STATUS UPDATE ON THE INSTITUTIONALIZATION OF NATIONAL HEALTH ACCOUNTS IN THE WHO AFRICAN REGION

July 2021
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The World Health Organization (WHO) has supported the production and use of national health accounts (NHA) in Member States to inform advocacy for increased funding, monitor global and regional commitments and to make comparisons across countries. However, after two decades and despite the attendant benefits, very few countries have produced NHA annually. The institutionalization of NHA thus remains an unresolved issue.

Several developments provide impetus for renewed efforts in this endeavour, including the commitment to universal health coverage (UHC), which calls for more investments. Prioritized and aligned investments and efficient spending are highlighted as major considerations that require timely and good quality health expenditure data. Furthermore, at the 27th African Union (AU) Summit of 2016 in Kigali, African Heads of State and Government adopted the Africa Scorecard on Domestic Financing for Health. It is an important milestone aimed at promoting financial planning, performance monitoring and accountability by players at various levels. The quality of data for the Scorecard depends on updated NHA. In this context, African leaders requested that the Commission collaborate with WHO and other partners to support countries in strengthening NHA and submit the Africa Scorecard on Domestic Financing for Health annually to the Assembly.

This report on the institutionalization of national health accounts is a timely effort in these difficult times of the COVID-19 pandemic when, more than ever before, countries need to be efficient with the available resources and use evidence in decision-making.

This assessment was undertaken by WHO AFRO, in collaboration with WHO country offices and governments in seven countries, namely Burkina Faso, Cameroon, Democratic Republic of the Congo, Guinea, Malawi, Rwanda and Uganda. It is the result of an extensive literature review and interviews with global and national health experts.

The lessons learnt from this assessment have led to some recommendations and informed the development of a guide to institutionalize NHA in countries. I urge all of you to support countries in implementing these recommendations and use the guide to institutionalize NHA.

Dr Kasonde Mwinga
Director UHC Life course
WHO Regional Director for Africa
Acknowledgements

This report has been produced by the UHC Life Course Cluster at WHO AFRO: Geoffrey Bisoborwa, Juliet Nabyonga-Orem, Diane Karenzi Muhongerwa, Benjamin Nganda, Seydou Coulibaly and Farba Sall. Dr Angelique Rwiyereka, who coordinated country-level case studies and led the drafting of the regional report is specially acknowledged.

WHO in the African Region acknowledges the exceptional effort of country consultants who supported the country case studies. Seven country reports were produced and synthesized into this regional report. WHO AFRO wishes to acknowledge the contributions of all participants and facilitators from African government ministries, universities, private consultants, and civil society organizations that contributed to the present assessment.

Additionally, WHO in the African Region recognizes the participation of development partner organizations. Key respondents were drawn from the World Bank, the Bill & Melinda Gates Foundation (BMGF), the Clinton Health Access Initiative, universities and research institutions in the USA, Management Sciences for Health, private consultants with international experience, and finally the WHO country offices, AFRO and headquarters.
### Abbreviations

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<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>BMGF</td>
<td>Bill &amp; Melinda Gates Foundation</td>
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<td>DHS</td>
<td>Demographic health survey</td>
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<td>EMR</td>
<td>Electronic Medical Records</td>
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<td>GFF</td>
<td>Global Financing Facility</td>
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<td>HMIS</td>
<td>Health management information system</td>
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<td>HRTT</td>
<td>Health resource tracking tool</td>
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<td>IC</td>
<td>Investment case</td>
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<td>IFMIS</td>
<td>Integrated Financial Management Information System</td>
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<td>MINECOFIN</td>
<td>Ministry of Finance and Economic Planning</td>
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<td>MoF</td>
<td>Ministry of Finance</td>
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<td>MoH</td>
<td>Ministry of Health</td>
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<td>NHA</td>
<td>National health accounts</td>
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<td>NHO</td>
<td>National health observatories</td>
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<td>OOP</td>
<td>Out-of-pocket</td>
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<td>RMET</td>
<td>Resource mapping and expenditure tracking</td>
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<td>SDGs</td>
<td>Sustainable Development Goals</td>
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<td>SHA</td>
<td>System of Health Accounts</td>
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<td>UHC</td>
<td>Universal health coverage</td>
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<td>WB</td>
<td>World Bank</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>WHO AFR</td>
<td>WHO African Region</td>
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<td>WHO AFRO</td>
<td>World Health Organization Regional Office for Africa</td>
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# Definitions

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<td><strong>Health accounts</strong></td>
<td>A way for countries to monitor health spending across multiple streams, regardless of the entity or institution that financed and managed that spending. NHAs reflect the main functions of health care financing namely, resource mobilization, pooling, purchasing of care and the distribution of benefits. The NHA classification schemes are designed to be compatible with those practised internationally; most importantly, the System of Health Accounts, to make cross-national comparisons possible.</td>
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<tr>
<td><strong>The institutionalization of national health accounts</strong></td>
<td>Defined as routine government-led and country-owned production and utilization of an essential set of policy-relevant health expenditure data using an internationally accepted health accounting framework.</td>
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Executive summary

African countries are committed to and have made huge investments aimed at moving towards universal health coverage (UHC). Reliable information on health financing and trends is crucial in that it underpins monitoring, decision-making and efficient use of funds. It is even more important in the context of the shifts generated by the COVID-19 pandemic, the projected reduction in economic growth and the need to ensure transparency. For the last two decades, WHO has supported countries to undertake health expenditure tracking and produce national health accounts (NHA) reports. Despite considerable efforts made to institutionalize production, the process, which mainly uses specifically designed surveys to collect data, is still costly. Country ownership, use of domestic resources to fund NHA production and use of NHA data to inform policy decisions are still suboptimal. There is need to address bottlenecks for effective institutionalization of NHA in many countries of the WHO African Region.

Objective
The objective of this study was to provide a status update on the institutionalization of NHA, highlighting good practices and challenges in the World Health Organization African Region (WHO AFR):

- Seven countries were selected with varying experiences and representing the three WHO African subregions.
- The World Bank framework on institutionalization of NHA was used to understand the level of country ownership of the demand and use of NHA data; the production, management and quality assurance of data; and the dissemination and translation of NHA data into specific analyses of policy interest.

Approach
The assignment involved work at country and regional levels using the World Bank framework which looks at governance, capacity and finance, demand and use, production, dissemination and translation of data into policies, to provide insights into the institutionalization of NHA in Africa. At country level, building case studies involved literature review of documents related to policy and health expenditure data in each of the countries, and semi-structured interviews with policy-makers, universities and teaching institutions, civil society and donors. At regional level, assessment involved analysing country case studies, undertaking literature review and conducting in-depth interviews with global experts.

Findings
The assessment provided a backward look, the current situation and a forward look at the potential progress of NHA institutionalization in Africa. No difference was observed in terms of country language (anglophones and francophone countries) or geographic location on the continent. It was generally observed that African countries have not yet fully institutionalized NHA. Despite efforts made in the last 20 years, NHA is still perceived as an external control tool and a donor-driven initiative for country comparison, rather than for informing policy processes in-country.
To shed light on where improvements need to be made, the assessment of the current situation showed that the institutionalization of NHA in Africa was incomplete because all components of the institutionalization process have not yet been “transferred to national governments”. Indeed, NHA governance, capacity and finance are still in the hands of donors and depend on ad hoc commitments and a changing environment. There have been some efforts towards institutionalization through written commitment in some countries. However, the level of “written” commitment has not translated into “practical” commitment with resources earmarked for NHA. Countries with written commitment showed the same level of dependency on external leadership and resources as those with none.

The assessment found that NHA production was not rooted in the idea of sustainability from the beginning because unlike other routinely shared data systems, the current digital revolution benefited all routine data collection except NHA, which still depends on expensive and irregular surveys. The assessment revealed that all the countries studied produced at least two rounds of NHA and all rounds depended on ad hoc commitments and changing teams with high staff turnover. Whereas countries with more NHA rounds would be expected to have greater commitment to NHA institutionalization, the study showed that it was not the case. Donors have been leading production even in countries where the ministry of health has a written mandate to produce NHA.

Similar to the demand and production of NHA, results dissemination and the translation of data into policies have been dependent on external resources and limited to workshops. NHA reports have been mainly technical and difficult to read for non-technical persons. Additionally, the focus has not been to produce friendly products to the targeted audience of policy-makers and the institutions that provided data. The quality and accuracy of NHA reports have been questioned in many countries, which led to lack of use of NHA data in policy-making. In most countries, key institutions have been left out of the dissemination and translation of data, including the ministries of finance, budget and planning, and institutes of statistics.

Overall, there has been a lack of leadership and prioritization of NHA in Africa given that past effort did not achieve its core mission which is to shed light on resource allocation and advocate for expanded coverage. There is, however, a general consensus that the availability of NHA is important for policy-making, especially in the current era of the Sustainable Development Goals and the COVID-19 pandemic. There is renewed momentum towards more investments in health with demands for more funding and accountability in the use of both national government and donor money. Going forward, more transparency and reporting on health expenditure and outcomes will be required.
Recommendations

The recommendations have been tailored to the World Bank framework on the institutionalization of NHA and are focused on improving the governance, capacity and financing of NHA in Africa; the demand and use of NHA; the production and management of quality data; and the dissemination and translation of NHA data into policy.

- **Improve governance, capacity and financing for NHA**

**To governments**

1. Ensure the country designates a champion for NHA, owns all NHA processes (hiring of staff or consultants if needed, etc.). Preferably, the highest office in charge of the Sustainable Development Goals should ensure championship (this could be the President’s Office, the Prime Minister’s Office or the Finance Minister’s Office);

   Mobilize resources internally and externally to institutionalize NHA by mainstreaming NHA data requirements in routine data collection systems, producing reports as part of countries’ reporting systems and reducing reliance on costly surveys using information technology. Funding for NHA should be included in the national workplans and budgets for sustainability;

2. Generate interest, create awareness and build a culture of using NHA data through greater collaboration and open discussion on investing in health with the ministries of health and finance, parliament, institutes of statistics, other ministries, health providers, the private sector, academia, etc.;

3. Support documentation and enable countries to share best practices and make progress towards the institutionalization of national health accounts;

4. Meet regional and international commitments for the provision of health expenditure data using NHA data;

5. Produce an NHA institutionalization strategy as part of the health financing strategy and M&E plan, in collaboration with stakeholders.

**To WHO**

1. Design a scoring system for countries to encourage them move from one step to another towards the institutionalization of national health accounts. The current initiatives on primary health care performance improvement and universal health access are good opportunities to seize for enforcing the production of NHA data.

**To donors**

1. Harmonize and coordinate donor resources and activities as well as resource tracking processes to track expenditure;
2. Create incentives for countries by tying funding to timely production of good quality NHA data. This will require strong coordination among development partners (WHO, World Bank, International Monetary Fund, the BMGF, multilateral and bilateral donors, etc.).

➢ Improve the demand and use of NHA

1. Map the policy needs and potential use of NHA data for the different stakeholders through a participatory process of developing policy questions to be addressed by NHA. The process should include policy-makers at presidential and prime ministerial level, parliament, relevant line ministries, providers in the public and private sectors, health providers, civil society, etc.;
2. Continued sensitization of high-level decision-makers and training of technicians on NHA value, including in government ministries, the private sector, members of parliament, academia, etc.;
3. Build a common understanding among stakeholders regarding the utility of NHA;
4. Develop shorter, user-friendly, relevant reports, written in easy-to-understand language (templates can be proposed), customize reports for different audiences (policy briefs for decision-makers, for hospitals, etc.);
5. Enforce the demand and use of NHA: for example, every request for funds needs to have a set of selected health financing indicators generated from country expenditure data.

➢ Production and translation of specific analyses into policies

1. Make a national needs assessment to strengthen NHA production in individual countries by:
   a. Identifying relevant national institutions and legal frameworks in support of NHA;
   b. Assessing gaps in institutional and legal arrangements for NHA;
   c. Developing strategies and plans of action for immediate action and short-term and long-term plans in all concerned institutions including the ministries of finance, budget and planning, and national institutes of statistics.
2. Invest in IT infrastructure and integrate NHA variables in existing routine data collection and analysis information systems (create solutions, training, scale and evaluate solutions);
3. Integrate NHA data into national financing indicator dashboards;
4. Combine NHA with other data sources for richer analyses;
5. Collaborate with universities and research institutes to conduct further analysis. Conduct subregional analyses and provide critical analyses on key issues: equity, allocative and technical efficiency;
6. Sustain human resources for NHA: give mandate to any of the following technical data-oriented institutions (different from the ministry of health) to build necessary capacity: school of public health, department of economics, institute of statistics;
7. In partnership with schools of public health and research institutes, mainstream NHA training in pre-service curriculum and in routine activities of research institutes;
8. Ensure formal and informal sector compliance with timely submission of data, for example, by binding renewal of licences to the submission of NHA data.

➤ **Improve the dissemination of NHA**

1. Map evidence needs of the different stakeholders and develop tailored dissemination packages. Customize reports for different audiences (policy briefs for decision-makers, summaries targeting hospital interests, the private sector, key cost-effective analyses for the ministry of finance, etc.);
2. Explore innovative methods of disseminating NHA data using modern marketing methodology and easy-to-understand language; produce scientific publications in collaboration with academia (templates can be proposed). Target the institutions contributing to NHA data collection and those that can implement the recommendations and support advocacy efforts;
3. Create a multisectoral group to follow up on the recommendations for NHA to inform next iterations of data analyses;
4. Design a scoring system to motivate countries to learn from best performers; map best practices; design rewards for best performers in terms of additional grants in support of improvements.

**To WHO**

1. Provide financial support and undertake regional studies, innovation and sharing of best practices.
CHAPTER 1

Background

1.1 What are national health accounts?
Health accounts are a way for countries to monitor health spending across multiple streams, regardless of the entity or institution that finances and manages that spending. They allow health administrators to learn from past expenditure and improve planning and allocation of resources throughout the system, thereby increasing efficiency and accountability.¹ National health accounts (NHA) constitute a systematic, comprehensive and consistent framework for monitoring and measuring resource flows (public, private, and donor) in a country’s health system for a given period of time. It is a tool designed to assist policy-makers’ efforts to understand their health systems and improve performance. NHA reflect the main functions of health-care financing namely, resource mobilization and allocation, pooling, purchasing of health services and the distribution of benefits², measured through answering questions like:
- Who in the country is financing health services?
- How much do they spend and on what types of services?
- Who provides health services?
- Who benefits from these health expenditures?³

The NHA classification schemes are designed to be compatible with those practised internationally (most importantly, the System of Health Accounts) to make cross-national comparisons possible. The International Classification for Health Accounts (ICHDA) is a comprehensive system which classifies NHA into four dimensions:⁴
- Financing sources (FS) for contributions by different actors;
- Financing agents (HF) refers to entities that manage health expenditures;
- Providers (HP) refers to entities that provide health care services and goods; and
- Functions (HC) refers to types of health care activities.

1.2 Historical perspectives of national health accounts⁵
Between 1920 and 1940, economists in the United States of America started making different sets of measurements to assess spending. They started developing simple measurements to assess national income, namely gross national product (GNP) and gross domestic product (GDP). Different experts drew from these broad measurements to focus on their specific fields of interest. The first efforts to understand health expenditure came from the American private sector in 1926 when 15 delegates

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¹ WHO – Health Accounts https://www.who.int/health-topics/health-accounts/#tab=tab_1
⁴ PHRplus Project, NHA regional policy brief - Eastern, Central, and Southern Africa: Using NHA to Inform the Policy Process
⁵ This subchapter was inspired by the following article: Fetter B. (2006). Origins and elaboration of the national health accounts, 1926-2006. Health care financing review, 28(1), 53–67. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4194972/
from the medical profession, academia, and government public health agencies met to see how to expand the availability of health services and lower the cost of health care. A year later, the Committee on the Costs of Medical Care was created and five years later 26 studies laid the groundwork for the first NHA, helped with understanding of the “money income for the country” and further detailed payer groups, namely patients, governments, philanthropy and industry. In 1932, a comparative study showed that Americans were spending twice as much on toiletries, tobacco and recreation and three times more on automobiles and travel than on health care. The discussion that aimed at covering all population groups started then and proposed a prepayment mechanism through taxation and insurance to cover the entire population.

Between the 1930s and 1960s, social welfare expanded to cover a finer breakdown in costs defined by the NHA. These efforts inspired a worldwide effort to monitor health spending and provided recommendations for improvements within each country’s specific design and needs. In 2000, the Organisation for Economic Co-operation and Development (OECD) recognized that health was becoming the most important industry for which there was need to provide a core set of financial data to meet the needs of analysts and policy-makers. Building on more than 15 years of work in the area of health accounts, the OCED produced the System of Health Accounts (SHA 2000), the first version of a manual to help standardize a set of comprehensive, consistent and flexible accounts. In 2003, the World Health Organization (WHO) in collaboration with the World Bank (WB) and USAID produced a guide for middle- and low-income countries to further improve the use of NHA measurements.

With the growing need to understand health care provision worldwide, NHA became more and more a global standard and a newer version of SHA was produced by the OECD, Eurostat and WHO to adapt to international comparison. SHA2011 was produced for a global reach with the required flexibility to meet health accounts’ international needs. Since 2011, SHA2011 has been improved with different tools for production (Health Accounts Production Tool) and analysis (Health Accounts Analysis Tool). Today, more than 190 countries use NHA as part of a global WHO database.

1.3 Current momentum for national health accounts

It is vital for effective policy-making that decision-makers have access to essential information on health expenditure in their countries, such as the share of health expenditure, the financial burden of health spending on households, the magnitude of external financing in health expenditure, and the share of spending on primary care among other key indicators. NHA represents a cost-effective, “smart” investment for policy-makers in countries, given that it enables them to mobilize resources, match their country’s health budget based on political commitments, understand how these metrics shift over time in their countries, and make accurate comparisons with health expenditure in other countries. NHA data can be used by all levels of policy-makers, nongovernmental stakeholders and

8 Global Health Expenditure Database (GHED)
9 Organization for Economic Co-operation and Development (OECD), Creating an evidence base for better health financing and greater accountability - A Strategic Guide for the Institutionalization of National Health Accounts
managers to make better decisions in the health policy process, including policy design and implementation.

NHA can be used to provide evidence in policy dialogues, to guide monitoring and evaluation of health care interventions and to improve health system performance. It has the potential to inform the development of national strategies for effective health financing and to raise additional funds for health. Information provided by NHA can also be used to make financial projections of a country’s health system requirements. Disaggregated comparative spending estimates available for all diseases can be used at both country and global levels to foster best practices. Likewise, NHA can highlight equity imbalances in the distribution of health expenditures. However, to answer all health policy questions, NHA information must be combined with non-financial data from sources such as epidemiological studies, population surveys, etc. The accounts themselves do not assess the effectiveness of expenditures and require linkages to non-financial data such as health outcomes. Finally, NHA can also provide evidence for accountability of donor, public and private investments on health by highlighting the level and proportions of spending in a given health system.

In response to this, at the 27th African Union (AU) Summit of 2016 in Kigali, African Heads of State and Government adopted the Africa Scorecard on Domestic Financing for Health. This is an important milestone in promoting financial planning, performance monitoring and accountability by players at various levels. The Scorecard measures progress towards meeting domestic and external health financing commitments. The quality of the data for the Scorecard depends on updated NHA. It is in this context that the African leaders requested the Commission to collaborate with WHO and other partners to support countries in strengthening NHA and submit the Africa Scorecard on Domestic Financing for Health annually to the Assembly. To this end, WHO AFRO is assessing the extent of institutionalization of NHA and providing guidelines for improvement in Member States.

1.4 Institutionalization of national health accounts: an unresolved endeavour
The institutionalization of NHA has been defined as a “routine government-led and country-owned production and utilization of an essential set of policy-relevant health expenditure data using an internationally accepted health accounting framework”. WHO has supported the production and use of NHA in Member States to inform advocacy for increased funding, monitor global and regional commitments and to make cross-country comparisons. However, after two decades, very few countries have produced NHA annually. Moreover, NHA institutionalization remains an unresolved issue despite all the benefits that they provide. This means that critical decisions are being made without the needed evidence on how much the country is spending on health, who is spending money on health care and where, what are they buying and the quality of health care services bought. There is

no regular evidence to show whether resources are spent at the intended level of care and whether interventions are cost effective.

Uninformed decisions end up being ineffective and perpetuating resource allocation inefficiencies. African health system failures keep the populations in a poverty trap because health is one of the key ingredients for economic development. It is therefore of utmost significance for countries to invest smartly in their health systems through smarter and informed investments.

National health accounts are some of the most important vital statistics for health and therefore need to be available for governments and all health-sector stakeholders.

With the current international commitments made by African countries, the new momentum is to strengthen health systems in Africa, which provides an opportunity, among other priorities, to institutionalize NHA as part of routine key demographic and health statistics. There have been several international commitments that did not result in significant change. However, the current Sustainable Development Goals can achieve the goal of NHA institutionalization if the moment is seized strategically and the question: **What will it take for Africa to promptly and routinely produce and use NHA?** is answered. When can African states start working on the institutionalization of NHA once we define what it takes? This report seeks to contribute to the former question by learning from the past and the present situation of NHA in the WHO African Region (WHO AFR) and making recommendations for improvement.

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Chapter 2

Approach

1. Study objectives
The first objective of this assignment was to provide a status update on the institutionalization of national health accounts (NHA) in the WHO African Region, highlighting challenges and good practices.

- Seven countries with varying experiences were selected, representing the three WHO AFR sub-regions.
- Using the World Bank’s framework for the institutionalization of NHA, the study aimed at understanding the level of country ownership with regard to the demand and use of NHA data, in terms of production, management and quality assurance, and the dissemination and translation of NHA data into specific analyses of policy interest.

The second objective involved developing a regional guide for the institutionalization of NHA in the WHO African Region, learning from country best practices and challenges, and including global experiences. The regional guide to institutionalizing NHA is a separate document.

2. Assessment framework

The World Bank’s framework for the institutionalization of NHA has been used in undertaking this assessment. It outlines the following key components for the effective institutionalization of NHA: ensuring country ownership of the governance, capacity and financing for NHA leading to a complete ownership of the demand and use of NHA data; producing, managing and ensuring quality data; disseminating results to an active and interested audience at country level; and translation of the data into relevant policy decisions. See Figure 1. A number of countries have put in place various NHA institutionalization initiatives and this framework provides a holistic approach to assessing NHA institutionalization.

![Figure 1: World Bank framework for the institutionalization of national health accounts](source: World Bank, 2011, Where is the money and what are we doing with it? (page 29))
3. Criteria for country selection

Selection of countries was informed by the need to ensure geographic representation of the three WHO African subregions and variation of experiences between countries along key variables drawn from the World Bank framework, and performance regarding institutionalization of NHA. The following countries were selected: West Africa (Burkina Faso and Guinea), Central Africa (Cameroon and the Democratic Republic of Congo), and Eastern and Southern Africa (Malawi and Uganda) – See Table 1 and Figure 2.

This is a well-intended method used in qualitative studies to understand implementation patterns including successes and challenges and to identify solutions.\textsuperscript{15} Rwanda stands as a unique case study. It has not produced NHA since 2010 but has tried to produce health expenditure data using a home-grown solution, the health resource tracking tool (HRTT), with relevant albeit incomplete data. The HRTT collects yearly data on health spending, combining government and donor spending. Table 1 shows the countries selected and variables considered.

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<td>Central</td>
<td>Dem Rep Congo</td>
</tr>
<tr>
<td>East and Southern</td>
<td>Uganda</td>
</tr>
</tbody>
</table>

Table 1: Selected countries for comparison of NHA production

\textsuperscript{15} Robert Yin, Case Studies Design and Methods, 2013
Figure 2: Countries selected for data collection
4. Data collection and analysis

Data collection

Data were collected through a review of published and grey literature and interviews with key informants at global and country level. The key sources of data collected are illustrated below.

Literature review

The review of literature mapped the past and current situation of NHA institutionalization in Africa and used available evidence to make recommendations on needed interventions for the future. The documents reviewed included health sector policies and strategic plans, health financing policies and strategies, relevant guidelines, etc. to assess evidence of use of NHA data. Reviewed documents are shown in Annex 1.

Interviews

Interviews were conducted at global and national levels using a snowballing sampling method, with one expert providing referral to another. Global interviews focused on capturing expert opinion on the history of NHA in Africa; whether the institutionalization of NHA was possible and if yes, current opportunities to make it a reality; and the challenges faced during the process of getting NHA reports, from demand for data to the use of NHA data. Global experts also gave their opinions on the World Bank framework used to assess the level of institutionalization and requirements for the institutionalization of NHA in Africa. Finally, they discussed the changes that should happen to ensure successful institutionalization of NHA in Africa. Annex 2 shows the interview guides.

Twenty global experts participated in the interviews by telephone and video conference. They were drawn from government, academia, WHO, the World Bank, charities, and nongovernmental organizations; some were independent consultants. Out of 25 recommended respondents, 20 responded to e-mails inviting them to participate in the interviews. The global interviews were unstructured conversations that were guided by key questions to allow for flexibility in capturing the varied and deep experiences of international experts. Annex 3 shows the list of respondents.

Global interviews were set on a day and at a time that was convenient for the interviewee and the researcher. They always started with the introduction of the researcher and the participant and focused on the area of expertise related to NHA in the African Region. The interviews lasted on average one and a half hours but could vary from an hour to an hour and 45 minutes. National-level interviews were the main source of data in drafting national reports and were country-focused as described in the next paragraphs.

16 Annex 4. Global interviews guide
National reports

In trying to understand countries’ experiences, rigour in data collection was applied as follows: national consultants triangulated qualitative and quantitative data from literature reviews and interviews. Whereas the qualitative data were obtained through interviews, the quantitative data were drawn from documents and included among other indicators in countries’ financial data such as the gross domestic product, health expenditure and key national health indicators such as poverty rates, life expectancy, etc.

Contrary to global experts, national participants were purposively selected based on: the institutions they served; their past experience in undertaking, supporting and use of NHA data and the position held; from government (specific policy-makers), universities and teaching institutions, civil society and development partners. The list of potential participants was adapted to the context of individual countries. The interviews were semi-structured and used the World Bank framework key components as themes in understanding the level of institutionalization of NHA. To ensure consistency in reporting, a template was provided as a basis for reporting and each country had the liberty to provide more and not less information based on its own context.

Precisely, country participants discussed the processes, challenges and opportunities of NHA institutionalization in line with the World Bank framework. The following key themes were assessed:

1. The feasibility of institutionalization of NHA in countries;
2. The opportunities countries can capitalize on to advance NHA institutionalization;
3. The challenges in institutionalizing NHA in the country;
4. The review of the proposed WB framework on the institutionalization of NHA in Africa. Participants provided their opinions on whether the WB framework portrayed a comprehensive picture of the NHA;
5. Finally, participants made recommendations for countries to fully institutionalize NHA.

For both global and national interviews, no personal data was shared. Rather, opinions were given about the institutionalization of NHA. However, to keep respondents’ answers anonymous, participants’ quotes in the report did not include names. At the end of the interview, respondents were urged to share documents or papers related to the study questions and all interviewees agreed to comply should questions or clarification be needed. Extensive notes were taken during interviews and served as the basis for creating chapters and subchapters.
Data analysis

The analytical process followed the work of Vaismoradi et al\textsuperscript{19}; the review of notes was followed by the definition codes and deriving themes. Codes are ideas that "have a common point of reference with a high degree of generality that unifies those ideas regarding the subject of inquiry. Coding reduces the amount of raw data to that which is relevant to the research question". Similarities and differences between codes led to the selection of themes. A theme is a broader concept that organizes a group of repeating ideas or codes and enables one to respond to the study objective. Themes created the basis for different subtitles included in the results section.

The interviews at global and national levels inspired a look at the data in different time periods. The results section provides both a backward look and a presentation of the current situation on NHA institutionalization. A forward look is presented as a separate chapter, while the last chapter is made up of recommendations. The backward-look section provides past experiences including challenges and lessons learnt from early efforts at the institutionalization of NHA in Africa. This section benefited mainly from input by global experts.

The current status of NHA in selected countries benefited essentially from national reports whereas the forward-looking section focused on the recommendations for moving forward and was inspired by both the global interviews and country reports. To achieve these objectives, data were triangulated at two levels: first, with quantitative and qualitative data collected through literature review, and second with the interviews at global and national levels that also included national reports.

\textsuperscript{19} Vaismoradi et al., 2016: Theme development in qualitative content analysis and thematic analysis. Journal of Nursing Education and Practice. \url{https://core.ac.uk/download/pdf/52132811.pdf}
Chapter 3

Results

The data analysis shows “time” as the main element in both the interviews and country reports. Every respondent and report talked about the time frame as follows: when NHA was first introduced, what happened next, what is going on at the present time and what should ideally happen. The results are presented in two main sections: a backward look into the past, an assessment of the current situation and a forward look that constitutes the recommendations component.

3.1 Backward look at the institutionalization of NHA in the African Region
The backward-looking section was mainly inspired by global experts who pioneered the initiatives of NHA in African countries from the early 2000s to 2015. Data from countries was complementary to the global interviews. The next paragraphs present the early efforts at introducing NHA in Africa, and the surprising findings that led to either interest in or rejection of NHA.

3.1.1 Early attempts to initiate NHA in Africa - uninterested countries
The NHA producer guide of the early 2000s was meant for OECD countries. Global experts thought some work could be done to adapt it for low- and middle-income countries (LMICs) as they attempted to produce NHA in Africa. That is how a producer guide was developed for LMICs. At that time, several tracking tools were in use in countries, with every donor tracking their own resources using their own tools. A respondent shared their knowledge about the early stage of introducing NHA in Africa: “In the early 2000s, we were trying to see if countries could capture some of the needed information on NHA but they were not interested at all in it… There was a big fight also on the methodology amongst global experts, we finally managed to have some countries see health accounts like vital statistics of health financing. HIV funding was an important trigger for convincing countries that health financing is key in understanding spending for HIV and tracking donor resources. Countries needed donor resources and had to comply with the production of NHA.” Eventually, surprising findings had positive and negative effects as the next paragraph reveals.

3.1.2 Difficult NHA findings for countries
Before 2000, there was no requirement for understanding health financing indicators and the goal of the new NHA team was to start a conversation at country level about financing. Early countries to produce NHA also provided surprising evidence that would promote but also stifle NHA. For example, NHA showed that in a Middle Eastern country, a huge chunk of money went missing from one level of care to another and revealed a lot of corruption issues. In another country in Africa the HIV sub-accounts showed that people living with HIV were spending less out-of-pocket (OOP) than the general population, which was surely counter-intuitive and raised many questions on resource allocation. The finding triggered many unanswered questions including on the accuracy of the number of HIV patients and on where donor funding went missing.
Finally, in another country, early NHA data showed a lot of money missing at the lowest level of service delivery and the government refused to buy into the findings. A much more robust household survey was then conducted and when the same results were returned, the head of policy and planning was brave enough to say “we need better estimates to inform our funding request to the Ministry of Finance”. The key respondent remembered moments of difficult discussions and in her own words narrated the process: “Both the early evidence and the household survey were corroborating, and the survey was believable because it was led by the government. It was not possible for the government to keep shying away from the results; they showed that over 50% of health expenditure was financed by households out of pocket. That was significantly too much for a very poor population. The good part of the story is that the findings also led to the biggest budget increase (30%) for the Ministry of Health since independence. It was a huge win for the understanding of NHA and that is when we started looking at ingredients for NHA institutionalization”.

3.1.3 Early ingredients for NHA institutionalization

Global experts provided insights into what we called early ingredients for NHA success. The early challenges are discussed in subsequent chapters. As said before, the first ingredient of NHA institutionalization was enforcement by donors because countries needed donor funding. One of the key respondents said: “You need to get an incentive for countries to do NHA because it was not a culture to produce health financing indicators. Something needed to be requested and an important consequence for not doing that had to be felt. That is why when it was no more a requirement from donors, many countries did not keep up with NHA”. By the time the very donors who brought NHA to Africa stopped supporting it, African countries had not yet valued NHA enough to keep investing in it. Each country had to deal with the difficult findings. It was important to emphasize that NHA was not a control or audit tool but a tool that can serve the interests of ministries of health.

There was also another kind of soft incentive: experts kept giving positive experiences of the impact of NHA, given that they appeared (such as increases in government budget for health) to motivate countries into submitting their NHA data. One of them recalls that the second ingredient for successful NHA production was government leadership. For countries with greater leadership and support for NHA, institutionalization followed much more smoothly: “The key ingredients of NHA institutionalization appeared to be government leadership; technical support needs to be backing a very willing ministry.” The third ingredient was the inclusion of a course on NHA in the academic programme in some countries: “… that is how schools of public health started to be involved in teaching NHA in Africa. With this, however, there were mixed results, because schools needed resources to sustain those classes; it was necessary for funders to keep this support for some time; unfortunately, they chose to withdraw their support to NHA”.

Finally, the fourth and last ingredient was mandating stakeholders to submit NHA data and decentralization of NHA institutionalization. For countries with great government leadership, all donors were not always compliant. The foremost donor supporting NHA, the United States of America, was
also part of donors with difficult data to tabulate because the financial management of US systems is
totally different. For example, the US Centers for Disease Control (CDC), USAID, and all US organi-
izations have different systems. When you add all players including European countries and others, it
becomes even more difficult to use their management information systems and translate them into
health accounts as one respondent recalls: “I had to develop a syntax to try to align all stakeholders;
starting with the US organizations themselves; therefore, for each stakeholder, a certain effort of
institutionalization needs to happen. We need to look at their internal financial information systems
and improve them…”

3.1.4 Early challenges to NHA institutionalization
Just like with the early ingredients of success, this section was informed by global interviews with actors
who were part of early processes, and enriched with national data. For most respondents, the idea of
institutionalizing NHA was not new and some of them were involved in early NHA institutionalization
efforts that eventually failed to be completed. The most important challenge was the lack of a vision for
institutionalizing NHA from the beginning. Experts came to African countries, explained the value of
NHA, conducted surveys and expected to have regular surveys done. It was not envisioned then that
they could build slowly on emerging information systems to support their efforts.

Secondly, NHA faced issues of lack of sufficient resources in terms of time and funding. Indeed,
the international funding and attention it received did not last long enough to result in a sustainable
programme as one of the participants reported: “A few years of implementation were enough for
early donors to make pressure and ask for when it would be time to stop funding NHA. ‘When are we
going to exit these health accounts?’ was a frequent question; ‘this has to stop’. To some extent,
this was not fair because we had not yet looked at institutionalization deeply…” Donor fatigue was
premature for NHA. Compared to the demographic health surveys that kept building on evidence to
make every iteration easier and institutionalize the method, NHA pretty much maintained its broad
surveying methodology for 20 years.

The lack of vision and resources did not support exploring information systems as a solution. A re-
sondent remembered: “One important mistake we all made was not to look at information tech-
nology as a solution, including the growing government financial management systems in coun-
tries. The most important thing now is how to readily improve and integrate government financial
management systems to ease NHA work … sometimes in some very large countries, the work is
simply impossible. In those countries, we never looked at financial systems, which is unfortunate…”

NHA continued to be perceived as an outsider tool because countries could have stepped in and
improved the original NHA but this did not happen. A key informant described one of the negative
perceptions of NHA as an externally driven instrument for international comparisons not necessarily
meant to serve ministries of health: “The idea that data was resulting in country comparisons where
a few countries felt they were not positively represented frustrated some government officials and
that led to loss of momentum for national ownership. Consultants were mostly hired by donors, local leadership was not in control of contracts, had no expertise to assess the quality of NHA reports and did not therefore feel the motivation and or obligation of leading the next iteration of NHA”. More efforts are needed to ensure NHA is not perceived as a tool for auditing governments.

3.1.5 NHA institutionalization, an unresolved question

The story of the institutionalization of NHA in Africa keeps coming back over and over according to respondents and no entity is taking responsibility for the whole initiative once and for all. Some key respondents reported that in 2010, the Bill & Melinda Gates Foundation provided US$ 5 million to support the institutionalization of NHA, an initiative that the World Bank used to lead in collaboration with WHO. As a result, in 2012, a book was produced to provide guidance on the institutionalization of NHA. It was entitled: Creating Evidence for Better Health Financing Decisions: A Strategic Guide for the Institutionalization of National Health Accounts. The book by Maeda et al. does not need to be reproduced and has great value in discussing the constraints to institutionalization and suggesting the way forward.

In Maeda’s book, the institutionalization of NHA is presented as a business case. It shows how NHA could shed light on sound policies by providing evidence on resource gaps, value for money invested in the health system (by linking NHA data to non-financial and health outcome data) and the burden of health spending on households. It presents a framework for the institutionalization of NHA and its core objective as a long-term strategy to ensure NHA transitions from a donor-driven tool to a country-owned tool. It is a very detailed book that provides significant information on making progress related to the institutionalization of NHA. However, 10 years later, respondents expressed disappointment that the issue of NHA institutionalization is still unresolved.

Nevertheless, said a respondent: “although this makes me feel like we missed key opportunities to institutionalize NHA, the renewed debate shows that it is an important but unfinished endeavour. Hopefully, we can take best practices and scale them up, learning from the current explosion of information technology that was not available two decades ago.” Another respondent said: “I was involved in providing evidence for NHA institutionalization and the renewed interest on this subject shows the loss of institutional memory in global health institutions. To sustain this current effort, there is need to bind the institutionalization of NHA with key funding requirements in health such as grants and or loans provided by the World Bank, or data should be routinely required by the International Monetary Fund just like other key economic indicators”.

Maeda’s book suggests as the way forward the development of a long-term strategy to address three key elements of the World Bank framework cycle: governance, capacity and financing. – See Figure 3.

- **The NHA governance structure** will ensure that countries use one of the four proposed governance models for NHA: (a) leadership by the ministry of health; (b) an MoH-led endeavour with multisectoral collaboration; (c) government-mandated coordination by a multisectoral team; and (d) an undertaking led by an entity outside of government. Each model has its strengths and limitations. The optimal institutional “home” for NHA will depend on a country’s institutional capacity, financial resources and political context.

- **Capacity building to strengthen the NHA cycle**: demand generation, production, translation of data into policy and dissemination. However, it has been documented that only production has been the main focus of capacity building. When that happens, the rest of the NHA institutionalization steps are weakened, which eventually halts or slows NHA production.

- **Financing**: experience has shown that the cost of producing NHA decreases with subsequent rounds. The book advises that embedding NHA production in the country’s budget ensures sustained financing and economies of scale as countries try to reduce cost and improve the process by merging NHA data collection with other data collection systems such as the demographic and health survey (DHS), the integrated households living conditions survey, etc.

International and regional organizations were invited to be part of value addition to NHA by stimulating peer learning. However, regional agencies often lack adequate financing and strong governance structures to support their work.
One of the difficulties in institutionalizing NHA highlighted in the book is the lack of capacity of NHA experts to actually respond to policy-makers’ top financing concerns. To provide insight into how this could be achieved, the authors provide case studies with the aim of bringing policy-makers and producers of NHA closer together: (a) by introducing the common language and the type of answers NHA can provide; and (b) by learning how other countries have used NHA as input to evidence-based policy-making.

3.2 Current situation of the institutionalization of NHA in the African Region

Health systems, including their financing and ultimately their health accounts will depend on the overall economic situation of countries. Sub-Saharan African countries have a significant proportion of their population living in extreme poverty. Their economic growth has not necessarily impacted social sectors, including health. Among the seven countries selected to assess NHA institutionalization, Cameroon stands as the richest with three to four times the average GDP of some of its peers. DRC stands as the country with the highest proportion of poor population although it is renowned for natural resources. – See Table 2.

A significant proportion of the GDP of these countries goes to loan repayment, with Rwanda having the highest debt-to-GDP loan repayment rate. In situations of extreme resource constraints, countries become reluctant to increase their investment in health, resulting in government displacement of funding from health to other needs perceived to be more urgent and reliance on donor funding for health. It is therefore important for these countries to take smart cost-effective decisions using every dollar for the greatest value. This means the issue of corruption raised by some of our respondents is tackled and resources flow to intended beneficiaries.

3.2.1 General overview of countries’ health financing systems

There is a very disturbing pattern of underinvestment in health in Africa that led to a high-level meeting in Abuja in April 2001, where African countries pledged under the auspices of the African Union to allocate at least 15% of their annual budgets to health. However, 20 years down the road, WHO reports: “… only one African country reached this target. Twenty-six countries had increased the proportion of government expenditures allocated to health and 11 had reduced it. In the remaining nine countries there was no obvious trend up or down. Current donor spending varies dramatically.” Rwanda is reported to have attained the Abuja target.

https://www.who.int/healthsystems/publications/abuja_declaration/en/
On a positive note, all African countries have the required basics for a strong health-financing system, with key institutions in charge of public financial management such as the ministries of finance, planning and budget, revenue authorities, etc. In all countries there are ministries of health with a unit in charge of health financing housed in the department in charge of policy and planning. However, the unit is reportedly understaffed and not sufficiently funded to fully undertake assigned health financing functions. All countries have statistics institutes to store key vital statistics, which represent a great opportunity for NHA.

There is strong collaboration between the ministries of health, universities and schools of public health that could provide the necessary technical expertise to complement the insufficient human resource capabilities often observed in public institutions, as reported by respondents and in Maeda’s book. In addition, African countries have set their vision, developed their strategic documents and laws in relation to financial management (public and private reporting). Finally, countries have adhered to the African Union’s vision and have set goals and signed up to the United Nations’ SDGs. The necessary international, regional and national legal and institutional frameworks are available to achieve great success in health financing systems. – See Table 3.
3.2.2 How often are NHA produced in Africa?

Today, all countries have made at least two years of NHA rounds. Figure 4 shows the year the country first produced NHA and depicts a significant achievement because it shows that the NHA journey has started in Africa. Its benefits are known and improvement would be much easier if implementation this time focuses on sustainability.

![Figure 4: Countries’ first year of NHA production](image)

* These years correspond to the start of NHA work, not necessarily the production year

** : WHO recommends a minimum of US$ 84 per capita per year for sub-Saharan African countries.

<table>
<thead>
<tr>
<th>Table 3: Health financing systems and social health protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government budget on health (% total government budget)</td>
</tr>
<tr>
<td>Burkina Faso</td>
</tr>
<tr>
<td>19 (2016)</td>
</tr>
<tr>
<td>Total health expenditure (%)</td>
</tr>
<tr>
<td>Government</td>
</tr>
<tr>
<td>11 (2019)</td>
</tr>
<tr>
<td>18 (2016)</td>
</tr>
<tr>
<td>25 (2016)</td>
</tr>
<tr>
<td>23 (2017)</td>
</tr>
<tr>
<td>24 (2018)</td>
</tr>
<tr>
<td>6 (2011-2020)</td>
</tr>
<tr>
<td>9 (2010)</td>
</tr>
<tr>
<td>5 (2016)</td>
</tr>
<tr>
<td>5 (2012)</td>
</tr>
<tr>
<td>36 (2018)</td>
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<tr>
<td>41 (2013/14)</td>
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<tr>
<td>43 (2015/16)</td>
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<tr>
<td>58 (2016)</td>
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<td>58 (2018)</td>
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<td>16 (2015/16)</td>
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<td>15 (2014/15)</td>
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<td>12.5 (2016)</td>
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<td>12.7 (2017)</td>
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<td>12.6 (2018)</td>
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<tr>
<td>48</td>
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<tr>
<td>122</td>
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<tr>
<td>32</td>
</tr>
<tr>
<td>50</td>
</tr>
<tr>
<td>7 (2012)</td>
</tr>
<tr>
<td>36 (2018)</td>
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<tr>
<td>45 (2018)</td>
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<tr>
<td>X*</td>
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<tr>
<td>94 (2017)</td>
</tr>
<tr>
<td>1 (2014)</td>
</tr>
<tr>
<td>x</td>
</tr>
</tbody>
</table>

* These years correspond to the start of NHA work, not necessarily the production year.

** : WHO recommends a minimum of US$ 84 per capita per year for sub-Saharan African countries.
Each country has its own NHA journey that depends mainly on the ministry of health leaders that pushed the NHA agenda and the availability of donors willing to support NHA production. Table 4 shows different performance levels in producing NHA. It was observed that the official language (English or French) does not play a big role in the process of NHA institutionalization in Africa. For example, Burkina Faso, a French-speaking country shows consistency in yearly production of NHA, followed by Malawi, an English-speaking country. DRC and Uganda seem to have lost the momentum they had acquired, and Rwanda exited the production of NHA 10 years ago and moved on to the next level with its own HRTT after the 2010 NHA was not validated. Guinea follows nicely in producing NHA even though it lacks ingredients of sustainability. The NHA production rounds for the seven selected countries in West, Central, East and Southern Africa are presented below.

### Table 4: NHA Rounds of production in selected countries

<table>
<thead>
<tr>
<th></th>
<th>Burkina</th>
<th>Guinea</th>
<th>Cameroon</th>
<th>DRC</th>
<th>Rwanda</th>
<th>Uganda</th>
<th>Malawi</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2010 (Draft)</td>
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</tbody>
</table>

As has been mentioned before, the lack of sustained interest in producing NHA has made it a fragile tool without proper ownership. It was originally funded by USAID, which quickly withdrew before proper institutionalization, leading to the introduction of several health resource tracking tools that have been imposed by individual countries without proper coordination, further decreasing the NHA momentum. Leadership and funding are based on ad hoc commitments in which technical teams are continually being hired and changed yearly, based on available funding. Given these recurrent processes, there is loss of competence and institutional memory. Twenty years down the road, the NHA agenda and funding are still driven by donors in a very fragmented and unpredictable environment.

The funding for NHA production shows that many players (see Table 5) have been working independently and inefficiently without any sustainability plans. Governments have not always been able to perform their coordinating role of planning ahead and providing a long-term solution for NHA. WHO as a moral global health leader has worked to keep countries engaged and informed on required health finances for achieving key global health goals. Due to insufficient funding, WHO support has not been holistic and as such, the coordination of willing development partners and country leadership will be crucial.
### Table 5: Multiplicity of NHA donors

<table>
<thead>
<tr>
<th>Country</th>
<th>Donors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burkina Faso</td>
<td>France, WHO, Japan, Global Fund, UEMOA</td>
</tr>
<tr>
<td>Guinea</td>
<td>WHO, World Bank</td>
</tr>
<tr>
<td>Cameroon</td>
<td>WHO, World Bank</td>
</tr>
<tr>
<td>DRC</td>
<td>USAID, WHO, Belgian Cooperation, World Bank, Global Fund, SANRU, EU, GAVI</td>
</tr>
<tr>
<td>Rwanda</td>
<td>USAID, EU</td>
</tr>
<tr>
<td>Uganda</td>
<td>USAID, UNICEF, WHO, World Bank, ECSA-HC, UNFPA</td>
</tr>
</tbody>
</table>

#### 3.2.3 The World Bank framework and NHA institutionalization in Africa

This assessment used the World Bank framework to provide an understanding of the institutionalization of NHA in Africa. It revealed considerable challenges that need to be addressed for further progress. We shall look at the demand and use of NHA data, the production of NHA data and quality assurance, the dissemination of results and translation of NHA data into policy formulation.

**Governance, capacity and financing for NHA**

As said earlier, all countries reported that the NHA agenda was driven mainly by donors. Governance considers the presence of clear mandates, roles and responsibilities and the provision of necessary capacities and funding. However, for most countries, although existing documents state that the ministry of health is mandated to provide data, the mandate is not enforced (see Table 6). There are a few countries without written mandates on NHA production (Guinea), thus making the production of NHA a deliverable for which ministries are not accountable. Despite written mandates for most of the countries, government funding has not been consistent for NHA. That is the case in Cameroon. Where there are funding commitments, such as in DRC, there is no budget and when there is a budget, it gets diverted and does not serve the primary purpose of producing NHA. There is a typical lack of NHA prioritization overall.

Indeed, NHA does not serve the purpose for which it was created, which is to shed light on resource allocation and advocate for expanded coverage. members of parliament do not use NHA due to lack of regular and timely information, and even when there is data, the reports are long and too technical to be understood by the majority of members of parliament. The situation can change if regional and global commitments for NHA production are enforced.

In Rwanda, the Integrated Financial Management Information System (IFMIS) team at the Ministry of Finance was not aware of the existence of NHA. Once they understood the importance of NHA, they
reported that the lack of NHA data is due to lack of advocacy: "We do generate indicators required by the IMF, the World Bank, UNDP, NASA, etc. Why would it be impossible to generate NHA data? The Ministry of Health did not advocate sufficiently for NHA, but yes we can produce SHA2011 data given some programming work and scaling up the new tools. We will need time and resources to do this". The IFMIS team in Rwanda is made of a group of close to 40 young IT experts and economists.

With the challenges enumerated above, the following important opportunities can be re-emphasized:

• All countries have a ministry of health, and a department with a mission to produce health spending-related data (planning department); for some countries that mission lies with the statistics institute.
• Some countries have clear laws mandating the MoH to produce accounts (such as Burkina Faso, DRC), a few countries have funding for NHA (DRC) even though the funding is often diverted.
• NHA competence is currently available in Africa.
• There is renewed country commitment to universal health coverage and the SDGs.
• WHO has the opportunity to significantly improve the production of NHA using African human resources on the ground.
• At the 27th AU Summit of 2016 in Kigali, African Heads of State and Government adopted the Africa Scorecard on Domestic Financing for Health. The quality of the data for the Scorecard depends on updated NHA.
A clear discussion on the possible avenue of progress lies with enforcing the production of NHA by:

- Selecting a champion, ideally the prime minister or president, and rewarding best performers on national leadership and NHA-driven decision-making;
- Giving mandate to countries’ institutions to lead on NHA, ideally national institutes of statistics, and mainstreaming NHA within a broad national database. Research institutes, schools or institutes of public health are an alternative to statistics institutes;
- Requesting NHA indicators as part of regular reporting by the ministry of finance as a prerequisite for IMF, World Bank or WHO loans or grants;
- Continuing advocacy through regional bodies, the AU and WHO.

### Demand and use of NHA data

Governance and demand challenges and opportunities for NHA are closely related because strong governance for NHA means there is demand for it. Details on demand and use for NHA are shown in Table 7. As said earlier, overall, in Africa, the demand for NHA has been weak because of lack of use of NHA data by the MoH, ministry of finance, parliament, presidents’ and prime ministers’ offices, etc. Countries that produce NHA regularly are not doing so because data is internally needed but rather because of external demand. Donors mostly use NHA for country comparison (WHO) rather than for internally stimulating the use of NHA indicators by relevant institutions. The new momentum to move

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**Table 6: Governance, capacity and funding for NHA**

<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burkina Faso</td>
<td>Some level of institutionalization (clear mandate of MoH for NHA production, permanent team with a focal person). However, no government budget for NHA production. WHO leads the process. Local competence is available, high staff turnover.</td>
</tr>
<tr>
<td>Guinea</td>
<td>WHO and other development partners drive the NHA agenda. The capacity for production and finance completely relies on them. Local competence is available.</td>
</tr>
<tr>
<td>Cameroon</td>
<td>Presidential decree mandates NHA production at MoH. However, lack of prioritization, no resources allocated to NHA. Local competence is available.</td>
</tr>
<tr>
<td>DRC</td>
<td>Ministerial decree mandates production of NHA. However, budgeting for NHA is a big problem. When there is a budget, it is diverted. Local competence, high staff turnover.</td>
</tr>
<tr>
<td>Rwanda</td>
<td>Early government lead, donor-funded. MoH included NHA budget but the country took another IT-based solution for tracking health spending. High staff turnover.</td>
</tr>
<tr>
<td>Uganda</td>
<td>Leadership at MoH at the beginning. A decline noted in its functionality. Local competence is available, high staff turnover.</td>
</tr>
<tr>
<td>Malawi</td>
<td>Periodic NHA but on demand from WHO. Capacity is available but unplanned and ad hoc. Confusion of roles and high staff turnover. Local competence is available.</td>
</tr>
</tbody>
</table>

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towards universal health coverage and the current regional commitment can make a difference given adequate advocacy opportunities. The COVID-19 pandemic has also pushed the understanding of health as an important economic component and global good and more investments will be made requiring evidence and transparency. The progress to quality data will rely on the integration of national health account indicators into the overall country data systems.

Production, management and quality assurance of NHA data

The findings suggest it is possible for African countries to produce quality NHA data because the main ingredients are currently available, including the needed human resources and IT solutions. Africa has had health economists trained for the last 20 years, and IT solutions are available with the internet and digitization of government and private services. Some countries are more advanced than others, but progress can be remarkably fast. Despite these potentials for solutions, African countries have not shown interest in having permanent staff produce NHA because teams are formed as soon as funds are available and dissolved once NHA data are validated. There is a high staff turnover in ministries given that once qualified, NHA experts leave government institutions and their expertise

<table>
<thead>
<tr>
<th>Burkina Faso</th>
<th>Guinea</th>
<th>Cameroon</th>
<th>DRC</th>
<th>Rwanda</th>
<th>Uganda</th>
<th>Malawi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Despite regular NHA production, the MoH’s demand for NHA results remains weak. WHO remains the sole leader and funder.</td>
<td>Demand was made by WHO from the beginning. MoH then followed with the WB. MoH does not use the results for decision-making.</td>
<td>NHA (2011, 2012) were requested by WHO. NHA data is needed but lack of government interest in NHA production. No NHA for the last 8 years.</td>
<td>Demanded by WHO but has shown its value to the MoH, ministries of budget, finance and planning, NGOs and donors.</td>
<td>Donors demand NHA data, the concept of institutionalizing NHA through HRTT came from the MoH. HRTT data has been incomplete and does not produce key NHA indicators. WHO has been demanding for NHA data.</td>
<td>WHO, MoH and donors demand NHA data but lack of interest from MoH to sustain NHA. The private sector does not demand NHA data.</td>
<td>The Government, World Bank, WHO and academia demand NHA. Unfortunately, the ministries of finance, planning and development are not as interested in the data as would be expected.</td>
</tr>
</tbody>
</table>
is lost because in the majority of cases, they do not continue their career in the production of NHA. In addition to staff, the ministries of health in African countries do not have appropriate infrastructure to produce NHA. In all the countries, there are no sufficient computers, software and offices to support regular and permanent production of NHA. The data collection system is still predominantly paper based, using printed questionnaires. Data are collected using printed questionnaires and managed using Excel without relevant automation to detect human errors. Meanwhile, IT tools have evolved considerably and have been applied in other surveys such as the demographic and health survey at the institutes of statistics that use iPads, internet, etc. Another important challenge is the lack of synchronization of other data systems. NHA has not benefited from investments made in other data production systems, which could be obtained by including critical variables in surveys and linking IT systems to provide the information needed for NHA. Getting data from the private sector is still very challenging but efforts could be made to work with revenue authorities. Overall, respondents have criticized the accuracy of data coming from NHA production. Often but not always, the results are felt not to be reliable and are questioned by decision-makers, thereby affecting the demand and use of NHA results.

The present assessment mapped (Table 8) all IT tools used in selected countries and it is clear that there are untapped solutions not yet used to their full potential to serve the NHA agenda in Africa. In terms of the needed IT solutions to produce NHA, Africa is ready and already has health information systems and databases (DHS, household living conditions surveys, etc.) that can be adjusted to provide most of the data required to produce NHA. There are more IT experts that coupled with health economists, have the potential to create solutions customized to each country’s context. The best example is Rwanda, where health financing experts worked with IT programmers to create the NHA technological infrastructure. Malawi has also been exploring digitization and synchronization of different systems to produce NHA data. It produced a concept paper in 2018. Such an initiative needs to be supported.

**Dissemination**
The present assessment shows that in all countries where NHA data and analyses are produced, they are used to some extent, given that they inform health sector reviews, health sector strategic plans, health sector budgeting, etc. In all countries, NHA dissemination has mainly been internal to MoH and a few donors through “dissemination workshops”. The main channels for dissemination have been: validation workshops, e-mails, leaflets, flash discs, etc. Sometimes the media is invited and the news relayed on TV. In some countries, academia uses the reports for studies. Critical and targeted analyses do not exist and when they do, they make no sense to a regular citizen, member of parliament, and even staff at the ministry of health, because the data are very technical. Only in a few countries is academia interested, and today’s media are not yet used to their full potential to serve NHA dissemination and stimulate necessary discussions (social media: Twitter, Fakebook, interactive YouTube sessions, etc.). Basically, the population has been left out.

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22 Improvement of Rwanda’s Health Financing Information Systems, 2009 led by Angelique Rwiyereka, with BMGF funding.
23 Institutionalization of the National Health Accounts (NHA) Production in Malawi
The push by donors for every round of NHA and the lack of involvement of key institutions for which the data should actually make sense is unfortunate and needs to be addressed. One key respondent said: “…summary reports used to be developed in the past, but recently, summary reports are not printed or circulated widely… this should be encouraged because it is what many policy-makers should be looking for…” Another participant responded: “…dissemination is not well funded and yet this stage is very important and should be given the attention that it deserves…” It is classic that the reports are left on the shelves and get forgotten. There has been underuse of the results compared to other statistical products due to: (1) the highly technical nature of reports, (2) difficulty in understanding for lay people, (3) lack of specific summary reports with insights that inform specific areas of interest (hospitals, private sector, etc.).
Some countries have one ministry in charge of finance, economic development, budget and planning. For some other countries, these functions are performed by different ministries.

<table>
<thead>
<tr>
<th>Burkina Faso</th>
<th>Guinea</th>
<th>Cameroon</th>
<th>DRC</th>
<th>Rwanda</th>
<th>Uganda</th>
<th>Malawi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excel</td>
<td>DHIS2 (MoH) since 2016</td>
<td>Excel</td>
<td>USQUEL (Minfin)</td>
<td>Smart IFMIS (MI-NECOFIN, 2007) IFMIS unit could be the brain behind. A team of &gt; 30 IT experts</td>
<td>IFMIS (public finance management)</td>
<td>Excel</td>
</tr>
<tr>
<td>DHIS2 (MoH, 2013)</td>
<td>IFMIS (Min Fin)</td>
<td>CSPRO for data entry</td>
<td>SIDONIA (Central Bank)</td>
<td>HRTT (MoH) 2010. Intended to harmonize different tools (NHA, NASA, JAWP) but today obsolete</td>
<td>HMIS (MoH)</td>
<td>IFMIS-Central version</td>
</tr>
<tr>
<td>IFMIS (Min Fin)</td>
<td>DHIS2 (MoH, 2010)</td>
<td>CAMCIS (customs)</td>
<td>TOMPRO (MoH)</td>
<td>DHIS2 - Public health</td>
<td>EMR (several versions in hospitals)</td>
<td>DHIS2 Aid management platform in treasury</td>
</tr>
<tr>
<td>PAMS (MoH, 2008)</td>
<td>DHIS2 (MoH, 2016,)</td>
<td>EMR (in some hospitals)</td>
<td>DHIS (MoH)</td>
<td>EMR (OpenClinic, OpenMRS) in all referral and district hospitals. Private facilities use different EMRs</td>
<td>OBTB: output based tool for budgeting</td>
<td>Several EMR in different health facilities.</td>
</tr>
<tr>
<td>CID (Minecofin, 2008)</td>
<td>iHRIS (MoH, 2018)</td>
<td>MESURE (taxes)</td>
<td>DHIS (MoH)</td>
<td>ISHYIGA - private pharmacies (rural and traditional healers excluded)</td>
<td>The Kuunika Project achieved interoperability of some digital systems</td>
<td></td>
</tr>
<tr>
<td>EMR (MoH, 2010)</td>
<td>eSIGL (MoH, 2019)</td>
<td>DHIS2 (MoH,)</td>
<td>EMR (in some hospitals)</td>
<td>PROMISE (budget)</td>
<td>PGAI (Ministry of Planning)</td>
<td>Rwanda plans to improve the HRTT platform to get real time NHA data. Funding under discussion with BMGF.</td>
</tr>
<tr>
<td>EMR (MoH, 2019)</td>
<td>eLMIS (eSIGL in French)</td>
<td>EMR</td>
<td>EMR</td>
<td>EMR (several)</td>
<td>CADRE (government expenses)</td>
<td>Others: to be specified</td>
</tr>
</tbody>
</table>
This table illustrates IT solutions used in all seven countries, which means that it is relatively easy to use digital solutions to institutionalize NHA since the countries have adopted a digital process in some of their work. In Rwanda for example, although the health management information system (HMIS) was not intended for use to submit expenditure data, it was modified to capture health-centre level expenditure. Electronic Medical Records (EMR) in Rwanda have been customized to include expenditure data and the new proposal is to scale EMR in all facilities and stop using HMIS in expenditure collection.
Translating data and dissemination of specific analyses

This step was not well documented because as countries reported, it is seemingly part of the production process. According to them, there is no such additional step as translating data and dissemination of specific analyses. After dissemination of NHA results, national consultants reported: “Data are not translated into analyses that inform policies or any action” and “there is no plan to improve analysis and interpretation of NHA data and there are no best practices to share”. NHA seems not to attract interesting translation of data and dissemination of specific analyses because, according to one respondent: (1) “There is no evidence that NHA data analysed have any impact on resource allocation and its efficiency, equity distribution and ultimately improved health outcomes”; and (2) “In general, policy-makers are not very engaged in these processes to determine what key questions to which they exactly want answers from the NHA exercise, largely due to lack of understanding of the NHA process and impact”.

3.2.4 Malawi and Rwanda as advanced in NHA institutionalization

Malawi and Rwanda are the only countries that had started discussions on institutionalizing NHA; the five other countries welcomed the initiative as a first opportunity to discuss moving the NHA agenda forward.

MALAWI: NHA institutionalization concept paper, 2018

In 2018, Malawi developed a concept paper. A consultant working on a concept note on the institutionalization of NHA used the World Bank framework to identify challenges and presented solutions on the demand and use of NHA, the production, management and quality of data, dissemination of results and translation and dissemination of specific policies. The challenges and potential solutions are summarized in Table 9.
## Table 9: Challenges and Solutions to the Institutionalization of NHA in Malawi

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Solutions proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Absence of short-, medium- and long-term NHA financing.</td>
<td>- Development of the “institutionalization for NHA” strategic plan for each country. This will include funding strategies in the short, medium and long term.</td>
</tr>
<tr>
<td>- NHA tables are not user-friendly.</td>
<td>- Planning of bi-annual reviews of NHA data collection and analysis tools.</td>
</tr>
<tr>
<td>- NHA is not timely to support budgeting planning, execution and evaluation. The periodicity of the NHA data and results (usually every 3-4 years) makes it hard to create the momentum.</td>
<td>- Improvement of timeliness of NHA reports.</td>
</tr>
<tr>
<td>- Demand driven by partners. Lack of awareness of NHA by key ministries (MoH, finance, economic planning and development).</td>
<td>- Availing NHA data yearly.</td>
</tr>
<tr>
<td>- Weak focus on the subnational level limits NHA usefulness.</td>
<td>- Regular NHA training for all stakeholders.</td>
</tr>
<tr>
<td>- Weak interpretation of NHA for all departments (hospitals, insurance, etc.)</td>
<td>- Conducting subregional analyses on the equity of health care, allocative and technical efficiency of health care, etc.</td>
</tr>
<tr>
<td>- The Health Financing Technical Working Group (HF TWG) has no capacity to perform its function, it is just invited to provide comments and endorse the study results.</td>
<td>- Integrating NHA as part of health strategic plan evaluations, zonal reviews and planning at the district level.</td>
</tr>
<tr>
<td>- MoH leadership does not perform its NHA policy advisory role; it is not aware of how to do that, hence NHA demand is limited.</td>
<td>- Decentralizing the use of NHA results for health care providers including all social health protection mechanisms.</td>
</tr>
<tr>
<td>- High turnover of MoH technical staff, affecting technical ability to spur demand and use of NHA data from stakeholders.</td>
<td>- Improving the selection of HF TWG and include qualified health financing experts; train them on NHA.</td>
</tr>
<tr>
<td>- Insufficient capacity of policy-makers, planners and academicians to effectively use NHA data.</td>
<td>- Training MoH staff regularly and strengthening the MoH with a steering committee to oversee funded NHA production, interpretation and dissemination.</td>
</tr>
<tr>
<td></td>
<td>- Regular NHA training for new staff as a requirement for key positions in the ministries of health, finance/budget/planning/statistics, etc.</td>
</tr>
<tr>
<td></td>
<td>- Regular NHA training for policy-makers. Making it interesting with publications and debates on “smart investments options”</td>
</tr>
</tbody>
</table>
### Production, management, and data quality

#### Challenges identified
- The Integrated Household Living Conditions Surveys (IHLCS) and DHS do not capture useful data for NHA.
- The DHIS2 current format cannot capture NHA data from both public and private health facilities.
- Donor aid management platforms do not have disaggregated data.
- Data collection tools are used unintuitively, inefficiently.
- NHA data unavailable routinely compared to DHIS2 and IFMIS.
- Donor irregularity and/or lack of submission of data.
- No central storage system for NHA.
- Lack of synergies between institutions for NHA.

#### Solutions proposed
- Identifying all legal, policy and technical issues pertinent to NHA.
- Customizing and synchronizing the following data systems to meet NHA needs: EMR, DHIS2, IFMIS, DHS, EICV, donor funding reporting tools, private sector and logistics data systems, etc.
- Linking NHA reporting cycles to other IFMIS and DHIS2 reporting time frames to ease discussions and use of NHA in policy-making.
- MoH will enforce donor and NGO reporting through a system that should be linked to NHA, for example, before renewing licences or before approving their plans of actions.
- Procuring central data storage for NHA or using existing national data storage systems. This will depend on each country.
- Strengthening collaboration among ministries, academia, private sector, etc.

### Dissemination

#### Challenges identified
- High staff turnover at MoH.
- Absence of a dissemination strategy, diversification of communication channels.
- Over-reliance on donor financing.
- Limited demand for NHA products.

#### Solutions proposed
- Regular NHA training for all new staff, making it a requirement.
- Including a dissemination strategy in the “NHA institutionalization” strategic plan.
- Publishing results in formal and informal formats, including using social media.
- Generating resources internally for the dissemination of NHA (ministries, academia, etc.).
- Reaching out to all contributing stakeholders or potential users of NHA results, particularly:
  - ministries (health, finance, planning, budget, etc.) and parliament;
  - district and CSO forums to disseminate NHA report;
  - public and private sectors to present results.
<table>
<thead>
<tr>
<th>Challenges identified</th>
<th>Solutions proposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data analysis and translation too technical, difficult to understand.</td>
<td>Simplifying presentation of NHA results.</td>
</tr>
<tr>
<td>Limited collaboration with academics and other stakeholders.</td>
<td>Expanding the range of output for NHA beyond published results.</td>
</tr>
<tr>
<td>Lack of knowledge, capacity or interest for NHA data.</td>
<td>Collaborating with universities and MoHs for further analysis.</td>
</tr>
<tr>
<td></td>
<td>Combining NHA with other data sources for richer analysis.</td>
</tr>
</tbody>
</table>

**RWANDA: Health expenditure information systems improvement**

In 2018 Rwanda was a pioneer country for the Primary Health Care Performance Initiative (PHCPI), given that the country could not provide key comparable health expenditure indicators with the health resource tracking tool (HRTT). In a display of openness, the MoH admitted to a deep understanding of the limitation of the HRTT and in 2019, thanks to BMGF funding, the first project on NHA institutionalization started. The original goal of the project was to explore the possibility of using existing IT tools to produce SHA2011-type data.

Specifically, the objectives were to: (1) provide to the MoH and IFMIS teams an understanding of health expenditure indicators needed for reporting; and (2) understand software requirement specifications and design, and configure and customize three IT systems to map the SHA2011, namely HRTT, EMR, and the Integrated Financial Management Information System. After talking with the Permanent Secretary of the Ministry of Finance and Economic Planning (MINECOFIN) (he was not aware of NHA because Rwanda stopped producing NHA in 2010), he instructed the IFMIS to support the collaboration. The project was only possible due to progressive and sustained dialogue between the ministries of health (planning and clinical services departments), finance (MINECOFIN), the Rwanda Biomedical Centre (RBC) and WHO. Below are the project results.
Objective 1: Understanding of health expenditure indicators needed for reporting: a week-long consultative workshop was conducted with the MoH and IT experts from the IFMIS at MINECO-FIN. The IFMIS experts were comprised of economists and IT experts. Both groups were trained on the general questions that NHA wants to respond to: Who finances health activities in Rwanda? How does the country raise funds? Who manages the funds? Who provides health services? What types of services are provided? At what cost? Who pays the cost at the point of care and how much?

The IFMIS team was fascinated by NHA and argued that because they produce reports for the IMF, NASA and UNAIDS, as well as several other reports for different bilateral and multilateral partners, NHA was possible to produce. An effort was made to map key players in the health system (Table 10) and health financing institutions, including the digital tools that were used (Table 11).

### Table 10: Key players in the health-financing ecosystem in Rwanda

<table>
<thead>
<tr>
<th>HS stakeholders</th>
<th>Data sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financing sources and agents</td>
<td>Expenditure</td>
</tr>
<tr>
<td>Government</td>
<td>IFMIS</td>
</tr>
<tr>
<td>Donors</td>
<td>HRTT</td>
</tr>
<tr>
<td>NGOs</td>
<td>HRTT</td>
</tr>
<tr>
<td>Insurance (public, private)</td>
<td>HRTT (hospitals, pharmacies and claims)</td>
</tr>
<tr>
<td>Health providers</td>
<td>Expenditure</td>
</tr>
<tr>
<td>Teaching hospitals/Referrals</td>
<td>HRTT</td>
</tr>
<tr>
<td>Hospitals and pharmacies</td>
<td>IFMIS</td>
</tr>
<tr>
<td>Health centres</td>
<td>HMIS</td>
</tr>
<tr>
<td>Health posts</td>
<td>None</td>
</tr>
<tr>
<td>Private hospitals</td>
<td>HMIS</td>
</tr>
<tr>
<td>Private pharmacies</td>
<td>HMIS /ISHYIGA25</td>
</tr>
<tr>
<td>Household out-of-pocket</td>
<td>Indirectly collected through insurance companies and providers' financial reports</td>
</tr>
</tbody>
</table>

ISHYIGA is a software used by all private pharmacies to report their taxes.
<table>
<thead>
<tr>
<th>Tool</th>
<th>Entities reporting</th>
<th>Available data elements</th>
<th>Observations</th>
</tr>
</thead>
</table>
| IFMIS | - Ministries  
- Government agencies  
- Administrative districts (local governments)  
- Public health providers (all district/provincial hospitals). Health centres are starting in FY 2019-2020 | Budget with funding source expenditure | - How do we capture funding from foreign sources distributed by the Ministry of Finance (MoF) [on budget support]?
This required additional information from MoF.
- Needed to break down health facilities’ “own generated revenues” by funding sources.
- Health facilities’ expenditure is reported according to the following three categories: (1) disease control; (2) management and infrastructure (includes equipment); and (3) health staff management. Details are lacking on expenditure categories such as salaries, social contributions, drugs, medical consumables, small equipment vs capital expenditure, etc. |
| HRTT | - Donors  
- NGOs  
- Insurance companies  
- Referral hospitals | - Report budget and expenditure | - Insurance reports expenditure by providers: clinics, polyclinics, hospitals and private pharmacies.
- Does insurance report their budget/revenue by sources (premiums disaggregated by employers, employees and subsidies)?
- Insurance administrative costs also have to be captured.
- Expenditure is not reported by inpatient or outpatient functions.
- EMR will provide the breakdown of their revenue by funding sources (insurance, co-payment of beneficiaries, private patients and private company) of “IGR” that will be applied to the expenditure of health facilities.
- Given that only DH use EMR, an alternative is needed for HC (information on sources of “IGR”) while waiting for the complete roll-out of EMR to HC.
- Information on inpatient/outpatient status is available but not included in revenue reports.
- Starting with FY 2019-2020, health centres will report their budgets and expenditure using IFMIS.
- Private facilities and pharmacies report their expenditures as follows: purchase of medicines, capital expenses on fixed assets, operating recurrent expenses and digital health expenses. This reporting structure does not allow for allocation of expenditure to functions and factors of provision. |
| EMR | - Provincial/District hospitals (39/43)  
- Health centres will be included this fiscal year (2019-2020) | - EMR is a billing tool; it will provide information on internally generated revenue. | |
| HMIS | - Health centres  
- Private health facilities and pharmacies | - Health centres report their revenue and expenditure  
- Private facilities and pharmacies report expenditure | |

26 IGR stands for internally Generated Revenues
• **Objective 2: Software enhancements to produce SHA2011 indicators**

Presented below are enhancements made to each software to allow for real-time production of NHA:

**EMR Enhancements:** Rwanda had a total of 39 public hospitals using the EMR billing system and eight public hospitals that used different billing systems. Each private health facility used its own billing system. All the systems were meant to be enhanced to produce required data for SHA2011 indicators. For public hospitals that were not using EMR, this information was submitted manually through IFMIS for accountability of public funds and the same information was also used to charge insurance companies for services rendered to their clients. Two major improvements were suggested to the public hospitals’ EMR: inclusion of outpatients and inpatients and several subcategories linked to both inpatient and outpatient categories were enhanced, namely internal medicine, surgery, paediatrics, gynaecology, obstetrics, consultation, laboratory, radiology, dental services, ophthalmology, dermatology, physiotherapy, etc. As part of the improvement process, the EMR team developed the following new features:

**Activity 1: Creating new admission types: “preventive care” and “day curative”**

In order to track patients’ health expenditure in a given health facility, selecting a patient as (1) inpatient or (2) outpatient has become mandatory during admission. Two other admission types have been created to fit SHA2011 requirements: (3) “day curative care” and (4) “preventive care”. A patient will always have one admission type at a time, which will have to be closed before readmission.

**Activity 2: Inclusion of foreigners in the socioeconomic categories**

In addition to the four existing socioeconomic categories (Ubudehe) applicable to only Rwandans, a new category named “not applicable” or “N/A” was added to include all foreigners using health services and living in Rwanda.

**Activity 3: Linking “diagnosis” to revenue**

On the patient’s discharge form, the “diagnosis” feature was added to enable the system to track health facilities’ revenue per diagnostic category. When a patient is discharged, EMR will link the provider’s clinical diagnosis to the total bill corresponding to the services provided. In case the diagnosis was not captured, the system gives the provider another chance to fill in the diagnosis information before discharge. An additional enhancement provides flexibility for the provider to fill the diagnostic information manually whenever the specific disease is not part of the clinical forms’ available options. The diagnosis will be aligned to the International Classification of Diseases (ICD).
Activity 4: Redefining health insurance classification

Prior to this project, all insurance was listed in one category called “insurance” regardless of ownership. A new feature redefined insurance into four subcategories: (1) public health insurance (RSSB/RAMA, CBHI, MMI, MIS/UR); (2) private health insurance (UAP, Radiant, etc.); (3) public/parastatal (BNR); and (4) private companies (Bralirwa, Bank of Kigali, etc.). Additionally, the system was upgraded to accommodate different payment plans. For example, if an insurance provider has more than one payment policy, each one will be featured (copayments of 0%, 10%, 15% etc. will be reported).

Activity 5: Reporting

Initially, EMR used to generate financial reports based on service (such as internal medicine, surgery, etc.) and insurance categories. Current enhancements involve additional reports including:

- Funding source by admission type (outpatient, inpatient, day curative and preventive) and service category (internal medicine, etc.) to feed IFMIS;
- Funding source by diagnosis to feed HRTT.

IFMIS enhancements:

The IFMIS system was upgraded to consume data from EMR, generate public health financing data and push the consolidated data to HRTT. The activities performed were:

1. Analyse and compare SHA2011 classification with IFMIS classification (Chart of Accounts of the Government of Rwanda);
2. A deep walk-through of existing health systems (HRTT, EMR) to be integrated with IFMIS;
3. Identify enhancements to be made in IFMIS by module (core module, IFMIS budget module, IFMIS payment module, IFMIS receipt module and IFMIS accounting module);
4. Harmonize IFMIS terminology with HRTT and EMR terminologies;
5. Elaborate requirements to be implemented by software developers;
6. Set up the development environment for integration with HRTT and EMR;
7. Develop a domain of intervention management, a sub-domain and an activity purpose;
8. Improve the system so that it should be possible to map the health subprogramme to activity purposes;
9. Create the linkage of IFMIS planned activity with activity purpose;
10. Develop input category management;
11. Create the input category and economic item mapping;
12. Develop insurance category management;
13. Create the insurance and funder categories;
14. Develop the functionality to group detailed records sent from EMR mapping;
15. Create an option of uploading a shared file to respond to the issue of offline systems;
16. Create the option of posting the grouped records to IFMIS accounting;
17. Create a template to share IFMIS and EMR data to HRTT.

**HRTT Enhancements:** Compared to other systems, the HRTT faced the most challenges in upgrading its systems, the major challenge of which was the inability to set up a reliable testing environment for both software and hardware. Its software comprised an outdated Windows server 2008, SQL server 2008, visual studio 2010 and SharePoint server 2010. Additionally, there was lack of physical space or hardware to host the testing environment (server). To address these limitations, the team used available licensed software, trial versions and a laptop as a server. Finally, the Core HRTT was found to have obsolete source codes and that impeded improvements. An external tool was developed to receive and send data to the HRTT report space which was functional. With a lot of effort, the IT team managed to get testing space on a laptop with all the attendant limitations (can crash or be stolen). In future, HRTT will need to be completely redesigned.

**Activity 5: Ensuring interoperability of HRTT with IFMIS and EMR**

This part of the work was done with all teams together. Before the actual interoperability was implemented, each team of experts developed their individual software technical user manual to guide system end users. To ensure that the overall ecosystem was functioning well, each team did two types of testing: internal and external testing for HRTT, EMR and IFMIS. Internal testing involved software developers working on making fake data and assessing whether the system was pushing and pulling data to and from where data is supposed to be taken and sent. External testing involved end users entering fake patients’ data, and the EMR team created dummy patient records to generate financial reports. IFMIS testing involved internal testing by IFMIS IT staff and integration with the other systems. IFMIS uploaded data from EMR. HRTT testing involved receiving data from IFMIS and EMR through the external tool created and pushing it to the report space that was functional and mapped to produce SHA2011 indicators at central level.
It is worth sharing with other countries the challenges faced and lessons learnt in Rwanda during implementation of the project to improve the three main health financing software. The project was an exploration with the aim of improving Rwanda’s health expenditure information systems and produce future national health accounts using information technology, while avoiding expensive periodic surveys. The challenges encountered that were progressively addressed related to time and finances. The team worked under a tight deadline and with very limited resources put in place. It necessitated more of their goodwill to achieve beyond what was needed and present good work.

**Further recommendations for NHA routinization in Rwanda**

1. In IFMIS, the health facilities’ “own-generated revenue” was broken down into funding sources. To address this limitation, the proposal was made to extract this data from EMR. Indeed, EMR has broken down public health facilities in terms of funding sources or internally generated revenue and these proportions are then used as spending categories to feed the HRTT.

2. In EMR, it was suggested that mandatory use be made of the inpatient/outpatient fields by not allowing the user to move to the next screen without first checking that option. This will allow the production of an expenditure report by function (inpatient/outpatient). These proportions will then be used as allocation keys to allocate expenditure to key functions.

3. Likewise, it was proposed that EMR be used to obtain expenditure by diseases. In EMR, diagnostics are grouped according to the International Classification of Diseases 10 (ICD 10), thus it is possible to produce allocations of revenue by disease category.

4. Some household expenditure would be captured through insurance reporting, public providers’ revenue and private providers’ revenue (health facilities, pharmacies, etc.). Given that not all pharmacies report to ISHYIGA (mainly in rural areas) and households do spend on health through...
traditional healers, the team may need to still rely on a few household surveys for these components. A precaution will be to figure out how to avoid double counting.

**Lessons from Rwanda’s experience in digitizing NHA**

1. The availability of the HRTT was an important starting point to reflect on real-time submission of health financing data. It is possible to completely digitize the production of NHA and get real-time data using the current IT infrastructure in African countries. However, this will require the following: An understanding of the resources needed (to first study and scale both infrastructure and human resources) at national level to improve systems.

2. Timely and adequate resources to move such a project forward; independence from government bureaucracy is necessary to study what is required at country level.

3. A very willing ministry of health and a passionate project team is important to kick off strong collaboration between the ministries of health and finance (budget, planning in countries where it is applicable).

4. A dedicated team of consultants is critical to move around challenges because: (1) the challenges in IT could not always be foreseen; (2) work can demand longer hours than planned. The project needs health economists, health financing, health policy, data analysts and IT experts to digitize the production of NHA.

5. Design an implementation plan:
   a) Phase 1 is a country needs assessment. It is a complete understanding of data systems available in the country, the level of use of information technology in data collection and analysis and the level of synchronization of data systems. Once mapping of all data systems is done, including their advantages and limitations in accommodating NHA, propose the needed NHA infrastructure.
   b) Phase 2 is the upgrading of systems. This requires the multidisciplinary team to work together for some time. They need to be released from their regular functions.
   c) Phase 3 is scaling up of upgraded systems. This is expected to be the most expensive part of the process; it involves procuring all IT infrastructure and training users.
   d) Phase 4: Once the electronic platforms have been set, real success will depend on a monitoring and evaluation plan. This will require strong and long-term commitment from the government and donors. Expert collaboration and more investments in hardware and software infrastructure will be needed.
Chapter 4:

A forward look at NHA institutionalization in Africa

Based on the previous summary of the past and current situation, it is important to look forward and set a path towards the institutionalization of NHA in Africa because all respondents unanimously think that it is possible to work towards a sustainable production of NHA in the Region. Using the World Bank framework on the institutionalization of NHA, a few recommendations are made.

4.1 Improve governance, capacity and financing for NHA

4.1.1 Donor coordination

Any sustainable solution to institutionalize NHA will depend on high-level donor commitment to work together and harmonize their efforts. It is fair to say that NHA failed in Africa because donors introduced it and failed to sustain their efforts in preparing for a smooth transition to capacitated national institutions. If the different players currently working on resource tracking were to pool their funding and expertise towards the institutionalization of NHA, then it would be possible, with WHO advocacy, to institutionalize NHA. The image with a question mark in Figure 6 represents all donors that are unaccounted for.

The Global Financing Facility (GFF) in 2017 developed a paper entitled “Strengthening Alignment at Country Level”, outlining how resource mapping and expenditure tracking (RMET) of the investment case (IC) is a key component of the GFF approach, resulting in aligning donor and government funding to the priorities of the IC. The RMET tools were initiated with the objectives to:

- Assess sources of funding of the investment case (domestic/external);
- The funding gap = cost of IC resources available;
- Identify what specific priorities and sub-priorities are currently being funded and where;
- Investigate whether donors and governments have kept their initial commitment towards IC priorities by monitoring the implementation of the IC.

Resource mapping is mainly an exercise to capture budget data from government and external partners. In the GFF context, it is the mapping of government and external forward-looking budgets linked to IC priorities, which are the national health strategy. Expenditure tracking routinely captures expenditure data in the health and other sectors. In the GFF context, it tracks government and external expenditure linked to IC priorities to monitor implementation of IC. There is a strong rationale for coordination, harmonization and collaboration between WHO, WB, and GFF in data collection for resource mapping and expenditure tracking.
4.1.2 National commitment

The second element will be national commitment and leadership to bring together technical and policy teams towards the digitization of data collection, the enhancement of existing IT solutions in each country and the synchronization or interoperability of all systems to produce real-time NHA indicators. Past experiences of NHA routinization in Africa show lack of countries’ commitment and leadership in taking policy decisions based on evidence from previous expenditure and impacts. NHA has suffered from a general lack of prioritization. It is critical that leaders depoliticize NHA data and adopt a more scientific attitude as suggested by a global expert: “Data is political; there is fear that data will be used against people and countries when comparisons are done… Data needs to be seen as a scientific contribution for impact assessments…”

With the current SDG commitment, countries have made clear commitments for UHC. It is vital that WHO and other partners capitalize on this renewed momentum to institutionalize NHA and make it part of national priorities. “Development partners need to make NHA a ‘country tool’, not an external demand”. NHA should be at the forefront and centre stage of every investment decision in terms of prioritization, cost effective interventions and resource mobilization. At the 27th AU Summit of 2016 in Kigali, African Heads of State and Government adopted the Africa Scorecard on Domestic
Financing for Health. A more interconnected world has turned out to be fragile, requiring critical investment for prevention and emergency preparedness as seen with the current COVID-19 epidemic. It is an opportunity to put NHA at the centre stage of decision-making. National commitment will involve engaging all key government institutions that contribute to or use NHA (see Table 12) and working on all legal arrangements between and within institutions for NHA to thrive (Table 13).

4.1.3 Recommendations on governance, capacity and financing

**For donors:**
1. Harmonize and coordinate donor resources and activities as well as resource-tracking processes related to expenditure tracking.
2. Create incentives for countries that tie funding to timely production of good quality NHA data. This will require strong coordination among development partners (WHO, WB, IMF, BMGF, multilateral and bilateral donors, etc.).

**For WHO**
1. Design a scoring system for countries to encourage them move from one step to another towards the institutionalization of national health accounts. The current initiative on primary health care performance improvement and universal health access are good opportunities to seize for enforcing the production of NHA data.

**For governments**
1. Ensure that the country designates a champion for NHA, and owns all NHA processes (hiring of staff, consultants if needed, etc.). Preferably, the highest office in charge of the Sustainable Development Goals could ensure championship. This could be the President's Office, the Prime Minister’s Office or the Finance Minister’s Office.
2. Mobilize resources internally and externally to institutionalize NHA by mainstreaming NHA data requirements in routine data collection systems, producing reports as part of countries’ reporting systems and reducing reliance on costly surveys by using information technology. Funding for NHA should be included in the national workplans and budgets for sustainability.
3. Generate interest in and create awareness and a culture of using NHA through greater collaboration and open discussion on investing in health with the ministries of health and finance, parliament, the institute of statistics, and other ministries, providers, the private sector, academia, etc.
4. Support documentation, facilitate countries’ sharing of best practices and make progress towards institutionalization of national health accounts.
5. Meet regional and international commitments for the provision of health expenditure data using NHA data.
6. Produce an NHA institutionalization strategy as part of the health financing strategy and monitoring and evaluation plan, in collaboration with stakeholders.
Table 12: Key institutions for NHA institutionalization in African countries

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<td>Guinea</td>
<td>Ministry of Finance, Planning and Development</td>
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<td>Rwanda</td>
<td>Ministry of Finance and Economic Planning (in charge of planning, budgeting); Ministry of Budget; Ministry of Planning and Regional Development.</td>
<td>Directorate of Administration, Planning and Finance (with a newly established Health Financing Unit)</td>
<td>Ministry of Finance</td>
<td>Budget; Ministry of Planning and Development.</td>
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<td>DRC</td>
<td>Ministry of Finance and Economic Planning (in charge of planning, budgeting); Ministry of Budget; Ministry of Planning and Regional Development.</td>
<td>Directorate of Administration, Planning and Finance (with a newly established Health Financing Unit)</td>
<td>Ministry of Finance</td>
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<td>Malawi</td>
<td>Ministry of Finance; Accountant General’s Office; National Audit Office; National Local Government Finance Committee.</td>
<td>Directorate of Financial Affairs</td>
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Every country has a parliament that needs NHA data to advocate for universal health coverage and hold the executive accountable for meeting key targets.

Guinea: Every country has a parliament that needs NHA data to advocate for universal health coverage and hold the executive accountable for meeting key targets.
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<td>Vision</td>
<td>National prospective study (ENP) BURKINA 2025</td>
<td>Guinea, vision 2030</td>
<td>Vision 2035 for a democratic, unified and richer Cameroon</td>
<td>Projected growth in the next 25 years, with a diversified and inclusive economy and poverty alleviation</td>
<td>Vision 2050 provides an overview of the development goals for Rwanda</td>
<td>Uganda's Vision 2040 aims at achieving middle income status by 2030</td>
<td>Vision 2020. It will be succeeded by Vision 2063 being finalized now</td>
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This table shows that there are already institutional arrangements to foster NHA institutionalization. Some documents need to be revised and others need to be written, but every country shows some level of commitment to NHA-type data production. This is an excellent starting point.

| Laws related to health spending | Law and regulation mandating MoH to produce NHA. Ministerial decree providing legal basis for MoH to collect national health information including national health accounts. | No law, no regulation mandating MoH or any institution to produce NHA | Law No. 2019/023 of 24 Decembe 2019. Circular No. 0008349/C/Minfi on instructions to execute the Finance Law. | Ministerial decree providing legal basis for the MoH to collect national health information including national health accounts. | Rwandan Constitution Organic Law No. 12/2013/OL on State Finances and Property. Under Article 13 of this law, MINECOFIN has the responsibility to promote and enforce transparency and accountability; Ministerial Order No. 001/16/10/TC dictates the structure and functioning of PFM, and the PFM legal framework | Removal of user fees in public health facilities in 2000 | Public Financial Management Act (2003) |
4.2 Improve the demand and use of NHA data

To improve the demand for, and use of NHA data, it is critical to go through the steps below, which can be customized based on each country’s context:

1. Map policy needs and potential use of NHA data for the different stakeholders through a participatory process of developing policy questions to be addressed by NHA. The process should include policy-makers at presidential and prime ministerial level, parliament, relevant line ministries, public and private sector providers, civil society, etc.;
2. Continued sensitization of high-level decision-makers and training of technicians on NHA value, including government ministries, the private sector, members of parliament, academia, etc.;
3. Build a common understanding among stakeholders regarding the utility of NHA;
4. Develop shorter, user-friendly, relevant reports, written in easy-to-understand language. Templates can be proposed to customize reports for different audiences (policy briefs for decision-makers, hospitals, etc.);
5. Enforce the demand and use of NHA, for example, every request for funds needs to have a set of selected health financing indicators generated by country expenditure data.

4.3 Improve the production, management, and quality of NHA data

It is possible with the current technologies and human resource capacity in Africa to synchronize health information systems with the current human resources available in the Region. Rwanda has already customized its health information system architecture to produce timely NHA indicators while Malawi has developed a concept note awaiting funding to move forward with its implementation. Processes need to be customized to the country’s context to avoid complete disruption. However, in countries where very little has been done, learning from the best systems integration is necessary for implementation of the best model.

4.3.1 Identify relevant national institutions and legal frameworks in support of NHA

Every country has its own institutional arrangement to build upon for NHA institutionalization. These institutions are either regulators, NHA data producers or consumers and are presented in Table 12. Legal arrangements are also unique for every individual country, even though key documents reinforce the need for transparency, accountability, universal health coverage, etc. Table 13 illustrates the legal ground on which to initiate dialogue and implement a successful routinization of NHA. It is evident that countries are at different levels of commitment towards NHA production (but all understand) and with coordinated support and a mid-term strategy, all countries can move together towards the same goal. It is important to house NHA in an institution that can dialogue with the MoH to avoid conflict of interest, sustain human resources and stimulate independent discussion outside of politics. The institute of statistics has been used as the NHA house in some countries, while in others it has been the schools of (health) economics and public health, etc. A regional approach can, however, be suggested to ensure that institutions with the same mandate dialogue for regional dissemination and/or publication.
4.3.2 Invest in IT infrastructure and integrate NHA variables in existing routine data and information systems

As discussed earlier, current NHA production comprises expensive, outdated, ad hoc data collection processes that rely mainly on donor willingness to demand and finance the production of health expenditure data. Estimating household OOP expenditure is the most complex and expensive survey. Several avenues to integrate NHA variables into routine information systems have been discussed and progress has been in two countries: Malawi has developed a concept note while Rwanda is several steps ahead and has already upgraded its health expenditure information systems architecture, while waiting for more funding to scale up the new features developed by local IT experts and training institutions. The integration of facility-level data collection for the NHA would involve: the HMIS, IFMIS, EMR, logistics management information systems, pharmaceutical management systems, etc.

Table 8 shows current financial and logistical management information systems that can be used to reduce the burden of NHA production. An example is Rwanda that for the past decade included financing indicators in the HMIS. However, the inclusion was done as a limited short-term strategy because the HMIS data managers do not think that the software was conceived to provide financial data. As Rwanda’s Ministry of Finance was scaling IFMIS to the lowest levels in its administration and health centres, IFMIS became more appropriate for reporting on health financing indicators although it is limited to public health facilities. In addition to scaling IFMIS, the Rwanda MoH scaled EMR in all district hospitals, which left out the core layer of the health system, the health centres. Although private health facilities were also left out, every step is a positive step towards reducing the data collection burden.

Rwanda’s EMR platform was upgraded with key indicators needed for NHA and was ready to scale to the district hospitals, health centres and health posts, while still leaving out the private sector. The lack of inclusion of private hospitals, polyclinics, clinics, and dispensaries was due only to the lack of time and funds to support a team of consultants dedicated to that endeavour. It was then suggested that private facilities willing to use government-owned software would be provided access free of charge while those not willing to adopt government systems would fund the improvement of their individual EMR and logistics information systems to meet the NHA requirements. This would be enforced when health facilities renew their licences every year.

4.3.3 Integrate NHA data into national financing indicator dashboards

The ministries of health have national health observatories (NHO) and the ministries of finance have a set of reporting indicators that would benefit from timely health accounts production. Every country has a repository of data that can be used to inform decision-making. The repository has a capacity to store disaggregated, input, output, outcome and impact (morbidity and mortality) data. The NHO, and by extension, the Integrated African Health Observatory, therefore provide an opportunity for improving the utilization of generated data through triangulation of different data to inform policy.
Integration of health expenditure data from the NHA offers an opportunity to enrich the data in this repository and facilitate decision-making.

4.3.4 Summarized recommendations on the production, management, quality assurance and translation of specific analyses into policies

1. Undertake a national needs assessment to strengthen NHA production in individual countries by:
   a. Identifying relevant national institutions and legal frameworks in support of NHA;
   b. Assessing gaps in terms of institutional and legal arrangements for NHA;
   c. Developing plans of action based on immediate action, short-term and long-term plans.
2. Invest in IT infrastructure and integrate NHA variables in existing routine data collection and analysis of information systems (create solutions, training, scale and evaluate solutions).
3. Integrate NHA data into national financing indicator dashboards.
4. Combine NHA with other data sources for richer analyses.
5. Collaborate with universities and research institutes to conduct further analyses. Conduct subregional analyses and provide critical analyses on key issues: equity of health care, allocative and technical efficiency of health care.
6. Sustain human resources for NHA: give mandate to a technical data-oriented institution, different from the ministry of health, to build necessary capacity and a career based on NHA skills from schools of public health, departments of economics and institutes of statistics, given that technocrats can vary based on political appointments.
7. In partnership with schools of public health and research institutes, mainstream NHA training in preservice curricula and in routine activities of research institutes.
8. Ensure formal and informal sector compliance for timely submission of data by binding renewal of licences to the submission of NHA data.

Improve the translation of data into specific analysis

Some of the recommendations to improve the translation and dissemination of NHA data were included in the previous chapters. Participants suggested that to improve the analysis and dissemination of NHA data, there is need to create a platform for relevant debate. The important players on this platform should not only be economists and IT experts; the team needs to be larger and include policy-makers, members of parliament and academics. The private sector must play a role. As a reminder of the first steps towards NHA, the private sector led the process in the USA. It is important to empower the private health sector in Africa. It is recommended to:
1. Expand the range of output from NHA beyond published results;
2. Collaborate with universities and MoH for further analyses;
3. Combine NHA with other data sources for richer analyses;
4. Conduct subregional analyses and provide evidence on key issues: equity of health care, allocative and technical efficiency of health care;
5. Sustain human resources for NHA: give mandate to a technical data-oriented institution, different from the ministry of health, to build necessary capacity and a career with NHA skills from schools of public health, departments of economics and institutes of statistics, given that technocrats at MoH are very few, have a broad scope of work and are more inclined to leave.

4.5. Improve the dissemination of NHA
1. Map the evidence needs of different stakeholders and develop tailored dissemination packages. Customize reports for different audiences (policy briefs for decision-makers, summaries targeting hospital interests, the private sector, key cost-effective analyses for the ministry of finance, etc.).
2. Explore innovative methods for disseminating NHA data, using modern marketing methodology and easy-to-understand language; produce scientific publications in collaboration with academia; propose templates as needed. Target the institutions contributing to NHA data collection and those that can implement the recommendations; support advocacy efforts.
3. Create a multisectoral group to follow up on the recommendations for NHA to inform next iterations of data analyses.
4. Work with academia to publish results and reach out to the public and private sectors to present results.
5. Design relevant, shorter, user-friendly reports, easy to understand for every stakeholder; propose templates as needed. Target institutions contributing to NHA data collection.

WHO
1. Provide financial support and undertake regional studies, innovation and sharing of best practices.
2. Design a scoring system to motivate countries to learn from best performers; map best practices. Design rewards for best performers, in terms of additional grant to support improvements.

Revisit the World Bank framework to fit the reality on the ground
The overall NHA framework provides a good overview of any basic data production cycle because it is simple enough to be understood by all technicians. However, a respondent suggests that the “translation of data and dissemination of specific analyses is not a realistic step”. NHA production goes together with the “translation of data into specific analysis as an iterative process, going back and forth from data to translation and back again”. Dissemination comes last and is not redundant:
“it is an iterative process that when we produce NHA reports, the steering committee discusses the findings as we refine our analyses and the dissemination is done later when these processes have been finalized…”

**Country reports**

The country reports are a 246-page document including detailed reports of every participating country’s status with regard to NHA institutionalization. The country reports are submitted separately with the summary of the status update of NHA institutionalization in the African Region. The document includes seven individual country reports, formatted but not translated or modified; three reports are in English and four are in French. Although all consultants received the same report template, each report has been customized based on the context of individual countries and the consultant’s creativity.
Chapter 5:
Annexes

Annex 1: Reviewed documents

Global literature review

1. WHO – Health Accounts https://www.who.int/health-topics/health-accounts/#tab=tab_1
4. PHRplus Project, NHA regional policy brief - Eastern, Central, and Southern Africa: Using NHA to Inform the Policy Process
6. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4194972/
9. Global Health Expenditure Database (GHED)
10. Organization for Economic Co-operation and Development (OECD), Creating an evidence base for better health financing and greater accountability - A Strategic Guide for the Institutionalization of National Health Accounts
17. Robert Yin, Case Studies Design and Methods, 2013
org/curated/ar/410301468323088938/pdf/689660PUB0publ07926B009780821394694.pdf
21. Institutionalization of the National Health Accounts (NHA) Production in Malawi
22. Angelique K. Rwiyereka, Improvement of Rwanda’s health expenditure information systems, Report to PHCPI & WHO, 2019

**Burkina Faso**
24. MS-BF_Plan de transformation_Ministère Santé BF_Meda N_09 Août 2017
25. Ministère de la santé, Rapports des Comptes de la Santé de 2011 à 2017
27. OMS, Système des Comptes de la Santé (SHA), 2011, version abrégée, juin 2012
28. NOTE DE POLITIQUE: Stratégies d’amélioration des allocations budgétaires pour la santé au Burkina Faso, Novembre 2011
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Annex 2:
Interview guides

Global interview guide

Global interview guide for situational analysis of the institutionalization of NHA in the African Region

Seven countries will present the situational analysis, with some more advanced than others on the path towards institutionalizing NHA. The countries are Burkina Faso, Cameroon, Democratic Republic of Congo, Guinea, Rwanda, Malawi and Uganda. This interview guide will help the World Health Organization (WHO) produce a guide for countries willing to make progress in institutionalizing national health accounts (NHA) in their health financing systems. WHO has based the situational analysis on the World Bank framework below.

Broadly, the sub-themes will rotate around the experience of the respondents (specifics will depend on whether the expert works in implementation, evaluation, policy-making, etc.) as follows:

1. Which countries have you worked in and/or do you intend to support? Or: What are the countries you have evaluated in relation to health financing and/or NHA? What have been generally your findings?
2. In what areas have your organisation been supporting countries towards the institutionalization of NHA?
3. Based on your experience, do you think that institutionalization is possible in the African Region? If yes or no, could you elaborate on your response?

4. In your view, what are the opportunities countries can capitalize on to achieve full institutionalization of NHA in their own systems?

5. What are the challenges in institutionalizing NHA that African countries will need to address?

6. What do you think of the current WB framework proposed? Do you think it paints a comprehensive picture of the NHA institutionalization? What is missing? What needs to be taken out? Does it need to be completely revised? Please elaborate on your thoughts.

7. How can African countries get to the institutionalization of NHA in the African Region? Could you please elaborate on requirements to consider and steps for every requirement?

8. Could you please share documents (papers, reports, manuscripts) around the study or work you did?

9. Who else do you think can provide valuable contributions? Could we call you back for further clarification or new questions?

Thank you very much, we greatly appreciate your contributions.

National interview guide

Interview of guide for the situational analysis of national institutionalization of NHA in the African Region: Guide for national consultants

Seven countries are involved in the current assessment, namely Burkina Faso, Cameroon, Democratic Republic of Congo, Guinea, Malawi, Rwanda and Uganda. Some countries are more advanced than others on the path towards institutionalizing NHA. This interview guide is framed to feed information into the World Bank framework for the institutionalization of NHA (Fig. 1). The detailed questions will be customized to fit a specific country’s context. As you do so, please keep the changes tracked to help inform the reporting.
Specifically, the consultant will help answer the following questions:

1. The demand and use of NHA data and clarify the following:
   a. Is there an established governance structure for undertaking and coordinating NHA work? Where is it housed?
   b. Who predominantly finances NHA work-related activities? Is there a long-term financing strategy for the production of NHA?
   c. Who demands for NHA data in the country? When was this demand expressed? What triggered the demand? Who had direct interest in its demand and use? Please present the context related to the expression of the need for NHA data from government (was it from the Ministry of Health or Finance?), private sector and donor perspective.
   d. Who are all the stakeholders interested in documenting and using NHA data? This would enrich understanding of the willingness and readiness to use NHA data.
   e. What is the extent to which reference is made to NHA data in policy dialogue (joint annual reviews and health sector assessments), in which decision-makers discuss the need for the availability of health expenditure data for planning and implementation?
   f. Is there any reference to NHA data in making resource allocations, negotiations with the Ministry of Finance, monitoring implementation, equity or efficiency?
g. Are there plans to further improve the demand and use of NHA data? Documentation will be made of challenges and suggestions for the improvement of the demand and use of NHA data, including best practices that have pushed the country forward in demanding and using NHA data.

h. Is there any additional information we may have forgotten on the demand and use of NHA data? Please add as much information as needed to clarify this topic within your country’s context.

2. Production, management and quality assurance of NHA data
a. Are policy priorities to be addressed by NHA determined before the exercise? Who decides these?

b. Is there a team/institution with knowledge and skills charged with undertaking and coordinating NHA in the country?

c. Who funds the production, management and quality assurance of NHA data? Is there any sustainable financing of these activities?

d. To what extent are NHA data requirements incorporated into routine information systems? Is there routinization of NHA indicators in the national financial and health information systems through adequate adjustments of the systems to provide the data required to produce NHA?

e. Is the undertaking of NHA included in the monitoring and evaluation plans with planned and/or existing data collection tools? Please provide details.

f. What are the existing tools and national data systems to sustainably produce NHA data? This will include all information technology (IT) tools such as the health management information systems (HMIS) and integrated financial management information system (IFMIS).

g. What are the challenges in NHA reporting, the degree of annualization of the NHA and the degree of institutionalization in terms of scope of NHA dimensions, including existing road maps in countries for effective NHA institutionalization? An identification of gaps and limitations, in view of identifying existing opportunities for integration of NHA indicators into existing data collection systems will be provided.

h. What are the areas for potential upgrade and customization of existing tools to align with SHA2011 requirements and achieve NHA institutionalization? Quality assurance processes for meeting the criteria of reliable NHA data at country level should be clearly outlined.

i. Are there plans to further improve the production, management and quality assurance of NHA data?

j. What are the best practices, in the context of synchronizing data tools and systems, that provide great contributions to the production and management of NHA data?

k. Is there any additional information we may need to know in relation to the production, management and quality assurance of NHA data? Please add as much information as needed to clarify this topic.
1. **Dissemination**

A detailed description of the different methods of dissemination of NHA data will be made in answering the questions below.

a. What are the different fora/meetings in which NHA data is presented in the country? What are the institutions involved? How often are NHA data dissemination fora/meetings organized?

b. Are NHA results disseminated using soft and hard copies? Do national websites publish NHA data? Are there printed summary reports of NHA data and their interpretation into policies and decisions?

c. Who funds the dissemination activities of NHA results? Is there any sustainable financing of the dissemination of NHA results?

d. Are there plans to further improve the dissemination of NHA data?

e. What are the challenges and possible solutions to improve the dissemination of NHA results? This applies to national, sub-national and local levels, in addition to regional and international levels.

f. What are the best practices that significantly improved NHA data dissemination in your country that can be used by other countries?

g. Is there any additional information we may have forgotten on the dissemination of NHA data? Please add as much information as needed to clarify this topic.

2. **Translation of data and dissemination of specific analyses:**

a. **Ownership of data production and analysis:**

   i. Who are the stakeholders involved in the translation of data and specific analyses? They may be the ministries of health, finance, etc., members of parliament, civil society or donor community.

   ii. Who are the funding organizations taking part in activities related to the translation of data and specific analyses?

b. **Ownership of the processes of translating data into concrete decisions and actions** is presented as follows:

   i. Is the health sector leadership aware of and taking action based on the NHA analysis results?

   ii. Who leads the translation of data into concrete decisions and the implementation of those decisions? Who is involved? Government ministries, donor organization or civil society?

   iii. How is the translation of data and specific analyses done? Describe the processes step by step.

c. Do analysed NHA data affect policy decisions in terms of recalibrating resource allocations for efficiency, equity in distribution and improved health outcomes?

d. Are there plans to further improve the translation of data and dissemination of specific analyses of NHA data?
e. What are the challenges and suggestions in translating NHA data into specific policy interpretation and country ownership of its processes?

f. What are the best practices that the country has used in improving data, translating NHA data into specific policy decisions and enhancing its ownership of overall processes?

g. Is there any additional information we may have forgotten on the translation of NHA data and dissemination of specific analyses? Please add as much information as needed to clarify this topic.
### Annex 3:
#### List of respondents

**Global respondents**

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<th>Organization</th>
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### National respondents

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