SOMALI-SWEDISH COLLABORATION IN RESEARCH FOR HEALTH

THE MIDTERM SEMINAR

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ACRONYMS

CIOMS Council for International Organizations of Medical Sciences

DHS Demographic and Health Surveillance
HDSS Health and Demographic Surveillance sites

IRB Institutional Review Board IT Information Technology

LMIC Low and middle-income countries

Rcmdr R commander

STROBE "Strengthening the Reporting of Observational Studies in Epidemiology

UHC Universal Health Coverage WHO World Health Organization

1 INTRODUCTION

The Somali Swedish Collaboration for Research in Health, a legacy successfully accomplished for over a decade in the 1980s through the Sida support, was voluntarily resumed again by a group of Somali and Swedish universities, in partnership with the Somali/Swedish Researchers# Association (SSRA) in 2014. In this regard, an introductory consultation meeting was held in December 2014 in the Unit of Epidemiology and Global Health of Umeå University. This was followed by a research collaboration planning workshop in November 2015. During this meeting, a research collaborative programme was developed and laid out. In this exercise, six Somali and five Swedish universities accepted to participate in the initiative. This collaboration aimed to build the research capacity of the Somali academic institutions to strengthen the fragile health system that Somalia has inherited during its protracted conflict. This partnership also aims to generate evidence for health policy and practice that would improve the delivery of essential health services in the country. The focus of this research collaboration is on the priority public health questions that constrain the national and regional health systems, and is expected to generate evidence that helps overcome the operational barriers and pave the way for universal health coverage with a package of health services, effectively protecting the communities from incurring catastrophic health expenditures. The 2015 stipulated plan of research cooperation was substantiated through the organization of a two weeks research training workshop conducted in 2016. This initial training enabled the participants to undertake individual research projects and pursue their design and implementation, supported by Swedish and Somali mentors, assigned to provide support using online Internet based communication. The researchers are expected to produce contextual socio-cultural health knowledge offering solutions that improve the health outcomes of the targeted vulnerable communities around the country.

2 FIELD RESEARCH

2.1 Field Research Planning and Implementation

At the end of the initial two weeks training programme, individual research projects were formulated with every candidate, covering research areas that were selected by them. The design of these projects was assisted by the course tutors, a function that was to be subsequently finalized by the researchers assisted by their assigned Swedish mentors, to ensure that the desired level of methodological relevance and quality are attained. Subsequently, the course coordinator Klas-Göran Sahlin from Umeå university started the process of identifying the research mentors that would assist the Somali researchers in conducting and completing their allotted projects with high quality and in a technically sound manner. Accordingly, a Swedish mentor was selected and assigned to each researcher and the two were electronically linked and introduced to each other sharing their respective names and contact details. The researchers and their respective mentors have established direct digital communication links for interaction and collaboration. These mentors were selected from the same universities engaged in this research collaboration, and represented their institutions in guiding and supporting the Somali researchers with the necessary technical inputs and facilitated the research project implementation process. A local Somali mentor

from the same university was also selected for each researcher to assist and guide the research student with the field operations and help them complete the tasks of the conducted research work. The local mentors were required to link with the university management and leadership to mobilize the necessary operational and logistic support mechanisms, and facilitate the university to allocate and disperse the necessary budgetary inputs for the successful implementation of each research project.

2.2 Institutional Research Capacity Building

In addition to the implementation of the assigned research projects through the envisaged mentor support system, the research collaborative initiative aimed also at a wider institutional capacity building and institutional reform on research performance in the Somali universities. Through this collaboration, the Somali universities will be required to establish their research development strategies; develop and endorse their research ethical guidelines; build linkages with their national and state level health systems both public and private and build strong training and research field sites in their catchment area communities, and particularly in their surrounding rural settings. Universities were also expected to improve and broaden their systems of information technology (IT) and library structures and consider this partnership as the entry point for a wide association with national and regional research organizations to boost their capacities in academic research training and knowledge creation in their domestic nascent institutions. These efforts are aimed to help the universities improve their academic learning environment and gain the necessary research capacity to introduce evidence based quick policy and programmatic wins in the health system to effectively mitigate the current state of fragility.

3 PREPARATION FOR THE MIDTERM SEMINAR

3.1 Communicating the Importance of the Midterm Seminar

In the weeks that preceded the Midterm Seminar, the collaborating Somali universities were alerted on the importance of this collaborative research endeavour. The academic leaders of these universities were timely apprised about the preparations required by the researchers' team for the Midterm Seminar. The role of the university as a research institution was also emphasized in relation to the oversight support they were expected to provide. They were also alerted that the Somali universities' engagement in health research would help build the institutional basis for health research development. Universities were advised to organize prior to the seminar a 1-day research demonstration, where the importance of health research could be discussed while outlining and sharing the health system evidence gaps that require further research for their resolution. It was also suggested to organize brief presentations from each researcher participating in this collaborative research programme. Reflections were also elicited as to how the research findings will be disseminated and translated into action, and how the research will directly or indirectly improve the university's academic development and the delivery of health services.

The importance of the seminar was also outlined, as this training will strengthen the universities' and health ministries' commitment and action for health research development. It is also expected to consolidate a partnership among the university academicians and health system counterparts of their respective zonal/state administrative units. It was gratifying to

note the direct interventions made by several university rectors in encouraging their researchers in the programme to ensure maximum diligence in the conduct of their research projects.

3.2 Mentors/Supervisors' Support to Researchers' Preparation for the Midterm Seminar and beyond

The supervisors/mentors are senior researchers or experienced academicians and senior health system managers from the five Swedish universities and from the six Somali universities and ministries of health. The role of the mentor is to help and guide the researcher in the planning and implementation of the student's research work. The role of the Somali Supervisor both prior the Midterm Seminar and the subsequent phase of research implementation and completion is to facilitate the logistics and field work necessary for the research implementation. Both Somali and Swedish Mentors are expected to sit with their students or link through online/Skype to give the necessary advice on the study processes that need to be followed until the successful culmination of the work. The mentors/supervisors are also expected to provide a feedback on the progress and the challenges being faced and the potential solutions to pursue. The mentors will have a final role in the grading of the students' research outputs.

Another role of supportive supervision is to encourage the researchers to scrutinize their research work by regularly assessing the key parameters related to their research planning and implementation, ensuring that the processes being pursued and the structure of the research programme are on the right performance path. The questions to be constantly answered and validated include the following:

- Does the title correspond with the content of the text?
- Is there a meaningful research question at hand?
- Is the methodology properly described, i. e. would it be possible (at least in theory) to repeat the study using the same method?
- Are the results possible to understand?
- Is there a reasonable interpretation of the results?
- Are limitations of methods and material clearly discussed?
- Are the conclusions derived reasonable and do they answer the posed research question(s)?
- Is the study report well organized and coherent, where it has a logical structure that leads the reader from the research question(s) to the conclusions in a systematic manner?
- Are tables and figures numbered and have clear legends allowing a full comprehension without going through the written running text?
- Are the references relevant, too many or too few? Would it be possible for you to find the references? Are references correctly organized according to Harvard or Vancouver referencing style guidelines?

3.3 Types of Research Projects

Most students have planned for empirical quantitative studies, while a few have opted for qualitative studies, and a fewer number have chosen mixed studies in their implementation plans. The researchers were also allowed to pursue literature based studies. In the latter, the following two types of literature-based studies were recommended: a) a pure literature review,

with a clearly defined topic that is relevant for Somali context and b) a study protocol covering a planned empirical study of covering a contextually relevant problem that attracts the researcher's interest. In this collaborative endeavour the literature review is considered to be the last alternative to be considered when deemed necessary.

4 THE MIDTERM SEMINAR

4.1 The Hosting Institution-University of Hargeisa, Somaliland

The Somali-Swedish Collaboration in Research for Health initiative has successfully organized this Midterm Seminar in the University of Hargeisa (UOH). The opening session was inaugurated by the President of the UOH Dr. Mahamoud Yousuf Muse, and by Prof Deria Ismail Erek, Dean of college of medicine and health science. In their speeches, the President and the Dean have both welcomed the Swedish universities and SSRA for building this research partnership together with the Somali universities. They noted that linking health research to community development is a strategic priority of the UOH, and an integral part of its charted mission, Dr Mohamed Yousuf expressed his university's commitment to develop its research base and build the research capacity of its academic team. They also stressed on disseminating research results and translate these into practice to strengthen the health system. The Dean outlined the establishment of a health research unit to promote research and build collaborative partnerships both at local and international level. In their concluding remarks both executives commended the Somali-Swedish collaboration in research for health, and motivated the participants of this Midterm Seminar to apply the research knowledge and skills to be gained.

4.2 The Objectives of the Midterm Seminar

The Midterm Seminar was organized to meet the following objectives:

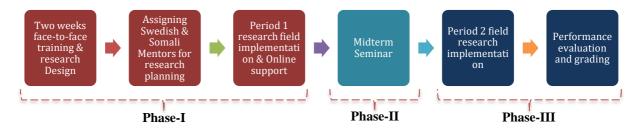
- i. Contribute to the overall objective of this research collaboration, where at the end of this training programme researchers are expected to successfully fine-tune the planning and implementation of their research projects, using effective methods, data collection and analysis and finally productively presenting their completed public health research work.
- ii. Utilize the Midterm Seminar as a critical review juncture that provides the opportunity and necessary inspiration and momentum to the researchers for speeding up their research activities with efficiency and quality.
- iii. Demonstrate methodological knowledge in relation to their chosen research subject of work
- iv. Present their research findings relating to the research question(s); taking note of the observations raised by other participants and tutors, and critically discuss the presentations made by the other researchers
- v. Gain awareness about the required knowledge and sensitivity of, and the need to report about the ethical aspects of research in relation to each project implementation

4.3 Midterm Seminar and its Central Role in the Research Implementation

The Midterm Seminar constituted an integral part of the package of the research training that consisted of the following stages and activities:

- a. Face-to-face research training, selecting the research projects and undertaking the initial designing phase;
- Selection of mentors and assigning a Swedish mentor to each researcher and local Somali mentors/supervisors at university level for finalizing the research design and overseeing implementation;
- c. Undertaking period 1 field research implementation;
- d. Midterm Seminar to assess progress and conduct targeted teaching to improve or fine-tune the research methodology, pay attention to ethical implications of the research projects and improve the researchers' presentation skills;
- e. Undertaking the final period 2 field research implementation concluded with research report writing
- f. Performance evaluation and grading of the final report of each research study

Figure: Somali-Swedish Collaboration in Research for Health: The Three Phases of Implementation



4.4 The Midterm Seminar Proceedings

The Midterm Seminar was successfully organized in the UOH from 3rd to 5th of October, 2017. The proceedings of the Midterm seminar were conducted by three facilitators namely Klas-Göran Sahlin the research programme Coordinator from Umeå University; Carina Källestål from Uppsala University and Khalif Bile from the Somali-Swedish Researchers' Association (SSRA). The seminar events followed a pre-set planed agenda and schedule, shown in annex 1.

In total 16 research students presented and discussed their research projects. The list of the participants, along with their affiliated universities, research project titles and mentors are reflected in Annex 2. Research presentations were made in the first two days of the seminar. Each presentation was followed by questions and critique revealed by the audience of research students and answers provided by the presenters. Comments and forward looking methodological and research implementation related suggestions were also provided by the tutors, facilitating the seminar, following which the students were advised to communicate and discuss with their respective mentors to streamline the research work and expedite its accurate pursue and implementation. Group work discussions were also organized on the challenges encountered during the course of the research field work implementation. The last half-day (Thursday) was devoted to short presentations and briefing about the grading criteria and giving advice to the researchers on their remaining future work. The participants in the Midterm Seminar were also briefed about the syllabus of this 30-credit course.

Of the 16 presenters, 7 had chosen quantitative methods, 5 qualitative methods, and 4 mixed methods. We strongly advised against mixed methods since the problems are already huge in order to master a few analytic methods, either in the qualitative or quantitative toolbox. Also, the mixed methods projects tried to answer too many

questions for this thesis. Thus, we advised those that had chosen mixed methods to skip the qualitative parts as these were mostly not started yet. However, in retrospect the qualitative methods would probably have been a better choice for a handful of the presenters who had research questions better answered by a qualitative than the chosen quantitative method. Overall, In total we finalised with hopefully 11 quantitative and 5 qualitative projects. The list of the projects that were presented during the Midterm Seminar is reflected as shown in table1.

4.5 Presentations' Appraisal Feedback

The format of the different presentations was not of any desirable quality. They contained too many words on each slide; displayed parts of their written study protocol, no figures or pictures were presented and often were long in terms of slide numbers. The presenters were also not trained in giving presentations, as often they read from the slides' script without making sufficient eye contacts with the audience. The facilitators commented on this on several occasions. To improve the presentation skills the facilitators will place on the Cambro course site a videos and other instructions on how to do scientific presentations.

4.6 Ethical Considerations

All the research projects were submitted to and approved by the local ethical review boards that were in most cases freshly constituted by the universities soon after the 2-week research training course in 2016, or activated an existing ethical board or council. However, although all the presenters have referred to Helsinki declaration and the like, they did not appear to have taken the necessary steps to avert the potential ethical conflicts, with a few good exceptions. They were then briefed and impressed upon giving the due attention to this important research support field. Examples were given that are reflective of the ethical considerations to follow such as paying attending to privacy, confidentiality, treating the study subjects with respect, being truthful and averting harm. We also commented on this along with the presentations, and by inviting them to review the new (2016) International Ethical Guidelines for Health-related Research Involving Humans, prepared by the Council for International Organizations of Medical Sciences (CIOMS) in collaboration with the World Health Organization (WHO), that was posted on the Cambro course site.

4.7 Advices to Researchers

The research students were guided through different short lectures and explanations, that focused on the importance of a theoretical framework (mind map): the meticulous data collection as a base for producing more robust evidence. A short session on validity, reliability and reproducibility was also presented, pointing out on the importance of setting an analytic plan before starting the analysis. Information on the analytic tools for statistical analysis in *R* commander (Rcmdr) was also distributed, showing how to find help on the programme when in the analytic phase, using Google.

For the future follow up work, focused advices directed on the literature review were given. Moreover, a new version of how to use HINARI for finding literature (produced by Mohammed Ali Hassan) was posted on the Cambro course site. The research students were also advised to review and follow "Strengthening the Reporting of Observational

Studies in Epidemiology (STROBE) guidelines which are also posted on the Cambro course site.

Finally, although huge challenges lie ahead for most students in order to finish in time, it must be emphasized that all students have very relevant public health research questions that are of great importance in the context of their fragile and recovering health system and to their local stakeholders. Likewise, all students have shown strong commitment and determination to go ahead and learn more in order to be able to change circumstances in their local settings.

5 RESEARCH STUDENTS' EARLY COURSE FEEDBACK

In the aftermath of the Midterm Seminar, the research students were asked by email to voluntarily give feedback about the Midterm Seminar. The majority responded back and their comments and reflections are summarized below:

- i. Attained greater clarity about the research methodology and sampling methods pursued that some had problems with
- ii. The ethical implications of each research project were better understood and their relevance fully comprehended through the discussions that followed the research presentations made by participants, through the critiques shared and the short lectures presented
- iii. The interaction between the Somali researchers from different universities gave the opportunity of exchanging views on research implementation and the challenges they have faced and the solutions pursued
- iv. Among the views shared was the efforts made by each university in strengthening research capacity and the diversity they witnessed among their different universities, where although research ethical committees/Boards were established by all, yet the progress to produce ethical guidelines were at different stages of development
- v. The nomination of local mentors was followed, but their efficiency to guide and assist the researchers was generally felt by them to have been weak, as their oversight was not supported by a verifiable plan to follow or have been monitored by the university management authorities, but one university has established its Institutional Review Board (IRB) for the research projects under implementation
- vi. Although some of the universities created for the first time, a research budget line and covered the field work of their researchers, many researchers pursued this effort by self-sponsoring their research field activities
- vii. Research units were created by several universities providing an institutional structure to research development, with an attending staff officially assigned to undertake this function
- viii. Most universities have initiated an effort to develop their research ethical guidelines, but no such document has yet been shared, though commitments were made to share them soon, reflecting the urgent need to bring this mission into fruition
- ix. A general satisfaction was expressed by all responding participants, with the feeling of being motivated and having gained the necessary motivation and courage to complete the mission, realizing its importance of their projects and potential capacity they would offer to improve the health of the poor and the vulnerable. This sentiment was not limited to those with better performance during the seminar, but also noted by those who couldn't make a tangible progress in their project implementation.

- x. A major challenge mentioned by the researchers was the time pressure, as their active academic responsibilities were not eased to allow time for the research work
- xi. the Tutors of the Seminar contributed to the improvement of the research projects through their lectures, suggested study material and shared literature and these were seen to be of great help
- xii. At least one Ministry of Health (Somaliland) has its research ethical committee established and being in the process of setting the guidelines as relevant
- xiii. The nomination of local mentors by the Somali universities from the members of its academic teams with experiences in conducting research was seen by the researchers as a positive action, but non-allocation of time and resources was felt by them to need reconsideration
- xiv. The use of at least one university some able researchers that were accessible to them though not formally part of the teaching staff was seen as a positive action
- xv. The researchers felt that the Midterm Seminar has strengthened their spirit and commitment in actively pursuing their defined goals and take this mission to fruition
- xvi. They also felt that group interactions and facilitators' support and encouragement have generated considerable power that would impact on their effectiveness during the remaining eight months

6 GRADING CRITERIA AND PROCESS

The grading process will follow a set of standard criteria, where the produced research report will be assessed in terms of its research questions' relevance and contribution to the Somali public health system. Likewise, the pursued research methodology will be critically reviewed and examined, while also assessing the logical presentation of the study results, as well as the interpretations and conclusions reached. The Mentors' decisions about the eligibility of the research work for final grading will be necessary. The researchers will make their presentations in a conference organized for this purpose at country level. Three course examiners will be selected among professors and associate professors from the Swedish universities and they will be responsible for the grading procedures. After the conference, all participants that have presented their projects will get two weeks to finalize their reports by making the necessary revisions according to criticism and questions raised in the presentation during the conference and the final editing. The examiners will then grade the reports according to decided criteria. If the report is graded Fail, the student has three weeks to revise the report where a deadline date is set for resubmission. Successful students will receive a certificate on the accomplished course, availing them the opportunity to pursue towards more advanced research training.

A tentative timeframe was made for the submission of the thesis reports. The first date is the 18th of May, 2018, this being when the thesis must be sent in to the course coordinators unit directed to the following particular email (lena.mustonen@umu.se). The thesis will then be checked for plagiarism. Moreover, every research student will be given the report of one of his/her research colleagues, to read and write a discussion. This discussion should be done independently of mentors as this is an integral component of the students own work for which he be evaluated in addition to his/her personal report. The discussion of the colleagues report need to be sent to the above noted email address before June 1st 2018. Another important date is the 10th of June, 2018, which is the date by which the researchers must have completed and finalized their MS PowerPoint presentations for the conference and send to the course coordinator through the same email that was noted above.

A preliminary date for the final presentations is set to be June 18th – June 19th. It is worth noting that the late submission after the set deadlines will not be accepted and those researchers will not be given the opportunity to present their thesis. The three member grading committee possibly chaired by prof Anneli Ivarsson, Head the Unit of Epidemiology and Global Health, Umeå University will be present on the abovementioned dates, while the team of examiners will have the thesis, a written discussion, letters from the mentors, and the presentation as the base for the grading.

7 RECOMMENDATIONS

- i. To Strengthen the evolving collaborative Research partnership between the Somali and Swedish universities promoting mutual trust, commitment to equity, capacity and leadership building, shared values and accepting cultural differences, transparency and accountability
- ii. To encourage the Somali universities to assume the due responsibility and accountability to scale up their support to the ongoing collaborative research projects, ensuring them the necessary logistic support, supervision and monitoring oversight to ensure that their pace of implementation is fully aligned with the plans and deadlines set during the Midterm Seminar
- iii. To finalize the university guidelines for research ethics in which the ethical considerations of observing the study subject's privacy, confidentiality, treatment with respect, truthfulness and averting harm are fully recognized and sanctioned, while seeking balanced results and implementing the research fairly and with integrity, responsibility and with honesty
- iv. To recognize the necessity of research development in the universities, for which the necessary institutional bases of research planning, policy setting and related decision making are duly established and implemented in the different academic units of the university
- v. To substantiate their commitment to research development, universities need to explicitly allocate budgetary resources for research implementation and mobilize the necessary operational and logistic support mechanisms for planned and executed research projects
- vi. To formalize the role of the local academic research mentors and those faculty members engaged in research as being comparable to the teaching responsibilities by allotting the time and support inputs necessary
- vii. To organize a yearly university research week, during which the students and the academic teams organize a series of research events with research posters and publications presented and opportunities for research and career development explored
- viii. To acknowledge the significant relevance of the public health research questions to the country's health system and make all the efforts to successfully foster the necessary partnerships in this regard
- ix. To encourage the regular interaction between the Somali researchers and create opportunities for exchanging expertise and in organizing multicentre research network between the different Somali universities
- x. To engage the Ministries of Health by more actively linking health research to the priority actions of the health services system and highlighting the dimensions of inequity and resolving them by translating evidence to practice
- xi. To explore the opportunity of starting the planning for a second batch, where the evidently shared commitment between the Somali and Swedish universities is strongly

- reinforced by the weak and craving for evidence fragile health system, though constrained by the current financial resource limitations
- xii. To develop a far looking strategy on how this programme can be sustained in the long term, whereby academic institutions forge a partnership with the public health sector linking health research and development, where the priority research interventions are jointly identified and research outputs translated into action, and where the Somali trained researchers become co-teachers, and in a few years independently run the programme, while the research partnership is sustained

8 CONCLUSION

The Midterm Seminar was organized and successfully conducted at the UOH main campus, where every possible facilitation to implement the course was provided. All the six Somali universities' research groups attended the seminar. During the two and half days' proceedings of the Midterm Seminar, the presentations of all the 16 participants were delivered and discussed. Group work discussions were also organized to enrich the researchers' learning experiences through their close interaction and sharing. The facilitators of the Seminar enriched the analytical discussion of the presentations by identifying gaps. filling observed technical deficiencies and clarifying technical and research management critical timeframes that the students were expected to perceive and follow. The participants' knowledge base was also enhanced through this intensive learning process and through a package of shared literature for review and application. The rewarding interactions between the Somali and Swedish universities has helped to catalyse the institutional research capacity building of these universities forward, a critical step amongst the established research development milestones. Despite the bright prospect of this research partnership, the lack of funding remains to be the most critical risk to programme sustainability. The currently implemented research projects clearly illustrate their strong link to equity and the capacity to generate and apply evidence to solve the health problems of the underprivileged populations living in one of the most under-resourced fragile states of the world.

9 ACKNOWLEDGEMENTS

The active participation of the Swedish and Somali universities in this research collaborative programme and their debuted roles as course facilitators and research design and implementation mentors is duly acknowledged. The Somali universities' extended support to their participants is also recognized, The UOH midterm Seminar organisational leadership and the committed support of its University team is fully recognized and special gratitude extended.

ANNEXES

Annex 1. Programme Agenda of the Midterm Seminar for the Somali-Swedish Collaboration in Research

Hargeisa, October 3-5, 2017

Tuesday October 3 rd							
Coffee/tea							
09.00-09.20	Welcome session						
	 Prof Deria, University of Hargesia. Welcome. Klas Göran Sahlen, Course director, Umeå University. Midterm procedure Representatives from the 5 universities, 3 minutes for each. Associate professor Carina Källestål. Dr Khalif Bile. The opening session was then concluded by UOH President or Vice President 						
09.20-10.20	Abdiraham Hersi Hassan - Prescribing patterns of medicines of Galkayo South Hospital at Galkayo city, Mudug region, Galmudug state of Somalia						
	Abdulfatah Abdullahi Jama Hassan - The case load of urological surgery in key selected Mogadishu hospitals in last two years						
	<u>Daud Abukar Yusuf</u> - The impact of health education in the reduction of diarrheal diseases						
10.20-11.20	Nasir Ibrahim Said - Determinants of place of delivery among mothers in Borama town Borama district, Awdal region in Somaliland						
	<u>Khadra Ahmed</u> - Knowledge, Attitude and Practices of exclusive breastfeeding among Mothers in Hargeisa-Somaliland: Health Facilities Based Study						
	Mohamed Farah Abdullahi - Factors contributing to suboptimal uptake of vaccination in Galkayo district, Somalia						
11.20-11.50	Panel discussion: Perspectives of the programme from the Universities						
11.50-13.00	Lunch						
13.00-15.00	Group discussions and feedback: Challenges during the research and efforts made to overcome these						
15.30-17.00	Asada Ibrahim Adam - Prevalence of malnutrition and associated factors among children aged between six to fifty nine months in Galkayo district, north-central Mudug region of Somalia						
15.30-16.00	Coffee/tea						
	Semira Mohamed Tahir - HIV/AIDS Knowledge and Perception among young people in a North Somalia Region						

Mohamed Kalid Ali - Improving Child Nutrition: Using Cash transfers with IYCF Counselling.

Wednesday October 4 th						
Coffee/tea						
09.00-10.00	<u>Hamda Abdillahi</u> - Factors influencing utilization of antenatal care services among women in Ahmed Dhagah district, Hargeisa Somaliland					
	Adan Hassan Iman - Prevalence of hepatitis C among healthcare workers					
	<u>Hamda Hassan Warsame</u> - Incidence of neonatal mortality and associated risk factors in Bosaso, Somalia					
10.00-11.50	Group discussions and feedback: Ethics – issues arising during the research process, and future training needs					
11.50-13.00	Lunch					
13.00-14.00	Sahra Mire Mohamed - Assessment of knowledge, attitude and practice of female genital mutilation among traditional midwives in Mogadishu					
	Yusuf Abdi Hareed - Perceptions and practices of self-medication among parents in Borama, Somaliland					
	Samira Ahmed Hussein - Knowledge attitude and practice of pneumonia children under five years of age in Mudug region Somalia					
14.00-15.10	Group discussions and feedback: Recognition and reception of the studies in trainees' universities					
15.30-16.30	<u>Jamila Ahmed Aden</u> - Maternal Mortality in Bosaso District: Retrospective Case Study on Causes and Contributing Factors					
15.30-16.00	Coffee/tea					
	Bashir Dire Jama - Knowledge attitude and perception of Somali pregnant women towards C-section in Berbera town					
	Dr A. Suleiman Ahmed - Psychotic condition: traditional healers and their role in dealing with khat induced psychosis					
Thursday October 5th						
	Coffee/tea					
09.00-10.00	R – a small repetition, Carina Källestål					
10.00-10.30	What will happen now? Klas-Göran Sahlen, course director					
10.30-11.00	The role of academic health training institutions in research development and the challenges being faced in the fragile Somali context, Dr Khalif Bile					
11.00-11.50	Closing remarks from the Universities.					

Annex 2. List of the Projects Presented during the Midterm Seminar

	Name	University	Title of the Research Project	Local Somali Mentor	Mentors in Sweden
	1. Khadra Ahmed qaliyaqali1@gmail.com	University of Hargeisa	Knowledge, Attitude and Practices of exclusive breastfeeding among Mothers in Hargeisa- Somaliland: Health Facilities Based Study	Kiruja Jonah kirujajonah@ya hoo.com	Barbara Schumann barbara.schu mann@umu. se
	2. Mohamed Farah Abdullahi mfchilm026@gmail.com	Puntland University of Health Science and Technology	Factors contributing to suboptimal uptake of vaccination in Galkayo district, Somalia	Sadik Mohamud Adan	John Kinsman john.kinsman @umu.se
	3. Nasir Ibrahim Said khaliddeer@hotmail.co m	Amoud University	Determinants of place of delivery among mothers in Borama town Borama district, Awdal region in Somaliland	Ismacil Mohamed Aye drayeh1@gmai I.com	Anette Agardh anette.agard h@med.lu.s e
	4. Abdiraham Hersi Hassan dhoof55@hotmail.com	Galkayo University	Prescribing patterns of medicines of Galkayo South Hospital at Galkayo city, Mudug region, Galmudug state of Somalia using WHO core drug indicators	Ahmed Aweys draweys87@g mail.com	Lars L Gustafsson Lars- L.Gustafsson @ki.se
	5. Abdulfatah Abdullahi Jama Hassan drhamza2050@gmail.c	Benadir University	The case load of urological surgery in key selected Mogadishu hospitals and their outcomes from 1st January - 1st July 2015	Mohamed Fuje mmfuje@gmail. com Sayid Omar	Lennart Nyström lennarth.nyst rom@umu.s e
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Annex 3. Demographic and Health Surveillance

A discussion on and suggestions for encouraging the participating universities and the Somali Ministries of Health to start Health and Demographic Surveillance sites (HDSS) emerged during the Midterm Seminar technical discussions in Hargeisa. At that platform, a brief summary of what a HDSS site was outlined, alerting the participants about the possible links to INDEPTH network (global network of DHS sites, with secretariat in Ghana), which would be an important partner for undertaking the endeavour of establishing Demographic and Health Surveillance (DHS) and Health and Demographic Surveillance Sites (HDSS)

What is it?

DHS is repeated cross-sectional surveys conducted by USAID, and are as stated on their web page "nationally-representative household surveys that provide data for a wide range of monitoring and impact evaluation indicators in the areas of population, health, and nutrition". They do two types of surveys, standard and interim surveys, the first includes 5-30 000 households about every 5 years. The interim surveys are on special outcomes, for impact evaluations and often count specific mortality in smaller samples in between the standard surveys.

A HDSS has the objective stated by INDEPTH network stated on the quote: "We conduct longitudinal research based on Health and Demographic Surveillance System (HDSS) field sites in low- and middle-income countries (LMICs) to improve the lives of people in these countries by informing and influencing policy. The HDSS longitudinally collects health and demographic data from the population cohort residing in the selected geographical areas covered by the programme. Regular visits are paid where births, deaths and immigration patterns of the populations are registered and closely monitored.

In developing countries, there is commonly a lack of health and demographic information at the community or population level. For instance, cause of death may be unknown for deaths occurring outside of health facilities. One approach to collecting such data is the cross-sectional Demographic and Health Surveys (DHS). HDSS provides a complement to episodic DHS by collecting longitudinally data over time, often with multiple household surveys.

HDSS sites were originated in the 1960s. Since then, many HDSS in developing countries have been organized together with the INDEPTH network. As of 2017, INDEPTH has 47 HDSS sites following roughly 3 million people. One function of INDEPTH is to gather data across HDSS and to establish standards for data acquisition. There are other demographic and health data gathering programs similar to DSS that are not part of INDEPTH, such as the <u>Sample Registration system</u> in India and the <u>Disease Surveillance Points system</u> in China.

How does it function?

Every HDSS has its own specific functions but basically it is repeated longitudinal data collection on vital events (death, birth, migration) in a geographically defined area or a group of areas chosen in order to define a population not covered by vital statistics.

The INDEPTH has a resource kit on how to set up a site. (INDEPTH Resource Kit for Demographic Surveillance Systems is through this link: http://www.indepth-

What can it be used for?

It can define health needs, evaluate interventions and feed into policy and practice in a country. It can also be used as a training centre for health cadres at different educational levels.

Further information:

DHS performed by the US: https://dhsprogram.com/What-We-Do/Survey-Types/DHS.cfm

HDSS by INDEPTH: http://www.indepth-network.org

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