



República de Moçambique
Instituto Nacional de Saúde



Final project report

Prepared for International Development Research Center

Grant #107278-001.

Institution: *Instituto Nacional de Saúde de Moçambique* - Programa de Sistemas de Saúde
[Health System and Policy Research Program]

Institution's Directors: Ilesh. V. Jani (General)
Eduardo Samo Gudo Júnior (Deputy - General)

Project Leader: Francisco Mbofana

Country: Mozambique

Report Written by: Sérgio Chicumbe

Address and contacts: Vila de Marracuene, Estrada Nacional N°1, Província de Maputo –
Moçambique; +258 21430814/427131; +258824231250; email@ins.gov.mz;
chicumbe@gmail.com.

www.ins.gov.mz

V.1.0 – 22 June 2018

Contents

Acknowledgment	iii
Acronyms	iv
Summary	1
1. Background	4
2. Project framing	5
3. Project implementation	6
3.1 Masters	7
3.2 Doctoral studies	8
3.3 Short term courses	9
3.4 Steering Committee	9
4. Project results	10
5. Progress toward milestones	11
6. Project Challenges	12
7. Overall assessment and recommendations	13
8. Annexes	16
Index	17

Acknowledgment

The *Instituto Nacional de Saúde –INS* is grateful for the support provided by several stakeholders, including the grant provider, the Government of Canada through the IDRC, for the managerial support from IDRC staff namely Kamar Mahmood, Margaret Emokor, Pascale Bruneau, Sharmila Mhatre, Susan Godt, Imelda Wasike, the Canadian and Brazilian Embassies in Mozambique; FIOCRUZ from Brasil (ENSP, CPAgM) for the technical and academic support; Professors Sonia Enosse, Nelson Cuamba, Elisabeth Nunes, Moshin Sidat, Rene Lowenson, Laura Anselmi, Hélder Martins for the advisory role in various stages of the program; Francisco Mbofana, Marcelle Claquin, Carlos Botão, Maria Isabel Cambe, António Francisco, Eva Pascoal, Irãe Ludin (in memory) for the role in providing Mozambique's experiences to students; the Institute of Economics and Social Studies (IESE) and the National Directorates of Public Health, Human Resources, Planning and Cooperation and Medical Services (*Assistencia Medica*) for the cooperation to the academic activities; INS would also like to express its deep gratitude to administration and support staff from INS, FIOCRUZ, IDRC anonymously involved successfully run of the program.

The program was generously funded by the Canada through the grant # 107278-001 and sponsored by the Ministry of Health, INS and FIOCRUZ.

Acronyms

CPAgM	Centro de Pesquisa Aggeu Magalhães
ENSP	Escola Nacional de Saude Publica
FIOCRUZ	Fundação Oswaldo Cruz
IDRC	International Development Research Center
IESE	Instituto de Estudos Sociais e Economicos
IHMT	Instituto de Higiene e Medicina Tropical
INS	Instituto Nacional de Saúde
MoH	Ministry of Health
PhD	Doctoral (program)
SDG	Sustainable Development Goals
TARSC	Training and Research Support Center

Summary

The *Instituto Nacional de Saúde* (INS) has been granted (since 2013) Canadian funds through the International Development and Research Center to implement a 4.5-year development project for health system research and policy analysis strengthening in Mozambique, with the following specific objectives:

- To build individual and institutional capacity at the Instituto Nacional de Saúde and Department of Planning and Cooperation of Mozambique, enabling them to provide, in a structural and sustainable way, the evidence base and the expertise for health system strengthening;
- To conduct research in priority areas of the national health system aligned with the national research agenda under development;
- To increase outputs of relevant Health Systems Research findings for Mozambique's context and needs;
- To have national cadres of health researchers providing, in a structural and sustainable way, evidence based findings impacting at health system, policies and practices; and
- To implement and sustain a Health Systems Research program of training, research and its findings.

INS has partnered local experts and the *Fundação Oswaldo Cruz* from Brasil (FIOCRUZ) to deliver the technical guidance to the project. A masters course in public health with specialization to the health system and policy analysis was run jointly by INS and FIOCRUZ and graduated 14 students in 2016. All students are placed within the governmental services as per 2018 job descriptions: CA is running the national health directorate for the incarceration services, Ministry of Justice – she has conducted a dissertation on assessing availability of the prisons' health services; MS is chief medical officer in Cabo Delgado province, in the northern Mozambique – his dissertation was on social determinants and services for pediatric Tuberculosis; EA is chief of the research center at the Niassa provincial health directorate in northern Mozambique – his dissertation was on health services needs and provision for incarcerated mothers in Maputo; two (CM, HO) are within the human resource directorate of the Ministry of Health, at central level – their dissertation were i) assessing in-class enabling factors for mother and child health professionals pre-service training and ii) assessing the

internship learning enabling factor for mother and child health professionals pre-service training; HZ is placed at the Ministry of Gender, Child and Welfare as the chief of communications department – his dissertation was on the performance of a district community media to the HIV epidemic knowledge; LL, LC, ES, VS are placed in health sciences institutes in Maputo, acting as faculties – their dissertations were on i) assessing the oral health services infrastructures in Maputo ii) assessing the oral health services policy and disease burden in Mozambique; iii) assessing the primary health services for non-communicable diseases in Maputo; iv) assessing the comprehensiveness and continuity of health services for non-communicable diseases in Maputo; JB is placed at the human resources department of Maputo province health directorate – his dissertation was assessment of the working environment and hierarchies relationship as perceived by mother and child health nurses; IB is placed at the national directorate for health at the Ministry of Defense, as a technician - her dissertation was on the articulation between the military and public health services in providing HIV care; RN is placed at the national center for water and food hygiene – her dissertation was on analyzing the households environmental pollution water and sanitation in Mozambique; and FS is placed at the national directorate for health care – his dissertation was addressed the performance and survival of point of care machines for Lymphocytes T-CD4 counting for HIV care in real operations conditions in Mozambique. Some dissertations are already available for download at the FIOCRUZ platform <https://www.arca.FIOCRUZ.br/> .

Through the project support, 3 health system and policy researchers (GP, SC, FB) has concluded the curricular part of PhD programs in Portugal (GP and SC at *Instituto de Higiene e Medicina Tropical* and FB at *Universidade do Porto*). They are ready and aiming to start field work still in this year 2018, contingent to the availability of supporting resources. Their dissertations will be on: i) policy, services and burden of Tuberculosis in Mozambique (GP); ii) policy and performance of the community health workers program (FB); iii) Policy and performance of quality improvement programs for maternity care at rural hospitals in Mozambique (SC). In addition, two masters' students (JD, FM) are taking their courses in Portugal since October 2017 (*Instituto de Higiene e Medicina Tropical*), expecting to conclude the curricular part of their course in October 2018 – dissertation topics will be on mother and child health. It is interesting to note that among these students, due to limited health system researcher tutors locally, the peer support and orientation is an approach implemented that has proven being crucial for academic advancement, in addition to remote tutorage from Portugal.

The project has supported two seminars on health system and policy research methods – for Ministry of Health staff and other two seminars on academic writing skills for the project supported students and INS health system program researchers.

The project has supported INS staff (health system program researchers) to take part in international conferences where experiences of the program and ongoing research activities were shared: three Canadian Global Health conferences (2014, 2015, 2017) and one Health System Global Conference (2016). In the 2017 conference, the best conference poster was granted to the INS poster (JD). Presentation by masters students have been accepted to a public health conference in Brasil being held on late July 2018 - <http://www.saudecoletiva.org.br/>. Most of the supported students have presented and shared research findings on INS held policy dialogues platforms: research “open days” at INS (one a year); post graduate forums (held by INS and MoH once a year) and *Jornadas de Saúde* (national public health conference) – including the upcoming conference in October 2018 - <http://jornadas.insconferencias.co.mz/>.

The coordination and managerial capacity, funds expenditure and turnaround time to conclude activities have been main challenges to the program due to mixed contextual factors. The first group of challenges were expressed for example as late reports submissions to the IDRC; the latter challenges (carrying activities as planned) was essentially related to externalities beyond the control of the INS such as approval processes for enrolling students in training programs and having in-time ethics clearance for research, as well as low availability of local health systems and policy research experts for taking the advisory and mentoring role and in leading the program; unconcluded negotiations with local academia, to host the program, despite supposedly common interests, has caused the program to be anchored in international academia institutions. This latter situation has the advantage of allowing knowledge and technologies transference to the local needs in a global era, international networking, but on the other hand the disadvantage is uncertain or resource demanding sustainability.

The grant is concluded when the program has delivered individual and institutional capacities to system thinking and advancing health system and policy analysis as masters graduates were delivered to various sectors of the Mozambique’s government; current masters and PhD students are within the INS delivering several activities for the health system in parallel to their training; however, the crucial matter - sustainability, will only happen if INS and the MoH invest on a network for supporting the outgoing and ongoing students to keep them on track of the thematic area, taking the advantage of their good managerial positions within a wide range

of governmental institutions. These students still need support to pursue the consolidation, sharing and publication of their dissertations. Favorable conditions are thereby in place to enable enduring the outputs related to the primary objectives of having national cadres of health researchers implement and sustain health systems and policy research to inform health program and interventions. In addition, there is an opportunity to take the advantage of the systemic Sustainable Development Goals to which the health system and policy research shall play a major role in Mozambique. Five current students at masters (2) and PhD (3) courses shall be supported by INS and other interested parts to conclude their studies and dissertations. It is expected from these latter students, at least 9 health system and policy studies, some addressing the monitoring of core SDG thematic areas, namely mother, child and adolescent health, and 3 studies are expected in policy and services for Tuberculosis program.

1. Background

This is the final report for the Health System Research Capacity Strengthening program implemented by the *Instituto Nacional de Saúde de Moçambique (INS)*, which aimed to

increase the critical mass of Mozambique's health professional with advanced training to design and implement health policy and system research relevant to Mozambique's needs and context. The program had financial support from Canada through a grant provided by the International Development Research Center and technical support from FIOCRUZ and the Ministry of Health. The program was also granted a waiver from the Mozambique's Ministry of Science and Technology as the science superintendent authority.

Multifaceted activities were planned as part of the program with emphasis to trainings: masters course, support for doctoral students and short term seminars for research design, data analysis and report; all activities would be embedded in the local context and practices so that residual and continuous impacts to the health system and policy research needs shall remain in Mozambique after the closure of the program. This report aims thereby to show the adoption of inputs for the program and its pathways to the targeted outcomes. The report can be a substrate for further debate and analysis of similar investments, and a start to direct its sustainability reflections and future plans.

The program aimed to induct contextually relevant research linked to the man-power development. Evidence generated through the process were expected to inform health policy and practice in Mozambique. Continuous reflections and reviews done in contexts of steering committees meetings allowed adjustments over the course of the program as well as development of a dialogue and reflections on how to address the context for being favorable to policy changes. The intent was to benefit primarily the Ministry of Health and its several departments to carry health system functions assisted by capable and informed human resources. In the end this report presents critique to the achievements and challenges incurred through the implementation of the program over a period of almost 5 years. The document is expected to describe some consequences, contextual factors and moderators that had shaped the implementation.

2. Project framing

The project aimed to integrate skills development with facilitation of research targeting health system and policy priorities for Mozambique. As a first step, the INS mapped the long-term goals for the project and discussed those with potential partners, including several MoH directorates, the Medical School of the Eduardo Mondlane University, the University of Cape

Town - in the beginning of the project, the Oswaldo Cruz Foundation (FIOCRUZ), and the International Development Research Center, the latter taking the role of funder. Specific aims of the project were:

- train Mozambique's Government human resources on health system and policy processes to attain masters and doctoral degrees;
- train Mozambique's Ministry of Health staff on health system and policy research methods through short term courses and mentoring;
- conduct small scale case studies on human resources, health services and broad health issues through perspectives of operational research and link research to the established trainings;
- stimulate reporting and broad sharing of case studies results to establish contextually relevant policy dialogues;
- sustain the network of health system and policy researchers for further training deployments and for practice and long term strength of implementation research in Mozambique.

Long term goals of the project were to establish a critical mass of human resources, in Mozambique, to conduct health system and policy research, taking advantage of strategic proximities between the INS-MoH and policy makers. It was therefore an intrinsic aim to establish a platform of policy dialogue and interaction with policy making processes for health in Mozambique. The long term impact was the contribution of the project to advance evidence informed and contextually adapted health practices, management, information, resource allocations for health at both community and health services. It shall be recognized that the aims of the project were concurrent to various reforms and investments initiatives with synergetic purposes, thus a clear decomposition of inputs to impact would not be quantifiable.

3. Project implementation

The project run for 4.5 years to the end in February of 2018. The project had delayed start because of five main reasons: i) the operational planning with the FIOCRUZ took long than what was anticipated as to allow adequate alignment of the project to FIOCRUZ policies; ii) at the starting the Faculty of Medicine of the Eduardo Mondlane University from Mozambique changed their interest in taking part in the project; iii) following two major strikes in the health sector, the Mozambique's government suspended all post-graduation studies for a period of almost 12 months, the health sector environment was not favorable, which meant that

enrollment to the project courses could not be implemented; iv) suitable (health system and policy focused) doctoral programs were rarely offered overall and the enrollment processes were beyond the control of the project management; v) coordination mechanisms for the short-term courses lacked, overlaps with concurrent courses and delays in implementing was frequent.

A cohort of fourteen students was established for the masters' course, after two-month competitive selection process. A selection committee included INS, MoH and FIOCRUZ personnel whom implemented the selection based on INS and FIOCRUZ harmonized criteria. The committee also advised on INS health system research unit best candidates for doctoral program, although the application for such course would be individual. A non-competitive call for participation on health system short-term courses as per INS education department policies was the mechanism established running such courses.

3.1 Masters

This was a full-time 24 month breadt course implemented at INS headquarters. Faculties from two FIOCRUZ units - *Escola Nacional de Saude Publica Sergio Arouca* from *Rio de Janeiro* and *Centro de Pesquisa Aggeu Magalhães* from *Recife, Brasil* - were flown to Mozambique over a period of 12 months to deliver lectures. These faculties partnered with INS and MoH staff for delivering lectures and students' orientation. Twelve modules as per the attached plan were delivered plus eight seminars.

In the second year, students conducted small scale research and case studies for their dissertation. FIOCRUZ faculties and INS health system research unit oriented the students. Broadly, the studies focused in human resources for health, access to health services, coordination between services, the environment for health promotion, communication for health, service provision. These thematic areas were aligned with the interest of the MoH. A list of the topics is provided in the annex. All fourteen students concluded successfully the course and dissertations will be publicly accessible through the FIOCRUZ site <https://www.arca.fiocruz.br/> (some already available and suggestion search: students' names provided in the attached table).

The first cohort of masters' students presented their results in two dissemination forums: the INS postgraduate forum and INS "open day". The MoH and partners were invited to these research results dialogue platform.

A seminar was held at INS to mentoring the first master students cohort to start transforming their dissertation in publications for peer reviewed journal, an activity with an open end and still ongoing. So far no publication has yet been accepted.

Two upcoming forums for research dissemination will have some of the masters students presenting their results, since their abstract were accepted, which are the *Abrasco* - a public health conference at FIOCRUZ being held in late July 2018 in Rio de Janeiro - <http://www.saudecoletiva.org.br/> and *Jornadas Nacionais de Saúde de Moçambique* to be held in September 2018 in Maputo.

Two additional masters' students started their courses after IDRC waiver counting with the project support since 2017. The two students are taking a sandwich course in Health and Development at *Universidade Nova de Lisboa, Instituto de Higiene e Medicina Tropical* from Lisbon, Portugal. These two students are progressing successfully and their first year will be done by October 2018. Their dissertation is set to count with INS health system research unit co-orientation and focusing on maternal, neonatal and child health; field work will be within the Mozambique's health system, starting from October 2018.

3.2 Doctoral studies

Three doctoral candidates were enrolled to PhD program in Portugal, two at *Universidade Nova de Lisboa, Instituto de Higiene e Medicina Tropical* (IHMT) - taking International Health, Policy and Development, and one student is enrolled at *Universidade do Porto*. Their enrollment process faced considerable multifactorial delays, including the fact that the enrollment is dependent on academia policies, the offer of places are limited, thus success in the enrollment processes being beyond the influence of the INS or MoH; in addition, lack of clear pathways for the intended purpose, and finally limited offers of programs with clear alignment to the focus of the project (Health System and Policy) are globally prevalent. Nevertheless, having concluded successfully the curricular part of their courses, students are currently at the stage of academically approved studies for their thesis: one focus is on policies, access and results of the tuberculosis health program; the other student's focus is on policies, readiness, delivery and results of maternal and child health quality improvements program; and the third focus is on the policy and impact of revitalized community health workers program.

The current PhD students research field work will be in Mozambique and the geographical breadth of these are rather ambitious as they are targeting Mozambique wide representation.

Considering the estimated two-year delay, it is then expected that these students will conclude their courses by 2020, provided that they might successfully apply for funds for their important research intents. All students have a national co-orientation by faculties from Eduardo Mondlane University.

Over the two completed years of the PhD studies, students participated in international conferences such as, Canadian Global Health Conferences (2014, 2015, 2017), the Health System Global in Canada (2016), Public Health Conference in Lisbon (2017) as well as took part on national forum for research results sharing and dialogue, namely: INS “open day” (2016 and 2017) and *Jornadas Regionais de Saúde (2017)*. Doctoral students will be in policy dialogues and presenting research ideas as part of the *Jornadas Nacionais de Saúde (2018)*. Their approved abstract to these past conference are presented in annexes.

3.3 Short term courses

The project implemented two short-term courses of four initially intended. The course focused on methods for operational research as well as the pathways of research governance and regulation in Mozambique. Each of these courses benefited around 15 workers of the national health service.

IDRC granted a waiver for INS to change the model of short-term course to make it mentoring, data analysis and report writing seminars. Factors limiting the short-term courses, as in the model initially designed, were decisive for the approach change, including the unavailability of trainers, concurrent courses at INS and insufficient managerial structures at INS to cope with multitude of courses at several moments. Three writing seminars were additionally implemented as a new framework for the short-term courses: seminar benefited the master’s students so that they had intensive support to finalize the dissertation writing; another was again a seminar benefiting the masters students for induction to writing peer review publication based on their thesis; the last was a seminar benefiting the health system research group from INS to finalize abstracts and data analysis for ongoing research projects.

3.4 Steering Committee

The project held three annual steering committee meetings at INS, in Maputo. Attendees to the meetings came from FIOCRUZ, IDRC, INS, the MoH Directorates, an TARSC representative from Zimbabwe (regional independent representative) and a representative of the Faculty of

Medicine from Eduardo Mondlane University from Mozambique (national independent representative). The sessions consisted essentially of INS presenting briefly the technical and managerial progress of the project followed by discussions; attendees commented and advised on the ways forwards and about means to overcome and prevent challenges to the implementation of the project. Adaptations to the course of the project counted with steering committee members advise.

4. Project results

The project has delivered to Mozambique's public institutions fourteen graduates with master degrees. One graduate (EA) is placed at the northern province of Niassa, currently running a research unit linked to the Provincial Directorate of Health; another graduate (MS) is placed in the northern Cabo Delgado province as chief provincial medical officer; one graduate (IB) is currently integrated in health department of the army health services, keeping the linkages with INS for research purposes; two graduates (VS,ES) have returned, and two other (LL,LC) are new placement to the health sciences institute in Maputo, where they are now faculties at undergraduate and postgraduate levels, serving also as tutors and orientation for students research at the institution; one graduate (JB) returned to the Maputo Provincial Health Directorate where he is integrated at the human resources unit; one graduate (HZ) is placed at the Ministry of Gender and Social Affairs, running the department of communication; one graduate (CA) currently the national director for incarceration health services at the Ministry of Justice; two graduates (HO, CM) are placed at the National Directorate for Health Education, Ministry of Health; one graduate (RN) is placed at the national reference services for hygiene and finally one graduate (FS) is currently running a section at the department of public health laboratories in the Ministry of Health. A table attached shows the graduates dissertations titles. Besides being well placed to further develop acquired skills, these graduates have strategic placements where they can design and implement policies and related research to advance health gains, provided they are kept into a network of collaboration and supportive coaching.

Health research sharing and policy dialogue is a continuous activity being implemented which will endure beyond the project timeframe. Over the period of the project, INS staff and students were supported to take part in international conferences such as Health System Global and nationally held policy dialogues opportunities such *Jornadas de Saúde*, research open days, postgraduate forums and symposiums. INS is the leading promoter of these national platforms for research sharing and policy dialogue and the health system unit takes part as organizer,

abstract reviewing, presenter, short courses and symposiums moderators. The report has attached some of the abstracts shared in these events.

Fourteen masters' students research reports are being catalogued at the FIOCRUZ database for dissertations public access, some have already been uploaded on to the browsing platform. Graduated students are also being incentivized through mentoring activities to publish their work on peer reviewed journals.

Two research paper were published as result of the program support which are "*Determinants of stillbirths occurred in health facilities in Zambezia province, Mozambique (2013-2014)*" - *Rev. Bras. Saude Mater. Infant. vol.16 no.4 Recife Oct./Dec. 2016* and "*Factors Associated with Delay in Seeking Basic Health Care, in Patients Suspected of Tuberculosis: Systematic Review of Literature*" - *EC Pulmonology and Respiratory Medicine 7.5 (2018): 241-247.*

Following the investments made for ongoing doctoral and two masters students, five research protocols are under development to be implemented as soon as the academic programs, regulatory mechanisms and funds allows. These protocols focus on policy, interventions and its system results at the Tuberculosis program (1 protocol with 3 sub studies), community health program (1 protocol with two sub studies) and maternal newborn and child health programs (3 protocols with five sub studies).

The program supported health system research co-leader (SC) has taken part in setting the health system research agenda for Mozambique, under the umbrella of an entire health research agenda for Mozambique.

The supported health system research and policy unit, counting on the program dynamics, has co-organized and delivered two seminars: one discussed the research results of the community health program and formulated ways forward; the second evaluated the research agenda of the human resources for health, as well as contributed to the definition of ways forward to implement the upcoming National Conference on Human Resources for Health, in November 2018. For the latter, the health system research unit is currently taking part on continuous policy dialogues and conference preparation.

5. Progress toward milestones

All milestones described in the attachment B of the Memorandum of Grant Condition 201301E grant 107278-001 pages 1 to 3 were met, although with delays, at times substantial (months),

in terms of submission of financial and technical reports. All submitted financial and technical report were approved as stated by electronic feedbacks from the IDRC. In terms of the aimed processes, the program support facilitated short term-courses, some policy dialogues, research results sharing for graduated masters' students; the doctoral and a new cohort of masters' students are still ongoing as is also the networking for health system and policy research and dialogue being constructed.

6. Project Challenges

Contextual challenges can be pointed out such as cumbersome and inefficient procurement practices and heavy bureaucratic authorization processes. Delays in contracting services and purchasing project items such as air tickets were for example a verified consequence; contracting of consultants for supporting masters' students for advancing their biostatistics and informatics tools were thereby undelivered; hardware and software availability for students were delayed. The turnaround time for having students enrolled in courses, their research proposals approved and financed as planned were also aspects negatively affected by the mentioned challenges.

The INS was, at the time the program run, an institution placed within the frame constraints of the Ministry of Health, including concurrent activities and priorities for additional resource allocation, such as needed supporting human resources, lectures and limited experiential learning from the MoH health programs. The management of the project thereby faced unanticipated limitations to guarantee that both managerial and technical aspects of the project were delivered timely.

Over the period of the project, the entire globe and even more deeply Mozambique entered and still endure an economic crisis; somehow attritions remain between Mozambique and international agencies that used to support the government budget. This is to describe a context that has impacted in terms of ability of the INS to count with additional resources from the Ministry of Health, from the Government and other potential partners, including changes on strategic plans, agendas, commitment and openness of policy makers to the program as well as their limited time for interactions with students.

Over the course of the project, INS has constructed a new building for its headquarters and started to move to the mentioned new headquarter recently. This context impacted negatively on INS ability to smoothly manage long-term interventions or projects. Capacities to timely

deliver administration and coordination worsened lately. In addition, INS is redefining itself in terms statute and infrastructure, a crucial investment for long term-gains even if causing, in short-terms, some disruptions on managerial abilities.

Due to politics, difficult engagement processes, and concurrent agendas, international rather than national and regional academia ties to the program emerged stronger (with IHMT- Lisbon and FIOCRUZ). This constitutes an inherent challenge for program operations and sustainability.

7. Overall assessment and recommendations

The program has accomplished core goals namely has offered relevant governmental institutions with health systems trained graduates, whom are in good institutional positions for offering and deliver evidence informed system perspective and research, policy, analysis and dialogue. These graduates were from both at short and master level courses. Master level course is still being implemented with two new students although the number of potential graduates from the second cohort has significantly decreased if compared to the first cohort (fourteen). Several opportunities for policy dialogue and health system research results communications were created and up taken by the program interested parts and targets, and this process is continuous. As for the doctoral component of the program, the academic progress and research proposals are satisfactory, so that it is very likely that entire objectives of this program component will be delivered. Three doctoral students and academia activities comprising of at least 9 sub studies on health policy and services matters are current.

Challenges to the program were those related to relatively poor institutional capacity to timely manage externalities and some internal coordination setbacks. Local politics, the skewedness of the cooperation to international partners where significant dependence existed to FIOCRUZ, and context of the overload onto few managers to the program, and concurrent activities at the INS, are examples of unforeseen factors positively at time but negatively impacting the program implementation capabilities. Main impact of these challenges were on the deadlines or timeframes for deliverables, operationalization of academia plans and reports submission, for example. Late report submission was indeed a characteristic of the programs as well as courses timings had to be extended; the first cohort of doctoral still are at the phase of developing studies aligned to the program goals. Even so, since there are prolonged trainings and extension of related activities beyond the initial program timeframe, an environment is still

residual in the country that may allow enduring health system and policy research debate, prioritization thus, may ultimately contribute to emergence of new partnerships for long term sustainability of the program.

Some recommendations can be made based on the program experience, with due consideration to the fact this was the first, experiential learning by doing, and innovative program, run within a context where few health system specialists do exist and the paradigm still is dominated by biomedical interventions. Firstly, it is recommended that INS shall invest more in managerial capabilities for similar development programs. It looks like the research management capability is the current and important focus of current investments, however, combining the overall programs management skills, infrastructures and processes would allow similar structuring programs to deliver timely and show off impacts in short and long terms as well as showing less attrition to the plans and interested parts.

Secondly, INS shall disentail local resources for keeping the residual but significant impact of the strengthening capabilities for health system and policy research – through supporting the current and former students so that they engage into a community of practice.

Third, the program outputs, such as the dissertations findings, reports and protocols, still are actual, so can be used for policy making in Mozambique and for directing future research agendas across health system topics – for e.g. the protocol on understanding the (specific) HIV communication issue can be applied more broadly for women, child and adolescent health; research protocols developed within the program can thereby be institutionalized, and since they are well aligned to cross cutting health system topics relevant to Mozambique in the long run, they can be adapted for continuity and quality improving of related research, over time.

Fourth, the health system and policy agenda, as showed off by the program, remains such an important area to invest, thereby, keeping the international partnerships and the special one with the FIOCRUZ is important as it is also now much more important to anchor the program to the local health practice, academia and decision making processes.

Fifth, we recommend INS to embed the health system and policy research students into the four current and concurrent postgraduate programs (masters in Epidemiology, Health Sciences, Public Health Specialization and Doctoral in Health Sciences); the embedding process could be through allocating specific health system focused vacancies among new cohort of students, as well as induct students to health system and policy related dissertations. Even so,

engagement to the local academia to absorb the health system and policy curricula is important, although it can be envisioned as a long time process since all these steps demands a lot of negotiations and resource pooling, both activities subject to externalities, policies and strategic interests beyond the control of the INS.

Lastly, an external evaluation to the program is recommended so that lesson learnt over lens of unbiased parts can emerge, be discovered, recorded, shared and transformed into opportunities as to inform the way forward, policies and interventions for keeping strengthening capabilities on health system and policy research.

Whilst the primary intent was to strengthen the man-power capacity for system thinking, research and analysis on policies and programs for health advance at the Ministry of Health, the program has at the end reached a wide range of sectors within the entire Government – Ministry of Health, Ministry of Science and Education, Ministry of Defense, Ministry of Gender Child and Welfare – although still at higher levels, these are well aligned to some core determinant of health policy makers. We conclude that the program has thereby delivered outputs entirely to the objectives, however continuous investment is now much needed to keep students in a health system and policy research supportive networks, to guarantee the PhD and masters students conclude their research. Networking alumni students may allow to sustain long term impact, replication and dissemination of learning, so that the following objectives that go beyond the grant lifespan are attained in the long run:

- impact the SDG monitoring through relevant Health Systems and Policy Research;
- keep national cadres of health researchers providing, in a structural and sustainable way, evidence based findings impacting at health system, policies and practices; and
- implement and sustain training in Health Systems and Policy Research.

8. Annexes

- Masters course curricula summary
- Conferences abstracts
- 2 Current study protocols (PhD)
- List of titles - masters' dissertations (Portuguese)
- Photos of Master Course Ceremony - Closure

Index

abstract 8, 9, 11
abstracts 10, 11
analysis 1, 3, 5, 9, 13
Canada iii, 5, 9
challenge 3, 13
child ... 1, 2, 4, 8, 9, 11, 15
conferences 3, 9, 11
dialogue 5, 6, 8, 9, 11, 12, 13
dialogues 3, 6, 9, 11, 12
dissertation 1, 2, 7, 8, 10
Evidence 5
factors 3, 5, 14
FIOCRUZ . iii, 1, 5, 6, 7, 8,
10, 11, 13, 14, 15
forums 3, 8, 11
Goals iv, 4
grant iii, 3, 5, 12, 16
health 1, 2, 3, 5, 6, 7, 8, 9,
10, 11, 12, 13, 14, 15, 16
IDRC iii, 3, 9, 10, 12
implementation .. 5, 6, 7, 10, 14
increase 1, 5
INS iii, 1, 3, 4, 5, 6, 7, 8,
9, 10, 11, 12, 13, 14, 15
Instituto Nacional de Saúde i, iii, 1,
5

International Development and Research
Center 1
interventions 11, 13, 14, 15
Jornadas de Saúde 3, 11
mother 1, 2, 4
network 4, 6, 11
PhD 2, 4, 8, 9, 15
platforms 3, 11
policies ... 1, 7, 8, 11, 15, 16
policy 1, 2, 3, 5, 6, 7, 9, 11,
12, 13, 14, 15
publication 4, 8, 10
research 1, 3, 4, 5, 6, 7, 8, 9,
10, 11, 12, 13, 14, 15
resources .. 2, 5, 6, 7, 10, 12,
13, 14
results 6, 8, 9, 10, 11, 12, 13
SDG iv, 4, 16
seminar 8, 10
seminars 3, 5, 7, 9, 12
students iii, 1, 2, 3, 4, 5, 7,
8, 9, 10, 11, 12, 13, 14,
15
studies 4, 6, 7, 9, 11, 14
sustain 1, 4, 6, 16
system 1, 2, 3, 5, 6, 7, 8, 10,
11, 12, 13, 14, 15, 16
training 1, 2, 3, 5, 6