SPONSORED RESEARCH AGREEMENT

This sponsored research agreement ("Agreement") is entered into as of 1 January 2017 ("Effective Date) BETWEEN

(i) The Center for Health Policy and Management, Faculty of Medicine, Universitas Gadjah Mada, with its registered office at 2nd Floor Gedung IKM Sayap Utara, Fakultas Kedokteran, Universitas Gadjah Mada, JL Farmako Sekip Utara, Sleman, DI Yogyakarta (hereinafter referred to as "CHPM") in collaboration with the Alliance for Health Policy & Systems Research (AHPSR), the Special Programme for Research, Development and Research Training in Human Reproduction (HRP), and the Special Program for Research and Training on Tropical Diseases (TDR)

and

(ii) Dr.sc.hum. Budi Aji, SKM, M.Sc., Address: School of Public Health, Faculty of Health Sciences, Jenderal Soedirman University, Karangwangkal Campus, Purwokerto, Central Java

Both hereinafter separately and jointly referred to as the "CONTRACTOR" or the "CONTRACTORs".

WITNESSETH

WHEREAS, CHPM in collaboration with the Alliance for Health Policy & Systems Research (AHPSR), the Special Programme for Research, Development and Research Training in Human Reproduction (HRP), and the Special Program for Research and Training on Tropical Diseases (TDR), desires to strengthen the capacity and provide support for implementation research to be conducted in Indonesia in a field of common interest to the CONTRACTORs (hereinafter referred to as the "Research Project");

WHEREAS, the CONTRACTOR has the necessary knowledge, skills, technical expertise, personnel, resources and experience and that it is fully qualified, ready, able, and willing to conduct the Research Project as the Principal Investigator, according to the terms and conditions as provided herein;

NOW, THEREFORE, in consideration of their mutual covenants and subject to the terms and conditions set forth below, the Parties agrees as follows:

Article 1. Purpose of the Contract

1.1. The purpose of this contract is to conduct proposed implementation research proposal that has been submitted to CHPM and competitively selected to be conducted in Indonesia, with specific objectives to:

1.1.1. Enhance knowledge creation to inform better implementation of existent programmes;

1.1.2. Strengthen the capacity of decision-makers (implementers) to use research as a means of addressing implementation problems that they face in the field.

1.1.3. Generate new strategies and knowledge that will enable more effective implementation of existing health programmes in Indonesia.

Article 2. Contract Document

2.1. This Contract together with the Annexes as enumerated below constitutes the entire contract between CHPM and the CONTRACTOR.

2.1.1. Annex 1. The CONTRACTOR's finalized Research Proposal dated December 2016

2.1.2. Annex 2. Research Schedule

2.1.3. Annex 3. Research Budget

2.1.4. Annex 4. Deliverables

2.2. This Contract and its Annexes constitute the entire understanding and agreement between and by the Parties concerning the subject matter of this Contract and supersedes all contemporaneous or prior representations, negotiations, or understandings.

Article 3. Obligations of the CONTRACTOR

3.1. The CONTRACTOR shall perform and complete the Research Project described in Annex I (The CONTRACTOR's finalized Research Proposal dated December 2016) with due diligence and efficiency as described in Annex 1. Research Proposal, and in accordance with this Contract

3.2. The CONTRACTOR shall also provide all technical and administrative support needed in order to ensure the timely and satisfactory performance of the Research Project

3.3. The CONTRACTOR will have the sole and exclusive authority to conduct, manage, control and direct the Research Project, to supervise all personnel participating in the Research Project, and to manage any subCONTRACTORs carrying out CONTRACTOR responsibilities in the Research Project; providing, however, CHPM will have reasonable opportunities during the course of the Research to advise and consult with the CONTRACTOR regarding the Research Project and its progress.

3.4. The CONTRACTOR will provide CHPM quarterly progress reports, which may be in either oral or written form, or a combination thereof, depending on the nature of the information

conveyed. If requested by CHPM, the CONTRACTOR will confirm within a reasonable period of time any oral progress reports with follow-up summary written reports. The CONTRACTOR will provide CHPM progress report and final report, written in English language, according to the schedule of deliverables, describing the methods used and results obtained together with any other pertinent findings from the Research Project. All reports shall be delivered by the CONTRACTOR by email to **scapir.ugm@gmail.com**

3.5 The CONTRACTOR shall submit to CHPM the deliverables specified hereunder according to the following schedule:

Deliverables	**Timeline**
1. Finalized Research Proposal with Instrument(s)	15 December 2016
2. Progress and Financial Report Q1	31 May 2017
3. Manuscript parts: Introduction and Methods	31 May 2017
4. Progress and Financial Report Q2	31 August 2017
5. Final Technical Report + Policy Brief	30 November 2017
6. Final Financial Report	15 December 2017
7. Completed Manuscript	31 December 2017

3.6. The CONTRACTOR represents and warrants the accuracy of any information or data provided to CHPM for the purpose of entering into this Contract, as well as the quality of the deliverables and reports foreseen under this Contract in accordance with the highest professional standards.

3.7 The CONTRACTOR represents and warrants that honesty shall prevail during the formation and execution of this contract, including but not limited to the process of selection of the CONTRACTOR and to the execution of the services included in the scope of the contract. The CONTRACTOR shall report any allegation of fraud to CHPM. Any fraudulent conduct carried out by the CONTRACTOR may result in the termination of this contract.

3.8. The CONTRACTOR agrees to promptly advise CHPM of any change in the employment status of the CONTRACTOR that could have a material adverse effect on the Research Project. If the CONTRACTOR ceases to be associated with the CONTRACTOR or otherwise becomes unavailable to direct the Research Project, the CONTRACTOR will be entitled to replace the Principal Investigator with a qualified researcher acceptable to CHPM.

Article 4. Grant Payment

4.1. As full compensation for the complete and satisfactory performance of the Services under this
Contract, CHPM shall pay the CONTRACTOR the fixed contract price as follows:

Currency : IDR
Total amount in figures : 131,000,000
Total amount in words : One Hundred and Thirty One Million

4.1.1 The contract value mentioned above is the fixed contract price which will be paid to the

CONTRACTOR to fulfill all the requirements of the Annex I. Finalized Proposal and in accordance with the budget attached (Annex 3. Research Budget), including normal and acceptable deviations on the depth of the work to the satisfaction of CHPM. This fixed contract price is inclusive of all applicable cost of material, professional charges, allowances, travel related costs and any other miscellaneous expenses applicable.

4.1.2.CHPM understands and agrees that the Project Budget is a good faith estimate only and that as a result CONTRACTOR may make deviations from the budget, providing that in the judgment of the Principal Investigator the deviations are consistent with and reasonably necessary to achieving the aims and goals of the Research Project.

4.1.3 Any additional expenditure should be incurred by the CONTRACTOR after communicating and agreeing with CHPM.

4.2 The price of this Contract is not subject to any adjustment or revision because of price or currency fluctuations or the actual costs incurred by the CONTRACTOR in the performance of the Contract.

4.3 Payments effected by CHPM to the CONTRACTOR shall not be deemed to relieve the CONTRACTOR of its obligations under this Contract nor as an acceptance of CHPM of the CONTRACTOR's performance of the Services.

4.4 CHPM shall effect payments to the CONTRACTOR after satisfactory completion of the deliverables stipulated under Article 3.5 and acceptance by CHPM of the deliverables and invoices submitted by the CONTRACTOR, upon achievement of the corresponding milestones and for the following amount:

Deliverables	**Payment**
1. Research Proposal and Instrument Approved	25%
2. Progress and Financial Report Q1 Approved	25%
3. Progress and Financial Report Q2 Approved	25%
4. Final Report: Technical and Financial Report Approved	25%

4.5. CONTRACTOR will submit written invoices to CHPM, indicating the corresponding amount payable, in the form attached as Exhibit E attached hereto, which shall be paid by CHPM within thirty (30) days of receipt. Invoices will be submitted to CHPM at the following address:

Center for Health Policy and Management

Gedung IKM Sayap Utara 2nd Floor

Faculty of Medicine, Universitas Gadjah Mada

JL Farmako, Sekip Utara, Depok, Sleman

Yogyakarta, 55281

Email: scapir.ugm@gmail.com

CHPM Contact Information for Invoice Matters:

Yoga Prajanta

Email: yogaprajanta@gmail.com

4.6 All payments made by CHPM under this Agreement shall be made to the CONTRACTOR's bank account and delivered as follow:

Account's Name	: Budi Aji
Bank	: Mandiri
Account Number	: 900-00-4054414-1
Tax Number (NPWP)	: 26.124.280.4-521.000

4.7 Without any prejudice to any other rights or remedies that CHPM may have under this Contract, CHPM may withhold payments to the CONTRACTOR if the Project are not performed in accordance with this Contract until the CONTRACTOR has remedied such performance. The withholding by CHPM of any payment shall not, unless CHPM decides to terminate the Contract, relieve the CONTRACTOR of its obligations to continue performance under this Contract.

4.8 All Stipends and other allowances, if any, to be paid by CHPM are to be compensated for at rates not to exceed any current applicable governing rates within the University of Gadjah Mada general standard of rates (Standar Biaya Umum UGM) .

4.9. CHPM will be responsible for payment of salary taxes (5% of budgeted personal salary) and will be deducted from the budget allocation for personal salaries. The CONTRACTOR will be responsible for payment of purchasing tax, with a tax stamp of 3000 for amount of purchase between IDR 250.000,- to 1.000.000,-. A tax stamp of 6000 and proof of tax payment (tax facture) and proof of offer from minimal one (1) store for amount of purchase between 1.000.000,- and 10.000.000,-. Purchase of equipment or service in a total amount of more than 10.000.000,- shall be made with a proof of offers from at least three (3) stores. No amounts paid to CONTRACTOR under this Agreement will be subject to any withholding by CHPM.

Article 5. General

5.1. The CONTRACTOR shall not do any work, provide equipment, materials or supplies or perform any other services which may result in any charges in excess of the above mentioned

amounts without the prior written agreement of CHPM.

5.2. Unless otherwise expressly agreed in writing by the parties, the CONTRACTOR shall have sole right, title, and interest to all equipment and other tangible materials purchased, acquired, furnished, fabricated, or used in the Research Project, using funds paid to the CONTRACTOR by CHPM, or otherwise.

5.3. The CONTRACTOR will maintain, within the contracting period of time, detailed financial records, which clearly identify all funds received from CHPM and expended by the CONTRACTOR for the implementation of the Contract. The CONTRACTOR is also required to ensure that adequate systems of internal control are put in place to ensure the financial management of this contract is conducted with the required level of due diligence.

Article 6. Entry into force and duration of contract

6.1 This Contract shall become effective as of the Effective date on 1 January 2017, upon its signature by both Parties, and ends on 31 December 2017, unless otherwise terminated or amended in accordance with the provisions of this Agreement or extended by mutual written agreement of the parties.

6.2 All time limits contained in the Contract shall be deemed to be of the essence in respect of the performance of the Services.
6.3 Termination or expiry of this Contract or part thereof will not affect any accrued rights or liabilities of either Party nor will it affect the coming into force or continuation in force of any provision of this Contract which expressly or by implication is intended to come into or continue in force on or after such termination.

Article 7. Amendment

7.1. Any modification to this Contract shall require an amendment in writing between both Parties duly signed by the authorized representative of the CONTRACTOR and Dr. Yodi Mahendradhata, Representative on behalf of CHPM.

Article. 8. Confidentiality

8.1. The parties acknowledge that they have not and that they do not anticipate disclosing to each other any confidential or proprietary information in connection with this Agreement or the Project.

8.2. In the event that a party believes that a disclosure of confidential or proprietary information will be required to carry out the Project, such party will promptly notify the other party and request that the parties enter into an appropriate confidential disclosure agreement on terms mutually agreeable to both parties. Unless and until any such confidential disclosure agreement has been executed by the duly-authorized representatives of the parties, nothing in this Agreement, the Project, or the results of the Project will be deemed to be confidential or restricted from disclosure by either party to any third party.

Article 9. Publication and Dissemination

9.1. The results of the research project funded under this Agreement may be freely used or disclosed by either party, including without limitation, publication in scholarly journals, presentations at academic and other conferences, provided that, without the consent of the other party, no use may be made for commercial purposes and confidentiality shall be maintained with respect to results that may be eligible for protection by proprietary rights.

9.2. CONTRACTOR shall provide CHPM a copy or notice of any publication in any scholarly journal that includes a report of the results of the Project.

Article 10. Exploitation of Rights

10.1. The industrial or commercial exploitation of any intellectual property rights, including the ownership of know-how, arising from the project shall be designed to achieve, in so far as circumstances permit, the following objectives in the following order of priority:

a. The general availability of the products of creativity activity;

b. The availability of those products to the public health sector on preferential terms, particularly in developing countries;

c. The grant to each party of additional benefits, including royalties, account being taken of the relative value of each party's financial, intellectual, and other contribution to the research.

10.2. The rights referred to in para 10.1. shall belong to the CONTRACTOR, or to the Principal Investigator, if the CONTRACTOR or CHPM so agree. To the extent that the former do not intend to exercise them, the rights shall be promptly transferred to CHPM, if it so requests. Each party shall provide the other with its full cooperation to permit the effective exercise of the rights. The party in which the corresponding rights are vested, may file application for industrial property protection, promptly furnishing copies of the application and other patent documents to the other party. All right other than the right to file application shall be exercised in accordance with an agreement which shall be negotiated in good faith between CONTRACTOR and CHPM.

10.3. In any publication by the CONTRACTOR or the Principal Investigator relating to the result of the research, the responsibility for the direction of the work shall not be ascribed to CHPM. Unless CHPM or WHO advises otherwise, all publications should include a notice indicating that the underlying research received financial support from the WHO Alliance for Health System Research. Two offprints or copies should be sent to WHO and CHPM unless another number is stipulated. WHO funds may not be used for publication costs unless specifically authorized.

Acknowledgement can be state as follow:

This study was funded and supported by Center for Health Policy and Management, Universitas Gadjah Mada; WHO Alliance for Health Policy and System Research; WHO Special Programme for Tropical Disease Research; and WHO Human Reproduction Programme.

Article 11. Miscellaneous

11.1 CHPM is committed to preventing, identifying and addressing all acts of fraud against CHPM as well as third parties involved in CHPM activities.

11.2 Individual or organization perceiving that they have been unjustly treated in connection with the solicitation or award of a contract may lodge a complaint directly with the Scapir Committee at scapir.ugm@gmail.com. The Scapir Coordinator will then make an assessment of the complaint and provide a reply within a week.

11.3 No terms or provisions of this Contract will be deemed waived and no breach excused, unless such waiver or excuse is in writing and signed by the Parties giving the waiver or excuse. No consent to, or excuse or waiver of, a breach of this Contract shall constitute a consent to, excuse or waiver of any other subsequent breach.

11.4. If any provision of this Contract is held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions will not in any way be affected or Impaired.

11.5 CHPM strictly enforces a policy of zero tolerance concerning unethical, unprofessional or fraudulent acts of CHPM CONTRACTORs. Accordingly, any registered company that is found to have undertaken unethical, unprofessional or fraudulent activities, will be suspended or forbidden to continue business relations with CHPM.

11.6 CHPM requires that all CONTRACTORs observe the highest standard of ethics during procurement and execution of work. Pursuant to this policy, CHPM defines the terms set forth as follows:
(a) Corrupt practice means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in the execution of a contract;
(b) Fraudulent practice means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the client, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the client of the benefits of free and open competition. CHPM will declare a CONTRACTOR ineligible, either indefinitely or for a stated period of time, to be awarded a CHPM-financed contract/agreement if at any time it determines that the Supplier has engaged in any corrupt or fraudulent practices in competing for, or in executing a CHPM-financed contract/agreement.

11.7 By signing this Contract, the CONTRACTOR agrees that CHPM is free to share this Contract with the sponsors or donors of this Grant program, i.e. the WHO Alliance for Health Policy and Health System Research, the WHO Special Programme for Tropical Disease Research (WHO-TDR), and the Human Reproduction Program (HRP), the for their use in direct ordering.

IN WITNESS WHEREOF, the authorized representatives of the Parties have Signed this Contract on the dates set forth below:

For CHPM	For the CONTRACTOR
_____	_____
Date: 1 January 2017	Date: 1 January 2017
Dr. Yodi Mahendradhata, Msc.,PhD	Dr.sc.hum. Budi Aji, SKM, M.Sc.
Director of CHPM	Principal Investigator

Gmail **Budi Aji <budi.aji57@gmail.com>**

Selection Result: LoI for Decision Maker Led Implementation Research

1 message

Scapir UGM <scapir.ugm@gmail.com> Wed, Aug 31, 2016 at 6:06 AM
To: budi aji <budi.aji57@gmail.com>

Dear Applicant,

The purpose of this letter is to inform you that the first stage evaluation of Letters of Intent (LoI) for Decision Maker Led Implementation Research has been completed. We have received 60 LoIs in this initial stage, of which 20 will proceed to the second selection stage. Each LoI has been scored independently by two reviewers in strict accordance with the evaluation criteria. The average scores from the two reviewers have been used to rank the LoIs.

We are pleased to inform that the ranking of your LoI was high enough to be eligible to proceed to the second selection stage. You are now invited to submit a full proposal by September 30, 2016. To facilitate proposal development. We will organize a blended learning course on implementation research which one representative of each study team is expected to participate.

Details on the requirements of the full proposals and blended learning course will follow shortly on a separate email. Each submitted full proposal will then be assessed independently by two reviewers. The result of the second stage selection will be announced on October 31, 2016. Successful applicants will be invited to a proposal finalization workshop to be organized in the fourth week of November 2016.

We are looking forward to your participation in the blended learning course and eventually your full proposals. Should you have any questions about this matter, please feel free to contact Dr Trisasi Lestari (Email: trisasilestari@gmail.com or scapir.ugm@gmail.com ; Tel: 08112508703)

Sincerely,

Dr. Yodi Mahendradhata, MSc, PhD

DECISION-MAKER LED IMPLEMENTATION RESEARCH
FULL PROPOSAL TEMPLATE

DIRECTIONS

Purpose

This template should be used to submit full proposals in response to the invitation received as part of the second step in the call for **Decision-Maker Led Implementation Research**. For more information on this initiative, please refer to the posted call, which can be found on the **Center for Health Policy and Management** website: goo.gl/LONWZn

Deadline

The deadline for the submission of the full proposal is **30 September 2016**. This is a firm deadline. Proposals received after the deadline will not be accepted or considered. Please note that the Appendix template must be attached for a full submission.

Submission

Full submissions include two parts: **1) Proposal narrative** – the text should be put under the headings provided in this template, **2) Appendix template** - document should be attached separately at the end of proposal. All submissions must be written in clear, concise **English** and sent to **scapir.ugm@gmail.com** by the deadline of 30 September 2016.

Review Criteria

All proposals will be assessed by a committee of experts using the following criteria:

- **The relevance of the research question and the likelihood that this research will generate knowledge that will improve implementation.** Research objectives and questions should relate to implementation and it should be clear why this knowledge is important to addressing the barrier or challenge identified.
- **Justification of study design and methods** to address the primary research question.
- **Feasibility of approaches proposed.** This includes: a) feasibility of methods proposed to address the research question within the intended time frame, and b) feasibility of research to produce results that can be acted upon by the intended audiences.
- **Capacity of research team** to implement the proposed study**.**
- **Appropriateness of budget and timing for proposed research activities**, including precision and clarity in budget proposal and justification.

Based on these criteria, proposals will be selected for funding. Funding decisions will be communicated to applicants by **30 October 2016.**

Contact

If you have any questions or require support throughout the development of the full proposal or submission process, please contact us at **scapir.ugm@gmail.com**

SECTION I: APPLICANT INFORMATION	
Please provide information on the decision-maker who is, preferably, the **Principal Investigator** of the project, as well as their institution and title involved in implementation of a health programme or service. Similar information should be provided on the co-investigators of the project, who may be other decision-makers or researcher counterparts. Up to **5 Co-Investigators** may be listed in this application.	
PRINCIPAL INVESTIGATOR	
Name: Dr.sc.hum. Budi Aji, SKM, M.Sc.	Gender: Male
Institution/Title: Department of Health Administration and Policy, School of Public Health, Faculty of Health Sciences, Jenderal Soedirman University (Researcher)	Address: Karangwangkal Campus, Purwokerto, Central Java, Indonesia
Phone: +62-87737228074	Born on: 27 August 1977
CO-INVESTIGATOR(S)	
1. Co-Investigator	
Name: Dr. Herman Sumawan, M.Sc., Sp.OG	Gender: Male
Institution/Title: Margono Soekarjo Hospital (Obstetrician and Ex-district team member of the EMAS program in Banyumas)	Address: Jl. Dr. Gumbreg No. 1, Purwokerto, Central Java, Indonesia
Phone: +62-81578703458	Born on: 13 February 1976
2. Co-Investigator	
Name: Henny Soetikno, S.SIT, M.Kes.	Gender: Female
Institution/Title: District Health Office of Banyumas (Head of Maternal and Child Health Section)	Address: Jl. RA Wiryaatmaja No. 4, Purwokerto, Central Java, Indonesia
Phone: +62-8112660401	Born on: 13 may 1971
3. Co-Investigator	
Name: Dian Anandari, SKM, MKM	Gender: Female
Institution/Title: Department of Biostatistics, School of Public Health, Faculty of Health Sciences, Jenderal Soedirman University (Researcher)	Address: Karangwangkal Campus, Purwokerto, Central Java, Indonesia
Phone: +62-8979183134	Born on: 24 June 1989

SECTION II: PROJECT INFORMATION
Title of Proposed Research: EMAS adoptions to local ownership: Barrier analysis and possible enabling measures for sustainability in maternal and child health program after donor ends
Location: Districts of Banyumas, Central Java, Indonesia
Budget: $10,000

SECTION III: PROJECT SUMMARY
Please provide a **summary** of the central elements of the proposal, including background and rationale, study goals and objectives, study design and methods, and expected outcomes. The summary should be no longer than **300 words**.
SUMMARY
After four years of the implementation, the EMAS program has improved the performance of MCH program. Program report in 2015 showed the decreasing absolute number of maternal mortality and case fatality rate, as well as the increasing indicators of the quality of EmONC and the efficiency and effectiveness of referral systems in the pilot project sites. In the mid of 2016, the support of the EMAS program has been shifted from the donor to the sustainable local-owned responsibility. However, little-known evidences of the barriers of the adoption and sustainability of the EMAS program after post-transition to date. There is lack of information about its sustainability in resource-poor settings. In response to these issues, this research project is proposed. Its aim is to get a precise knowledge of actual institutionalization of EMAS program after donor ends in various sites, in order to identify its barriers and possible enabling measures. The project will be conducted in the district of Banyumas in Central Java Province where the pilot project of the EMAS program has been established from 2012 to 2016. The project approach is structured according to five logical steps, which follows the timeline of the project within 12 months: (1) identifying all essential barriers; (2) classifying the barriers; (3) analyzing the causal relation between barriers; (4) developing measures to overcome; and (5) validating the barriers and measures. Data management and analysis consist of three components i.e., analytic tools and models present in grey literature, thematic framework analysis will be adopted as the main method of qualitative data analysis, and quantitative data from facility walkthrough will be analyzed by using table and graphic to visualize the findings. The study outcomes are expected to be on several levels/audiences: the global health policy community, the study districts and populations.

SECTION IV: TECHNICAL PROPOSAL

SECTION IV-A: BACKGROUND AND RATIONALE

This section should provide background information, specifically a description of the **setting and context,** a description of the **policy, programme, or service** (including how long it has been in place, how it is managed)**,** the **implementation barrier** that is resulting in poor performance of the programme, the underlying **systems failure** that is causing the implementation barrier, as well as a description of **how the knowledge generated by this research will contribute to addressing the failure in the system.** You will be able to expand on how the knowledge will be used and implications of the project in the section on expected outcomes, but please be sure to demonstrate the logic of how the knowledge relates to the implementation barrier and systems failure here. This section should be no longer than **750 words**.

1. Setting and Context (where the research will be carried out, including health indicators)

The poor quality of care at public hospitals and clinics has become a crucial issue for the high maternal mortality rates in Indonesia. Tertiary facilities face a significant lack of skill among clinicians. On average, only about 20 to 30 percent of Indonesia's estimated 3,000 obstetricians receive any comprehensive training in management of neonatal complications, and only 32 percent of hospital-based health providers practice active management of third stage of labor (1). There is clearly an urgent need for improving the skills of public health providers to better serve the country's mothers and newborns.

The launched of the Expanding Maternal and Neonatal Survival (EMAS) program in 2012 was another milestone for the governments' commitments to improve Maternal and Child Health (MCH) in Indonesia (2). The EMAS program, funded by the USAID, is aimed to accelerate the reduction of maternal and neonatal mortality rates at the primary health care level and hospitals in 128 districts in six provinces, which account for roughly 50% of the country's maternal mortality rate (1). This program is expected to result in an overall 25% decline in national maternal and newborn mortality by 2016 (2).

District of Banyumas had been selected for the pilot project of the EMAS program from 2012 to 2016 due to its contribution for the higher numbers of maternal deaths in Central Java. Before the implementation of the EMAS program, the absolute numbers of maternal deaths in Banyumas has increased from 33 cases in 2010 to 35 cases in 2011. In 2012 when the EMAS program began, the absolute number of maternal deaths in Central Java was 675 cases, and Banyumas was accounted for about 5 percent of total deaths (3). During the implementation of EMAS program from 2012 to 2015 in Banyumas, the performance standard of EMAS program in four keys area: maternal, newborn, infection prevention and clinical governance had significantly increases in both hospital and community health center levels above 95% and 98%, respectively. Moreover, to improve the efficiency and effectiveness of referral systems had also been conducted through eHealth (SijariEMAS) application (4).

2. Policy, Programme, or Service

The EMAS program focuses on three priorities: (1) improving the quality of emergency obstetric and newborn care (EmONC) services; (2) increasing the efficiency and effectiveness of referral systems; and (3) strengthening accountability amongst government, the community and health system.

After four years of the implementation, the EMAS program has improved the performance of MCH program. Program report in 2015 showed the decreasing absolute number of maternal mortality and case fatality rate, as well as the increasing indicators of the quality of EmONC , the efficiency and effectiveness of referral systems and accountability amongst government, the community and health system in the pilot project sites (4).

3. Implementation Barrier (problem)

In the mid of 2016, the support of the EMAS program has been shifted from the donor to the sustainable local-owned responsibility. This program has entered to the institutionalized phase where it should be self-funded and able to run activities independently with strong network & measurable. However, little-known evidences of the barriers of the adoption and sustainability of the EMAS program after post-transition to date. There is lack of information about its sustainability in resource-poor settings (poor infrastructure, resource capacity, and network). In response to these issues, this research project is proposed.

4. System Failure (underlying cause of the barrier)

Identifying barriers is the process of determining the reasons that hinder the adoption and sustainability of the EMAS program after assistance ends. These include the identification of any missing measures that could have sustained the institutionalization process. The barrier analysis and enabling framework will provide a classification system for identifying and categorizing the range of factors that support the effectiveness of the EMAS program adoption by local owner and illuminating at what points implementation challenges can occur within the system.

Barriers related to the EMAS program adoption and sustainability will be identified in four domains include inputs, factors affecting sustainability and obtaining financial resources that drive the adoption and sustainability in these domains forward include client benefits, intervention activities, stakeholders partnership, organizational policies and aligning program.

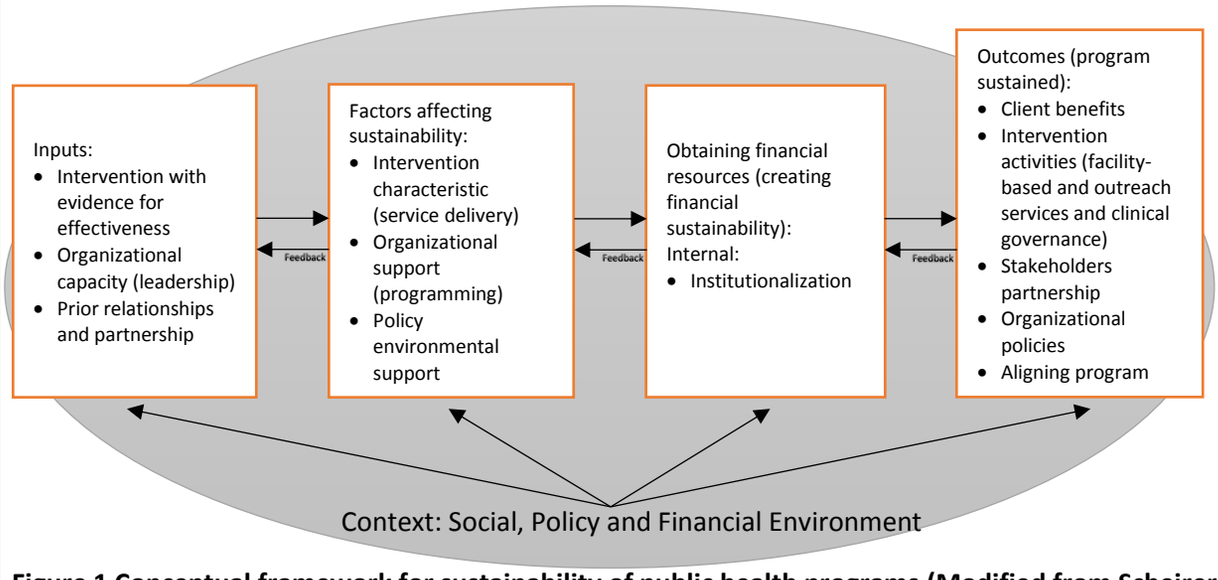

Figure 1 Conceptual framework for sustainability of public health programs (Modified from Scheirer & Dearing, 2011)

5. How the knowledge generated by the research will contribute to resolving the failure in the system and implementation barrier

A primary objective of this project is to capture the barriers identified as most important by “unheard voices”. The project will focus on identifying barriers at any levels of the EMAS program sustainability at community, health care facilities, and district/provincial government. It will effectively support the effort to uncover post-transition challenges at different health system operational levels. The findings can contribute to a better understanding of the MCH context and can also facilitate evidence-based advocacy efforts by governments, donors and NGOs to use their resources in a more effective way to sustainability the EMAS program implementation after transition from donor to local-owned responsibility.

SECTION IV-B: STUDY GOALS AND OBJECTIVES

This section should describe the study goal and objectives based on the research question(s) or knowledge needed to address the barrier identified in Section A5. A **study goal** is a broad statement of the knowledge the research hopes to generate and alludes to how the knowledge may be used to inform implementation. The study goal can be broken down into smaller components called objectives. **Objectives** are simple statements of the specific information that will be collected through different research activities of the study. Typical studies of this scale have an average of 3 objectives. Together, the objectives should enable the study to achieve its goal. The study goals and objectives section should be no longer than **250 words**.

1. Study Goal

The main goal of the project is to get a precise knowledge of actual institutionalization of the Expanding Maternal and Neonatal Survival (EMAS) program after donor in various sites, in order to identify its barriers and possible enabling measures.

2. Objectives

This aim is to assess and overcome barriers facing the adoption of EMAS program intervention after transition from donor to local-owned responsibility. It also proposes the enabling framework for program sustainability.

The specific objectives are:

1. To provide a classification system for identifying and categorizing the adoption and sustainability barriers at any levels of the EMAS program at community, health care facilities, and district government that will effectively support the effort to uncover institutionalization challenges.
2. To identify and measure the EMAS adoption strategy and outcomes after assistance ends in selected study areas.
3. To understand inputs, factors affecting sustainability and obtaining financial resources in EMAS adoption.

SECTION IV-C: STUDY DESIGN AND METHODS

This section should contain information on the overall **study design** that the research will employ, as well as the methods that will be used to collect the specific information needed for each objective. A clear **justification** for why the study design relates to the goal should be provided. All study designs are acceptable as long as they are appropriate for the study goal. Given that implementation research aims to understand implementation of an intervention that has already been proven effective, typical methods used to test the effectiveness of an intervention may not be appropriate. If using these methods, please provide a strong justification. Instead, mixed methods or other designs are encouraged. The **site(s)** where the study will take place should also be described in detail. If an **implementation strategy** is being employed, it should be also be explained in this section. The written portion of the study design and methods section, including the following 3 components, should be no longer than **750 words**.

1. Study Design and Justification

The project approach follows the timeline of the project within 12 months:

1. Identifying all essential barriers based on two phases:
   a. A desk study of policy papers and other pertinent documents will be conducted in order to identify the adoption and sustainability barriers of the EMAS program. Next, a consultation process will be conducted with multi-stakeholders.
   b. A multi-disciplinary study with quantitative and qualitative approaches will be held by a team composed of the university, ex-district team member of the EMAS program, regional hospital and district health office.

2. Classifying the barriers
   After compiling a long list of barriers, a stakeholder workshop will be organized in order to screen barriers and group them under different categories (decomposing barriers). For identification of most important barriers, a simple method will be applied grouping them into key and non-key barriers and criteria such as starter, crucial, important, less important and insignificant barriers. Barriers related to the EMAS program adoption and sustainability will be identified in five domains as already mentioned earlier.
   To conclude whether a barrier or a barrier category is relevant or not, the presence of at least one of its components at a lower level is necessary. Otherwise, the barrier may be more imaginary than real. Thus, this exercise may lead to further removals of barriers from the list that remains from the screening process. One advantage of decomposing a barrier is that it clarifies the reasons why a barrier exists and makes it easier for stakeholders to comprehend its significance. Another advantage is that appropriate measures to overcome a barrier may be identified more easily, when there is a more exact and detailed description of the barrier.
3. Analyzing the causal relation between barriers
   In order to enable stakeholders to approach and delimit a problem area, the Logical Problem Analysis (LPA) tool will be applied as an analysis technique. LPA is part of the Logical Framework Approach (LFA) (5). The LPA will be carried out as a participatory process involving representatives of all key stakeholders. LPA tools help to create systematic and logical analysis of problems and to bring together all elements of the problem. The LPA enabled to arrange the observed problems into a hierarchy of causes and effects, with each problem being linked to causes and effects and creating a multi-level cause and effect pathways to form a problem tree. The problem trees will be prepared based on discussions held with experts and research team members. Similarly for identifying and analyzing the enabling measures, measure result relations will be discussed, to arrive at enabling measures for each category.
4. Developing measures to overcome
   Identifying and describing measures will be taken through a facilitated workshop with the group which has been involved in the barrier analysis. In this workshop various inputs, tools and approaches will be used to identify measures to overcome the identified barriers. To address the barriers category by category, the workshop will use the same categories as used when classifying the barriers. The LPA will also be used in the identification of the barriers. This will be done by formulating the problems as positive statements about a future situation in which problems are solved, thus becoming an objective. Concurrently, the cause-effect relations of the logical problem tree will be converted into measure-results relations. After the measures have been identified and evaluated by this workshop, then the research team will assess, prioritize and group the measures as well as prepare a report.
5. Validating the barriers and measures
   This step is participative. The report of emerging barriers and measures will then be validated by conducting experts and stakeholder consultations meetings. Validation will add credibility to the study process. It will facilitate the early engagement of a range of stakeholders in determining which programs and/ or policies will be most effective in reducing or eliminating the identified barriers.

2. Study Site(s)

The project will be conducted in Banyumas in Central Java Province where the pilot project of the EMAS program has been established from 2012 to 2016. For this study, Margono Soekarjo, Banyumas Hospital and 11 community health centers will be selected as research sites.

3. Implementation Strategy (if applicable)

SECTION IV-D: DATA COLLECTION, ANALYSIS AND MANAGEMENT

This section should provide information on the collection, analysis and management of the data. Specifically, the **data collection** section should include information on how data will be collected- where, when, by whom, how- and provide a justification for any sample sizes used. In the section on **data analysis**, the specific methods and processes to analyse the data should be described. Under **data management**, measures that will be put in place to assure the quality of the data should be identified, as well as where the data will be stored, who will have access to it, how identifiers will be handled and anonymization maintained, and when the data will be destroyed should be mentioned. Further, the owner of the data should be explicitly identified. The data collection, analysis, and management section, including the following 3 components, should be no longer than **1000 words**.

1. Data Collection

Data collection consists of the following components:

1. Documents review

   We will review analytic tools and models present in grey literature by web and manual searches such as those developed by USAID, Pathfinder, IntraHealth, UNICEF, RTI, Jphiego and WHO, and by relevant local agencies such as EMAS Indonesia, district planning body, district hospitals, and district health offices.

2. Field study

   This study will employ a variety of qualitative and quantitative research data collection methods to identify existing key institutionalization and sustainability barriers of the EMAS program. This includes: (1) Focus Group Discussions (FGDs) with various types of participants; (2) semi-structured key informant interviews with district level stakeholders; (3) structured observations at the different EMAS program delivery points (facility walkthrough). A detailed description of each approaches is provided in the Table 1 as follows:

Table 1. Study approaches and data collection methods.

Informants	Objectives	Data Collection Methods
Ex-district EMAS program team	a. Introduce research purpose and method. b. Brainstorm barriers of the EMAS program institutionalization and sustainability after donor ends.	FGD with ex-district EMAS team to introduce study objectives and data needed.
District stakeholders such as local government, council, district health office and NGOs	a. Brainstorm barriers of the EMAS program institutionalization and sustainability after donor ends. b. Explore district coordination and management constraints o Identify biggest hopes for sustainability in health system. c. Discuss call for ideas and receiving ideas to get inputs	Key informant interview; small group, semi-structured interviews with NGOs.
Regional/District hospital	a. Rapidly collect information about use of EmONC services, staff, and supervision after post-transition period. b. Observe site re: infrastructure, workloads, drug availability, patient/provider interactions. c. Explore barriers to the EMAS program sustainability at referral level (both reaching referral level and the services once referral hospital is reached).	Key informant Interview with regional/district hospital in-charge, FGD with management team and staffs (obstetrician, midwife and other staffs), and facility walkthrough.
Community health center (CHS)	a. Rapidly collect information about use of EmONC services, staff, and supervision after post-transition period. b. Observe site re: infrastructure, workloads, drug availability, patient/provider interactions. c. Gather health providers' perspectives about	Interview health provider in-charge, FGD with staffs (head of CHS, GP and midwife), and facility walkthrough.

	challenges to all interventions.	
Women's group leaders	a. Brainstorm barriers of the EMAS program institutionalization and sustainability. b. Particular focus on household level barriers (gender, social, traditional). c. What IEC approaches are going on relevant to the EMAS program intervention?	Small group interview.
Husband of the delivery women with risk pregnancy	a. Brainstorm performance of the quality of services after donor of EMAS program ends.	Semi-structured interview.
Community health workers (CHWs)	a. Brainstorm barriers of the EMAS program institutionalization and sustainability. b. Seek local guidance on terminology to use for the call for ideas and idea receiving (re: barriers, bottlenecks, innovation, solutions).	Small group interview with CHWs available in the community.
Traditional Birth Attendants (TBAs)	a. Identify services provided by TBAs regarding EMAS program implementation after donor ends. b. Explore their attitude to health facility delivery. c. Biggest change they would hope for to improve maternal, newborn and child survival.	Small group interview with TBAs available in the community.

2. Data Analysis

1. Desk study

   All documents and papers will be manually reviewed, duplicates identified and excluded. Data will be extracted and the information will be documented in a matrix.

2. Qualitative study

   The purpose of the qualitative data analysis is to identify and characterize as fully as possible concepts and themes emerging from the interviews and FGD that will assist in the interpretation of the qualitative findings. This consists of a sequence of interrelated steps, that is, reading, coding, displaying, reducing, and interpreting. Preliminary analysis includes multiple readings of all interviews/FGD and field notes. This procedure helped researchers evaluate the existing data and generate new strategy for collecting better data (6). In this step, a contact summary sheet will be designed to summarize time-limited data for each interview/FGD, which serves as an initial step to identify concepts, themes, and issues that emerged from the interview/FGD. A thematic network analysis will be adopted in which concepts and themes are formulated from the text and data (7). The qualitative data analysis software package MAXQDA 11 will be used to code the qualitative data into conceptual and thematic categories.

3. Quantitative study

   Quantitative data from facility walkthrough will be analyzed by using table and graphic to visualize the findings.

3. Data Management

1. Information on data

   This study will involve primary data collection as follows:

   a. Facility walkthrough

      Where possible we will use electronic archive. Data will be inputted and stored in a widely available Microsoft format to ensure accessibility to all investigators.

   b. Semi-structured interviews with individual

      The team anticipates undertaking 30-45 semi-structured interviews from a sample frame to be developed. Data will be collected and stored using digital audio recording where interviewees permit, and then will be transcribed verbatim.

   c. FGD

      Focus groups will be conducted in *Bahasa Indonesia* and recorded digitally. The event will be

transcribed/documented using agreed formats and standards for handling the issue of multiple voices, interruptions, labelling of participatory and visual activities, and etc.

2. Quality assurance
   Quality will be assured through routine monitoring Principle Investigator (PI), and periodic cross-checks against the protocols by the Co-Investigator. While interview and FGD protocols are being developed, standards and systems for note-taking, recording, transcribing and storing visual data from participatory techniques will also be defined. FGDs and interviews will always involve minimum two investigators. Quality control for the qualitative data collection will be assured through refresher FGD training during investigator design workshops and to researcher assistants. PI will check through each transcript for consistency with agreed standards.
3. Backup and security
   Qualitative data will be backed up and secured by the PI on a regular basis and metadata will include clear labelling of versions and dates. There are some potential sensitivities around some of the data being collected, so the project will establish a system for protecting data while it is being processed, including use of passwords and safe back-up hardware.

SECTION IV-E: ETHICAL CONSIDERATIONS

This section should provide a description of the major ethical considerations relating to the study. Specifically, this section should provide information on how **ethical approval** for the study will be pursued. All research projects funded under this initiative will require ethical approval from the Ethics Review Committee within the WHO, as well as the local institutional review board at the collaborating research or academic institution or other body as appropriate in the country context. It should also describe the **informed consent process**, including how potential study participants will be identified, how they will be approached and recruited, and how informed consent will be obtained. The **potential risks** from participation in the study and the strategies that will be taken to mitigate these risks should also be identified. The section on ethical considerations, including the following 3 components, should be no longer than **500 words**.

1. Ethical Approval

As soon as the project is awarded, ethical approval will be submitted to the ethical committee of the Faculty of Medicine, Jenderal Soedirman University, Indonesia. Permission to conduct the study will also be submitted to the local government of the districts of Banyumas. This will allow time for them to review the proposal while the project is under negotiation between the Grantor and the PI.

2. Informed Consent Process

The study concerns mainly stakeholders in policy making and administrative governance and health care providers whose consent will be obtained in writing following generally accepted standards. For the rare instances where we interview health service users, the written informed consent will be obtained. Since most of the populations are Indonesian, the text will be read to them in the lingua franca of the area, *Bahasa Indonesia*. In particular, the right to abstain from the interview as well as the assurance of confidentiality will be insisted on. Two particular situations merit to be mentioned specifically: All interview data used for research will be unlinked to individual identifiers (names or numbers) to protect confidentiality. Anonymous data will be stored on electronic media in locked cupboards with access restricted to principal investigators or research team directly participating in the data analysis. All study participation is preceded by informed consent. Care will be taken in our publications that all individualized performance data will be presented in an adequate anonymized fashion. In cases of teenage mothers, we will ensure that international and national guidelines will be respected.

3. Potential Risks from Participation and Mitigation Strategies

The thrust of the project is an eminently ethical one: supporting health workers in MCH to do what they should be doing to provide medically sound and humane care. The project will obtain information exclusively by interviewing various constituencies, midwives and other health staff, mothers who come for delivery care or who present their newborns to the health staff. No medical procedures will be carried out by project staff, nor will project staff obtain any blood or other biological specimen. This said, a number of ethical issues need to be addressed.

The main ethical issues to be addressed are informed consent, confidentiality of information and response to health emergencies while carrying out interviews.

SECTION IV-F: EXPECTED OUTCOMES AND DISSEMINATION

The proposal should indicate the specific ways in which the knowledge generated from the study may be used to inform implementation and contribute to improvements in health. You should expand on the information provided in the background section and offer specific plans for knowledge use here. The section on **knowledge use** should be no longer than **250 words.** The outputs and dissemination plan should be tailored to the specific audience. Further, dissemination to study participants, beneficiaries, and communities should be mentioned.

1. Knowledge Use

The outcomes are expected to be on several levels or audiences: the global health policy community, the study districts and populations, as follows:

a) Contribution to solve global problems
   A positive outcome of the project would contribute in an important way to a sustainable pre-natal and maternal health program after transition from donor to local-owned responsibility. The outcome will become an important component of the global strategy to improve maternal and newborn care and hence contribute to the global development agenda.
b) Contribution to the districts and population levels
   At the district and population levels, the impact is directly felt. Care will be taken to involve local stakeholders, such as the district health team and community leader in the implementation of the project. Results will be fed-back through a variety of conduits: policy briefs, workshops and more.

Special attention will be given to communicating project results at the earliest possible stage. Our dissemination plans aim: (1) to maximize lesson-learned of the sustainability of MCH program after donor ends; and (2) to maximize the impact of the results on international policy debates and global health initiatives for MCH care.

In support to the communication activities on the dissemination of the study results, research team will both build and maintain with policy makers and beyond, including public. Moreover, the research team plans to disseminate the results of the project through relevant conferences and journals. Any dissemination activities and publications in the project will acknowledge the UGM, AHPSR, TDR and HRP.

SECTION G. PROJECT TIMELINE AND MANAGEMENT

The section should contain a description of the **timeline** of the project, indicating important phases or milestones in the project. The project should be realistic to complete within a 12-month period. It should also describe the **project and grants management**, including who will be responsible for monitoring the progress of the project and distribution of funds. The written portion of this section on project management and timeline should be no longer than **500 words**. In order to complete this section, please also complete a **Timeline** in the Appendix template.

1. Timeline

Project will be carried out in 12 months with the sections:

1. First quarter (1 January to 15 February 2017)
   Proposal and protocol development will be conducted further to formulate detail of the project and be submitted to the ethical committee. It will be continued with expert consultation meeting and data collection instrument construction (in-depth interview, FGD, facility walkthrough guidelines). This work plan will involve technical expertise related to EMAS program (ex-district managers of EMAS program, heads of district health office, directors of hospital, and heads of community health center (purposively selected). At the same time, desk study will be carried out to identify all essential barriers by team member through documents review. Last work plan in first quarter is training for qualitative interviewer (4 persons) and quantitative observer for facility walkthrough (4 persons). Interviewer and observer will be selected from university students and fresh graduates.
2. Second quarter (15 February to 31 August 2017)
   Data collection is the most dominant activity in second quarter. Instrument validity and reliability will be applied to guarantee the instrument quality. Facility walkthrough in health care facility implemented EMAS program in the district of Banyumas will be conducted within a month. It will be continued by qualitative data collection both in-depth interviews and FGDs to the key informants. Data entry and management will also be conducted in this quarter. Data and information collected will be used as the input to conduct stakeholder workshop. Stakeholder workshop will be conducted in Banyumas in order to formulate classification barriers, validation and causal analysis per district.
3. Last quarter (1 September to 31 December 2017)
   Second expert consultation meeting will be conducted to evaluate all data and information as well as the analysis. It will be continued with preliminary report writing, policy brief formulation, journal article writing. Dissemination will be conducted for both local and international levels. Local level dissemination will be conducted in Banyumas, while international level by submitting the results to international journal and conference. See Annex for a detailed project timeline.

2. Project Management

Principle Investigator will act as the project manager who will develop administrative and scientific tools and procedures for the project management, and the timely reporting both financial and scientific to the grant committee. Co-Investigator from the implementers (Co-Investigator 1 and 2) are responsible for the good collaboration between the partners, the timely achievement of milestones and deliverables. Co-Investigator 3 will coordinate the work plans for policy analysis in the involved regions, as well the instruments for data collection and data analysis which will be designed and reviewed by the Principle Investigator.

3. Grant Management

Principle Investigator is the communication partner for the grant committee. The project administration will be presented by Co-Investigator 3 who will assist the Principle Investigator in day-to-day financial and secretarial tasks. The Principle Investigator will prepare formats and guidelines for how to complete the required narrative and financial reports to the grant committee.

SECTION IV-H. ROLES AND COLLABORATION

This section should clearly outline the **roles and responsibilities** of the institutions and team members partnering in the study, specifically those of the decision-maker who is the Principal Investigator of the research and the researcher counterpart. Further, it should briefly mention the **positions and capacities** of members of the teams that are relevant to the project. This section should also describe how they

plan to **collaborate** to carry out the proposed research, as well as any **linkages** that will be made with other stakeholders, such as health workers or the community. The section on roles and collaboration should be no longer than **750 words**.

1. Institutional Roles and Responsibilities

The institutional roles and responsibilities are organized in three parts: policy, scientific and administrative. Policy advisory coordination is responsibility of the Margono Soekarjo Hospital and District Health Office of Banyumas as implementers to promote the study strategies in the respective political and social setting in the two study districts. The scientific coordination is responsibility of the Jenderal Soedirman University to support research direction and discuss results and other issues arising during the course of the project. The project administration is also the responsibility of the Jenderal Soedirman University where the Principle Investigator is affiliated.

2. Team Member Roles and Responsibilities

Dr.sc.hum. Budi Aji, SKM, M.Sc., Principle Investigator, has main responsibility of the overall project management includes: coordinating the project and ensuring that all project activities are carried out according to the timeline; keeping all research team members informed about project progress and challenges that need to be overcome; distributing project funds and coordinating financial audits according to regulations; setting up systems for and supervising the production of financial and scientific reports.

Dr. Herman Sumawan, M.Sc., Sp.OG, Co-Investigator 1, has main responsibility includes: designing research strategy; managing the work-flow and implementation plan of the project, in relation to the resources and level of integration; evaluating the quality of the work performed; evaluating clinical performance of the EmONC services; organizing meetings and collaborate with the expert group; conducting policy analysis ensuring optimal use and dissemination of project results.

Henny Soetikno, S.SIT, M.Kes., Co-Investigator 2, has responsibility includes: evaluating EmONC program management in the district level; facilitating in-depth interview and group discussion with the stakeholders; conducting policy analysis and disseminate study results to the policy makers.

Dian Anandari, SKM, MKM, Co-Investigator 3, has responsibility includes: conducting systematic review study; approach and statistical analysis; proceeding ethical review and government approval; and facilitating field research activities and coordinating with the stakeholders.

3. Team Member Positions and Capacity

Dr.sc.hum. Budi Aji, SKM, M.Sc., Health policy researcher at the Faculty of Health Sciences (FHS)-Jenderal Soedirman University (UNSOED), has extensive experience of research in health system and policy, costing of health services and mixed methods study.

Dr. Herman Sumawan, M.Sc., Sp.OG, Obstetrics and Gynecology at Margono Soekarjo Hospital and had been district member of the EMAS program in Banyumas, has also experience in several research projects related to reproductive health and health systems research.

Henny Soetikno, SSIT, M.Kes., Head of the maternal and child health section, District Health Office in Banyumas, has extensive experience to conduct the MCH programs in the district levels.

Dian Anandari, SKM, MKM, Health reproductive and biostatistician researcher at the FHS-UNSOED, has several experience of research in maternal health care and biostatistics.

4. Collaboration and Linkages

Project will be run in collaboration with local government, legislative council, health providers/ practitioners, non-government organizations, and community leaders. This collaboration will enhance

knowledge base and skill related to the implementation research among research team and collaborator who will be involved in project. Specific activities are expected to provide opportunity to develop capacity building through research protocol development, stakeholder workshop, expert consultation meeting, training for interviewer, focus group discussion, as well as study result dissemination.

1. For collaborators
   a. Providing opportunity to collaborators to develop their capacity in project performance assessment and evaluation.
   b. Supporting quality improvement of the project implementation and promoting health system strengthening.
   c. Addressing any aspect of project implementation constraints and bottleneck such as barriers affecting implementation sustainability and outcomes.
   d. Building a framework for conceptualizing and measuring project implementation goals, objectives and outcome indicator.
2. For researchers
   a. Providing opportunity to researchers to develop partnership and linkage through operational/implementation research.
   b. Enhancing the research communication skill based on scientific findings to the policy makers such as health care practitioner, government and legislative council.

SECTION V: BUDGET AND NARRATIVE

SECTION V-A: SUMMARY BUDGET

In the **Summary Budget** in the Appendix template, a summary break-down of the budget for this project should be provided. The total amount requested should not exceed 10,000 USD. If the subtotal is greater than this amount, in-kind or other contributions will be necessary.

SECTION V-B: BUDGET JUSTIFICATION

A **justification** for each of the budget categories and the amount proposed should be provided in this section. This should include details of the local costs and salary scales, as well as a clear rationale for why equipment or software may be needed for the purposes of this study. The information provided in this proposal may be subject to verification prior to the issuance of any contracts. The section on the summary narrative should be no longer than **500 words**.

Budget will be used to personnel allocation around 23%, field costs 22%, supplies and equipment around 13%, travel 14%, other direct cost (ethical clearance, publication, dissemination) 21%, indirect cost 6%, and communication 1%. Subcontract will be responsible for audio visual aids documentation and etc. Personnel allocation (both researchers and staff (administration, field supervisor) are divided 23%, while the other sub-allocations (supplies, equipment, travel, and etc.) are allocated on factual need. In-town travels in the districts of Banyumas are included in budget due to its large area and difficult access. See Annex for a detailed project budget.

SECTION VI: REFERENCE

Make a list of all **references** cited in the all sections of the proposal in this section using Vancouver style.

1. Bitar S. Creating a model for emergency obstetric and newborn care scaling up best practices in Indonesia: USAID; 2012.
2. Jhpiego. Indonesia Country Profile: innovating to save lives: John Hopkins University; 2013.
3. Dinkesprov. Profil Kesehatan Provinsi JawaTengah 2012. Semarang: Dinas Kesehatan Provinsi Jawa Tengah; 2013.
4. USAID. EMAS: Results and achievements. Jakarta2016.

5. EPU. Handbook For Logical Framework Analysis. Kuala Lumpur: Economic Planning Unit, Prime Minister's Department; 2010.
6. Miles MB, Huberman AM. Qualitative data analysis. California: SAGE Publications; 1994.
7. Attride-Stirling J. Thematic networks: an analytic tool for qualitative research. Qualitative Research. 2001;I(3):385-405.

SECTION VI: CURRICULUM VITAE

Curriculum vitae are required for the decision-maker serving as the Principle Investigator as well as the researcher counterpart who may be a Co-Investigator in the study (max 2 pages per curriculum vitae).

1. Principle Investigator - Dr.sc.hum. Budi Aji, SKM, M.Sc

Education background

Degree	Subject, University	Year of accomplishment
Bachelor	Public Health, Diponegoro University, Semarang	2001
Master	Healthcare Administration, Asia University, Taiwan	2006
PhD	Public Health, University of Heidelberg, Germany	2016

Employment

Institution, Location & Title	Dates	Roles & Responsibilities
School of Public Health, Faculty of Health Sciences, Jenderal Soedirman University	2002 - now	Lecturer and researcher

Research experiences

Year	Title
2016	Extending social health protection to informal sector in Indonesia: How to enroll palm sugar farmers in national health insurance, Phase 2
2016	Premium collecting strategy of national health insurance for informal sector in rural and urban areas of the district of Banyumas, Phase 2
2016	Count data analysis for malaria cases prediction model in the district of Banyumas
2015	Creating the right to access to quality health care for the poor: A case study at a restructured hospital with no-class wards policy in Indonesia
2015	Extending social health protection to informal sector in Indonesia: How to enroll palm sugar farmers in national health insurance, Phase 1
2015	Premium collecting strategy of national health insurance for informal sector in rural and urban areas of the District of Banyumas, Phase 1

International journal publications

Title	Journal	Vol./Number/Year
User experience with a health insurance coverage and benefit-package access: implications for policy implementation towards expansion in Nigeria	Health Policy and Planning	1-10/2015

Does prenatal care package in Indonesia reduce miscarriage/ stillbirth?	Management in Health	XIX/1/2015
The economic impact of insured patients with severe chronic and acute illnesses: A qualitative approach	Global Health Action	7/22526/2014
The impact of health insurance programs on out-of-pocket expenditures in Indonesia: An increase or a decrease?	International Journal of Environmental Research and Public Health	10/2995-3013/2013
Health coping strategies of the people vulnerable to climate change in a resource-poor rural setting in Bangladesh	BMC Public Health	13/565/2013

2. Co-Investigator 1 - Dr. Herman Sumawan, M.Sc., Sp.OG.

Education

Degree	Subject, University	Year of Accomplishment
Undergraduate	Medical Doctor, Gadjah Mada University, Yogyakarta	2001
Master	Healthcare Administration, Asia University, Taiwan	2006
Specialized Physician	Obstetrics and Genealogy, Padjadjaran University, Bandung	2013

Employment

Institution, Location & Title	Dates	Roles & Responsibilities
Kedungreja Community Health Center, Cilacap, Central Java	2003	The Head of *Kedung Reja* Community Health Center
Margono Soekarjo Hospital, Purwokerto, Banyumas, Central Java	2013 - now	Obstetrics and Gynecology

Research experiences

Year	Title
2015	Creating the right to access to quality health care for the poor: A case study at a restructured hospital with no-class wards policy in Indonesia
2006	The ratio of index finger length to ring finger length (2D:4D) associate with aggressive behavior among schizophrenic patient in Banyumas Hospital

Publications experiences

Title	Journal	Vol./Number/Year
The ratio of index finger length to ring finger length (2D:4D) associate with aggressive behavior among schizophrenic patients at Banyumas Hospital, Central Java.	"*Berkala Kedokteran*" Journal	Volume 6 (2). 2007
In vitro fertilization (IVF) outcomes	Annual Scientific Meeting-	2011

evaluation among endometriosis patients from 1 January 2005 to 31 December 2009 at "ASTER" clinic of Hasan Sadikin Hospital, Bandung, West Java.	Indonesian Obstetrics and Gynaecology Association (PIT POGI XIX), 2-7 July 2011, Jakarta	
Low maternal leptin levels in preeclamptic women with fetal growth restriction.	Open Journal of Obstetrics and Gynecology	Volume 3, Number 7, September 2013

3. Co-Investigator 2 – Henny Soetikno, S.SIT, M.Kes.

Education

Degree	Subject, University
Diploma 4	Midwifery, Faculty of Medicine, Gadjah Mada University, Yogyakarta
Master	Public Health, Graduate Institute of Public Health, Diponegoro University, Semarang

Employment

Institution, Location & Title	Dates	Roles & Responsibilities
Cipto Mangunkusumo Hopital, Jakarta	1990-1991	Nurse
Community Health Center, Sukoharjo	1991-1995	Midwife
District Health Office of Banyumas, Central Java	1996 - Now	Head of Maternal and Child Health Section

4. Co-Investigator 3 - **Dian Anandari, SKM, MKM**

Education

Degree	Subject, University	Year of accomplishment
Bachelor	Public Health, University of Indonesia, Jakarta	2011
Master	Public Health, University of Indonesia, Jakarta	2013

Employment

Institution, Location & Title	Dates	Roles & Responsibilities
School of Public Health, Faculty of Health Sciences, Jenderal Soedirman University	2014 - now	Lecturer and researcher

Research experiences

Year	Title
2015	Model of risk factor control of iron nutrient anemia for rural and urban female adolescent in Banyumas District
2015	Model of rural and urban health promotion related maternal pregnancy care in Banyumas District

International journal publication

Title	Journal	Volume/Number/Year
Does prenatal care package in Indonesia reduce miscarriage/stillbirth?	Management in Health	XIX /1/2015

DECISION-MAKER LED IMPLEMENTATION RESEARCH
FINAL REPORT

Sustaining maternal and child health programs when donor funding ends: a case study of stakeholder involvement in Indonesia

Budi Aji[a], Dian Anandari[a], Henny Soetikno[b] and Herman Sumawan[c]

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[b]District Health Office of Banyumas, Purwokerto, Central Java, Indonesia.
[c]Faculty of Medicine, Jenderal Soedirman University, Purwokerto, Central Java, Indonesia.

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Abstract

Background: There has been a dearth of evidence in exploring the role of stakeholders in making the transition process from donor to local responsibility successful in relation to maternal and child health programs to date.

Objective: This study aimed to generate practical experiences concerning stakeholder involvement in sustaining maternal and child health programs when donor support ends, so as to lead systematic strategies for supporting the success of the post-transition process and capture critical challenges of the program's sustainability.

Methods: This study employed Focus Group Discussion (FGD) with district healthcare stakeholders such as hospital managers, district health officers, community health centers, community associations and local authorities. In-depth interviews one to one with the local authority, health staff, informal leaders, and traditional birth attendants were conducted. Observations of health facilities in both community health centers and hospitals were also applied. From the final research project sample of participants, we extracted the interviews to analyze their narratives.

Results: Content analysis revealed 5 main themes from the FGDs and interviews: 1) Stakeholders' collaborative culture and organizational capacity; 2) Stakeholders' commitment; 3) Challenges in partnership and coordination; 4) Barriers to sustainable local financial support 5) Policy for maintaining institutionalization.

Conclusions: Two areas of concern were the priorities for follow-up to sustain the maternal and neonatal care program when donor funding ends, specifically longevity of stakeholder engagement and commitment and internal resource capacity for long-term implementation. Recommendations include increased networking of active cooperation from all levels of administration, especially with a top-down approach involving the national, provincial, down to the district and community-based networks.

Keywords: Maternal and child health; donor assistance; transition; sustainability; stakeholder; local ownership; Indonesia

Introduction

The poor quality of care has become a crucial issue for the high maternal mortality rates in developing countries (1, 2). Lack of human resources and infrastructure are among the major threats to the improvement of maternal and child healthcare (2-4). Strengthening capacity of the healthcare system in developing countries through donor assistance to support local stakeholders in improving healthcare delivery has been implemented elsewhere (5-7). However, the reliance on donor support has also constituted a long-term sustainability issue for the transition to local ownership (8-10).

Transition from donor agencies to domestic acquisition requires a systematic pathway in favor of greater local responsibility for maintaining sustainability (9, 11, 12). The donor has a role in this phase by preparing a phase-out period as an institutionalization process for the local stakeholder. This phase may involve the preparation of structure, management practice, and organization culture transition (9, 13). It also has consequences in persuading local stakeholders to take over sufficient financing for continuing the program (5).

In the context of maternal child health programs, donor assistance transition has an essential challenge due to the fact that there are limited resources among recipient countries (14-16). This situation is understandable. Therefore, the success of the institutionalization period is determined by strategic supports from the donor in empowering a collaborative network among local stakeholders (11, 17). However, to date, there has been a dearth of evidence in exploring the role of stakeholders in making the transition process from donor to local responsibility successful in relation to maternal and child health programs to date. This study presents a prospective analysis of the post-transition maternal and child health program in one district in Central Java, Indonesia.

Between 2012-2016, the United States Agency for International Development (USAID) carried out the Expanding Maternal and Neonatal Survival (EMAS) program to improve maternal and child health in Indonesia (18). The EMAS program aimed to accelerate the reduction of maternal and neonatal mortality rates at the primary healthcare level and hospitals in 128 districts in six provinces, which accounts for roughly 50% of the country's maternal mortality rate (19). This program was expected to reduce national maternal and newborn mortality by 25% by 2016 (19, 20).

The district of Banyumas in Central Java was selected for the pilot project of the EMAS program from 2012 to 2016 due to its contribution to the high number of maternal deaths in Central Java. Before the implementation of the EMAS program, the absolute numbers of

maternal deaths in Banyumas had increased from 33 cases in 2010 to 35 cases in 2011. In 2012 when the EMAS program began, the absolute number of maternal deaths in Central Java was 675 cases, and Banyumas accounted for about 5 percent of total deaths. Based on the 2017 annual report of district health office, the maternal deaths in Banyumas were decreased after EMAS intervention from 32 cases in 2012 to 22 cases in 2016. This evidence shows that the EMAS program intervention had essential outcomes in improving maternal and child health indicators.

In the middle of 2016, the support for the EMAS program shifted from donor to sustainable locally owned responsibility. This program entered into the institutionalization phase where it should be self-funded, measurable, and able to run activities independently with a strong network. The phase-out period required intensely executed transition assuring progressive achievement of the health outcomes, positively protecting benefits to the population (8). Local governments and other stakeholders became key actors in constituting a good transition practice in international development assistance (11, 21, 22). A realistic transition condition should also be explored particularly in developing countries due to pressure on increasing investment for program sustainability under the circumstance of limited resources. Strong local stakeholder network may fill the gap in resource allocation after the donor leaves.

This study aimed to generate practical experiences concerning stakeholder involvement in sustaining a maternal and child health program when donor supports ends, so as to lead to systematic strategies for supporting the success of the post-transition process and capture critical challenges of the program sustainability.

Methods

This case study was conducted in the district of Banyumas, Central Java, Indonesia. Purposeful sampling was used to yield participants who could provide valuable insight into the sustainability of the program and differed on a wide range of characteristics. This study employed Focus Group Discussion (FGD) with district healthcare stakeholders such as hospitals, community health centers, district health offices, ex-district team members, community leaders, and NGOs. In-depth interview one to one with the local authorities, patients, and traditional birth attendants were conducted. Observations of health facilities in both community health centers and hospitals were also applied. From the final research project sample of participants, we extracted the interviews to analyze their narratives.

The data collection consisted of conducting one hour and thirty minutes to a two-hour long group discussion with the participants. A semi-structured approach was employed

throughout the discussion process to allow the emergence of unexpected themes. Some questions were asked during the discussion process, and the researcher probed for in-depth elaboration on the answers provided and emerging themes that the participants identified. In-depth interviews with local authority officer, birth attendants and patients were conducted to explore how the policy affected the quality of care based on their views.

The purpose of the qualitative data analysis was to identify and characterize as fully as possible concepts and themes emerging from the FGD and interviews. This consisted of a sequence of interrelated steps that included reading, coding, displaying, reducing, and interpreting. Preliminary analysis included multiple readings of all FGDs, interviews, and field notes. This procedure helped researchers to evaluate the existing data and generate new strategies for collecting better data (23). In this step, a contact summary sheet was designed to summarize time-limited data for each FGD and interview, which served as an initial step for identifying concepts, themes, and issues that emerged from the FGD and interview. A thematic network analysis was adopted in which concepts and themes were formulated from the text and data (24). The qualitative data analysis software package MAXQDA 12 was used to code the qualitative data into conceptual and thematic categories. Moreover, ethical approval was issued by the ethical committee of the Faculty of Medicine, Jenderal Soedirman University, Purwokerto, Central Java, Indonesia. All participants were recruited voluntarily with consent.

Results

Participant characteristics

In total, 7 FGDs were conducted among health staff and managers from the hospital, community health center, district health office, ex-district team members, community leaders, and NGOs. Moreover, additional in-depth interviews were carried out among 9 informants selected from local authorities, patients, and traditional attendants.

Thematic network analysis revealed 5 main themes from the FGDs and interviews: 1) Stakeholders' collaborative culture and organizational capacity; 2) Stakeholders' commitment; 3) Challenges in partnership and coordination; 4) Barriers to sustainable local financial support; 5) Policy for maintaining institutionalization.

Stakeholders' collaborative culture and organizational capacity

The key element of success for building strong collaboration among stakeholders was the effort to achieve shared visions and goals of the EMAS program. Since initial assistance came from a donor, stakeholders had been involved in determining their roles and responsibilities. This built trust and respect among stakeholders and led to their willingness to

share their resources. Further, the collaborative culture was accompanied by the efforts to strengthen organizational capacity through creating a collaborative task force as an effective way to assign a specific task and maintain collaborative environment among stakeholders.

Our group discussions with district health offices, hospitals, community health centers, civil society organizations and ex-district team members of EMAS suggested that stakeholder engagement in implementing EMAS program had built contributory collaborative atmosphere and a nexus among actors of the program. They also described four approaches for strengthening stakeholder collaboration and institutional capacity: shared vision and goals, shared resources, task force, and commitment.

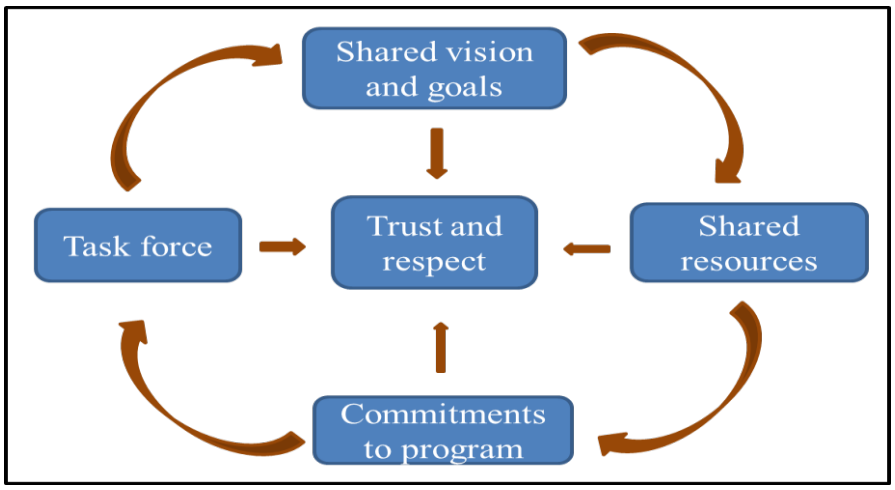

Figure 2. Creating collaborative culture, capacity, and commitment

The first step implemented successfully for maintaining sustainability was a shared understanding between policymakers, program implementers, health facilities, public and all involved stakeholders. All actors involved with the EMAS program view themselves as a part of a worthwhile effort and believe that the program will achieve the goals through their collaboration.

> "In the beginning of the EMAS program, we believe that nothing is impossible to encourage all element of stakeholder, this is a value how to bring all involved stakeholders to implement and maintain the program…we used both top-down and bottom-up approach from district governor to community health centers. Our efforts motivated them to run the program…recently we see the good results" (one of ex-district EMAS team, male)
>
> "Our district governor has a concern about maternal and child health program. He has a credo 'working together to decrease maternal death in Banyumas'. District EMAS

team also brought this value among us...to date to maintain this value our district governor create coffee morning meeting regularly" (one of district health officers, male)

Second, shared vision and goals created a willingness among stakeholders to share their resources. Local government leaders and all stakeholders pledge themselves to deal with financial resources to support the sustainability of the program, thus paving the way to keep all programs well-maintained.

"Each year, our hospital allocated budget for Comprehensive Emergency Obstetric and Newborn Care (CEmONC)…for procurement of equipment we needed to improve the quality of services" (one midwife in public hospital, female)

"We allocated sufficient budget from our own financial resources for Basic Emergency Obstetric and Newborn Care (BEmONC). We hope we could invite clinical mentor twice in this year to conduct capacity building such as training and monitor clinical and referral system performance as well as emergency preparation" (one head of community health center, female)

Third, stakeholder collaboration was associated with a cross-cutting task force. To deal with potentially cross-cutting issues, several task forces were established to focus on a specific purpose such as working group (*Pokja*), civic forum (*Forum Masyarakat Madani,* FMM), and community-based maternal and child health volunteers (*Motivator Kesehatan Ibu dan Anak,* MKIA). *Pokja* consists of key important persons, i.e., district health officers, community health centers, professional organizations, etc. This group focuses on identifying issues and barriers within health facilities and with referral system that impact maternal and newborn survival.

"*Pokja* has a role to support the implementation of EMAS program from the beginning until now, after donor leaves…we work together to advocate the authority, health facility and all stakeholders that involve in the efforts to improve maternal and newborn care…now after the assistance ends, we also support the efforts to sustain the program through internal financial, human and capital resources" (one district health officer, male)

Civic forums (FMM) support civil society networks to encourage public engagement and monitor the quality of care. Meanwhile, community-based maternal and child health volunteers (MKIA) play a critical role in promoting safe delivery in healthcare facilities, increase public awareness related to danger signs, and make sure pregnant women have access to care.

"FMM is still committed to support quality of care for pregnant women although the donor leaves. We have been able to raise public awareness, particularly in village level. For example in *Kalisalak* village, we have developed community fund, a micro-financing for pregnant women who deliver at a health facility…we also replicate this model to other villages" (one FMM member, female)

"I supported women whose a high risk of pregnancy. Sometimes her family did not allow her to deliver at a hospital although her condition was in danger. So I persuaded to her family, convinced them with so many complexities…this my experience, but I am happy to do that to help them. I did it with sincerity" (one MKIA volunteer, female)

Stakeholders' commitment

Stakeholders' commitment has been a key element of success throughout the institutionalization process. Common vision and goals need to be shared, trust and respect between stakeholders need to be initiated and supported, resource sharing needs to be created, and the cross-cutting task force needs to be underpinned by a clear commitment from stakeholders as described in Figure 2. We found stakeholders' commitment was motivated by local authorities' leadership and healthcare facilities' support (policy, people, morale, material, and money).

First, commitment and strong leadership from local authorities in maternal and child health program creates moral support for sustaining the emergency obstetric, neonatal care in Banyumas. Our discussions found that under such political leadership at all levels of government and among other relevant actors, the performance of the EMAS program continued to make positives strides even after donor support ended .

"The most prominent reason in Banyumas for the success of EMAS program implementation to date is the commitment of district governor as a policymaker, who is very concerned with the program" (one district health officer, female)

"In sub-district of *Rawalo,* there has been a general agreement among sub-district authorities and village officers to succeed maternal and child health forum program. This program still exists until now" (one FMM member, female)

Second, healthcare providers committed to providing human resources, system, and communication for maintaining the sustainability of the program. Commitment from both community health centers and hospitals was critical to sustaining delivery at scale. This was not only on meeting human resource demands as the program expands but also on developing

the system and communication within the organization to strengthen the adequacy of program implementation in the future.

> "Although we are private hospital, but we are committed to maintain the sustainability of EMAS program. We commit to recruit more capable human resources, we have our own obstetricians and anesthetists" (one doctor in private hospital, male)
>
> "*Margono Soekarjo* hospital has senior obstetricians who make EMAS program sustained to date. They not only have innovative approaches for scale up the program but also motivate, coordinate and communicate to all EMAS program actors to work together to achieve the goals" (one ex-district EMAS team member, female)

Challenges in partnership and coordination

Developing strong partnerships and coordination to maintain a sustainable program also faced several common challenges: limitation of human resources, the suboptimal configuration of the referral network, and challenges with referral communication.

Limitations of human resources were particularly pronounced among healthcare providers in both hospitals and community health centers. Among them were the lack of medical doctors, particularly obstetricians in hospitals and general practitioners (GPs) in community health centers.

> "Our hospital faces a shortage of obstetrician although it is a tertiary referral hospital. Ideally, we have 5 to 6 obstetricians. Fortunately, we have recruited one more doctor this year. The lack of obstetrician was a crucial problem because we were in trouble when we were asked to prepare a mentorship and support supervision to other hospital" (one medical doctor in public hospital, female)
>
> "I only work alone in this community health center, as a head as well as a GP. For the inpatient care with total 26 beds, I have to handle all delivery services…it is very burdensome to me" (one medical doctor in community health center, female)

The configuration of the referral network and referral communication was another challenge for the sustainability of the program. Coordination of work of the referral system using an e-health application (*SijariEMAS*), monitoring counter/return-referral on cases, and the capacity and competency of a professional staff had become challenges in sustaining an adequate referral system.

> "*SijariEMAS* still has a problem; sometimes we could not use it. To solve this problem, we communicate via mobile phone. We only communicated with primary health centers by using mobile phone so we could prepare before the patients is coming" (one midwife in public hospital, female)

"Communication for return-referral on cases needs to be intensified particularly between hospital and primary health centers …if *SijarEMAS* did not work, we used WhatsApp alternatively" (one obstetrician in public hospital, female)

"Misdiagnosis in referral of cases was sometime occurred although now is becoming less frequent…it needs to improve competency of health human resources in primary care level as well as strengthen its system" (one medical doctor in private hospital, male)

Barriers to sustainable local financial support

Significant barriers to sustainable internal financial support were identified, including insufficient funding for developing the e-application *SijariEMAS*, lack of funding for emergency drills, and unsatisfactory funding post-assistance.

Our discussion found that insufficient funding for maintaining and developing the e-health application after the donor support ends were barriers to securing the sustainability of the program. Local government played an important role in taking funding from the district government budget to ensure adequate, reliable, and sustainable fiscal support.

"To support *SijariEMAS* application, we need to hire full package of the software. It cost about IDR 120 million for a year. However, the budget is limited, about IDR 36 million so we are only able to hire limited package" (one district health officer, male)

"Limited budget for SijariEMAS implementation because of less priority in local government budget for information system. It happened in 2017" (one district health officer, male)

Limited funding allocated to emergency drills was a direct consequence of the donor support ending. Healthcare providers committed to maintaining the drills to improve the capacity of the provider teams to respond appropriately to common obstetric and neonatal complications through self-financing.

"Emergency drills should be carried out by our community health center with our own budget. But we have a commitment to sustaining the drills to provide quality maternal and neonatal health services (one head of community health center, female)

Another barrier to sustainability was unsatisfactory level of funding after the donor support ends, particularly among civic forum (FMM) members. Lack of coordination funding and restricted government budget support were the primary problems after the EMAS program donor assistance ends.

"Coordination in the district level becomes a problem right now because we do not receive a financial support like we did during EMAS program assistance" (one head of FMM, female)

"After donor ends, district governor has a commitment to take over the financial support by using local government budget…but sometimes it is limited" (one head of district health officer, male)

Policy for maintaining institutionalization

Long-lasting policies have been created for maintaining institutionalization of the EMAS program through several actions: reforming the working group (*Pokja*), developing innovative programs at the healthcare facility level, and replicating the EMAS program in other community health centers and hospitals.

To further improve program sustainability, the district government changed the name of EMAS *Pokja* to Saving Mothers and Babies *Pokja*. Saving Mothers and Babies *Pokja* took over the monitoring and evaluation process of the clinical governance practice and referral system after the donor support ended. This change also implied shifting budgetary and management responsibility from the EMAS donor to the local government.

"By 2017, after donor was leaving, the name of EMAS *Pokja* had been changed to Saving Mothers and Babies *Pokja* by using district government decree. This *Pokja* has a role to monitor and evaluate the implementation of the maternal and neonatal emergency referral agreements that involved 4 CEmONC hospitals and 17 non-CEmONC hospitals. This *Pokja* is also responsible to assess clinical dashboard and referral system performance" (one district health officer, female)

Tailoring innovation to institutional settings was an effort to adapt in the post-assistance period to support program sustainability. Our discussion found that healthcare providers developed innovative programs to improve the healthcare facilities network between the hospital and primary health centers.

"Our hospital designed a network to maintain effective communication for referral system with primary care facilities such as primary health centers and family doctors. We call this program *Pajeromas* Community" (One medical doctor in public hospital, female)

"*Pajeromas* forum facilitates communication between us in hospital with midwives in community health centers…we created *Pajero*'s WhatsApp group for teleconsultation" (one midwife in public hospital, female)

Replication is the effort to reduce the risk of unsustainability and enhance the ability to be scaled up for much wider implementation across healthcare facilities. To ensure the sustainability process after piloting ends as well as the adaptation process for relying on internal resource capacity, replication of EMAS program was implemented to other community health centers and hospitals.

> "After phasing out EMAS program then we develop a program modification through program replication in other 12 community health centers…this effort to improve referral system in whole district. Moreover, we have two more hospitals that is certified as CEmONC hospital " (one district health officer, male)
>
> "We will keep the EMAS program always alive…we also have responsibility to replicate this program to other hospitals" (one obstetrician in public hospital, female)

Discussion

The EMAS program raised concerns about the importance of successful sustainability of a program assisted by international support, particularly when donor funding ends. The institutionalization process became an important phase in maintaining sustainability by involving local actors from both public and private entities (11, 21). In the context of the empowerment, stakeholder engagement was a driver contributing towards the program's sustainability and keeping the achievement of desired outcomes through participative resource sharing and collaborative networks (25, 26). Thus, a partnership among stakeholders either public or private established collective commitment and shaped public trust to build a long-lasting and sustainable program within local ownership with all its limitations (27).

This study corroborates previously published studies that explored the evidence in identifying the involvement of stakeholders in securing program sustainability after the donors have gone. Bennett et al. (28) highlighted the need for stakeholder engagement to identify major sustainability issue and support the development of commitment, communication and trust across stakeholders. They concluded that during the transition process, multiple different actors' partnership was essential to determine program sustainability especially in the resource-constraint environment (28). Katz et al. (29) also described the stakeholder involvement had created an effective strategy to ensure sustainability of the program through stakeholders' policy scenarios that focused on: program prioritization, efficiency improvement, and resource mobilization by relying on domestic capacity.

Our findings also demonstrate the importance of stakeholder partnership for establishing a collaborative working environment and strengthening organizational capacity.

Sustainability was successfully implemented by creating a mutual understanding that in order to achieve common goals and outcome benefits, they needed to implement resource sharing and cross-cutting task forces as the main approaches for building collaboration. As a result, the EMAS program had been able to be transitioned properly from its donor to local ownership although within resource-limited settings. In term of coping with resource constraint, Ekirapa-Kiracho et al. (17) found that multi-actor partnerships for maternal and newborn intervention had a positive influence on local buy-in, health and human resource, and funding enhancement. Adequate partnerships among stakeholders are beneficial because they consolidate resource-sharing to fill the gap of capacity across agencies. Moreover, cross-cutting networks will be much easier to be carried out as part of an effort to achieve sustainable outcomes for the beneficiaries (17, 30).

The lesson learned from collaboration among multi-agencies to support the implementation of the program in the post-assistance period delivered a message of the value of commitment in building togetherness and trust. Our study described that stakeholders' commitment to the program implementation was shown by providing moral support under such political leadership and willingness to improve human resource capacity. In addition, the communication system helped to bring sustainability. A recent systematic review using both qualitative and quantitative research by Iwelunmor et al. (31) found that stakeholder's commitment positively influenced program improvement and facilitated intervention sustainability both during and after piloting. Hirschhorn et al. (13) also identified concerns around all levels of government and among relevant multi-actors' commitment, although political leadership support also ensured program continuity. Moreover, it bolstered scale-up initiatives and helped with sustaining delivery at scale.

While sustainability in the EMAS program was on the right track, challenges and barriers also emerged. Inadequate human resources, immature network referral system and insufficient financial support were notable obstacles that stakeholders at all levels dealt with. Iwelunmor et al. (31) also noted that healthcare worker shortages and healthcare infrastructure were also major barriers to program sustainability in developing countries. The fragile healthcare systems in recipient countries weaken the capacity of human resource infrastructure and technical, programmatic, and financial efforts that also affect future sustainability (31). Further, as in our study, Eskandari et al. (32) highlighted an immature referral system in low-income countries as the cause for ineffective networks and one of the major challenges of the health system in the future.

In terms of policy action to support the long-standing implementation of an EMAS program after an external donor ends support, we found several efforts that had been executed by local authorities. The transition process had been successfully managed through internal adaptation by developing innovative programs, tailoring a task force, and replicating the program. Our findings represent the importance of adapting the program in response to the withdrawal of external financial and technical support by looking at the activities that can be continued (reforming program, innovative approach, and replication). Seppey et al. (33) illustrated that adaptation to the local contexts would enable successful integration into the existing health system and could correspond to sustainability. Moreover, Kilbourne et al. (34) also described the post-implementation adjustment by replicating the intervention to wider organizations as a valuable framework to maximize transferability and foster sustainability.

Finally, our findings suggest that sustainability would be more realistic with a long-term commitment on the part of all stakeholders, and more attention must be paid to building collaboration because it can facilitate inter-institutional capacity strengthening. It is a critical determinant of program sustainability success. Our study provided applicable evidence and may also be relevant to be transferred to different donor program interventions, particularly for maintaining sustainability by putting more emphasis on the involvement of multi-actors at any level of government and both public-private entities. However, it is important to note that the EMAS program had also been put in place with its inherent limitations. Strong stakeholder cooperation has been able to create mutual trust and drive partnership forward to tackle the weaknesses and maintain sustainability even though the significant donor aid was withdrawn.

This study has two limitations. First, since this study was a part of wider implementation study with the involvement of the program implementers as research team members, they might have directly or indirectly benefited from this evaluation study, they might be in conflict of interest, they might still have a hope of good study results. Although it was impossible to exclude all sources of conflict, recognizing conflicts of interest and eliminating those conflicts were substantial efforts that the researcher had done to ensure data trustworthiness. Second, given the subjective nature of qualitative data and limited study participants, the results of this study should be generalized with caution due to the study's characteristic limitations. Therefore, valuable points about sustainability issues of the EMAS program in the post-assistance period should also be perceived by considering the local context of its study area.

Conclusions

Two areas of concern were the priorities for the follow-up to sustaining the maternal and neonatal care program when donor funding ends, specifically longevity of stakeholder engagement and commitment and internal resource capacity for long-term implementation. Supporting government policies for institutionalization would ensure the achievement of long-term networks among multi-actors to support the sustainability of the program. Moreover, recommendations also include increased networking of active cooperation from all levels of administration, especially with a top-down approach involving the national, provincial, down to the district and community-based networks.

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Conflict of interests and funding

The authors declare that they have no competing interest.

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