



Governance, Priorities & Policies in National Research for Health Systems in West Africa



- GUINEA BISSAU
- LIBERIA
- MALI
- SIERRA LEONE

The COHRED Group



Governance, Priorities & Policies in National Research for Health Systems in West Africa

- GUINEA BISSAU
- LIBERIA
- MALI
- SIERRA LEONE

Authors

Debbie Marais, Council on Health Research for Development (COHRED), South Africa
Issiaka Sombie, Research Division of Research and Health Information System, WAHO, Burkina Faso
Francisco Becerra-Posada, COHRED, Mexico
Gabriela Montorzi, COHRED, Switzerland
Sylvia de Haan, COHRED, Switzerland

Contributions

Contributions to the content of this paper through interviews, presentations and mapping exercises were made by country teams present at the March 2011 Dakar workshop

Keywords

Research for Health Systems, Research for Health, Governance, Management, West Africa, Guinea Bissau, Liberia, Mali, Sierra Leone, Ministry of Health, Priority Setting, Policy Development, Mapping, Capacity

ISBN

92-9226-042-1

Copyright and Reasonable Use

We are pleased to provide this free working paper under the Creative Commons Attribution 3.0 License (terms and conditions available at <http://creativecommons.org/licenses/by-nc-nd/3.0/>)

You are free to share, copy, distribute and transmit this work under the following conditions:

- You must attribute the work in the manner specified by the author or licensor.
- You may not use this work for commercial purposes.
- You may not alter, transform or build upon this work.
- For any reuse or distribution, you must make clear to others the license terms of this work with a link to this web page: <http://creativecommons.org/licenses/by-nc-nd/3.0/>
- Any of the aforementioned conditions can be amended if you get permission from the copyright holder.
- In no way are the author's moral rights affected or restricted by this license.

The full text of this working paper in electronic form can be accessed at www.cohred.org

© Executive Committee, Research for Health System Strengthening in West Africa, 2011.

Acknowledgements

Financial support for the present working paper was provided by the Health Research Capacity Strengthening (HRCS) Global Learning Project of the IDRC, through the University of the Western Cape.

Special thanks to the country teams representing Guinea Bissau, Liberia, Mali and Sierra Leone at the 2011 Dakar workshop on 'Research for Health System Strengthening in West Africa', for their invaluable contributions.

Financial support for the 2011 Dakar workshop was provided by UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training and Tropical Disease (TDR). Work plans resulting from the workshop are to be implemented throughout a four-year project financed by the International Development Research Centre – Canada (IDRC) and the West African Health Organization (WAHO), with technical facilitation provided by the Council on Health Research for Development (COHRED).

List of Acronyms

COHRED	Council on Health Research for Development
ECOWAS	Economic Community of West African States
HBiomedSL	Health & Biomedical Research Group of Sierra Leone
HDI	Human Development Index
IDRC	International Development Centre – Canada
INASA	National Institute of Public Health (Guinea Bissau)
INEP	National Institute of Social Science Research (Guinea Bissau)
INRSP	National Institute for Research in Public Health (Mali)
LIBR	Liberian Institute of Biomedical Research
LMIC	Low- and middle-income countries
MESSRS	Ministry of Secondary and Higher Education and Scientific Research
M&E	Monitoring and Evaluation
MOE	Ministry of Education
MOH	Ministry of Health
MOHS	Ministry of Health & Sanitation
MOHSW	Ministry of Health & Social Welfare
NEPAD	New Partnership for Africa’s Development
NR4HS	National Research for Health System
R4H	Research for Health
R4HS	Research for Health System
REC	Research Ethics Committee
S&T	Science & Technology
TDR	UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training and Tropical Disease (TDR).
WAHO	West African Health Organization
WHO	World Health Organization

Executive Summary

Background

In December 2009, a three-day research for health meeting, held in Ouagadougou, Burkina Faso, was jointly organised by the West African Health Organization (WAHO), the Council on Health Research for Development (COHRED), and the International Development Research Centre - Canada (IDRC), and initiated the mapping of the current status of governance and management of research for health (R4H) in the 14 participating West African states. The assessment revealed deficiencies in the regional research for health systems¹, including in coordination, governance and management structures, policy frameworks, availability of financial resources, research capacity development, political support for research for health, and utilisation of research results. In particular, the results of this assessment made explicit an overwhelming need for support in Guinea Bissau, Liberia, Mali and Sierra Leone.

A follow-up workshop, jointly organised by WAHO, COHRED, and the Ministry of Health and Prevention of Senegal, was convened in Dakar, Senegal in March 2011, with financial support from the UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training and Tropical Disease (TDR). The rationale for this meeting was to respond to the clear need for research for health system strengthening in the above-mentioned four countries. Workshop objectives were to identify shared problems that could be tackled through collective strategies, and to design action plans tailored to each country. The Dakar workshop was used to gain access to country participants for data collection purposes: Interviews with country representatives during this meeting, together with country research for health (R4H) maps and presentations, form the basis of this paper. Financial support for this working paper was provided by the HRCS Global Learning Project of the IDRC, through the University of the Western Cape.

Country R4HS Gaps and Goals

Guinea Bissau's stewardship and coordination of research for health at the national level has been lacking. As a result of dependence on donor funding, the Ministry of Health (MOH) relies on donors to determine research for health priorities and, without a national research for health policy, there is no point of reference for guiding national research for health from within the country. In addition,

gaps in training and capacity are an obstacle to system development. The most immediate priorities for Guinea Bissau are, therefore: to finalise the priority setting process; elaborate a national agenda for research for health; build capacity, particularly capacity for research management; and establish mechanisms for disseminating and utilising research results.

1. By research for health systems (R4HS), we are referring to systems of research for health, not health systems research. Health systems research focuses on delivery and services provided by the health system. Research for health systems focuses on the systems that manage all activities related to research for health.

Liberia's research for health system (R4HS) is still in the early stages of development, and, as such, enormous challenges remain. Most needed are the processes and assistance to institutionalise Liberia's research for health agenda. The R4HS is still at the inception stage – infrastructure and a comprehensive policy that will transcend all sectors that need to be developed. This will require financial assistance, national and international collaboration and regional networking. Liberia's immediate tasks, then, are to: finalise the mapping of the country's research for health system; establish more effective structures and strategies for government, management and coordination of the system; develop a national agenda for research for health and initiate a process for setting research for health priorities; establish a National Research Ethics Committee that functions independently; and mobilise national and international funding for research for health.

Mali's R4HS appears to be the most developed of the four countries discussed in this paper. Lack of coordination and resources are the main challenges faced as the country continues to build its research for health system. In addition, the means – particularly government financing – are difficult to mobilise at national level, leading to a heavy dependence on foreign sources. Key areas in need of strengthening in Mali include: establishing a national coordinating committee

for research for health; improving physical and human resources for research for health; improving the operational capacity of the national Research Ethics Committee (REC); and advocating for more efficient national funding procedures.

Sierra Leone faces a number of challenges in building its R4HS, the greatest of which are the absence of a national policy or strategy for research for health, and shortages of human resources for research for health. Limited government commitment, inadequate funding, poor coordination and networking, a small number of health researchers who are typically combining multiple tasks or jobs, limited grants and research management skills, and very limited capacity in general, were identified as some of the problems encountered in this country. Like the other countries in this study, Sierra Leone's research for health priorities are, as a result of the problems mentioned above, mostly donor-driven. As such, Sierra Leone has identified four key priority areas for R4HS strengthening: develop a national research for health policy and strategic plan; strengthen the human resources for research for health; mobilise funds for research for health by advocating at national and international levels; and establish a formal mechanism for coordination of research for health.

Moving Forward

It is expected that action plans resulting from the Dakar workshop in March 2011 will be implemented throughout a four-year project financed by IDRC and WAHO, with technical facilitation provided by COHRED.

The following goals for R4H system strengthening were identified as priority areas for development in the four countries. Most of these are common to all four countries and thus can be said to be regional goals for strengthening the national research for health systems in West Africa:

-
- 1** FINALISE MAPPING of the national research for health system.

 - 2** ESTABLISH MORE EFFECTIVE STRUCTURES AND STRATEGIES for governance, management or coordination of the system – or all three. R4H coordinating mechanisms in particular need to be established.

 - 3** INITIATE OR FINALISE PRIORITY SETTING PROCESSES, and develop a national agenda for research for health.

 - 4** BUILD CAPACITY IN HUMAN RESOURCES for research for health, particularly capacity for research management.

 - 5** ESTABLISH INDEPENDENT NATIONAL RESEARCH ETHICS COMMITTEES and/ or improve the operational capacity of these committees.

 - 6** ADVOCATE FOR AND MOBILISE NATIONAL AND INTERNATIONAL FUNDING for research for health.

 - 7** ESTABLISH MECHANISMS for disseminating and utilising research results, and translating them into policy.

The recommendations, although numbered, are not listed in chronological order or by priority.

1 Introduction: Research for Health System (R4HS)¹ Strengthening

The aim of this paper is to describe key elements of the national research for health systems (NR4HS) in four West African countries – Guinea Bissau, Liberia, Mali and Sierra Leone. In particular, the governance and management structures, research for health policies and research for health priorities are reviewed. Country findings from a meeting held in Burkina Faso in December 2009 will be compared to those from the four above-mentioned countries, which met in Senegal in March 2011 to launch a project aimed at strengthening research for health systems. Cross-country comparisons will be made, highlighting similarities and differences in country needs and challenges with respect to R4HS development.

The WAHO research for health meeting held in December 2009 was jointly organised by the West African Health Organisation (WAHO), the Council on Health Research for Development (COHRED), and the International Development Research Centre - Canada (IDRC). This three day meeting in Ouagadougou, Burkina Faso initiated the mapping of the current status of governance and management of research for health in the 14 participating West African states². The assessment of the R4H situation in these countries revealed deficiencies in the regional research for health systems, particularly in coordination, government and

management structures, policy frameworks, availability of financial resources, research capacity development, political support for research for health, and utilisation of research results (COHRED, 2010a).

The results of this assessment made explicit an overwhelming need for support in Guinea Bissau, Liberia, Mali and Sierra Leone in particular. Consequently, a follow-up workshop was convened in Dakar, Senegal, in March 2011 to respond to the clear need for research for health system strengthening in these four countries. The workshop was jointly organised by WAHO, COHRED, and the Ministry of Health and Prevention of Senegal, with the participation of IDRC and financial support from the UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training and Tropical Disease (TDR). The objectives of this workshop were to identify shared problems that could be tackled through collective strategies, and to design action plans tailored to each country. The Dakar workshop was used to gain access to country participants for data collection purposes: Interviews with country representatives during this meeting, together with country R4H maps and presentations, form the basis of this paper. This paper was commissioned and funded by the HRCS Global Learning Project of the IDRC, through the University of the Western Cape.

1. By research for health systems (R4HS), we are referring to systems of research for health, not health systems research. Health systems research focuses on delivery and services provided by the health system. Research for health systems focuses on the systems that manage all activities related to research for health.

2. Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo.

It is now widely accepted that high quality research is critical for identifying, prioritising and addressing the health needs of a population. Health research is a driver for development, as it generates the knowledge needed to improve health systems performance and, ultimately, health and health equity (Mullan, Frehywot, Omaswa, Buch & Chen, 2011; Nuyens, 2005; Pang et al., 2003). It follows, then, that strengthening the capacity of research systems directly affects the ability of a nation to improve their own health outcomes (Bates et al., 2011; WHO, 1996). Building research capacity for conducting relevant and local research is increasingly approached from a systems perspective (Lansang & Dennis, 2004; Pang et al., 2003). However, in many low- and middle-income countries (LMICs), a wide gap exists between current health systems and the needs that health systems should address (Pang et al., 2003; Sundewall et al., 2010; Whitworth, 2008).

A note about the elements of the NR4HS highlighted in this paper is appropriate here. The focus of this paper is particularly on the governance and management, policies and priorities of research for health systems in West Africa. That there are other critical elements of the R4H system goes without saying, and capacitating this system on all levels is essential to system building. Research capacity strengthening is integral to enabling developing countries to identify health research priorities and develop strategies that are relevant and appropriate to local contexts (Farley, 2005; Pang et al., 2003). An analysis of capacity within a system, and any subsequent attempts to strengthen that capacity, must appreciate the different levels (including individual, institutional and macro levels), functions and enabling variables within the system (Ghaffar,

IJsselmuiden & Zicker, 2008; Lansang & Dennis, 2004). While previous capacity building strategies have tended to focus on individual skills development, knowledge transfer and training (Green & Bennett, 2007; OECD, 2006; Potter & Brough, 2004), there is increasing recognition of the need to focus on all capacity dimensions and, specifically, to approach capacity building in systemic terms (Jones, Bailey & Lyytikainen, 2007; Lansang & Dennis, 2004; Nuyens, 2005; Pang et al., 2003; Potter & Brough, 2004).

This awareness has meant a shift in focus from the producers of research – i.e. researchers – to include a broader set of competencies – such as identifying national health research priorities, generating and disseminating knowledge from research, and getting that research knowledge into policy and practice (Ghaffar et al., 2008). This necessitates capacitating the system with decision makers, community members, research managers and others who have skills in, for example, priority setting, networking and leadership, communication, translation and dissemination, and advocacy. The importance of a favourable and conducive enabling environment for research has also been recognised, (Gyapong & Ofori-Adjei, 2006; Pang et al., 2003), along with the political will and leadership to mobilise a sustainable system (Lansang & Dennis, 2004; Omaswa & Boufford, 2010).

National research for health systems (NR4HS) in many LMICs function in an almost ad hoc manner, with many of its components operating in isolation. In contrast, a system's perspective emphasises that all research for health conducted within a country should contribute towards common national objectives in research and development. Establishing an effective

governance and management structure can provide the leadership needed to develop national policies and priorities for research for health, coordinate the various elements of the system, allocate funds for research for health, build individual, institutional and system capacity, and facilitate the translation of research results into policy.

Over the past 15 years COHRED has supported LMICs around the world in building and strengthening their national research for health systems. What emerged from this work was that a lack of clear national research for health priorities, backed by policies and a system to manage the research agenda, impedes countries' ability to conduct relevant research and attract necessary research funding. Countries need to better establish their research priorities and refine their ability to effectively

communicate their research for health agenda, both nationally and internationally (COHRED, 2006). Furthermore, it is clear that political commitment to research for health is a prerequisite for optimal development of an effective NR4HS. Based on this experience, COHRED has developed a practical, integrative approach to inform decisions on how countries can best strengthen their research for health systems.

Within this framework, three core components – collectively – form the foundations from which a country can make the transition from an ad hoc to a formal system of research for health: governance, management and coordination structures; research for health policy framework; and research for health priorities. These key NR4HS elements are briefly described in the Table 1 below.

Table 1: NR4HS Foundations

RESEARCH FOR HEALTH SYSTEM FOUNDATIONS

1. Governance, management & coordination

This covers the range of activities that must be carried out to ensure that the R4HS is provided with leadership and strategic direction, that it coordinates the various elements of the system and produces the necessary research. Where such mechanisms are absent, their establishment should be considered as one of the first steps in R4HS development.

2. Policy framework

This element provides the legislative and policy framework within which all actors in research for health can operate and through which the goals of the system are set and strategies for their delivery proposed. It consists of a number of smaller policies and pieces of legislation that can be used as the vehicle through which reform of the R4HS can be managed.

3. Priorities

Research for health priorities define the research needs for the country. Without defined priorities researchers and funders, whether national or foreign, cannot align their activities with national requirements. A rigorous priority setting process can ensure that the priorities defined balance the needs of the different stakeholders and the needs of the system's short, medium and long terms objectives.

Adapted from COHRED manual for R4HS development (Kennedy & IJsselmuiden, 2007).

The development and implementation of each of these components are dependent on strong political leadership and support from all the ministries that will have to act to make this happen (Kennedy & IJsselmuiden, 2007). With the foundations in place, efforts can be directed towards building the financial and human capacity for research for health within the national system. This includes developing a plan for human resources for research for health, and a plan for stable and predictable research

financing, both of which should be aligned to national priorities. Following this, other system components can be established, including ethics review, research dissemination, technology transfer and monitoring and evaluation.³ The starting point for strengthening a country's research for health system is to have a clear picture of the current state of research for health and the areas where development should be targeted. COHRED works with countries to conduct such assessments of NR4HS.

3. http://www.cohred.org/NHRS_development

1.1 Aims

The aims of this paper are to provide a descriptive review of key elements of the national health research systems in the four countries, and to present a cross-country comparison, highlighting similarities and differences in country needs and challenges with respect to R4HS development.

To address these aims, mapping of the following R4HS components was conducted for each country: i) governance, management and

coordination structures, ii) research for health policies and priorities, and iii) research for health capacity, in particular financing, human resources and ethical review capacity.

Based on the maps produced and the consultation meeting, this working paper is meant to facilitate further discussion between national, regional and international partners on strengthening national research for health systems in West Africa.

1.2 Methods

With financial support from the HRCS Global Learning Project of the IDRC, through the University of the Western Cape, data for this working paper was collected during the Research for Health Systems Strengthening in West Africa Workshop held in Dakar, Senegal, from 16 to 18th March 2011. The workshop was jointly convened by WAHO and COHRED with funding from the UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training and Tropical Disease (TDR), and was attended by representatives from each of these organisations, and country representatives involved in research for health from each of the four countries.

Descriptive information about the country teams participating in the Dakar meeting in March 2011 is presented in Appendix 1 in table format. As well as individuals from Guinea Bissau, Liberia, Mali, Sierra Leone and Senegal (hosts of the meeting), representatives from WAHO, the IDRC, COHRED and NEPAD were also in attendance. A wide range of institutions and governmental sectors were represented at the

meeting, including the National Institute of Public Health (INASA) and the National Institute of Social Science Research (INEP) (Guinea Bissau); the Ministry of Education, Liberian Medical and Dental Association, and the Evaluation, Research & Health Statistics Unit (Liberia); the Ministry of Health, National Institute for Research in Public Health (INRSP) and Faculty of Medicine, Pharmacy & Dentistry (Mali); and the Ministry of Health & Sanitation and Directorate of Training, Non-Communicable Diseases and Research and the Medical Research Council (Sierra Leone).

Mapping of each country's R4HS was based on four sources of evidence collected during the Dakar workshop: i) interviews with country representatives, ii) R4HS maps presented by country teams, iii) country presentations from the meeting, and iv) national policy documents and other relevant literature. These R4HS maps form the basis of this working paper. A R4HS map template, developed by COHRED and used in other countries and regions, was used as guidance for the mapping processes⁴. The objectives were three-fold:

4. See for more information on the tools used: Building and strengthening national health research systems. *A manager's guide to developing and managing effective health research systems*. COHRED, 2007.

- The maps would bring together key country level research for health system information into a single, publicly accessible document;
- The mapping would facilitate discussion among national stakeholders on gaps, challenges and opportunities for strengthening their research for health systems;
- The mapping would facilitate learning among countries within the region.

2 R4HS in Africa and the West African Region

With the increasing recognition of the importance of R4HS strengthening for health, equity and development, there is a growing body of work focusing on the status of R4HS in Africa (Matthys et al., 2009). Few countries on the continent have well-developed R4HS and, where such structures are in place, key elements of effective R4H systems are often weak or absent. Studies in this area have identified components that appear, in varying degrees, to be lacking in many African R4HS, including strong leadership and political support (often referred to as an enabling environment), governance and management structures, clear policies and priorities that are aligned with national health needs, coordination mechanisms, financing, and the capacity for translating research results into policy (COHRED, 2008; Davison, Robinson & Neufeld, 2008; Gadsby, 2008; Matthys, Murugi, de Haan, Mäusezahl & Wyss, 2009; Olafsdottir, Reidpath, Pokhrel & Allotey, 2011; Omaswa & Boufford, 2010; ter Kuile & Neufeld, 2006).

Despite the many challenges faced, across Africa there is growing awareness of the benefits of research and of strong national research for health systems, together with the political will and leadership to support and finance this (Matthys et al., 2009). This leadership is also important for setting research for health priorities (COHRED, 2008), and for making evidence-informed policy a reality in many countries (Matthys et al., 2009). Some countries have made progress in establishing research directorates or separate research units within the Ministry of Health, while others have included a research component in national health policy (Matthys et al., 2009). The range of institutions engaged in research for health across the continent are evidence of the potential for the strengthening of research capacity within the African region, which may facilitate the merging of research with, for example higher education, government decision making and service delivery (Gadsby, 2008).

2.1 Overview of R4HS in 14 West African Countries

In Burkina Faso in 2009, 14 West African countries attended a meeting with the aim of analysing the state of their national research for health systems and building national capacity for research governance and management. The meeting, attended by research leaders from the ministries of health and science & technology,

was convened and funded by the West African Health Organisation (WAHO), and facilitated by COHRED and IDRC. WAHO is the health arm of the Economic Community of West African States (ECOWAS), with the mandate to promote regional health standards, advocate for the harmonisation of policies and pooling of resources, and enhance

international collaboration to combat regional health challenges⁵.

The main finding from this meeting was that, while many West African countries have various levels of governance and policy documents, there was a need to improve governance, management and coordination of research for health structures. Participants also recognised the need to develop

policy and strategy documents, ensure better use and uptake of research results, strengthen the capacity for research, and secure political support for research for health and its financing. There was consensus that mapping the current situation would help to identify areas for improvement and cooperation in the region. Table 2 below presents data from this meeting on governance, policies and priorities.

Table 2: Governance, Policies & Priorities of 14 West African Countries

COUNTRIES	RESEARCH FOR HEALTH GOVERNANCE STRUCTURE ⁶	RESEARCH FOR HEALTH POLICY ⁷	RESEARCH FOR HEALTH PRIORITIES ⁸
Benin	Mixed structure Health, Education & S&T	MoH 2009 – 2013	MoH 2009 – 2013
Burkina Faso	Mixed structure Health, Education & S&T	MESSRS 1995	MESSRS 1995 MoH 1997
Cape Verde	Health Structure	MoH?	MoH: Health research MoE: Capacity for health research
Côte d’Ivoire	Mixed structure Health, Education & S&T	No dedicated policy	No formal health research priorities
Gambia	Health structure being created	Draft awaiting approval	Planned as part of policy implementation
Guinea	Mixed structure Health & Education	MoH 2002	MoH 2002
Guinea Bissau	In development	No	In development
Liberia	No National G&M structures not formalised	No Ministry has plans for a health research policy	No Health plan has some provision for public health research
Mali	Mixed structure Health, Education & S&T	No current policy for health research	No current priorities for health research
Niger	Mixed structure Health, Education & S&T	MESSRT 2003 MoH 1999	MoH 1999
Nigeria	Health structure	MoH 2009	MoH 2009
Senegal	Mixed structure Health, Education & S&T	MoH 2009	MoH 2009 – 2012
Sierra Leone	Health Structure	No current policy for health research	No
Togo	Mixed structure Health, Education & S&T	No current policy for health research	Priorities identified for system development

5. <http://www.wahooas.org/>

6. Indicates the agency or agencies where the primary governance power is vested – either exclusively in the MOH or in a mixed governance structure, made up of a number of ministries.

7. Where research for health policies exist, the body mandated with drafting (indicated by year) and implementing this policy is indicated.

8. Where research for health priorities exist, the body mandated with drafting (indicated by year) and implementing these priorities is indicated.

This working paper focuses on four of these 14 countries – Guinea Bissau, Liberia, Mali and Sierra Leone – and the current status of their R4HS as reviewed at the meeting in Senegal in March 2011. As can be seen in Table 2 above, in December 2009, governance structures were varied across the four countries. Guinea Bissau had begun the process of developing national governance structures for health research. Similarly, Liberia had no formalised governance and management structures, although a research unit was being established at that time. Mali’s mixed governance structures comprised the Ministries of Health, Education and Science & Technology, while Sierra Leone’s national health research was exclusively governed by the

Ministry of Health. None of the four countries had formalised national research for health policies or priorities. Further, with the exception of Mali, none of these countries had dedicated government budget lines for research for health in 2009.

Additional challenges highlighted by these countries at the 2009 meeting included poor coordination and inter-sectoral collaboration, absence of National Research Ethics Committees, the need for institutionalisation of research, and inadequate capacity (financial and human resources) for research for health. In the section below, findings from the 2011 review of the R4HS in these four countries will be presented.

3 R4HS Mapping in Guinea Bissau, Liberia, Mali and Sierra Leone: Current Study

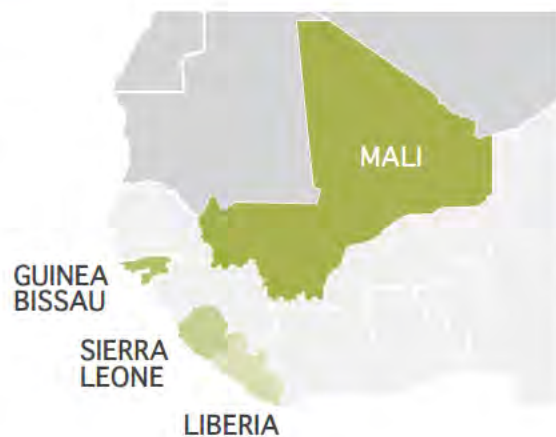
The case studies presented in the following sections are informed by document review and interviews with country representatives from the four countries. These interviews were held

during a regional meeting, jointly organised by COHRED, WAHO, and the Ministry of Health in Senegal, in March 2011 in Dakar, Senegal.

3.1 Countries’ Socio-economic Backgrounds

Guinea Bissau

Guinea Bissau has seen many years of political and military instability and violent upheaval. After six years of civil war, ending in 2000, Guinea Bissau emerged as one of the five poorest countries in the world. Today, the country ranks 164 out of 169 countries in the Human Development Index (HDI) (UNDP, 2010). The majority of the population is living below the poverty line and almost half the population is under 15 years of age (Injai et al., 2010). During this volatile period, many health workers left the country and the health infrastructure



deteriorated, resulting in inadequate human and financial (governmental) resources for health. Foreign aid has been beneficial but neither sustainable nor coordinated, rendering the health sector dependent on donor support. Capacity building efforts are ongoing but progress is slow. The average life expectancy is 45 years (UNDP, 2007) in a country with high rates of malaria, diarrhoea, acute respiratory diseases, tuberculosis, sexually transmitted diseases (including HIV), intestinal parasites and other tropical diseases (PNDRHS-II, 2008, in Injai et al., 2010).

Liberia

Three-quarters of the population in Liberia live below the poverty line on less than US\$1 a day (Republic of Liberia, 2009). The country currently ranks 162 out of 169 countries on the HDI (UNDP, 2010). Like Guinea Bissau, the health infrastructure of Liberia was severely damaged by 14 years of civil war, ending in 2003. As a result, the country's primary focus continues to be on revitalising basic health and nutrition services, with support from international donors and NGO's (Kruk et al., 2010; Republic of Liberia, 2009). Rebuilding these services has been fraught with challenges: depletion of the health workforce, vandalism of health facilities, suspension of government funding and fragmented health care delivery (UNDP, 2006). Major health problems faced in the country include malaria, acute respiratory infections, diarrhoea, tuberculosis, worms, skin diseases (such as leprosy), malnutrition, anaemia and sexually transmitted diseases, with HIV/AIDS on the increase (Republic of Liberia, 2007).

Mali

Mali is the largest of the ECOWAS countries by land area, with a population of approximately

14 million; it is also one of the poorest countries in the world (UNDP, 2010). In 2003, Mali ranked 174 out of 177 countries in the Human Development Index (African Development Bank, 2005); today, it ranks 160 out of 169 countries, still below the average for comparable data in sub-Saharan Africa (International Development Association, 2011; UNDP, 2010). More than half the population has experienced a child death (UNDP, 2010). Malaria is one of the leading causes of morbidity and mortality in the country, particularly affecting pregnant women and children under five. While Mali's maternal and child health indicators have improved in recent years, they still remain among the worst in the world, with malnutrition as a major contributor⁹. Other major health afflictions include cholera, tuberculosis, meningitis, and HIV/AIDS.

Sierra Leone

After 11 years of conflict, Sierra Leone continues to be one of the world's least developed countries, ranking at the bottom of the HDI in 2007 (UNDP, 2007). Significant progress has been made since this time, such that the country is now ranked at 158 out of 169 countries on the HDI (UNDP, 2010). In spite of remarkable progress, with 70% of the population living below the poverty line, life expectancy of 47 years, and some of the poorest health indicators in the world (Government of Sierra Leone, 2008, 2009), enormous challenges remain. Preventable diseases such as malaria, pneumonia, anaemia, nutritional deficiencies, diarrhoeal diseases, acute respiratory infections, tuberculosis and HIV/AIDS are the leading causes of mortality and morbidity in the country (Government of Sierra Leone, 2009).

A comparison of basic health indicators of the four countries (WHO, 2011) is shown in Table 3.

9. <http://www.ghi.gov/country/mali/index.htm>

Table 3: Basic Health Indicators for Guinea Bissau, Liberia, Mali and Sierra Leone

COUNTRY	NEONATAL MORTALITY RATE (PER 1000 LIVE BIRTHS)	INFANT MORTALITY RATE (PER 1000 LIVE BIRTHS)	<5 MORTALITY RATE (PER 1000 LIVE BIRTHS)	ADULT MORTALITY RATE (PER 1000 POPULATION)	LIFE EXPECTANCY AT BIRTH
Guinea Bissau	46	115	193	399	49
Liberia	37	80	112	362	56
Mali	50	101	191	286	53
Sierra Leone	49	123	192	387	49

Source: World Health Statistics (WHO, 2011).

4 Comparative Description of R4HS in Guinea Bissau, Liberia, Mali and Sierra Leone

4.1 Governance, Management and Coordination Structures

The findings presented in this section concern the main bodies, structures and organisations responsible for i) governance and management of research for health, nationally, ii) coordination of research for health and bodies involved in research for health, iii) main bodies and

organisations conducting research for health in the country, and iv) other sectors or ministries which may be involved in national research in each of the four countries. Table 4 summarises these findings.

Table 4: Governance, Coordination and Conduct of Research for Health

COUNTRY	GOVERN RESEARCH FOR HEALTH	COORDINATE RESEARCH FOR HEALTH	CONDUCT RESEARCH FOR HEALTH	INTER-SECTORAL INVOLVEMENT IN NATIONAL RESEARCH
Guinea Bissau	Ministry of Health (MOH)	National Institute of Public Health (INASA)	Bandim Health Project (BHP) Centre of Epidemiology & Community Health (CESC) Centre for Information & Communication (CICS) National Laboratory of Public Health (LNSP) Centre for Tropical Medicine	Ministry of Education (MOE): National Institute of Social Science Research (INEP), has parastatal autonomy, and own Scientific Committee
Liberia	Ministry of Health & Social Welfare (MOHSW)	None	Liberian Institute of Biomedical Research (LIBR) Liberia Institute for Statistics & Geo-Information Services (LISGIS) University of Liberia (social science research)	Ministry of Agriculture: Central Agricultural Research Institute (CARI) Ministry of Education: University of Liberia
Mali	Ministry of Health (MOH) Ministry of Secondary and Higher Education and Scientific Research (MESSRS)	Planned for: National Committee of Coordination for Health, to be based in MoH Currently, the National Institute for Research in Public Health (INRSP) in the MoH and the National Centre for Scientific & Technological Research (CNRST) in the MESSRS are mandated to manage health research but neither plays a coordinating role	Various units at the university, mainly in the Faculty of Medicine & Dentistry Various institutes and bodies within the INSRP are mandated by the MoH each year to carry out management activities and conduct one specific topic of research	Ministry of Family Affairs, Women & Children Ministry of Social Development Ministry of Agriculture & Nutrition Ministry of Livestock & Fisheries Ministry of Energy & Water
Sierra Leone	Ministry of Health & Sanitation (MOHS)	No national coordinating body Informal coordination function currently performed by the Health & Biomedical Research Group of Sierra Leone (HBiomedSL)	School of Community Health Sciences, Njala University College of Medicine and Allied Health Sciences, University of Sierra Leone Broad-Spectrum Pathogen Surveillance site Emergency Hospital, Freetown Lassa Fever research unit and laboratory MSF-Belgium referral centre Well-Bodi MRC Salone Welbodi researchers	Ministry of Planning & Information: M&E unit, with Statistics Sierra Leone Ministry of Energy & Power: Atomic Energy Institute Ministry of Agriculture, Forestry & Food Security (MAFFS): Institute of Tropical Agriculture & Institute of Agricultural Research Ministry of Education, Science & Tech (MEST): University of Sierra Leone, Njala University

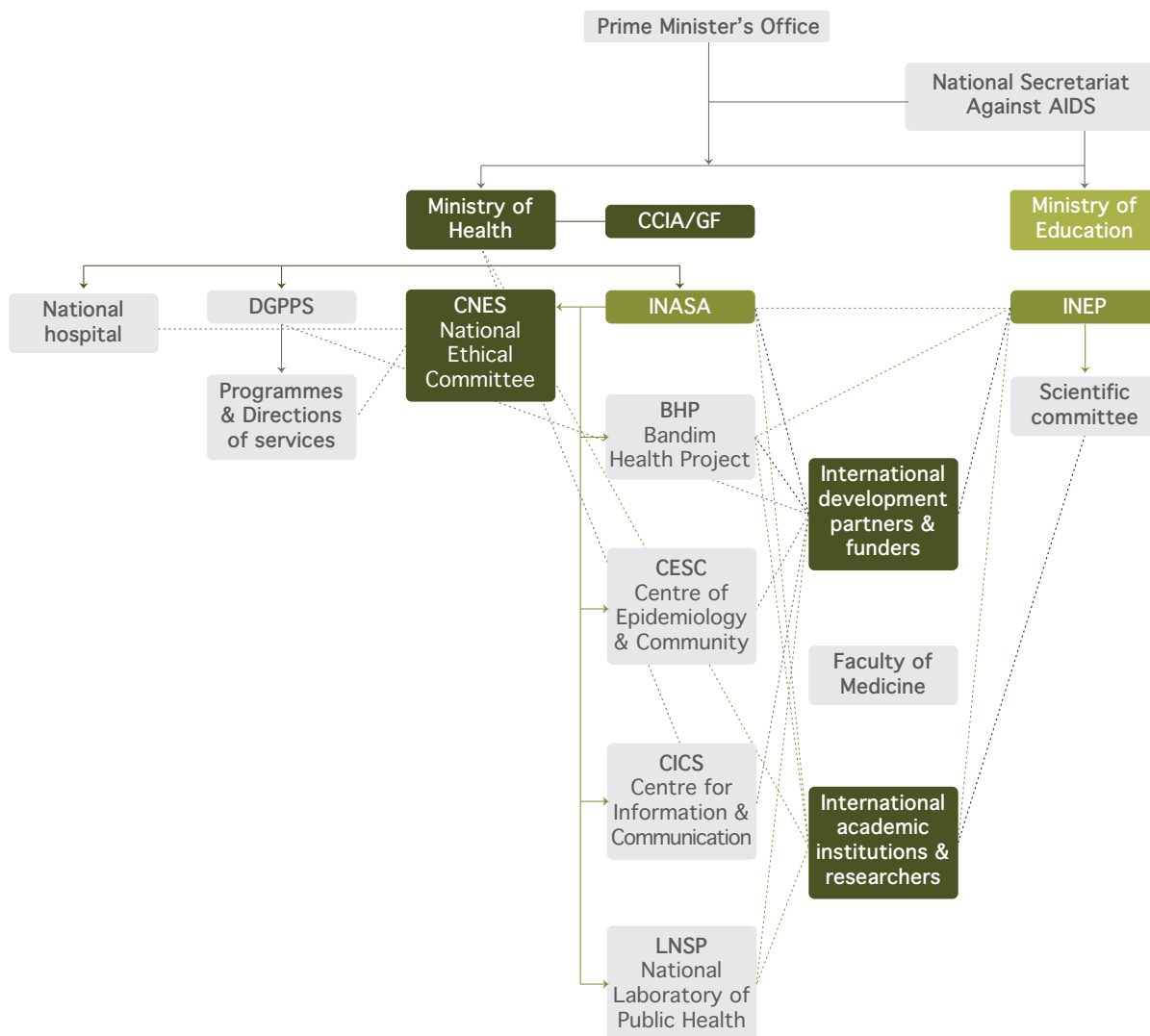
Guinea Bissau

The Ministry of Health (MOH) is mandated with governing health research in Guinea Bissau. Following investigations into how to enhance the benefits of health research for its population, the MOH established the National Institute of Public Health (INASA) in 2008. INASA has parastatal autonomy and reports directly to the MOH, while research institutions in the country are directly accountable to INASA. Specifically, INASA is the umbrella institute for the four organisations that represent Guinea Bissau's national public health capacity and infrastructure: the Centre

of Epidemiology & Community Health (CESC) – including the Bandim Health Project (BHP) – the Centre for Information & Communication (CICS), the Centre for Tropical Medicine, and the National Laboratory of Public Health (LNSP) (Kok, Rodrigues, Da Silva & de Haan, submitted).

In addition to INASA, the National Institute of Social Science Research (INEP) within the Ministry of Education (MOE) also conducts health-related research, typically of a more qualitative than quantitative nature, and with a social science

Figure 1: Guinea Bissau Research for Health Map



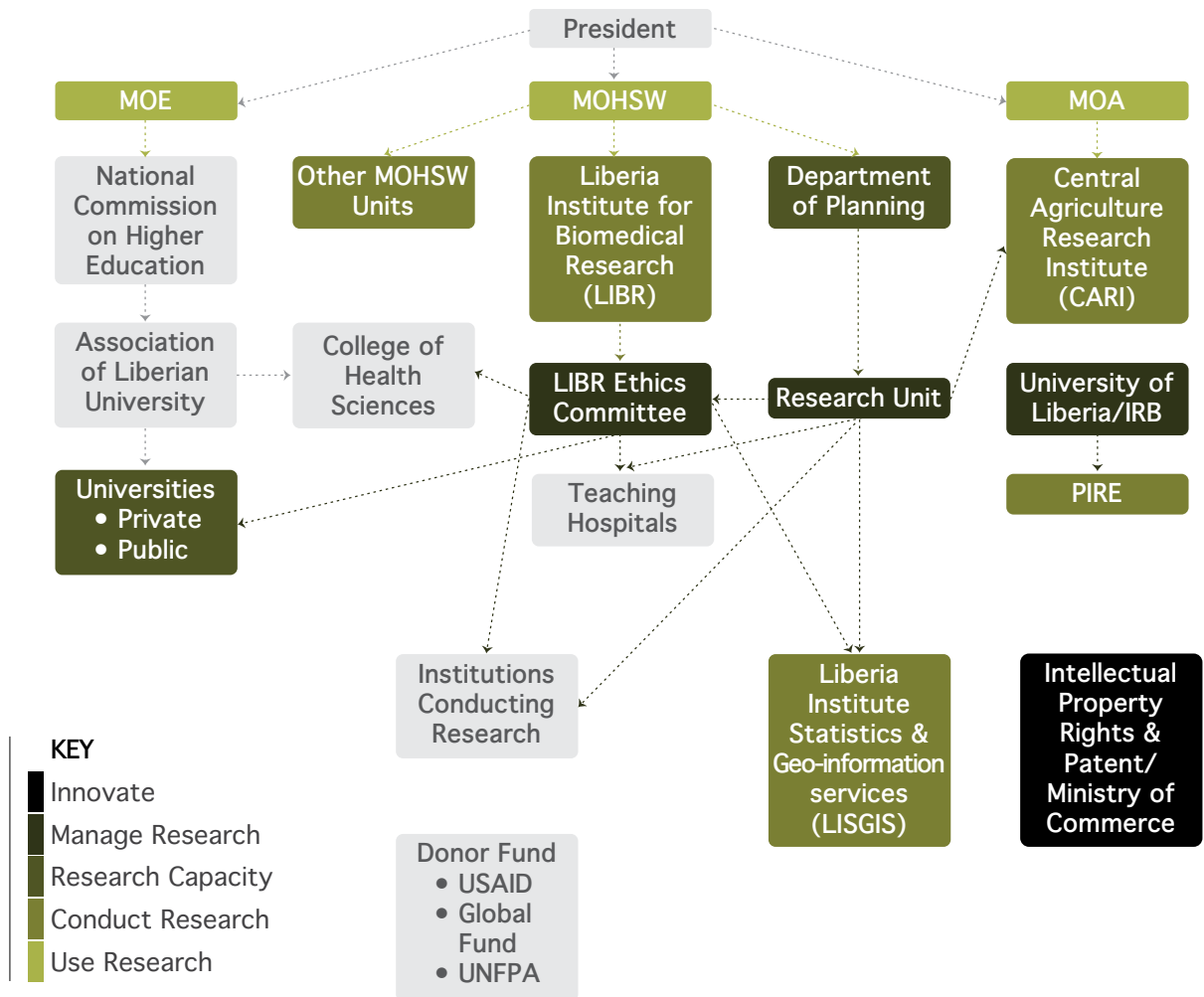
perspective. Although there are no direct links between the MOH and MOE to coordinate health-related research, staff at INASA and INEP have close partnerships, and there is talk of formalising this relationship through an official protocol. To date, stewardship for health related research at the national level has been lacking; it is expected that INASA will play a leading role in coordinating and institutionalising national research for health.

Liberia

In Liberia, the Ministry of Health & Social Welfare (MOHSW) is still in its infancy in terms of governing and managing research overall in

country. The Liberian Institute of Biomedical Research (LIBR) manages and conducts most of the biomedical research conducted in country, but capacity for managing research for health in country remains very low. There is no formal coordinating body to facilitate coordination between different sectors. Thus, although institutions and units in the Ministry of Education (for example, the University of Liberia) and Ministry of Agriculture (for example, the Central Agricultural Research Unit) are also involved in conducting research related to health, there is little communication or collaboration between these ministries and the MOHSW.

Figure 2: Liberia Research for Health Map

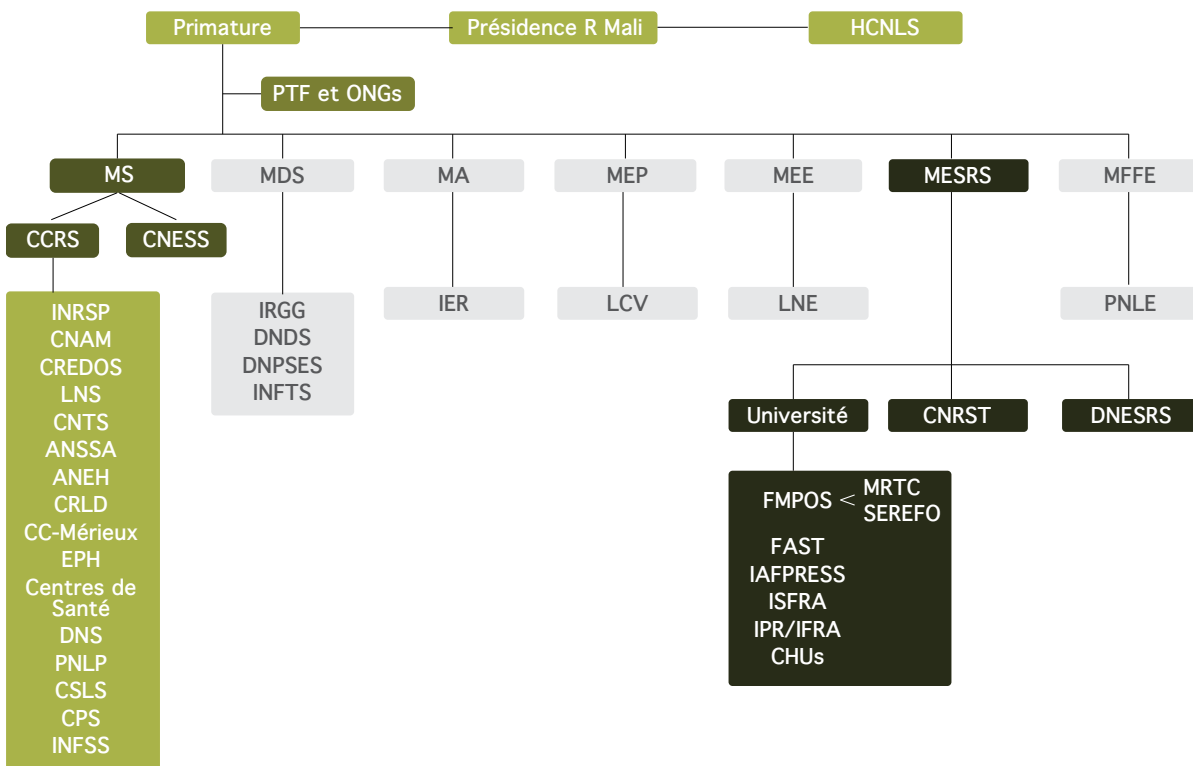


Mali

Two ministries are involved in the governance of research for health in Mali: the Ministry of Health (MOH) and the Ministry of Secondary and Higher Education and Scientific Research (MESSRS). A number of national and international bodies are involved in health related research in the country. Currently, the National Institute for Research in Public Health (INRSP) in the MOH and the National Centre for Scientific and

Technological Research (CNRST) in the MESSRS are mandated to manage research for health but neither plays a coordinating role. Plans are under way for the establishment of a National Committee of Coordination for Health, which will be mandated with coordinating research across all sectors. Although piloted by the MOH, this committee will be multi-disciplinary and multi-sectoral in composition.

Figure 3: Mali Research for Health Map



Sierra Leone

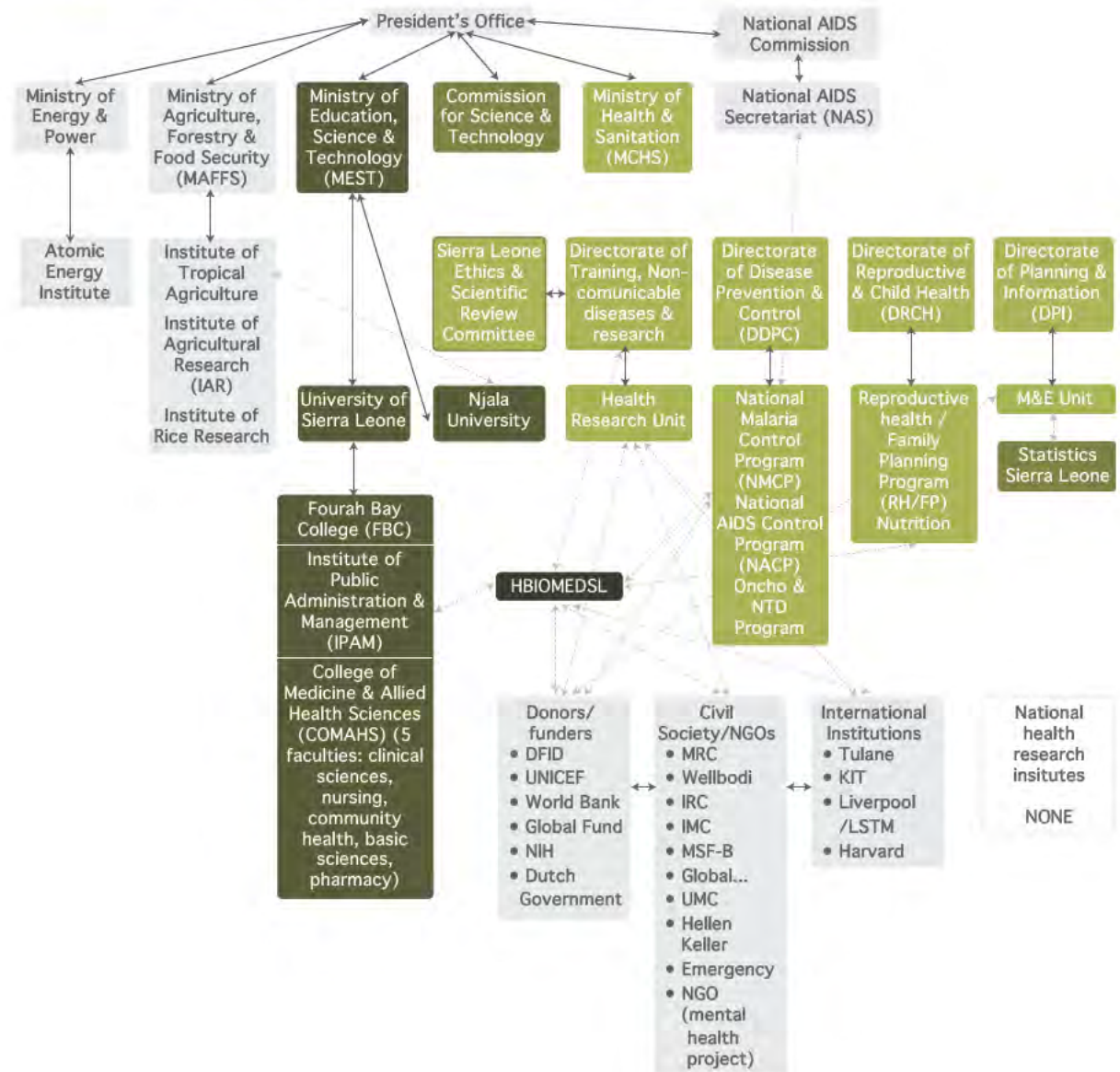
In Sierra Leone, health research is governed by the Ministry of Health and Sanitation (MOHS), which has several directorates. There is currently no formal health research or research institute in the country. The majority of research for health projects are small and uncoordinated, and typically driven by external donors. The Monitoring & Evaluation Unit's

Statistic Sierra Leone, within the Directorate of Planning & Information, for example, is linked to several donors conducting research in the country, but has no formal ties to the Health Research Unit within the Directorate of Training, Non-Communicable Diseases and Research. Informal coordination of research for health has been improved by the formation

of the Health & Biomedical Research Group of Sierra Leone (HBIomedSL) by a group of researchers interested in connecting with individuals involved in conducting research for health across the country. In addition, the

Directorate of Training, Non-Communicable Diseases and Research, established with its own health research unit in the MOHS in 2008, is expected to contribute to greater coordination of national research for health.

Figure 4: Sierra Leone Research for Health Map



4.2 Research for Health Policies and Priorities

The effectiveness of the NR4HS hinges on two key components: priority setting and policy definition. These are not mutually exclusive. Rather, research for health priorities inform the national research for health policy, and vice versa. R4H priorities provide the vision and focus for the whole system. For example, for effective implementation of R4H, research financing must

be linked to defined research priorities and policy goals. It is crucial, then, that once priorities are identified, strategies are set up to support the integration of defined priorities into the national research for health agenda (Montorzi, de Haan & IJsselmuiden, 2010). In Table 5 below, information on the R4H policies and priorities of the four West African countries is presented.

Table 5: Health Research for Health Policies and Priorities

	RESEARCH FOR HEALTH POLICIES		RESEARCH FOR HEALTH PRIORITIES	
	YES/NO	BODY/BODIES RESPONSIBLE FOR SETTING POLICIES	YES/NO	BODY/BODIES RESPONSIBLE FOR SETTING POLICIES
Guinea Bissau	No	National Institute of Public Health (INASA) of the MOH	No	Task force committee established but has time and resource constraints. Process driven by INASA
Liberia	No	National Health & Social Welfare 10-Year Plan in development. Process will be driven by the MOHSW	No	
Mali	Yes	Ministry of Health	Yes	MOH sets its own priorities, just like all other line ministries
Sierra Leone	No	No health research policy has been officially mandated by the MOHS	No	

Guinea Bissau

Following the establishment of Guinea Bissau's INASA, a process of developing a national research for health policy and setting research for health priorities was initiated. In addition to coordinating all research for health in the country, INASA is mandated to develop a research for health policy within the national health plan, define research for health priorities, and advise policy makers. However, research priorities in the country have been driven by external sources, largely because the majority of funding for research for health is almost exclusively from external donors. It is reported that the

translation of research results into policy is problematic. As a result of dependence on donor funding, the MOH relies on donors to determine research for health priorities and, without a national research for health policy, there is no point of reference for guiding national research for health from within the country. The task force that has been established to set priorities has over-committed and cannot dedicate fully to the process. Although all ministries, centres and institutes have been invited to contribute to the setting of research for health priorities, in reality, INASA is left driving this process.

Liberia

There is currently no research for health policy in Liberia. The MOH is the driver of a process involving various stakeholders and key partners from other sectors, to develop a National Health and Social Welfare 10-year Plan. This Plan is essentially a collection of activities and processes that are due to be conducted in health in general; the research functions will be embedded in Monitoring and Evaluation (M&E) and, as such, will be legislated by the National M&E plan. To date, research has not been incorporated into this plan. National research for health priorities have yet to be defined. Staff changes and lack of continuity have been a significant factor in delaying progress in developing policies and setting priorities.

Mali

While the West African meeting in Dakar was ongoing in March 2011, the National Health Research Policy of Mali was due to be adopted in parliament by the Council of Ministers. The Ministry of Health is mandated to carry out this policy. The MOH also sets its own priorities, as do all other line ministries, as there is no single coordination unit at national level. However, the MOH and the Ministry of Social Development together set priorities in a common programme, the Programme for the Development of Social & Health Development. Within this five-year programme, there are several research projects related to national research for health priorities.

Sierra Leone

As previously mentioned, much of the research for health currently conducted in Sierra Leone is centred toward the needs and interests of international donors and NGOs. As a result, the national research for health agenda is not directed by the MOHS, and research in the country tends to be uncoordinated, prone to duplication and inadequate in addressing local health needs. Research is mentioned in only one paragraph in the National Health Policy and the lack of research funds has resulted in insufficient research work that can provide useful information for policy and planning. Unsurprisingly, having a policy plan and defining research for health priorities have been identified as the most pressing issues to be addressed. The MOH has initiated the process of identifying research priorities, with contributions from a number of stakeholders, including community representatives, health NGOs, researchers, and the Health Research Unit in the Directorate of Training, Non-Communicable Diseases and Research. It is hoped that a national strategic plan will be developed concurrently with research for health priorities. Currently, financing is needed to move this process forward, with funds committed by government and by the World Health Organization. There is no inter-sectoral involvement in priority setting for research for health to date.

4.3 Research for Health Capacity

Research for health capacity strengthening is integral to enabling low- and middle-income countries (LMICs) to identify research for health priorities and develop strategies that are relevant to local contexts. If countries are to achieve their own and international health and development

goals, there needs to be substantial investment in both financial and human resource capacity to enable all levels of the R4HS.

4.3.1 Research for Health Financing

Low- and middle-income countries face a serious under-investment in research for health relevant to their needs (COHRED 2008). Few LMICs invest sufficient amounts of their own resources in research for health, even though many African countries recently re-committed themselves to increase expenditure on research for health (COHRED, 2007). As a result, most countries rely on foreign partners for research for health funds.

Mali

Of the four West African countries discussed in this paper, Mali is the only country with a dedicated government budget line for research for health. Each directorate within the MOH in Mali has budget lines, including the INRSP. Mali's governmental funding, however, is not without its complications. The government gives each unit a certain percentage of its budget for research. These funds are specifically allocated for research proposals, not for infrastructure or staff costs. In the MOH, 1.5% (approximately one million Euro) of national health expenditure is, in principle, allocated annually to carry out research protocols, based on research priorities set by the MOH.

However, there are major bottlenecks in the system. The money, for now, is evidenced by a budget line, but is frequently not spent. The process of applying for this funding is cumbersome: first, the research must be conducted and evidence provided to the MOH, only then will funds be released. In other words, the government applies the same principles to funding research for health as they do to other service providers. In addition, there is competitive bidding between researchers – all the money available for research is subjected to the same calls for tenders, whether for health research or engineering research, for example. As such, researchers are still reliant on foreign

partners for funding, as this money is more accessible.

Guinea Bissau

The MOH in Guinea Bissau provides funds to INASA for basic personnel salaries (researchers and supporting staff) and some infrastructural costs. Consequently, research for health in the country is almost entirely dependent on foreign funding. Although the MOH has demonstrated political support by inviting COHRED to assist with developing the R4HS, it is not yet funding any research. Participants at the West Africa meeting reported that the Minister of Finance needs to be convinced of the importance of research in order for research for health in the country to secure its own government funding.

Liberia

In the absence of a national research for health agenda, Liberia's MOHSW currently has no budgetary allocation for research and issues no calls for proposals in research for health. Government funding in health is more focused on service delivery. International funds for research for health are ad hoc, and there is no sustained pool of funding for research for health in Liberia.

Sierra Leone

Similarly, in Sierra Leone, government spending on research for health is non-existent, with the result that all research for health in the country is funded by foreign organisations.

4.3.2 Human Resource Capacity

There is increasing recognition of the need to approach capacity building efforts for R4H in systemic terms (Nuyens, 2005; Pang et al., 2003). This necessitates capacitating the system with people who have skills in, for example, priority setting, networking and leadership, translation into policy and action,

dissemination, and advocacy. Yet, the issue of human resources for research for health is seldom considered in human resources for health discussions, in Africa and elsewhere. While the capacity for research for health in Africa has grown considerably in recent years, there is no overarching framework, strategy or body to help African countries make the most of the support for research and research capacity for research for health (COHRED, 2010b). As a result, significant deficits in human resources for research for health on the continent remain.

Guinea Bissau

Since 1997, training of health researchers in Guinea Bissau has primarily been done through the Bandim Health Project and its partner institutions abroad. There is no higher education curriculum for research for health in the country. In total, there are six PhD-level health researchers (and two enrolled) and 12 master-level health researchers, all with degrees in public health and epidemiology (Kok et al., submitted). Training of local researchers has reinforced the links with the health system, broadened the research agenda and enhanced the local use of the results. However, gaps in training and capacity have been identified in areas other than public health and epidemiology, such as health economics, services, and policy and systems research.

Liberia

Universities and the LIBR are the major providers of research training in Liberia. The training provided by universities is largely academic, with a focus on research writing, as in research proposals and dissertations. The LIBR provides internal training to its staff. In general, there is insufficient research for health capacity in the country, including capacity to conduct, manage and ethically review research for health. In addition, capacity for research for health in the MOH needs to be strengthened.

No information was obtained about the human resource capacity for research for health in Mali.

Sierra Leone

In Sierra Leone, there is no dedicated masters or doctoral level training in research for health, and, as a result, there are very few health researchers in the country. Medical students are exposed to a brief research component as part of their degrees, but teaching and supervisory capacity for these components are limited. Much of the research conducted in these research components is neither applicable to current health situation nor communicated effectively for use in policy and practice. The Health Research Unit in the Directorate of Training, Non-Communicable Diseases and Research has four technical people, who have built the office up from scratch and deal with all research topics in the Directorate, which creates an enormous load on these staff. Health researchers in the country typically wear more than one “hat” and have a number of different roles and activities – apart from research – for which they are responsible. There is a great need for human resources for research for health capacity strengthening, including capacity for ethical review.

4.3.3 Research Ethics Review Capacity

Expanding research for health activity in low- and middle- income countries has resulted in a commensurate rise in the need for sound ethical review structures and functions in the form of Research Ethics Committees (RECs). Yet these seem to be lagging behind as a result of the enormous challenges facing these countries. Although the majority of countries in Africa are reported to have at least some form of ethical review process in place, in many cases these processes are fraught with challenges, including poor financial and human resources, insufficient training, and inadequate standard operating

procedures (IJsselmuiden, Marais, Wassenaar & Mokgatla, in progress).

With the exception of Liberia, all countries in the current study have established national Research Ethics Committees (RECs).

Guinea Bissau

Since December 2009, all research protocols in Guinea Bissau are submitted to the National Ethics Committee (CNES), which is situated within INASA but independent of it. Although the current committee is functional, capacity strengthening efforts are needed to improve member training and regulate the functioning of the committee.

Liberia

Although the Liberia Institute for Biomedical Research (LIBR) has a Research Ethics Committee, the conflict of interest that this poses has initiated efforts to separate them. The LIBR REC is reportedly somewhat top-heavy, and plans are underway to remedy this. It is anticipated that the LIBR REC will evolve into a National Research Ethics Committee. Another REC operating in the country is that of the University of Liberia.

Mali

In Mali, the National Committee of Ethics for Health (CNESS) oversees all health and biomedical research. The National Institute for Research in Public Health (INRSP) has its own REC, which, controversially, has no direct links with CNESS. Improved coordination is needed between these committees.

Sierra Leone

In 2009, the Directorate of Training, Non-Communicable Diseases and Research in Sierra Leone undertook to strengthen the existing national REC under the new title of National Ethics and Scientific Review Committee. The primary mandate of the previous committee was to review research protocols for ethical approval; the National Ethics and Scientific Review Committee is expected to formulate national health research policy, define priorities for health-related research and develop one or several ethics committees. However, ethics review capacity in the country is limited. Most of the current committee's members do not have formal training in ethics review or ethical committee experience. There is a great need for research ethics capacity strengthening in Sierra Leone.

4.4 Summary

Governance structures for research for health in these four West African countries are located within the Ministry of Health, with the exception of Mali (Ministry of Health and Ministry of Education). In general, governance, management and coordination functions tend to overlap, despite the recognised importance of governance as a structural determinant of health systems performance (Olafsdottir et al., 2011). Capacity for managing research for health was highlighted as inadequate in all four countries,

consistent with findings that ministers and Ministries of Health are frequently overlooked in initiatives designed to strengthen health systems (Omaswa & Boufford, 2010). Poor coordination has been identified as a significant obstacle to effectiveness of research for health systems (D'Souza & Sadana 2006; WHO, 2004). Enhancing the coordination of research for health between different ministries and their governing structures remains a significant challenge which urgently needs to be addressed.

Mali is the only country of the four to have a research for health policy (as of March 2011) and research for health priorities in place. In Guinea Bissau, Liberia and Sierra Leone, processes have been initiated to define national research for health priorities but, to date, the majority of the research for health conducted in the country seems to be driven by donor aid and, therefore, donor priorities. The setting of priorities for research for health and the development of a strategic plan or policy have been identified as crucial issues to be addressed in all but one of the countries surveyed. “The absence of official research for health policies in many countries means that most will not have conducted a situation analysis of research for health in the country, developed a strategic vision for research for health, identified research

for health priorities, or developed a plan of how the vision will be achieved” (Gadsby, 2008).

Government funding for research for health in all of these countries is either very limited (as is the case in Mali) or completely lacking (as is the case in Guinea Bissau, Liberia and Sierra Leone). As a result, national research for health is almost entirely dependent on foreign funding. Capacity is a major theme running throughout the country narratives. Human resources for research for health are in short supply in all four countries, due to political and military upheaval, lack of training opportunities, multiple roles and responsibilities, and insufficient diversification of capacity to, for example, manage research for health, conduct ethical review, or translate research results into policy.

4.5 Comparative Analysis: Then and Now

In Table 6 below, a comparison is made between the country data from the December 2009 meeting in Burkina Faso and the March 2011 meeting in Senegal.

Table 6: NR4HS Comparison by Country between 2009 and 2011

	GOVERNANCE STRUCTURES		RESEARCH FOR HEALTH POLICY		RESEARCH FOR HEALTH PRIORITIES		RESEARCH FOR HEALTH FINANCING	
	2009	2011	2009	2011	2009	2011	2009	2011
Guinea Bissau	x	✓	x	x	x	x	x	x
Liberia	x	✓	x	x	x	x	x	x
Mali	✓	✓	x	✓	x	✓	x	✓
Sierra Leone	✓	✓	x	x	x	x	x	x

5 Country Needs, Challenges and Opportunities

A number of concerns common to all countries arose at the Dakar meeting. Governance, management and coordination of research for health were highlighted areas in need of strengthening, which, in turn, requires capacity developing in human resources for research for health. Capacity building at all levels in the research for health system was a key issue raised by all participants, including financial resources and advocacy for financing of research for health – both nationally and internationally. The need for well-functioning, independent Research Ethics Committees was voiced by all participants, necessitating sufficient training in ethics review. One of the major discussion points that emerged was how regional networks

and partnerships established at meetings such as this one could help to address some of these common issues.

On the final day of the Dakar meeting, each country team presented a road map for the way forward in building or strengthening key aspects of their R4HS. In this section, the strengths and challenges highlighted by participants from each country are reviewed, followed by a tabular synopsis of their R4HS goals for the short- and medium-term future. It is expected that the partnership with WAHO, COHRED and IDRC will facilitate addressing some of the priority areas defined by these countries.

5.1 Guinea Bissau: Road Map for the Way Forward

A major strength identified by Guinea Bissau participants was the commitment of the MOH to the importance of research and to building the R4HS, as evidenced in their request to COHRED to assist with coordinating better research for health in the country. This political buy-in is likely to be an important factor in making progress towards an effective R4HS. Another advantage is the 30+ years of research for health done in the country, producing longitudinal studies which will enable long-term impact evaluations and provide evidence for the capacity for research governance. However, participants reported that there continues to be inadequate awareness of the importance of research in general, and research for health in particular. There is also a gap between research for health that is prioritised and the health needs of the population, with much of the decision-making taking place at the international level.

The most immediate priorities for Guinea Bissau are to finalise the priority setting process and elaborate a national agenda for research for health. Building capacity was also flagged as important, particularly capacity for research management. This includes developing training programmes in research management, proposal writing and grant administration, as well as strengthening financial management capacity and accountability. It is believed that developing skills in health economics would facilitate advocacy to mobilise national funds for research for health with, for example, convincing arguments for the cost effectiveness of research for health. Mechanisms are also needed for disseminating and utilising research results, and translating them into policy.

Guinea Bissau: Priority Areas for R4HS Strengthening



5.2 Liberia: Road Map for the Way Forward

In Liberia, as in Guinea Bissau, there seems to be political support for R4HS strengthening, as well as the potential and desire for improvement. What is needed, however, are the processes and assistance to institutionalise Liberia's research for health agenda. The participants emphasised that enormous challenges remain, and there is still a lot of work to be done. The R4HS is still at the inception stage – infrastructure and a comprehensive policy that will transcend all sectors that need to be developed. Translating research into policy is also a challenge for which capacity is needed. The development of the R4HS in Liberia will require financial assistance, national and international collaboration and regional networking.

Liberia's R4HS is still in the early stages of development. The immediate task is to finalise the mapping of the country's research for health system and to establish more effective structures and strategies for government, management and coordination of the system. A national agenda for research for health needs to be developed, and a process for setting research for health priorities initiated. Establishing a National Research Ethics Committee that functions independently from the LIBR REC has also been identified as a priority moving forward. Given the absence of a budget allocation for research in the MOHSW, an immediate concern is to mobilise national and international funding for research for health.

Liberia: Priority Areas for R4HS Strengthening



5.3 Mali: Road Map for the Way Forward

Mali's R4HS appears to be the most developed of the four countries discussed in this paper. Lack of coordination and resources are the main challenges faced as the country continues to build its research for health system. The INRSP has faced a shortage of trained researchers, the absence of career plans, a lack of incentives and evaluation of researchers, inadequate information equipment, poor communications structures and shortcomings in the dissemination and publication of research for health findings. In addition, the means – particularly government financing – are difficult to mobilise at national level, leading to a heavy dependence on foreign sources.

With governance structures in place, establishing a national coordinating committee for research for health is a crucial next step for strengthening Mali's R4HS and facilitating communication and networking between health researchers in the country. Improving the performance of the system by improving physical and human resources for research for health is also a key component of the work plan, as is improving the operational capacity of the national REC. Due to the current challenges faced in accessing government funding for research for health, advocating for more efficient national funding procedures is critical.

Mali: Priority Areas for R4HS Strengthening



5.4 Sierra Leone: Road Map for the Way Forward

Sierra Leone faces a number of challenges in building its R4HS, the greatest of which is the absence of a national policy or strategy for research for health. Limited government commitment, inadequate funding, poor coordination and networking, a small number of health researchers who are typically combining multiple tasks or jobs, limited grants and research management skills, and very limited capacity in general, were identified as some of the problems encountered in this country. Monitoring and evaluation is virtually non-existent, with little opportunity for peer review or dissemination of research results. Like the other countries in this study, Sierra Leone's research for health priorities are, as a result of

the problems mentioned above, mostly donor-driven.

Sierra Leone has identified four key priority areas for R4HS strengthening. The first is to develop a national research for health policy and strategic plan, involving all stakeholders throughout the process. Strengthening the human resources for research for health is the second priority. In order to do this, a needs assessment must be conducted to assess existing capacity and identify gaps. It is anticipated that efforts will be concentrated on ethical review capacity, research training, proposal writing and grant management capacity, and research management capacity. A third priority is

to mobilise funds for research for health by advocating at national and international levels. Using existing funds for research more effectively is also crucial if research is to be efficient in informing policy. Finally,

although the HBiomedSL facilitates informal collaboration between health researchers in the country, establishing a formal mechanism for coordination of research for health is a fourth priority in Sierra Leone's R4HS road map.

Sierra Leone: Priority Areas for R4HS Strengthening



6 Discussion and Conclusions

The present paper provides details on the current status of the national research for health systems in four West African countries: Guinea Bissau, Liberia, Mali and Sierra Leone. NR4HS mapping provides the information necessary to describe the system foundations, capacity and performance, as well as the actors playing key roles in the system. It is a basic description needed to effectively plan the system's development. The study focused on the foundations of R4HS in the four West African countries – governance and management structures, research for health policies, and research for health priorities. However, some conclusions will also refer to elements of the capacities and performance of the R4H systems, noting that further information needs to be collected to make firmer conclusions or recommendations. The major findings across all four countries are reviewed below.

Political commitment to research for health:

Political commitment to R4H was reported for Guinea Bissau, Liberia and Mali. This commitment did not, however, always extend to buy-in from all sectors – for example, from the Ministries of Finance in Liberia and Mali. Lack of political support for R4H in Sierra Leone highlights a major need for advocacy in this country.

R4HS governance, management and coordination:

Governance structures for research for health in these four West African countries are located within the Ministry of Health, with the exception of Mali (Ministry of Health and Ministry of Education). In general, governance, management and coordination functions tend to overlap. The countries R4HS were at various

stages of development: Liberia's MOHSW is still in its infancy in terms of governing and managing research overall in country, as is Guinea Bissau's MOH. Neither of these countries reported having formal R4H governance structures at the meeting held in 2009. Following the 2009 meeting, however, Guinea Bissau established INASA, which has the mandate to coordinate research for health. Stewardship at the national level for R4H in Sierra Leone was also reported to be lacking. Capacity for managing R4H remains low in all four countries. The absence of formal coordination bodies was highlighted as an impediment to effective R4H by all four countries, as was poor communication and collaboration between different sectors.

R4H policy and priorities:

Mali is the only country of the four to have a research for health policy and research for health priorities in place – demonstrating major progress since 2009, when Mali had neither priorities nor policies for R4H. In Guinea Bissau, Liberia and Sierra Leone, processes have been initiated to define national research for health priorities but, to date, the majority of the research for health conducted in the country seems to be driven by donor aid and, therefore, donor priorities. No formal R4H policy exists in Guinea Bissau, Liberia or Sierra Leone. Unsurprisingly, having a policy plan and defining research for health priorities have been identified as the most pressing issues to be addressed in these countries.

R4H financing:

Government funding for research for health in all of these countries is either very limited (as is the case in Mali) or completely lacking (as is the case in Guinea Bissau, Liberia and Sierra Leone).

Of the four West African countries discussed in this paper, Mali is the only country with a dedicated government budget line for research for health. Mali's governmental funding, however, is reportedly very difficult to access. Governments in the other three countries are yet to dedicate funding to research for health. As a result, virtually all research for health conducted in all four of these countries is dependent on donor funding and, therefore, driven by donor priorities.

R4H capacity (human resources):

Capacity is a major theme running throughout the country narratives. Human resources for research for health are in short supply in all four countries, due to political and military upheaval, lack of training opportunities, multiple roles and responsibilities, and insufficient diversification of capacity to, for example, manage research for health, conduct ethical review, or translate research results into policy. Lack of formal training programmes (e.g., university curricula) was highlighted as a major obstacle to building local R4H capacity in all four countries.

Research Ethics Committee capacity:

With the exception of Liberia, all countries in the current study have established national Research Ethics Committees (RECs). Although these committees are functional, countries emphasised that capacity strengthening efforts are needed to improve member training and regulate the functioning of the committee. Establishing REC independence and improving coordination between RECs in-country were also highlighted as issues.

Shared Challenges

Common concerns for all countries included strengthening of R4H governance, management and coordination of research for health, which, in turn, requires capacity development in human

resources for research for health. Capacity building at all levels in the research for health system was a key issue raised by all country teams – in particular, adequate local training and increased advocacy for financing of research for health. The need for well-functioning, independent Research Ethics Committees was voiced by all participants, necessitating sufficient training in ethics review. A major point emerging from the Dakar meeting was how regional networks and partnerships could help to address some of these common issues.

Regional Goals

The following goals for system strengthening have varying degrees of priority, depending on each country's stage of NR4HS development. Most of these are common to all four countries and thus can be said to be regional goals for strengthening the national research for health systems in West Africa.

- Establish more effective structures and strategies for governance, management or coordination of the system – or all three. R4H coordinating bodies mechanisms in particular need to be established.
- Initiate or finalise a priority setting processes and develop a national agenda for research for health.
- Build capacity in human resources for research for health, particularly capacity for research management.
- Establish independent National Research Ethics Committees and/ or improve the operational capacity of these committees.
- Advocate for and mobilise national and international funding for research for health.
- Establish mechanisms for disseminating and using research results, and translating them into policy.

7 References

- African Development Bank (2005). Mali country strategy paper 2005-2009. Country Operations Department West Region, September 2005.
- Bates, I., Taegtmeier, M., Bertel Squire, S., Ansong, D., Nhlema-Simwaka, B., Baba, A., & Theobald, S. (2011). Indicators of sustainable capacity building for health research: Analysis of four African case studies. *Health Research Policy and Systems*, 9,14 doi:10.1186/1478-4505-9-14.
- COHRED (2006). National health research: What factors influence health research agendas in developing countries? Geneva: COHRED.
- COHRED (2007). COHRED statement: Responsible Vertical Programming: How global health research can deliver essential research, achieve impact and build national systems. Geneva: COHRED.
- COHRED (2008). Alignment and harmonization in health research. Synthesis Report. ISBN 929226016-2. http://www.cohred.org/AHA/files/resources/Synthesis_web.pdf (Accessed 20 March 2009).
- COHRED (2010a). West African Health Organisation regional meeting: 14 countries start action plans for strengthening research capacity. Research for Health Briefing 16, June 2010 Council on Health Research for Development (COHRED) with support of the Global Forum for Health Research.
- COHRED (2010b) Human resources for health research (HR-HR). Background paper prepared by COHRED for the African Platform on Human Resources for Health, August 2010. Retrieved February 2011, from <http://www.aprh.org/category/resource-category/aprh-technical-papers>
- D'Souza, C., & Sadana, R. (2006). Why do case studies on national health research systems matter? Identifying common challenges in low-and middle-income countries. *Social Science and Medicine*, 62, 2072-2078.
- Davison, C.M., Robinson, S., & Neufeld, V. (2008). Mapping the Canadian contribution to strengthening national health research systems in low and middle income countries. A concept paper prepared for the Canadian Coalition for Global Health Research.
- Farley, S.E. (2005). Support to science, technology, and knowledge for development: A snapshot of the global landscape (Summary Report). Paper prepared for: The Africa-Canada-UK Exploration: Building Science and Technology Capacity with African Partners. 30 January – 1 February 2005. London, UK.
- Gadsby, E. (2008). Governance and stewardship of African national health research systems: Analysis and synthesis of survey results. Paper presented at the Ministerial Conference on Research for Health in the African Region. Algiers, Republic of Algeria, 23-26 June 2008. Nuffield Centre for International Health and Development.
- Ghaffar, A., IJsselmuiden, C., & Zicker, F. (2008). Changing mindsets: Research capacity strengthening in low- and middle-income countries. Geneva: COHRED, Global Forum for Health Research and UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR).
- Government of Sierra Leone, Ministry of Health & Sanitation (2009). National Health Sector Strategic Plan (NHSSP), 2010 – 2015.
- Government of Sierra Leone, Ministry of Health & Sanitation (2008). Sierra Leone Demographic Health Survey (SLDHS), 2008.
- Green, A., & Bennett, S. (Eds.) (2007). Sound choices: Enhancing capacity for evidence-informed health policy. WHO, Geneva, Switzerland.
- Gyapong, J.O., & Ofori-Adeji, D. (2006). Capacity building for relevant health research in developing counties. Netherlands: Netherlands Organisation for International Cooperation in Higher Education.

- IJsselmuiden, C., Marais, D., Wassenaar, D., & Mokgatla-Moipolai, B. (In progress). Mapping African ethical review committee activity onto capacity needs: The MARC initiative and HRWeb's interactive database of RECs in Africa. Paper submitted to *Developing World Bioethics*.
- Injai, M.A., Lopes, O., de Pina, F.J., Fernandes, L.J., Rosa, M.A., Biai, D.F., Neves, C., Fronteira, I., & Dussault, G. (2010). Human resources for health country profile: Guinea Bissau. Geneva: African Health Workforce Observatory, WHO.
- International Development Association (2011). IDA at work: Mali: Building a better foundation. April 2011, <http://www.worldbank.org/ida/>
- Jones, N., Bailey, M., & Lyytikäinen, M. (2007). Research capacity strengthening in Africa: Trends, gaps and opportunities. *A scoping study commissioned by DFID on behalf of IFORD*. Overseas Development Institute, London.
- Kennedy, A., & IJsselmuiden, C. (2007). Building and strengthening national health research systems: A managers guide to developing and managing effective health research systems. Geneva: COHRED.
- Kok, M.O., Rodrigues, A., Da Silva, A.P.J., & de Haan, S. (Submitted). Emergence and current performance of a health research system in a low-income country: Lessons from Guinea Bissau. Manuscript submitted to *Social Science & Medicine*.
- Kruk, M.E., Rockers, P.C., Williams, E.H., Varpilah, S.T., Macauley, R., Saydee, G., & Galea, S. (2010). Availability of essential health services in post-conflict Liberia. *Bulletin of the World Health Organization*, 88, 527-534. doi:10.2471/BLT.09.071068.
- Lansang, M.A., & Dennis, R. (2004) Building capacity in health research in the developing world. *Bulletin of the World Health Organisation*, 82, 764-770.
- Matthys, B., Murugi, J., de Haan, S., Mäusezahl, D., & Wyss, K. (2009). COHRED Record Paper 9. Research for health and health system strengthening in Africa. Results of a stakeholder consultation. Geneva: COHRED.
- Montorzi, G., de Haan, S., & IJsselmuiden, C. (2010). Priority setting for research for health: A management process for countries. Geneva: COHRED.
- Mullan, F., Frehywot, S., Omaswa, F., Buch, E., & Chen, C., et al. (2011) Medical schools in sub-Saharan Africa. *Lancet*, 377, 1113-1121.
- Nuyens, Y. (2005) No development without research: A challenge for capacity strengthening. Geneva: Global Forum for Health Research.
- OECD (2006). The challenge of capacity development: Working towards good practice. OECD, Paris, France.
- Olafsdottir, A.E., Reidpath, D.D., Pokhrel, S., & Allotey, P. (2011). Health systems performance in sub-Saharan Africa: Governance, outcome and equity. *BMC Public Health*, 11, 237. doi:10.1186/1471-2458-11-237
- Omaswa, F., & Boufford, J.I. (2010) Supporting ministerial health leadership: A strategy for health systems strengthening. ACHEST & NYAM, with support from the Rockefeller Foundation.
- Pang, T., Sadana, R., Hanney, S., Bhutta, Z.A., Hyder, A.A., & Simon, J. (2003) Knowledge for better health — a conceptual framework and foundation for health research systems. *Bulletin of the World Health Organization*, 81, 815-820.
- Potter, C., & Brough, R. (2004). Systemic capacity building: A hierarchy of needs. *Health Policy & Planning*, 19, 336-345. doi: 10.1093/heapol/czh038
- Republic of Liberia, Ministry of Health and Social Welfare (2007). National Health Policy & National Health Plan. <http://moh.gov.lr>.
- Republic of Liberia Ministry of Health & Social Welfare (2009). Health Management Information System (HMIS) Strategy and Implementation Plan.

- Sundewall, J., Swanson, R.C., Betigeri, A., Sanders, D., Collins, T.E., Shakarishvili, G., & Brugha, R. (2010). Health-systems strengthening: Current and future activities. *The Lancet*, 377, 1222-1223. DOI:10.1016/S0140-6736(10)60679-4.
- Ter Kuile, A.A., & Neufeld, V. (2006). Knowledge capacity: A key element for optimal health system performance in sub-Saharan Africa Towards an ideal African health system: Paper #3. Canadian Coalition for Global Health Research. www.research-matters.net
- UNDP (2006). Global partnership for development. United Nations Development Annual Report. New York: United Nations Development Program.
- UNDP (2007). Fighting climate change: Human solidarity in a divided world. Human development report 2007/2008. New York: Palgrave Macmillan on behalf of the United Nations Development Program.
- UNDP (2010). The Real Wealth of Nations: Pathways to Human Development. Human Development Report 2010. New York: Palgrave Macmillan on behalf of the United Nations Development Program.
- Whitworth, J.A., Kokwaro, G., Kinyanjui, S., Snewin, V.A., Tanner, M., Walport, M., & Sewankambo, N. (2008) Strengthening capacity for health research in Africa. *Lancet*, 372, 1590–1593.
- World Health Organization (1996). The world health report 1996: Fighting disease, fostering development. Geneva: WHO.
- World Health Organization (2004). World Report on Knowledge for Better Health. Geneva: WHO. Available at: <http://www.who.int/rpc/meetings/pub1/en/>
- World Health Organization (2011). World Health Statistics Report, 2011. Geneva: WHO.

Appendix 1 Country Representatives: Regional Consultation

LAST NAME	FIRST NAME	INSTITUTION	COUNTRY	EMAILS	TELEPHONES
BASH - TAQI	Donald A.	Director of Post graduate training, NCDs and Research, Ministry of Health	Sierra Leone	dabashtaqi@yahoo.com	00232 76 603 256 00232 33 603 256
BAWO	Luke L.	Coordinator of Evaluation, Research and Health Statistics	Liberia	lukebawo@yahoo.com	00231 77 932 20 00231 69 099 45
BECERRA	Francisco	COHRED Head Projects & Programmes	México	becerra@cohred.org	0052 55 4622 5441
BOUGOUDOGO	Flabou	Directeur de l'Institut National de Recherche en Santé Publique	Mali	flabou@hotmail.com	00223 20214320 00223 66748542
De HAAN	Sylvia	COHRED Deputy Director Programmes	Suisse	dehaan@cohred.org	0041 22 591 89 02
DIEYE	Alioune	Professeur Chargé de Mission, Institut Pasteur de Dakar	Senegal	dieye@pasteur.sn	00221 77 639 97 47
FAYE	Arame Boye	Directrice de la recherche scientifique	Senegal	aramefaye@yahoo.com	00221 77 637 00 23
GODT	Susan	IDRC Canada	Canada	sgodt@idrc.ca	001 613 696 2006
JALLOH-VOS	Heidi	MRC Sierra Leone	Sierra Leone	hjallohvos@hotmail.com	00232 33 57 00 89 00232 76 68 43 37
JAO	Mamadu	Director do Instituto Nacional de Estudos e Pesquisa do Ministério da Educação	Guinea - Bissau	mamajao@gmail.com	00245 67 441 25
KANOUTE	Gaoussou	Chef du DER des Sciences Pharmaceutiques à la Faculté de Médecine, Pharmacie et Odontostomatologie	Mali	pgkanoute@yahoo.fr	00223 66 74 24 48 00223 76 45 70 01
KARGBO, Jr	Nyanquoi	Liberia Medical and Dental Association	Liberia	phdiliberia@yahoo.com	00231 69 207 01
KONTE	Almamy	Directeur de la Recherche Technologique	Senegal	akonte@ucad.sn	00221 33 821 52 75 00221 77 182 23 67
KUBATA	Bruno	The New Partnership for Africa's Development (NEPAD)	Kenya	bkkubata@nepadst.org	00254733665210
MARAIS	Debbie	COHRED Research & Development Officer	South Africa	marais@cohred.org	0027 33 260 61 35
MONTORZI	Gabriela	COHRED Programme Officer	Suisse	montorzi@cohred.org	0041 22 591 89 11
NIMELY	Othello	Ministry of Education	Liberia	onimely@yahoo.com	00231 63 466 17
RODRIGUES	Amabelia	Presidente Instituto Nacional de Saúde Pública	Guinea - Bissau	a.rodrigues@bandim.org	00245 60 786 59
SARR	Samba Cor	Chef Division des Etudes et de la Recherche Ministère de la Santé	Senegal	bathie65@yahoo.fr	00221 77 647 09 99
SOMBIE	Issiaka	WAHO, Information and Research Unit Research Officer	Burkina Faso	sombie_issiaka@yahoo.com	00226 20 97 57 75 00226 20 97 00 97

Council on Health Research
for Development (COHRED)

1-5 route des Morillons
1211 Geneva 2
PO Box 2100
Switzerland
Tel +41 22 591 89 00
www.cohred.org

West African Health
Organization (WAHO)

Postal Code 153
Bobo-Dioulasso
Burkina Faso
Tel +226 20 97 57 75 /00 97 / 01 00
www.wahooas.org