Malaria Capacity Development Consortium

Strengthening Research Management and Support Systems (RMSS) in African Universities

OVERVIEW REPORT FOR FOUR UNIVERSITIES

September - October 2014

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EXECUTIVE SUMMARY

The MCDC programme aims to strengthen the research support systems in its African partner universities. This report outlines the methods and common findings of baseline review of the four universities and identifies examples of good practice, capacity gaps and recommendations against a specifically-designed benchmark tool. The recommendations will assist the universities to develop action plans and can guide MCDC and other agencies to effectively target resources to common weak areas in African universities' research support systems. The MCDC PIs in each university have also been provided with a separate, detailed report for their own institution.

Prior to this review there was no single benchmark document which detailed all the support systems needed in a university to underpin the management and generation of research of international quality. A framework, informed by MCDC project documents, was developed to guide a comprehensive search of global published and grey literature concerning all elements of university academic, administrative and financial research support systems. All items identified in the literature were incorporated into a master list of criteria and grouped into eight themes covering:

1. Research Strategies and Policies
2. Institutional Support Services and Infrastructure
3. Supporting Funding Applications
4. Project Management and Control
5. Human Resource Management for Research
6. Human Resource Development for Research
7. External Promotion of Research
8. National Research Engagement

Data collection tools (interview guides for different interviewees' perspectives, observation guides for research facilities, a list of documents to review) were developed to collect information about each of the criteria identified from the literature and findings were organised according to the relevant theme. The PIs in each institution were provided with information about the types of data to be collected in advance of the three-day on-site visits and a schedule of interviews was arranged. As far as possible all information collected during the visits was obtained from at least two independent sources to enhance validity. Across the four universities, 76 interviews were conducted, 65 documents/resources were reviewed and facilities including libraries, research laboratories and offices were visited. A debriefing meeting was held at the end of each visit and PIs and their colleagues were given an opportunity to review the draft report and provide their feedback and comments.

The review has several limitations. The entry point into each university was the MCDC partner department. These had a malaria research focus and this, combined with the relatively long term investment by MCDC and other external partners, meant that these departments may not be typical of others in the same university. The on-site visits were short, so tended to cover broad issues rather than follow individual systems in-depth. The data collection tools were novel and following some refinements during the first couple of visits, proved to be usable by different teams in the two other universities.

The key gaps in research systems identified in at least three of the four universities included no accessible research strategy and a lack of central tracking of research activities. This meant that it was not possible to capture or publicise research activities or to maximise overhead charges for the benefit of the university or department. There were generally no quality assurance or signing off processes for submissions or contracts which could put the institution at risk of contractual or intellectual property issues. Some institutions are beginning to recognise the benefit of having a single research support office to coordinate the multi-disciplinary inputs required for developing proposals and running projects, but where such offices have been established, they have not had sufficient resources to perform all the required functions effectively. The lack of systems for tracking financial spend against budget for projects in some institutions also led to risks of under- or over-spend. As such, joint training for researchers and finance staff may be of mutual benefit. PIs spend a substantial proportion of time on administrative, procurement and other issues that could be more effectively taken on by non-academic professional staff.

Training for researchers is generally provided through projects and so generic skills, such as leadership and research communication, tend to be overlooked and there is generally no coordinated programme for induction or research skills training for researchers. Career paths for academics tend to be better defined than those for non-academic professionals such as ICT, library and administrative staff, though most institutions had no formal post-doctoral career posts. Promotion of research activities and successes through the university website was generally recognised as important but does not appear to be a priority either for training or for resourcing. There were several good examples of engagement and influence of researchers in national and international policy making and these provide opportunities for showcasing institutional research successes.

1. Introduction

A key aim of the MCDC programme is to strengthen the capacity of the programmes' African partner universities to provide international quality academic, administrative and financial support for research activities. The purpose of the Research Management Systems Strengthening (RMSS) component of the MCDC programme is to build on previous reviews of MCDC's African PhD programmes conducted by the Capacity Research Unit (CRU) at the Liverpool School of Tropical Medicine, extending the scope to a review of all research support systems in each university. The terms of reference for the review and information about the review team can be found in appendices 1 and 2. RMSS involves evaluating activities designed to strengthen the research support systems and structures within MCDC's partner institutions and identifying gaps that could be addressed within the time scale of the project.

This report outlines how the baseline review of the universities' research support systems was designed and conducted during site visits to four African universities[1] between September and November 2014. It outlines how the methods and data collection tools were developed, and synthesises key findings, including examples of good practice. Across the four universities 76 interviews were conducted, 65 documents/resources were reviewed and facilities, including libraries, research laboratories and offices were visited. In this overview report, gaps in the research support systems that were common to the majority of universities are described. Recommendations to address these gaps are included to assist the universities to develop action plans. The recommendations in this overview report, and their justifications, can also help MCDC and other agencies to plan and coordinate the effective targeting of resources to common weak areas in African universities' research support systems. The MCDC PIs in each university have been provided with a separate, detailed report for their institution. Through regular skype/telephone contact with PIs or their delegates, CRU will document progress in addressing the recommendations in this report and any challenges and successes encountered.

1.1 Methods

Prior to this review there was no single benchmark document which detailed all the support systems needed in a university to underpin the management and generation of research of international quality. The CRU team therefore developed a novel approach and tools for designing the review and for data collection. The process began by developing a framework (Appendix 3) to guide a comprehensive search of global published and grey literature (Appendix 4) and consultation with experts (e.g. grant finance, research governance) to systematically describe the 'ideal' elements of university research support systems (Appendix 5). The contents of the framework to guide the literature review were identified from the logical framework and theory of change for the MCDC programme, an analysis of activities within the project cycle and by identifying all the support mechanisms that are required to conceive, generate and monitor research and to ensure that research findings are used to benefit the nation, its people and beyond.

The literature review covered all aspects of the capacity needed to provide optimal academic, administrative and financial support for research activities from the perspectives of the Dean or Principal of the institution, faculty staff and the local research community. The literature review covered topics such as national research systems, research uptake and utilisation,

[1] College of Medicine, University of Malawi, Malawi; Faculté de Médicine, Pharmacie et Odontostomatologie, Dakar Université, Senegal; Kilimanjaro Christian Medical University College, Tanzania; School of Medical Sciences, Kwame Nkrumah University of Science and Technology, Ghana;

research management processes, benchmarking and professionalism, frameworks for evaluating health research capacity strengthening, quality assurance of higher education, leadership development for PIs, and the components and management of doctoral programmes. Every aspect of a university's research system that was identified from the literature was incorporated into a master list of criteria and the literature review was continued until no new criteria could be added to the list. The criteria were then grouped into eight themes covering:

1. Research Strategies and Policies
2. Institutional Support Services and Infrastructure
3. Supporting Funding Applications
4. Project Management and Control
5. Human Resource Management for Research
6. Human Resource Development for Research
7. External Promotion of Research
8. National Research Engagement

Once the list of criteria had been established it became clear that data covering all the criteria could be collected through interviews, by observing facilities and by reviewing the universities' documentation – these three methods therefore made up the 'data collection toolkit'. A set of questions to be included in interview guides for different interviewees in the universities (i.e. Heads of Department/Institute Deans or Principles; Principal Investigators; Research Support Staff such as administration, finance, human resources, communications, ethics and laboratories) was developed which covered all the criteria in the list. A list of facilities to be observed (e.g. library, IT suite, laboratories) and documents to be reviewed (e.g. strategies, policies) was also drafted. The data collection tools were reviewed by all members of the review team and adjustments were made to reduce redundancy and shorten the interview guides after the first on-site visit. Minor adjustments were also made during the visit to the second university and, as no more revisions were required, this version was used for all subsequent visits (Appendix 6).

During briefings with the PI in each institution the purpose, process and timing of the three day on-site visits were discussed. The data collection tools were provided to the PIs in advance of the visits so they were aware of the range and type of information that would be sought. A list of relevant individuals to be interviewed was drafted and appointments for interviews were arranged in advance. As far as possible all information collected during the visits was obtained from at least two independent sources to enhance validity. A debriefing meeting was held at the end of each visit so that preliminary findings could be discussed with the PI and his colleagues. During the meeting any discrepancies in information were resolved, accuracy of the findings was checked and the draft recommendations were reviewed and refined. The draft report for each institution was reviewed by the relevant PI and the review team before being finalised and submitted to MCDC.

1.2 Limitations of the review

The entry point into the research systems within each university was the department (or institution) of MCDC's PI. These departments had a focus on malaria research and had benefited from several years of investment through a cohort of MCDC PhD students and research fellowships. As a result it was felt that these departments may therefore have stronger research systems than other departments in the universities. The period for each on-site visit was three days so although interviews were held with senior officers in the university and with central university units such as the library and IT centres, other departments were

not visited so the departmental-level findings should be extrapolated with caution. The data collection tools were novel and developed specifically for this review so they had not been tested previously. However they were informed by a thorough literature search until no new information was obtained and during use of the tools in four diverse universities no topics were brought up that had not been included in the tools. The tools were also refined following the first two visits and discussions among the review team, to make them easier and quicker to use. This process highlighted some aspects whose relative importance had not been apparent in the literature search, such as the role of human resources units and procurement systems, so these issues were emphasized more strongly in subsequent interviews.

This report provides the amalgamated findings from across all four universities against each of the eight themes. The recommendations (Section 10) represent gaps in research support systems that were present in at least three of the universities or departments.

2. Research Strategies and Policies

All of the MCDC partner departments (or institutions) within universities have a vision to be internationally recognized centres of excellence in research. They all have a strong commitment to conducting research that is relevant to their country and region. However most of the departments and their universities either did not have a research strategy or it had not been well disseminated, and generally lacked polices and guidelines to support the implementation of a research strategy.

No university had an effective electronic research management support systems in place although all recognised this as a need and some had started developing plans to set up such a system. This meant that it was not possible to know how many projects were active or to track projects. It also meant that figures for research income across the whole university and the proportion of income from research compared to teaching were not available. However there were examples of mechanisms for tracking projects at sub-university level either with well-maintained spreadsheets or through ethics committee applications. There were also some good practices of deriving research income through projects and disbursing part of this back to departments which generated the research.

For all universities the vast majority of income is derived from teaching. There is very little national or institutional funding for research though some governments and universities do provide competitive seed funding for projects. Many researchers struggle to make adequate time for research on top of their commitments for teaching and, for clinicians, their hospital duties.

2.1 Recommendations: Research Strategies and Policies

2a. Departments/universities need an accessible research strategy with polices and guidelines to support its implementation

2b. Electronic research management support systems are needed to track proposals and projects and to document research income and disbursement including overheads

3. Institutional Support Services and Infrastructure

Some universities had a dedicated central office or directorate responsible for promoting research and coordinating research grants. However, in general there has been significant under-investment in research support services across the universities, which are consequently fragmented and not widely valued by researchers. In some cases a unit to act as a 'one-stop shop' for research support had been introduced at Faculty or College level. The vision for these units is that they will develop research policies, systems and procedures and provide support for all the non-academic aspects of research such as proposal development, contract issues, research training, procurement and project management. However these offices generally lacked adequate resources and were therefore only able to provide limited support. In some cases the purpose and functions of the unit were not well understood by researchers and were also understaffed so could only provide limited support, for example training courses.

All the departments had off-campus field sites and most of the universities had research affiliates with research laboratories based on campus. In one case the affiliates' laboratories had been amalgamated into a single laboratory with separate specialities. In a couple of cases at sub-university level the research laboratories were primarily managed by local research leaders. These institutions had a range of essential research equipment and were staffed by well-trained scientists who were taking steps towards international laboratory accreditation. Although the affiliates' laboratories provide a high quality, often internationally accredited service, getting appropriate governance structures and relationships with the local host organisation was sometimes difficult and some researchers perceived that access to the facilities was limited or too expensive.

All the universities have significantly invested in boosting their internet capacity, computer suites and e-library facilities with good examples of policies to promote open source software, databases and journals. Additional IT capacity had also been purchased through projects. In some countries, library resources are negotiated and shared nationally among universities. In most universities there are adequate arrangements for off-site back up of institutional documents and data but responsibility for backing up research information, such as project activities and draft publications, is largely left to individual researchers.

There are examples of well managed integration and complementarity of ICT expansion with the traditional book library, but in general it appears as if plans for the future of the book library, in the context of increasing use of e-resources, has not been pro-actively planned. This is important since although the book libraries are well-used by students, there was evidence that they are little used by researchers and senior staff who prefer to access information electronically, remote from the physical library.

In all universities the ICT and library staff provide advice and training, such as database searches and the purchase and use of software, which is relevant for researchers. However uptake by researchers is low in all institutions possibly because researchers did not appear to be aware of these opportunities.

3.1 Recommendations: Institutional research support services and infrastructure

3a. The roles and relationships between university level research coordination and 'one-stop shop' research support offices at Faculty or College level need to be clarified

3b. The strategy for research support offices at Faculty or College level (i.e. should they develop research policies, systems and procedures? provide support for proposal development, contract issues, research training, procurement, project management?) needs to be clarified and mechanisms found for long term sustainability and buy-in by the researchers

3c. Achieve international laboratory accreditation for the institution's own laboratories; harmonise research laboratories' activities with those of affiliated organisations and establish clear processes and costs for researchers wishing to access these facilities

3d. Pro-actively plan the future of book libraries in the context of the shift to increasing use of e-resources, including their possible integration with ICT facilities

3e. Improve incorporation of existing training opportunities (e.g. provided by library and ICT staff) into a core skills training programme for researchers

4. Supporting Funding Applications

In general PIs are responsible for all aspects of proposal development. All institutions recognised the benefits and need for a research support unit to help researchers identify funding opportunities and to put together multi-disciplinary teams (including finance, laboratory and procurement inputs) to develop and submit proposals. The departments were at various stages of setting up these support processes and there were good examples of coordination of different expertise in developing and running projects. However despite the potential reputational risk of submitting poor quality proposals, for example with inadequate budgets or over ambitious objectives, none of the universities and almost none of the departments, had a formal process for quality assurance or clear authorisation of proposals before submission. Although the universities did provide access to legal advice, (for example, to review contracts) this service was rarely used by researchers who were either unaware of the service or perceived that the advice was not specialised in research issues. Tracking of proposal submissions and outcomes is incomplete, thus it is not possible to analyse bidding activity or success rates.

4.1 Recommendations: Supporting funding applications

4a. Set up mechanisms for timely, multi-disciplinary (e.g. finance, legal, ICT, laboratory, library, procurement) input into proposal development

4b. Set up a formal process for quality assurance and authorisation of proposals before submission and for tracking the outcome of submissions

5. Project Management and Control

There is a clear understanding in all institutions that a structured approach to management, control and tracking of research projects is needed, especially for projects that are externally funded. Ideally this requires an electronic research information system to ensure that all procedures are clear, timely and transparent. However most institutions do not yet have the capacity to systematically manage and track all aspects of projects, including the project agreement, protocol, budgets, funding requirements, accounting and audit, and to provide this information regularly to senior managers. There were examples of gradual centralisation of information about research activities. This had enabled increased recoupment of overheads which were used, for example, to refurbish laboratories.

The pathway to final project approval, including contract review and sign off, is not clear in most universities and although legal advice is generally available, it is not routinely sought for all contracts. This potentially opens up risks for the institutions such as lack of compliance with contracts or in agreeing unfavourable terms regarding intellectual property and data management.

Within the universities there are generally clear procedures for financial control and the release of disbursements but there were several examples of where the cumbersomeness of these processes had resulted in delays to projects. Timely budget reporting (e.g. monthly) back to PIs about income, spend and variance was often lacking and in some institutions the inadequate financial systems posed a significant reputational risk because of, for example, overspends or delayed reporting**.** In some instances there seemed to be a lack of communication and understanding of roles and responsibilities between researchers and finance officers.

PIs in all institutions have a heavy administrative load in connection with research projects. However they did not always seem aware of the role and benefits of budgeting for additional help, such as experienced research administrators. Better administrative and other support would free researchers up so they could concentrate more on the technical aspects of their research.

Procurement delays due to the need to import the majority of research items were widely reported. However there appeared to be little prioritisation of efforts to find solutions to these problems. Some universities have specialised procurement units which had some mechanisms in place to circumvent delays but they did not seem to be consulted routinely.

Although some departments are involved in clinical trials, sponsorship was generally provided by the northern partner and for most PIs. Some departments have acted as sub-sponsors on clinical trials, but achieving full sponsorship status did not appear to be a priority for most researchers. Some staff in the universities have specialised clinical trials expertise and there are examples of dedicated clinical trials units. All the universities have access to effective and highly regarded internal and/or national ethics committees which in some cases were partially funded from project overheads.

5.1 Recommendations: Project Management and Control

5a. Establish an electronic research information system to systematically manage and track all aspects of projects including the project agreement, protocol, budgets, funding requirements, accounting and audit, and to maximise recoupment of overheads

5b. Establish a formal project approval process, including and contract review and sign off

5c. Encourage researchers to include and budget for experienced administrators to help reduce the time they spend on project administration and to actively include other relevant inputs such as procurement expertise

5d. Provide joint training in financial management for researchers and finance officers and increase clarity and understanding about their various roles and responsibilities in relation to each other, the institution and the research funders

6. Human Resource Management for Research

Project staff are generally academics who are employed on permanent contracts by the university (or hospital for clinicians) or on short-term contracts linked to specific projects. The involvement of universities' Human Resources departments in the employment of project staff varied from almost none to substantial responsibility for recruitment and employment processes. In some institutions project staff were not considered to be employed by the university. This meant they did not have access to, for example, IT facilities, employment insurance and university emails.

Academics generally have well-defined routes and criteria for promotion. These include research metrics such as grant income and publications, as well as teaching duties. The career tracks for staff in support roles, such as administrators and ICT, laboratory and library staff, are less clear than those for academic staff and generally depend on evidence of increasing skills and responsibilities, such as obtaining higher degrees or a contribution to positive change or new initiatives.

Currently the majority of MCDC PhD students have been absorbed into posts in their host universities after completing their studies. This process has been aided by the personal development programme and career development groups instigated through MCDC. In institutions without faculty post-doctoral positions, there is a risk that the researchers may seek opportunities abroad or move into careers unrelated to their research expertise. It was widely recognised that if the universities want to retain their most talented researchers, they need to set up a formal post-doctoral training programme and most institutions had plans to do this.

6.1 Recommendations: Human Resource Management for Research

6a. There is a need to strengthen HR skills and structures so that they can better support researchers and research projects, and to ensure that project staff are university employees with access to the protection and facilities of the institution where this is not currently the case

6b. Formal post-doctoral training programmes need to be established to develop and retain talented researchers

7. Human Resource Development for Research

Some departments have a clear ethos and commitment to learning and personal development of staff and actively encourage knowledge sharing. However no institution has a unit responsible for managing a formal programme of training for staff researchers. Most research training is on technical topics rather than generic skills (e.g. leadership, project/financial management) and is provided through existing projects. There is generally little knowledge and uptake among researchers of training opportunities available through the universities such as those provided by the library and ICT units.

Although most research staff did have some sort of induction when they started their employment, the processes for induction and for assessing training needs are generally ad-hoc and consequently inconsistent. There were good examples of mentorship programmes to link junior faculty with more experienced senior researchers. There were also several examples of researchers benefitting from research skills courses (e.g. in research supervision) that had been provided primarily for the benefit of a small number of researchers on well-funded programmes (e.g. by MCDC, EDCTP, BMGF).

7.1 Recommendations: Human Resource Development for Research

7a. Provide a formal induction programme and training needs assessment for new research staff

7b. Establish an institutional programme of skills training for researchers, possibly through a dedicated unit, that includes non-technical skills such as leadership, supervision and project management

8. External Promotion of Research

Across the universities and departments there were many different examples of how research activities are promoted to the academic community and to decision makers. These included annual conferences and PhD symposia, websites and Facebook, and providing open access to faculty research publications and research theses to showcase research. However in most cases some of the website information was outdated and some links were broken. One institution uses recognised comparators to assess its research performance against other African and international institutions and to publicise its high standing in Africa.

Most of the universities have a communications office but these focus primarily on public relations for the university itself rather than on disseminating research activities and outputs. Some universities and departments have developed strong collaborations with national and international programmes (e.g. the EU Erasmus programme) which help to improve the visibility of their research. Although researchers recognise that much of their research is highly relevant for national policy making, many were unsure about how to engage with non-academic audiences and identified a need to improve their ability to write “jargon-free” communications such as press releases and policy briefs.

8.1 Recommendations: External Promotion of Research

8a. Review research aspects of the website to ensure information is current and that hyperlinks are working

8b. Consider setting up a unit specifically to enhance the visibility of institutional and/or departmental research activities and outputs

8c. Provide training in research communication to improve researchers' ability to write "jargon-free" communications such as press releases and policy briefs

9. National Research Engagement

All researchers expressed a desire to conduct research that benefits their nations' people and which is in line with national research strategies. Such national strategies are available in some of the institutions' countries but overall there is very little government funding available to implement research. In general it was felt that governments needed to take research more seriously by providing leadership for research priorities, by defining the role of the university departments and by providing more resources.

Most researchers find it challenging to promote use of their research findings in a way that has potential to influence national policy and practice and systematic mechanisms for achieving this are not yet in place. Some senior researchers do have influential collaborations with national agencies such as research institutes, disease control programmes, national research networks, technical working groups and science and technology commissions. There were several examples of researchers' inputs and findings influencing, for example, the national research agenda or national malaria policies. However the number of researchers that are influential at national level is small and their impacts are not systematically captured by their own institutions, although they may be reported to research programme funders.

9.1 Recommendations: National Research Engagement

9a. Explore options for improving researchers' ability to impact on national health research priorities and practices

9b. Universities and departments should systematically document national and international uptake and utilisation of the research findings they have generated

10. Summary of Recommendations

Section 2: Research Strategies and Policies

2a. Departments/universities need an accessible research strategy with polices and guidelines to support its implementation

2b. Electronic research management support systems are needed to track proposals and projects and to document research income and disbursement including overheads

Section 3: Institutional Support Services and Infrastructure

3a. The roles and relationships between university level research coordination and 'one-stop shop' research support offices at Faculty or College level need to be clarified

3b. The strategy for research support offices at Faculty or College level (i.e. should they develop research policies, systems and procedures? provide support for proposal development, contract issues, research training, procurement, project management?) needs to be clarified and mechanisms found for long term sustainability and buy-in by the researchers

3c. Achieve international laboratory accreditation for the institution's own laboratories; harmonise research laboratories' activities with those of affiliated organisations and establish clear processes and costs for researchers wishing to access these facilities

3d. Pro-actively plan the future of book libraries in the context of the shift to increasing use of e-resources, including their possible integration with ICT facilities

3e. Improve incorporation of existing training opportunities (e.g. provided by library and ICT staff) into a core skills training programme for researchers

Section 4: Supporting Funding Applications

4a. Set up mechanisms for timely, multi-disciplinary (e.g. finance, legal, ICT, laboratory, library, procurement) input into proposal development

4b. Set up a formal process for quality assurance and authorisation of proposals before submission and for tracking the outcome of submissions

Section 5: Project Management and Control

5a. Establish an electronic research information system to systematically manage and track all aspects of projects including the project agreement, protocol, budgets, funding requirements, accounting and audit, and to maximise recoupment of overheads

5b. Establish a formal project approval process, including and contract review and sign off

5c. Encourage researchers to include and budget for experienced administrators to help reduce the time they spend on project administration and to actively include other relevant inputs such as procurement expertise

5d. Provide joint training in financial management for researchers and finance officers and increase clarity and understanding about their various roles and responsibilities in relation to each other, the institution and the research funders

Section 6: Human Resource Management for Research

6a. There is a need to strengthen HR skills and structures so that they can better support researchers and research projects, and to ensure that project staff are university employees with access to the protection and facilities of the institution where this is not currently the case

6b. Formal post-doctoral training programmes need to be established to develop and retain talented researchers

Section 7: Human Resource Development for Research

7a. Provide a formal induction programme and training needs assessment for new research staff

7b. Establish an institutional programme of skills training for researchers, possibly through a dedicated unit, that includes non-technical skills such as leadership, supervision and project management;

Section 8: External Promotion of Research

8a. Review research aspects of the website to ensure information is current and that hyperlinks are working

8b. Consider setting up a unit specifically to enhance the visibility of institutional and/or departmental research activities and outputs

8c. Provide training in research communication to improve researchers' ability to write "jargon-free" communications such as press releases and policy briefs

Section 9: National Research Engagement

9a. Explore options for improving researchers' ability to impact on national health research priorities and practices

9b. Universities and departments should systematically document national and international uptake and utilisation of the research findings they have generated

Appendix 1

Terms of reference: Research management support systems: review of capacity in MCDC's partner institutions (RMSS)

Objective

To conduct a baseline needs assessment and use the results to identify and document opportunities for the strengthening research support systems and structures within MCDC partner institutions

Methods

1. **Define the goal of the CS project**
   Agree with stakeholders that the goal of this CS project is to strengthen the capacity of 5 African university departments to support international quality research activities.

2. **Describe the 'optimal' capacity needed to achieve the goal**
   A systematic literature search to generate a list of ideal criteria for research management and support and interview guides and observation checklists to be used during fieldwork.

3. **Determine existing capacity; identify gaps compared to 'optimal'**
   The tools to be used before and during 3 day site visits to each university to identify capacity gaps, ensuring that the data collected is verified by at least two sources.

4. **Devise and implement an action plan to remedy the gaps**
   Written reports for each university detailing the findings and identifying strengths and weaknesses.

5. **Learn through doing; revise the plan and indicators regularly**

   It is planned that through regular (e.g. quarterly) skype/telephone contact with PIs (or delegated person), document progress against the action plan, identify challenges and successes with reasons, and support problem-solving and revisions to the action plan.

Outputs RMSS

The output will be a report which includes:

a) Prioritised recommendations stating capacity gaps with recommendations for action plan for each of the universities (confidential)

b) Short update reports of progress, challenges and successes in implementing the plan (confidential)

c) Overview report summarising commonalities across all five institutions highlighting areas for potential collaboration between African institutions and/or between funders

d) Presentations to MCDC team to discuss result

Appendix 2

RMSS Review team

Imelda Bates is the Head of the Department of International Public Health at the Liverpool Tropical School of Medicine (LSTM) and the Head of the Capacity Research Unit

Donald Cole is Professor of Community Medicine/Epidemiology at Dalla Lana School of Public Health, University of Toronto, Canada

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Selina Wallis (Research assistant, CRU, LSTM) assisted with the literature review, design of the toolkit and preparation of the reports. Denise Wellings (Unit administrator, CRU. LSTM) and Lorelei Silvester (Research Co-ordinator, CRU, LSTM) contributed to implementation of the project

Appendix 3

Framework for literature search

Academic	Administrative	Financial
Initiating research ideas and proposals *Internal*: Seminars, Journal Clubs, Lectures, scientific meetings 'grant identification' officer *non-academic:* National research priorities; policy makers	**Ethical approval processes** Internal National	**Pre-award** Guidelines about budgeting including overheads calculations Input to proposal budgets Sign off on budgets before proposal submission
Ensure quality of grant applications Funding for networking/grant development Internal review process for project progress and/or outputs Support for research design (e.g epidemiology, stats, social science, health systems)	**Research liability** Insurance arrangements for project staff (not clinical trials) Sponsorship for clinical trials Insurance arrangements for clinical trials Registration of clinical trials Risk assessment for overseas/field staff Evacuation policy and practice	**Proposal submission approval** Calculation of overheads Ensuring adequate and accurate budget Final sign off on proposal budgets
Financial management of grant Process for tracking expenditure Process for accessing funds Process for procuring goods Process for funding travel, conferences, visitors etc Access to bank account Oversight of over/under spend (esp near project end) Feedback from finance officer – frequency, type, resolution	**Human resources** Recruitment process and responsibilities Equal opportunities policies Interview standardisation/training for interview panels Process and turnaround time for recruiting and appointing new research staff Job descriptions for researchers and support staff Length of posts and funding mechanisms Career paths for researchers and research support staff	**Financial management** Setting up new accounts/adding new projects to existing accounts Oversight of spend and variances Management of exchange rates (attribution of gains and losses) Attribution of interest
Research delivery Mechanisms to support research engagement with communities, stakeholders, policy/decision makers Support for data analysis and management (transcribing service, qualitative analysis, data planning, management and entry Access to data Safety Monitoring Board/Independent Data Monitoring Committee – communication and feedback SAE identification and reporting	**Institutional research strategy and support** Documented strategy (with evidence of revisions) Strategic planning around research direction including preferred/appropriate funders PhD student and supervisor handbooks Research support office/core staff Training for core research skills (e.g. supervision) Evidence of institutional learning about research and using lessons learnt for improvement	**Financial reporting** Reports to PI – frequency, method, feedback loop Reports to funders – person responsible, involve PI?, Reports to institutional heads Final reconciliation Close down reports Use of left over funds Management of project overspend

	Institutional push for research utilisation (eg. Esteem, promotion) Career development opportunities (e.g. training opportunities and budget, appraisals)	
Research facilities Space for writing, study, meeting (including videoconferencing, skype) for PIs, research students and junior staff Laboratory/field site facilities – international accreditation Arrangements for transport between sites Library, books, internet resources	**Project contracts** Support for contract negotiation and review (including legal expertise) Who has authority to be official signatory for submitting research contracts? Process for final sign off on contracts	
Research training *Generic*: health and safety, GLP, GCP, ISO, research skills (qualitative and quantitative), institutional induction *Specific:* skills for individual projects	**Communications** Support to disseminate projects/opportunities including non-formal channels (e.g. social media) Research profile on website	
Research collaborations Internal research theme groups Multi-disciplinary research projects Established international collaborators	**IT** Back up services/off site server Data back up facilities for projects Access quality and availability (including wifi and off site) IT training courses for researchers	
Research uptake Pro-active uptake mechanisms from start of projects Expertise available		
Research systems Processes for cross-project learning about research Evidence of researchers influencing research systems improvements		

Appendix 4

Key references used to inform the review

Optimal institutional research management and support

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Cross institution/Country wide research management

- http://www.oecd.org/sti/Effectiveness%20of%20research%20and%20innovation%20management%20at%20policy%20and%20institutional%20levels_Meek%20and%20Olsson.pdf

The structure of the observation checklists, interview guides and the phrasing of some of the questions were based on previously designed evaluation tools, specifically those from the following references:

- Benchmarking Southern African Universities 2014 DRAFT Summary Association of Commonwealth Universities. Available online at: https://www.acu.ac.uk/focus-areas/benchmarking-african-universities (accessed on 13/08/14)
- Kirkland, J., Bjarnason,S., Stackhouse,J. 2006 International research management: benchmarking programme . Report to HEFCE by the Association of Commonwealth Universities. Available online at: http://webarchive.nationalarchives.gov.uk/20100202100434/http://www.hefce.ac.uk/pubs/rdreports/2006//rd11_06/rd11_06.pdf (accessed on 13/08/14)
- Unpublished documents (2014) from RS-DFID Africa Capacity Building Initiative Evaluation: Toolkit (Draft)
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Appendix 5

'Ideal' elements of university research support systems needed for optimal capacity to provide international quality academic, administrative and financial support for research activities in African Universities

University Research Strategy
The university has a research strategy
The research strategy is framed within the overall goals of the institution. The strategy is distinct from but links clearly with, and is complimentary to, other institutional plans, strategies and policies
The research strategy explicitly states its purpose to assist the business of the institution, identifies priorities, and monitor progress
The institution's mechanism for determining research strategy is transparent and widely owned
The institutional research strategy fully involves faculties in its design and implementation, and policies carried out by individual schools or departments are consistent with it
Implementation of the research strategy is overseen by an appropriate member of senior management. The strategy is also backed up by appropriate manpower & resources, to make sure it is implemented
The research strategy has the facility to draw on a range of evaluation mechanisms which might include sources external to the university - such as external peer review including other universities
The Research Management Office [if it exists] is fully involved in the drafting of institutional research strategies in conjunction with other appropriate offices
The research strategy is underpinned by the internal funding mechanisms for research
The research strategy is, as far as possible, responsive to the research funding environment and opportunities (at national, international and regional levels)
The research strategy seeks to add value to existing activity by proactively highlighting new opportunities for internal and external collaboration. The strategy should also promote interdisciplinary research and the development of early career researchers
The research strategy is effectively communicated, monitored, reviewed and developed/refined
Methods for evaluation of the strategy and performance indicators should be established from the outset. Key performance indicators should include a balance of quantitative and qualitative methods
The research strategy should be sufficiently flexible and defined within a reasonable time frame (e.g. 5 years) reviewed regularly, and be capable of evolving in response to events
The strategy should take into account the need for appropriate staff incentives
Institutional Research Capacity
The institution has a unit dedicated to research management (Research office)
The institution has a research committee to develop strategies to assist the University in meeting its research objectives, identify priorities, advise on stakeholder engagement, monitor research performance, discuss annual department updates, monitor national and international research policy which effect the institution
The research unit has an adequate number of Staff to fulfil the needs of researchers
Culture where research is valued, accepted, encouraged and enjoyed
Ethics committee exists to ensure research conducted is ethical
Evidence of accessible guidance to help researchers through the research process including governance and ethics
Clear academic honesty guidelines in place
Able to meet requirements of GCP and GLP
Sufficient facilities are available for research (studying, IT, library, technology, laboratories etc)
Supporting funding applications
Institutions have regular, effective and proactive means of informing academics staff on funding opportunities and the strategic directions of funding agencies where possible, these should involve direct communication between the Research Office and individual staff
Central research Offices have developed and strategically use key contacts in faculties schools, institutes and departments to facilitate a two way flow of information in funding opportunities and research interest

The institution maintains a searchable database on institutions research performance, capabilities and contact, including all past projects and proposals
information and current policy from all funders is maintained and communicated as appropriate
The Research Office holds regular information and updating sessions and targeted workshops for faculty members and graduate students with the purpose of providing information on funding opportunities, proposal development and the development of collaborative research teams to respond to one-off as well as on-going research opportunities
The institution seeks to establish an effective two-way communication strategy between themselves and major sponsors and proactively seek to develop that relationship
The institution has clear mechanisms in place to handle internal external enquiries regarding possible research and consultancy opportunities and to monitor the outcomes of these on a regular basis
The Research Office actively encourages collaboration between different departments within the institution including senior Academic Office, Public Relations, Marketing and Registry
The institution seeks to develop mechanisms to effectively track and involve alumni working in key positions with current, past and potential sponsors and in government
The research office actively brings key staff together in response to large scale tender and proposals proposal requests where appropriate and where consistent with research strategy
Institutions through the Research Office or other appropriate office, ensure that proposals are reviewed by experienced academic and research staff (externally, where appropriate) prior to submission
Proposals are only submitted with clear support from Head of Department of other appropriate management authority. Key personnel who need to be aware' of the project should be notified.
The institution approves all proposals before submission and research offices maintain records on the progress of all proposals
The information gained from previously submitted proposals is used to inform future proposals
The institution has a clear transparent and widely disseminated formula for determining the full economic cost of any give project, including indirect costs and staff time
full costing is calculated for each externally funded project even if this is not reflected in the price charged
All proposed research should be consistent with the institutions overall research strategy
The institutions provides clear guidance to staff and external sponsors as to which kind of projects and contractual terms are acceptable
The institution has clear risk assessment procedures for proposed projects which recognise the need to involve several key offices within the institution
The institution systematically reflects on its progress against its research strategy including regular comparisons with other institutions of similar nature
Project Management and control
All project proposals contain explicit statements of how the project will be managed and, where possible and appropriate, provision for the appointment of specialist staff
Mechanisms are in place to recognise the critical role of Principal Investigators, to ensure that they and other key actors are aware of their roles and responsibilities before commencement of the project and where required, that appropriate training is undertaken.
Key milestones (including reporting and financial review dates) are agreed with key actors at the outset and updated amongst all those actors throughout
Key actors, including Principal Investigators and Deans, are provided with regular and up to date project information (including financial, human resources, IP, and commercialization information), through on-line access or regular statements
Information provided to key actors, including Research Officers and Deans, pro-actively highlights any risks and obligations specific to both them and the institution.
Procedures are in place to ensure that all those with access to research are covered by appropriate confidentiality and rights assignment agreements (depending on jurisdiction), particularly those who are covered by a contract of employment with the institution
Appropriate data management policies exist (covering ethical and legal compliance, copyright and IPR issues, data storage, security, sharing and retention)
Appropriate health and safety policies are in place (encompassing staff induction, safety officers, evacuation procedures etc)

Appropriate insurance arrangements are in place for both staff and clinical trials (if applicable)
Mechanisms are in place to ensure that intellectual property both brought to and emerging from research is identified, protected, tracked and signed off at all stages and that staff have access to specialist advice in this regard.
Procedures are in place for the appropriate monitoring of material transfer agreements.
Mechanisms are in place to identify possible delays and monitor expenditure to ensure it is in line with project budgets
The institutions has an explicit consistent framework within which academic units can predict future revenue and expenditure, especially where such income contributes to underpinning core activities
Mechanisms are in place for the disclosure and management of conflicts of interest.
Mechanisms are in place to obtain feedback project sponsors, which can be taken into account in future planning
Formal closure and continuous monitoring processes are in place ensuring that all obligations have been and continue to be met and that opportunities arising from the project are identified.
Training and staff development for research
Evidence of research training needs assessments
Provision of research skills training shaped around skills background and needs of different professional groups
There is availability and use of funds for research skills training for research management staff, researchers and academic staff
There is availability of a range of research skills training for students, research management staff and researchers covering- Proposal writing, grant application, data analysis and management (including software and qualitative analysis) ethics, health and safety, GCP and GLP, generic research skills (quantitative and qualitative) academic writing and publishing
Evidence of matching novice and experienced researchers
Mentorship and supervision structures for students and early career stage researchers and new PI's
Individual job descriptions support research/institutional objectives
Policies are in place to support recruitment and contract negotiation for new support staff
Staff skills and abilities are matched to research needs
Seminar programmes relating to research undertaken
The research management structure and policies form a core element of induction programmes for new academic and technical staff as well as new postgraduate students.
Research strategy, policy and management issues form a core element of ongoing professional development programmes for mid-career and senior academic staff.
Staff in leadership roles (e.g. Deans) are offered appropriate instruction in research strategy, policy and management, as well as being involved in discussion of good practice within the institution
The Research Office maintains effective ongoing relationships with internal clients at all levels (faculty, department, individuals) with a view to supporting research staff and understanding their needs.
Performance measures for research management are established and are widely available/disseminated.
The institution makes provision for appropriate incentives to enhance the research activity of new and emerging researchers. Such incentives might include conference grants and other start-up funding.
Policies for providing incentives for staff research activity are transparent, easy to understand and consistent across the institution.
Career development opportunities
Career pathways exist for researchers
Teaching capacity to support research
Number of (half as a minimum) full-time academic staff as active and recognised contributors to subject associations, learned societies and relevant professional bodies.
Number of (third as a minimum) academic staff with recent (i.e. within the past three years) personal experience of research activity (including external examination, review panels, collaborative research)
Number of (third as a minimum)academic staff engaged in research or other forms of advanced scholarship

The outcomes of external scrutiny exercises undertaken by bodies such as the Quality Assurance Agency for Higher Education, the funding councils and professional and statutory bodies are carefully considered and actioned.
External promotion of research
Collaborations exist with external organisations (institutions, businesses, government, NGO's)
The institution is able to conform to the requirements of multiple funding agencies
Number of joint posts with other academic institutions
The institution has a clear strategy in place for all forms of intellectual property management
Clear regulations are in place to determine the ownership of intellectual property by and between staff, students and third parties. These regulations are effectively disseminated throughout the institution and externally
Academic departments and research projects are systematically monitored to identify emerging intellectual property at an early stage.
The institution establishes a register of intellectual property assets and pro-actively manages and maintains it at all stages of development and exploitation
Clear policy mechanisms are in place to govern the distribution of revenues from intellectual property between the university and other key stakeholders.
The institution's research communication strategy is consistent with the institution's overall strategy and underpins the core missions of the institution, particularly in relation to the integration of research, education and service.
There is a clear understanding of the roles and responsibilities of the different offices/officers responsible for research communication and good channels of communication exist between all these actors.
The institution pro-actively identifies projects (at various stages) and outcomes that are aligned with the university's priorities and are particularly suitable for external dissemination
The institution has a programme of events, such as launches, to profile major achievements or projects which relate to the strategic objectives and any priority research themes of the institution.
The institution has clear criteria for the type of work most likely to generate good publicity, and guidance on how to avoid poor publicity, and makes this information available to staff.
The institution has a clear strategy and procedures with regard to handling crisis communications and ensures these are disseminated to every level.
The institution seeks to make key research findings accessible to a wider audience, through the use of research summaries, expert guides and speakers lists, produced in suitable lay language and in publicly accessible formats so as to engage public understanding of the core mission of the institution (including inter-institutional partnerships).
The institution has established clear mechanisms to review and reward the performance of departments and research groups in the area of dissemination, which are integrated with an incentivisation policy providing a variety of incentives.
Mechanisms are in place for staff to report their dissemination activity. Such mechanisms maximise research kudos and academic excellence and are consistent with any reporting requirements to external organisations
The institution provides assistance and systematic training programmes for staff in handling the media, and specific assistance in the drafting of press releases and publicity materials.
The institution facilitates the participation of researchers, particularly early career researchers, in international conferences and other fora to present their research findings and raise their profile
Where possible, dissemination outputs of staff are captured in a centrally managed integrated digital repository, linked to any central research activity database, which is made available to all units of the institution
The institution has a clear branding policy which is consistent with the research communication strategy.
The institution's web portal reflects the institution's core mission and strategy and is strategically and systematically managed as a key tool for promoting research to the broader community.
National Research Uptake
Ability of link policy to research and practice
Number of evidence based policies
Number of evidence based development interventions
Number of plans and policies to support research

Existence of national standards (accreditation, quality assurance) regarding the evaluation of research institutes
Existence of scientific councils with transparent and efficient systems in place to evaluate and disburse competitive research funds
Level of funding of research by the government
Researcher salary on par or above other countries in region

Appendix 6

Evaluation toolkit

Strengthening Research Management and Support Systems (RMSS) in African Universities:

Introduction to Interview

- Introduce evaluation team and outline timetable/interviewees
- Explain about MCDC (PhD programme focus) and RMSS (institutional research systems focus)
- Briefly outline process for developing the toolkit (no 'off the shelf' toolkit; literature review with information from different sectors)
- Explain we will produce a report/institution and an overview report, and present initial findings in New Orleans (end October)

Sections

1. Research strategies and policies
2. Institutional Support Services and Infrastructure
3. Supporting funding applications
4. Project management and control
5. Human Resource Management for Research
6. Human Resource Development for Research
7. External promotion of research
8. National research engagement

Bio

What is your current position within this institution?

How long have you held this position?

How long have you worked at this institution?

What is your role in research within this institution?

1. Research strategies and policies

The institution

How many staff and students are there at this institution?

What is the percentage of income from a) teaching and b) research?

Is there core funding for research? How much? How is it disbursed?

How many PhD students are registered a) with your institution and b) externally?

Is there a university officer/directorate responsible for research? Do they have terms of reference?

How does this institution's research outputs compare to other comparable institutions? How do you measure this?

Strategies

Do you have a university research strategy?

What are the main themes/components of the strategy?

Does it link to a) national and b) other institutional strategies?

How is it disseminated internally and externally?

What are the research strengths at this institution?

Are strategies revised? How often? What were any major changes?

What are the strategic priority research areas? How were they decided? How are researchers and externally funded projects encouraged to focus on these areas?

Was any baseline information (e.g. a SWOT analysis) used to inform the strategy?

Who was involved in setting the strategy? What was the process?

2. Institutional Support Services and Infrastructure

Research management

Is there a university research committee? What do they do?

Is there a research support office? What do they do? (E.g. identify opportunities, help with application process, and ensure compliance with funder's requirements)

How are you made aware of research funding opportunities? (at national, international and regional levels)

How do you keep track of publications/presentations/conferences/grant applications produced/ department?

ICT (also see data management in section 4)

Is there adequate Wi-Fi, broadband speed, video conferencing and skype facilities for researchers? Do they pay for this?

Can they access the IT systems from home?

Do you purchase computers etc. on their behalf, or make recommendations? Do you set them up? Help with software? Is there any charge for this service?

How are files and information backed up? (e.g. offsite servers)

Library

How do staff and students access peer reviewed and grey literature? Are there any regular training courses offered?

How is access to e-resources and hard copy books/journals managed between the ICT unit and the library?

Laboratories

What research laboratories and field sites are available to use for research purposes at this institution?

What type of research studies can be supported by the laboratories (e.g. HPLC for pharmacokinetics; genomics/sequencing; insectory etc.)

Are the laboratories enrolled in external quality assurance systems?

Do the laboratories have international accreditation?

Do the laboratories follow Good Laboratory Practice guidelines?

Are there backup generators? Surge protection?

What sample storage facilities do you have? Are they temperature controlled and monitored?

What are the policies and processes governing transfer of samples to external institutions?

3. Supporting funding applications

What are the mechanisms for identifying external funding opportunities? Does the research office help with this? (E.g. is there a 'grants identification' officer?)

Is there any support to help PIs prepare funding proposals? (E.g. getting documents together, preparing/checking budgets, submitting proposals)

What is the mechanism for collating information on all proposals submitted? Is there a searchable database of submitted projects and whether they were successful?

What is the process for submitting proposals? Is there a formal sign off and if so by whom?

Do proposals have to have input or approval from finance/accountants prior to submission? What do they look for? How do you make sure that overheads are included and the costings are correct (e.g. salaries, equipment)?

Does the university use external advice (e.g. legal) at any stage during the process?

Do you have any way of comparing your research performance with other institutions?

4. Project management and control

What systems are in place to monitor the progress of each project? (E.g. against milestones)

Ethics

How is this managed in the university as a whole? Is this done at the university or at the faculty level?

Is ethics committee membership GCP-compliant?

Are there guidelines about how the ethics committee functions?

Are there guidelines for researchers about the ethics process?

Are there guidelines relating to academic honesty and plagiarism?

Financial

Who provides financial reports to funders? Who has specialist knowledge of each funders' reporting requirements?

How often are financial reports made to PI's (frequency, method, feedback loop?)

How do departments predict and plan future research revenue and expenditure?

How does the university ensure that project expenditure remains in line with the budget?

Legal

What is the process for minimising risks regarding financial and contractual terms? Is legal advice available? Who accesses this and when? (ie during the contract signing process or only if there is a problem)?

How are appropriate insurance arrangements organised (particularly for field staff and clinical trials)

What regulations are in place to determine the ownership of intellectual property by and between staff, students and third parties? How are these regulations disseminated throughout the institution and externally?

If what ways do you identify emerging intellectual property in your academic departments and on-going research projects?

Have you established a register of intellectual property assets? How are these managed and maintained?

What policies/mechanisms are in place to govern the distribution of revenues from intellectual property between the university and other key stakeholders?

Data management

Are there research data management guidelines and/or policies for data protection and storage?

How is research data backed up and secured? How are routine office and research documents (e.g. draft publications, guidelines/protocols etc.) backed up and secured?

Who is responsible for these systems? Are PIs charged for this service?

Do you provide help for PIs to complete Data Management plans to funders?

What are the mechanisms for managing data ownership, data security, licensing for re-use, data sharing, reuse of third-party data, restriction of data sharing (prior to publishing or seeking patents, retaining/destroying data?

Clinical work/trials questions:

Does the university acts as a sponsor for clinical trials?

Is there a clinical trials office? What does it do?

How do you do clinical monitoring? Have any audits about this been conducted and if so what were the key findings?

5. Human Resource Management for Research

Are job descriptions available for researchers and support staff?

Is there an induction process for new employees?

What are the processes for promotion for a) researchers and b) support staff (e.g. administrators, laboratory scientists)?

What mentorship and supervision structures exist for students and early career stage researchers and new PI's?

What career pathways are there are for a) researchers and b) research support staff?

Is there any ongoing professional development programme and does this cover research skills?

Do you know about the MCDC career development groups (CDGs)?

How do the MCDC career development groups (CDGs) fit into/complement institutional systems?

Are these career development activities embedded in institutional structures?

Do you think they are helpful? Should they be institutionalised? Why/why not?

Human resources

What Policies/strategies are in place for Human resource development of a) researchers/scientific staff, b) admin staff (including training, retention, tenure track, funding)

Do you have a formal induction process for new employees? Is there a special one for researchers?

Are there health and safety policies? (E.g. staff induction, safety officers, evacuation procedures etc.)

How are training needs identified? (E.g. staff training needs assessments). Is HR responsible for providing and/or recording any research training (e.g. GCP/GLP training, proposal writing, project management, supervision)?

How are training opportunities identified and funded? Is there a core budget for training and how is it allocated?

What proportion of research posts are a) core funded and b) project funded?

Are you involved in all new appointments? Do you advise PIs on the institution's procedures governing the employment of staff?

Is career guidance given to PhD students, post-docs and other researchers?

How are post-docs absorbed into the workforce?

What is the process and turnaround time for recruiting and appointing new research staff?

Do you make more internal or external research appointments?

Does your institution offer the possibility of short-term bridging funding to retain research staff during hiatus periods between grants?

Can you describe what Performance measures are used for research management and how these are reported?

Are there joint posts with other academic institutions? How do they work and are they effective?

6. Human Resource Development for Research

Is training available on

- Research design (epidemiology, stats, social science, health systems)
- Ethics, health and safety, GCP and GLP
- Data analysis and management (including software and qualitative analysis)
- Academic writing and publishing
- Proposal writing, grant application
- Teaching and education
- Leadership and management

Are there facilities and fora (e.g. seminars, journal club, staff exchanges) for researchers to discuss their work regularly with each other?

Is a tracking system in place for PhD students? How many supervisors do PhD students have?
How many students do PhD supervisors have?

Are there minimum standards in place about the level of supervision to be given?

7. External promotion of research

Do you have longstanding research collaborations with external organisations? Examples?

Do you have a research communication strategy? A research communication unit?

Who is responsible for research communication? Do researchers perceive that this is their responsibility?

Does the institution have a research profile on its website?

How do you make key research findings accessible to a non-academic audience (e.g. research summaries in lay language and in publicly accessible formats)?

Do you have a programme of events, such as launches, to profile major achievements or projects

Do you provide advice to staff about how to deal with the media (e.g. how to generate good publicity and avoid poor publicity)?

What strategy and procedures are communicated to staff with regard to handling crisis communications and how are these disseminated?

Are there incentives for departments and research groups in the area of dissemination?

8. National research engagement

What level of funding for research is provided by the government?

Are there national policies and plans regarding health (and other) research?

How does the institution engage with policy makers?

Are there national scientific councils that evaluate and disburse competitive research funds? Do they have transparent and efficient systems?

What are the mechanisms by which research from your institution influences policy and practice?

Are there national standards (accreditation, quality assurance) regarding the evaluation of research institutes?