Philippines also utilised two of the available online databases. The SHARED and PCHRD databases served as primary portals for linking researchers in the Philippines to national and international health research resources, some of which has not been published in international journals.

Cuba: Cuba has self-determined and largely self-funded national health research agenda. Cuba receives little support for health research from international donors and programmes. However, Cuba has become effective at defining national health priorities and managing health research systems. It is in this regard that Malawi should strive to have a sense of direction in priority setting.

The Gambia: Priority setting for health research in The Gambia typically falls under the Ministry of Health. The Gambia has a well-structured environment, but it is dominated by a foreign research institute. Health research priorities are set based on common problems defined from a local perspective, such as Malaria, AIDS, pneumonia, and TB. Attracting funding to conduct critical research on health concerns other than communicable diseases is reported as being a formidable challenge. Funders' programme choices are influenced by their historical presence and longstanding relationships with decision makers in the country. Influence on the direction of research is often determined locally.

Brazil: Brazil established its health research priorities through the National Agenda of Priorities in Health Research, created in 2006 and updated in 2008. Brazil's research agenda explicitly included health research priorities. It also included specific health research topics and questions for a list of general strategic areas and sub priorities. Similarly, the Malawi National Health Research Agenda has also outlined the health research priorities with detailed research questions/areas for research.

CHRC: The CHRC had developed a Health Research Agenda for the Caribbean guided by the Caribbean Cooperation in Health. The CHRC identified 8 strategic program areas (for example, non-communicable diseases, strengthening health systems); within those eight, a number of sub-priorities were defined (for example, for strengthening health systems, five sub-priorities: health financing, risk/disaster management, pharmaceutical policy, regulation, and management); and for each sub-priority, subtopics were identified (for example, for health financing, 17 sub-topics, including the cost and challenges of achieving universal access. A preliminary overview of the CHRC Health Research Agenda stipulate that the Malawi Health Research Agenda should incorporate detailed implementation plans to isolate sub priorities and sub topics. This should also be complemented by a proper resource mapping to ensure donor lobbying towards national priorities.

Peru: Peru is one of the countries, which has focused its National Research Agenda on human resource. For example, Peru established a specific research agenda on human resources in health. However, it has been noted that it is a common problem for many countries to address the development of health research human resources without having identified specific research questions; this was the case for Colombia, Costa Rica, Guyana and Mexico.

Appendix 2: Mid-term Review Taskforce Members

1.	Dr Damson Kathyola:	MoH-Research Directorate
2.	Dr Collins Mitambo:	MoH-Research Directorate
3.	Mr. Mike G Kachedwa:	NCST
4.	Dr Dominic Nkhoma:	MoH-Planning
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