

Creating Sustainable Financing for the Malawi National Health Research System

Background

A health system consists of all organizations, people and actions whose primary interest is to promote, restore or maintain health. World Health Organization (WHO) describes health systems in terms of six core components or “building blocks”; Service delivery, health workforce, health information systems, access to essential medicines, financing, and leadership/governance. A well-functioning health information system is one that ensures the production, analysis, dissemination and use of reliable and timely information on health determinants, health systems performance and health status. Sound and reliable information is the foundation of decision-making across all health system building blocks. It is essential for health system policy development and implementation, governance and regulation, health research, human resources development, health education and training, service delivery and financing. The Government of Malawi (GoM) has committed to ensuring the highest possible level of health and quality of life for its citizens by strengthening its own efforts towards optimal health care provision as well as facilitating and supporting the combined efforts of individuals, communities, organizations, and co-operating partners. While there have been improvements in health indicators over time, Malawi still faces major health challenges including a persisting high burden of preventable and treatable diseases, and significant limitations of the health system to respond accordingly.

Rationale for Enhancing Health Research

It is imperative to generate useful data and evidence on health determinants and health system performance in order to inform the optimal allocation of resources. Research for health (R4H) is essential in the development of solutions to overcome health systems weaknesses and in monitoring achievement of the health systems goals of improving health, social and financial risk protection, and health systems’ responsiveness and efficiency. A functioning national health research system (NHRS) is needed to generate scientific knowledge and promote its use in the pursuit of universal health coverage.

Such a system could shed light on several pertinent health system issues that include the following:

- Performance of national and district health systems
- Leadership and governance of the national health system
- Design and development of a sustainable health financing system

Key Messages

- The availability of a National Health Research Agenda, 2012-2016 to set the priorities for research in the health sector in the country demonstrates the Government of Malawi’s recognition for the need for generation of relevant evidence and use of evidence in policy and decision making and the need for locally generated evidence.
- However, the realisation of generating evidence to inform policy is hampered by inadequate funding and poor coordination of research efforts in the country.
- The Ministry of Health and Ministry of Finance should ensure that at least 2% of the annual national health budget is allocated and disbursed for research, in line with the recommendations of the Commission on Health Research for Development, and as endorsed by the ministers of health in Abuja, Accra, Algiers and Bamako declarations.
- The Ministry of Finance should allocate not less than 1.0 per cent of GDP to R&D and adequate funding to S&T activities as stipulated in the National Science and Technology policy. The National Commission on Science and Technology should operationalize the Research Fund as stipulated in the S&T Act.

- Production, management and retention of health workers
- Management of medical products, including their planning, procurement, storage, distribution and dispensing
- Development and evaluation of new health technology
- Economic efficiency of health facilities
- Attitudinal, cultural, geographical, communication and socioeconomic barriers to health services access
- Cost effective ways of scaling up essential health interventions
- Equity in distribution of health inputs, services and costs;
- Feasibility of various options for attaining universal health coverage;

Methods

This policy brief is based on a comprehensive review of existing literature. The literature reviewed included scientific papers, research reports and government policy documents.

Commitments To Improving National Health Research

Health Sector Level Commitments

Health Management Information System

To underscore the importance of health information, the MoH instituted a Health Management Information System (HMIS) in 2002 and rolled out the District Health Information System. The country also carries out periodic surveys like Demographic Health Survey (DHS), Multiple Indicator Cluster Survey (MICs) and other national surveys, which provide data on health. Despite having these in place, challenges still remain including inadequate staffing; insufficient disaggregated data; inadequate funding; occasional stock-outs of HMIS forms, and other supplies; inadequate support for ICT at district and lower levels: untimely submission of data to Central Monitoring and Evaluation Department (CMED) by districts, and low data quality due to infrequent data validation exercises. Lack of trust in the data generated by the HMIS resulting in donors supporting parallel data collection systems especially for vertical programs such as HIV/AIDS and Malaria.

National Health Research Agenda

In order to enhance relevant evidence generation and use of evidence in policy and decision-making and the need for locally generated evidence, the Ministry developed a National Health Research Agenda, 2012-2016 (NHRA) to set the priorities for research in the health sector in the country. The MoH also observed that meeting the objectives stated in the Health Sector Strategic Plan (2011-2016) - better health service delivery - depended on careful evidence-based policy and decision making, which is provided by health research. The objectives of the NHRA include 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 multidisciplinary 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.

The mid-term review of the NHRA revealed that there have been some strides with regards to generation of research evidence in the set priority areas. There was a significant increase of research studies in 2011, where 135 research studies were submitted in 2011, with 130 research studies 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 year. However, the NHRA did not achieve all its set out goals and objectives. The research agenda had least impact on capacity building and the utilization of research evidence. The major challenges to the implementation of the NHRA were cited as lack of a costed implementation plan, inadequate capacity building, and financing for local research.

The Health Sector Strategic Plan (HSSP) (2011-2016)

One of the National Health Sector Strategic Plan (2011–2016) objectives is to coordinate and regulate health research in such a way that it generates information that will inform policy (and plan) development and evidence-based decision making in programme implementation. Four strategies are stated in the strategic plan for achieving this research objective, to:

- Build capacity for high-quality health research at all levels.
- Strengthen the governance and stewardship role of the health ministry in the conduct of health research.
- Mobilize resources for health research.
- Promote the utilization of research findings for policy and program formulation.

Although not explicitly stated, the first objective also covers developing and sustaining R4H resources, and the last objective includes production of research.

National Health Research Budget Line

The establishment of a budget line for health research activities in Malawi demonstrates commitment to the need for evidence. However, the review of the 2014/15 budget estimates indicated there was MK 58,103,992.00 allocated towards the Health research for Other Recurrent Transaction, and MK7, 680,000.00 for Grants to international organizations. However it still a challenge to pinpoint the whole health sector's financial allocation and expenditures since this is usually not explicitly specified. It can be concluded that since the allocations and expenditures were far short of the 15 percent of country budget allocation recommended in the Abuja agreement, then research also received and spent negligible amounts.

National Level Commitments

National Science and Technology (S & T) Policy (2002)

The goal of the policy is to attain sustainable socio-economic development through the development and application of science and technology in order to improve the standard and quality of life of Malawians. The Policy specifically outlines key objectives and states that, "Malawi will not allocate less than 1 per cent of GDP to research and development (R&D) and adequate funding to S&T activities by the year 2005."

National Commission for Science and Technology (NCST)

In late 2003, a Science and Technology Act was introduced to establish the National Commission for Science and Technology. Thus the National Research Council of Malawi was transformed into a National Commission for Science and Technology. The Commission's function is to advise the government and other stakeholders on all S&T matters in order to achieve a science and technology-led development. Among its various responsibilities, the Commission is also tasked to source funding from within and outside Malawi to finance the national R&D effort and allocate funds to institutions based on set priorities. The Commission has various functional committee structures, such as: Parliamentary Committee responsible for Science and Technology, a Cabinet Committee responsible for Science and Technology; and Sectoral Committees.

The Commission's mandate is hampered by inadequate financing opportunities. As a way of addressing some of the problems being faced in the area of research, the NCST implemented a five-year Health Research Capacity Strengthening Initiative (HRCSI) with support from the Wellcome Trust, the Department for International Development (DFID) and the International Development Research Centre (IDRC), from 2009 to 2013. The HRCS initiative was an opportunity for Malawi to improve the capacity of Malawian researchers to conduct high-quality research.

Apart from the grants provided by HRCSI, the government lacks consolidated national research grant schemes. Partner-funded research grant schemes are usually available online and mostly accessed by the tertiary institutions such as College of Medicine, Polytechnic, Lilongwe University of Agriculture and Natural Resources, and Chancellor College. Institutions such as the World Bank put up research grants, but they are highly competitive at international level. Other grant schemes include those from Wellcome Trust, WHO, Bill and Melinda Gates Foundation, and IDRC. Other institutions such as IDRC, the Wellcome Trust, and John Hopkins conduct a lot of research on health in Malawi.

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Science and Technology Fund

In addition, the Science and Technology Act of 2003 also established an S&T Fund that is dedicated to the advancement of S&T in Malawi. This fund will finance, by way of loans or grants, any research that engage in research matters relating to the development of S&T.

Table 1: Summary of National Commitments to Strengthening National Health Research System Components on selected variables

Variable	Status
Governance of NHRS	
Valid official national health policy	Yes, draft
Valid strategic health plan	Yes
Official health research policy	No
Law regulating R4H	Yes
National strategic health research plan	No
Functional national health research system	Yes
National health research focal point	Yes
National ethical review committee	Yes
Creating and sustaining R4H resources	
University/colleges of health sciences conducting research	Yes
National health research institute or council	No
Health research programme at MoH	No
Average number of researchers in a R4H programme	No
Non-governmental organizations conducting R4H	Yes
Producing and utilizing R4H	
R4H programme action plan	No
Existence of a knowledge translation platform	Yes
Existence of a health research management forum	No
Financing R4H	
Existence of a budget line in the health budget for research for health	Yes, but inadequate funds allocated
Progress towards the target of allocating 2 percent of national health budget to R4H	No

Global and Regional Level

Malawi is a signatory to a number of global and regional frameworks that call for enhanced investments in national health research. These include:

- The 2010 Sixty-third World Health Assembly
- The 2008 Bamako Call for Action
- The 2008 Algiers Declaration
- The 2006 Abuja and Accra communiques
- The 2005 Fifty-eighth World Health Assembly
- The 2004 Mexico Ministerial Summit statement, and
- The 1998 Forty-eighth WHO Regional Committee for Africa.

These protocols urge national governments to build and strengthen NHRS to promote the generation of scientific knowledge and promote its utilization in health policy development, planning and decision-making by putting in place different mechanisms.

Main challenges facing the National Health Research System

A functional NHRS is a prerequisite for the achievement of the health system goal of universal health coverage. Several instruments at both the global and regional levels to which countries in the WHO African Region including Malawi are party to, call for action by governments to strengthen (NHRS). In a 2015 analysis conducted in Malawi concluded that NHRS is tepid with significant potential to flourish, if the challenges being faced by the system are cleared. The challenges are discussed below.

Funding

In Malawi, R4H is principally financed by the government, international non-governmental organizations, and multilateral and bilateral donors. Other mechanisms that exist for funding health research include institutional grants usually targeted at students and faculty in tertiary education institutions; national small grants that target the general research fraternity; and commissioned research grants from government departments, donors, nongovernmental organizations and public-private partnerships.

At National level, despite the Science and Technology Act of 2003 establishing the S&T Fund that is supposed to be dedicated to the advancement of S&T in Malawi, this fund is not yet operational. At the health sector level, regardless of existence of a budget line for research for health in MoH budget, the money allocated annually is not enough to cater for the needs of national health research. Over the five-year financial period (2011/12– 2015/16), Malawi, through the HSSP, budgeted 521 million Malawi kwacha (US\$ 3.42 million) for improving the functioning of the health management information system to provide reliable, complete, accessible, timely and consistent health related monitoring and evaluation information. The country further budgeted 139 million kwacha (US\$ 0.913 million) for implementing the national health research agenda.

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The budget document estimates that ideally to execute the activities planned under monitoring and evaluation type of research would require 782 million kwacha (US\$ 5.15 million), and implementation of the research agenda would need 209 million kwacha (US\$ 1.37 million). The R4H budget consequently has a deficit of about 331 million kwacha (US\$ 2.17 million).

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Poor Coordination

It is not always clear to what extent an overlap exists in the activities of the main S&T governing bodies i.e. the Department of Science and Technology, the National Commission for Science and Technology, the Committees as well as the different Universities and hospitals carrying out research. The non-existence of an explicit R4H policy, a strategic plan or a national health research management forum greatly undermines the government’s effectiveness in supervising the NHRS.

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Programme Influence

The continuing lack of funds for national research system and dependence on foreign funding for health programmes result in a disproportionate external influence on national health research agenda in the country. Priority areas such as HIV/AIDS and Malaria have been highly researched on due to availability of funding. Development partners (donors) have been of assistance in the development of health research by lending technical skills and advice. They also provide resources and funding for health research initiatives. However, donor projects and international health programmes often advance their own agendas and erode the capacity of countries’ researchers and research systems through ingrained (often inflexible) funding practices on the type of activities they fund.

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Bench Marking On Research Funding Mechanisms

Some countries such as South Africa, Qatar, Cuba and Central America have the best health research funding mechanisms, which are sustainable. Below, we share the case studies of these countries' research funding mechanisms.

South Africa

Health Research funding comes primarily from diverse sources. These include three main government departments, foreign multilateral and bilateral donors, the pharmaceutical industry and other local private sector donors. Department of Arts, Cultures, Science and Technology estimated that the ratio of local (national) to external funding for health research in the country was around 80:20 in 2000. The pattern of allocation of local (public) funding for health research is consistent with identified national priorities²⁶. South Africa has a national research fund (NRF), which commits most of its funds to researchers at universities and other technical colleges on a competitive application basis. Different research councils engage in in-house research with funds that they receive from government allocations. Statutory health research institutions such as the National Institute for Virology (NIV), National Centre for Occupational Health (NCOH) (which are both directorates of the NDOH), Medical Research Council (MRC) and the South African Institute for Medical Research receive core and direct funds from the Department of Health. Funds received from the government by the Department of Health research institutions are used for in-house research either exclusively or in collaboration with other research organisations. The MRC engages in a substantial scale of in-house research while at the same time it provides funds to researchers at universities and other tertiary research institutions on a competitive basis. Substantial funds have been raised by the MRC for a variety of new funding mechanisms for health research and development in the country. These funds flow to statutory organisations and to public research institutions and non-governmental not-for-private organisations.

Qatar

Qatar Foundation established Qatar National Research Fund (QNRF) in 2006 as part of its ongoing commitment to establish Qatar as a knowledge-based economy. Qatar Foundation views research as essential to national and regional growth; as the means to diversify the nation's economy, enhance educational offerings and develop areas that affect the community, such as health and environment.

Qatar National Research Fund aims to foster original, competitively selected research in engineering and technology, physical and life sciences, medicine, humanities, social sciences and the arts. In addition to funding, Qatar National Research Fund aims to encourage dialogue and partnership.

Cuba

Health research in Cuba has been stimulated by possibility of funding from Cuba's own centers of medical technology production. Bio medicinal products and medical equipment contribute to the state budget – in this case, the health sector-with part of income from their sales. There is no private national financing in the country.

There is no private industry in Cuba. The national biotechnology system and medical pharmaceutical industry are state-owned and produce and export vaccines, medicines, biomaterials, medical equipment, diagnostic and therapeutic procedures, high value added scientific and technical services and other specialised health products to the region and to other countries around the world that order them through commercial companies, often in the form of associate companies. The industry has its own regulations. The country regulates and registers patents on medicinal products and medical devices and on trademarks and copy write through intellectual property office and national copyright center.

Rwanda

The government of Rwanda realised that as capacity for research and the number of ongoing and upcoming health research projects grow, so too the financing will need to grow. Thus it increased mobilisation of funding, both internally and externally. The Ministry of Health also strives to diversify sources of funding to protect research in Rwanda as a way to sustain its research agenda. This policy acknowledges that diversification of funding requires openness to funded projects that may be beyond the scope of the research agenda.

The Ministry of Health has also been advocating within the government to reach and maintain the WHO recommendation to allocate two percent (2 percent) of their annual budgets for funding health research. Additionally, Rwanda is working to ensure, that funds are distributed equitably according to the country need vis-a-vis the burden of disease and based on equity and social justice. Rwanda aims to ensure that funds used for research in the country better reflects the need of the health sector according to the burden of disease so as to be more equitable and better improve the health of all in the country.

Recommendations

Based on the evidence discussed in this brief, Malawi needs to undertake various reforms outlined below in order to effectively support research generation and utilization for decision-making:

- The Ministry of Health and Ministry of Finance to ensure that 2% of the annual national health budget allocated and disbursed on research, in line with the recommendations of the Commission on Health Research for Development, and as endorsed by the ministers of health in Abuja, Accra, Algiers and Bamako declarations.
- The Ministry of Health to ensure that at least 5% of the health sector project and program aid from development aid agencies should be earmarked for R4H capacity strengthening as recommended by the Commission on Health Research for Development and reiterated by the Fifty-eighth World Health Assembly. These funds can be pooled together as a basket fund for health research.
- The Ministry of Finance to allocate from public resources not less than 1.0 per cent of GDP to R&D and adequate funding to S&T activities as stipulated in the National Science and Technology policy.
- The National Commission on Science and Technology will operationalize the Research Fund as stipulated in the S&T Act.
- The Ministry of Health through the Research Unit should develop and cost the NHR strategic plan that can be used by stakeholders to pool in resources and guide research in Malawi
- The Ministry of Health and the National Commission on Science and Technology to establish the National Health Research Management Forum that can supervise, monitor and evaluate research taking place in the health sector.
- The NCST and Ministry of Health (Research Unit) should enhance the coordination of health research funding from various players. This can be done by strengthening the various committee structures.

References

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² WHO, 2007, "Everybody's Business: Strengthening Health Systems to Improve Health Outcomes" accessed 10th August 2016

³ ibid

⁴ WHO, MBHSS 2010.

⁵ PHC 2008

⁶ UNDP. (2014). Human Development Report 2014 - Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience. MDHS 2015-16, Key Indicator Results

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¹⁰ MOH (2015) National Health Research Agenda Midterm review (unpublished)

¹¹ NHRA

¹² ibid

¹³ ibid

¹⁴ MOH Budget documents 2014/2015

¹⁵ NHRA Rapid midterm review, 2016

¹⁶ GoM, (2003) The National Act of Science and Technology

¹⁷ Authors' compilation

¹⁸ Kirigia et al. BMC Health Services Research (2015) 15:126

¹⁹ ibid

²⁰ ibid

²¹ Government of Malawi, Ministry of Health. Malawi health sector strategic plan 2011–2016. Lilongwe; 2011.

²² These figures do not include research and development expenditures by the commercial or private sector market, global health initiatives such as the Global Fund to Fight AIDS, Tuberculosis and Malaria, the GAVI Alliance and the Global Health Initiative or philanthropic contributions from private and public partners.

²³ NHRA Rapid Assessment

²⁴ Ali, N; Hill, C; Kennedy, A; IJsselmuiden, C. COHRED Record Paper 5. What factors influence national health research agendas in low and middle income countries? © Council on Health Research for Development (COHRED) 2006

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