

# INTERACADEMY MEDICAL PANEL

## **REDUCING MATERNAL AND PERINATAL MORTALITY IN LOW-INCOME COUNTRIES**

IAMP Proposal for an International Collaborative Project between Academies

Our gratitude goes to the Swedish International Development Agency (Sida/SAREC) which generously supported the Working Group Meeting.

We also appreciate very much the comments received from child public health expert Dr. Giorgio Tamburlini, Scientific Director of the Institute of Child Health "Burlo Garofolo" in Trieste, Italy.



# REDUCING MATERNAL AND PERINATAL MORTALITY IN LOW-INCOME COUNTRIES

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### INTRODUCTION

IAMP, an international network of academies of science and medicine, is uniquely placed to call on the expertise available within its member academies to address a health problem of global importance that is not limited just to low income countries. IAMP counts member academies from all continents and from countries of different cultural characteristics, income levels and health-care systems.

The IAMP General Assembly meeting in Beijing China in April 2006 endorsed the proposal that aims to reduce maternal and perinatal mortality in low income countries<sup>1</sup>.

IAMP member academies proposed a group of experts in the fields of anthropology, communication, epidemiology, health economics and management, neonatology, obstetrics and gynaecology and public health to engage in the project. A planning meeting was held at the IAMP secretariat in Trieste, Italy on 25 – 26 September, 2006 organized by the IAMP, the Royal Swedish Academy of Sciences and Swedish International Development Agency (Sida/SAREC), to explore the feasibility of such an enterprise.

The group unanimously approved the plan of action presented below and agreed to form a Steering Committee (Annex 1).

The aim of this memorandum is to present this plan to member academies of IAMP and IAP to find out which academies might be interested in joining the project.

IAMP would serve as the overall co-ordinator. Local academies would serve as local co-ordinators and facilitators. The latter's first duty would be to appoint a working group to draft a letter of intent; it would subsequently serve as a local planning group (see below).

### AIMS AND OBJECTIVES

The overriding goal of the project is: *To reduce maternal and perinatal mortality in low-income countries by 25–50 % to attain Millennium Development Goals (MDGs) 4 and 5.* The date set by the United Nations for attaining these goals is 2015.

High maternal and perinatal death rates are good examples of health problems that concern the primary, secondary and tertiary levels of the health care systems, as well as sectors other than health, such as nutrition, education, water, sanitation and many others. Given the specific characteristics of IAMP, our focus must necessarily be on health-care systems. This, of course, does not allow for the maximum potential impact that could be reached were to include all risk factors that impact maternal and perinatal mortality. Therefore we are open to extend our participation into community-based interventions wherever this is feasible.

To cover the different levels of the health-care system, the project should be carried out in one or more clearly defined regions of a country. This approach does not exclude the possibility of future impact-tracking in individual hospitals and health centers. To reach the overriding goal, stakeholders in various countries should be identified and engaged to conduct a needs assessment study, apply evidence-based and innovative interventions as well as impact tracking of specific outcome indicators.

Examples of stakeholders are:

- Academies
- Community Leaders
- Health Providers

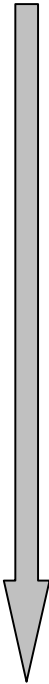
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<sup>1</sup> Maternal mortality is defined as all women who die during pregnancy and up to 42 days after delivery. Perinatal - or rather perinatal plus neonatal - mortality is here defined as all stillborn babies after the 28<sup>th</sup> week of gestation and all deaths up to the first 28 days after delivery. WHO suggests: stillbirth in a pregnancy with a duration of more than 22 weeks or a birth-weight over 500 g. Although more appropriate today, this latter definition might be difficult to use in practice especially in low-income countries.

- Ministries of Health
- Non-governmental Organizations (NGOs)
- Professional Societies
- Research Institutions
- Universities

The project would enlist Academies as facilitators. Another objective would be to encourage Academies to make their expertise available for an international collaborative study on health problems of global importance. This would involve Academies in countries with both high and low maternal and perinatal mortality rates since it is important to know not only what causes high mortality but also what can be done to reduce it.

## PROCESS

<b>F U N D I N G  &amp; D O N O R  S E A R C H</b>		October 2006	Steering Committee appointed. Report presented to the IAMP Co-chairs
	November 2006	Contact with academies asking for a letter of intent no later than February 2007	
	March 2007	Selection of Academies/Countries participating in the project (carried by Steering Committee via e-mail)	
	June 2007	Proposals of Baseline Needs Assessment Studies to be approved by the Steering committee	
	July 2007 – Aug 2008	Study period	
	October 2008	Workshop – results of needs assessment studies and planning of intervention programmes, including the identification of appropriate indicators for monitoring and evaluating impact of interventions	
	2009 – 2015	<p>Intervention period during which periodic assessment of the outcome of intervention on previously identified indicators.</p> <p>Outcome analysis with regard to the impact of cultural practices on the outcome and the impact of the intervention on prevailing cultural practices</p> <p>Workshops that will continuously assess the implementation process</p>	

### Contact with Academies

All member academies of IAMP and IAP are invited to participate in the project. Interested academies might appoint a working group whose initial role would be to draft a letter of intent. Members of the working group could be Academy members or other national or international experts within the field of maternal and perinatal medicine. Collaboration by scientists with different types of expertise from countries with high and low maternal and perinatal mortality would be encouraged.

### **Selection of Participating Academies/Countries**

Cultural differences play a critical role for maternal and perinatal mortality rates. Therefore, it is of interest to include Academies/Countries from different parts of the world. It would also be important to choose academies from different continents and different cultures. Hopefully, 5-10 Academies/Countries will volunteer to participate in the project.

### **Proposals of Baseline Needs Assessment Studies**

A Baseline Needs Assessment Study should be carried out in each of the countries selected to participate in the project. The planning and implementation of such a study should be done by the local working group mentioned above.

The Dar-es-Salaam Region Perinatal Care Needs Assessment Study (Annex 2) might serve as a template. This is the result of a study recently carried out to assess the barriers to offering optimal provision of perinatal care in Dar-Es-Salaam, Tanzania and it attempts to define appropriate intervention plans based on the findings. This constitutes just one example of how a particular group has approached this problem within their specific context. It could serve as a template. But it is in no way binding as a procedure for the Baseline Needs Assessment Study.

To carry out such a study within a reasonable time it will be necessary to appoint a local project leader and specify the additional resources that are needed. Therefore, the study proposal should include a budget (the costs for the study carried out in Dar-es-Salaam were 42,000 USD).

Well-established needs assessment tools have also been created by WHO and other agencies and could be of use. (*Note: Partnership for Maternal and Child Health [www.pmnch.org](http://www.pmnch.org)*)

As in the case of the Dar-es-Salaam Study the local working group is encouraged to publish the results of the study in an international journal. This implies that the studies or part thereof might be planned as research/research training projects.

### **Workshop**

The results of the needs assessment studies carried out in the different participating countries will be presented at a joint workshop and constitute the basis for a discussion of individual intervention programs. Hopefully, experience from similar projects (e.g... in Dar es Salaam) will be available at that time and serve as models for the planning of interventions and their implementation and follow-up. Planning beyond the proposed workshop is at present premature.

### **FUNDING**

Funding and donor searches will be ongoing and begin with the very first steps taken.

At this time, it is almost impossible to calculate the cost of the project since the number of participants, the size of the regions, the populations involved and the types of interventions to be undertaken are not yet known. Despite this, there is a need to seek a planning grant to carry out the needs assessment analysis described below. On completion of that analysis, a more detailed calculation can be made of the costs of intervention and of impact-tracking programmes.

IAMP will appoint a fund-raising committee to address these issues.

### **CONTENT OF THE NEEDS ASSESSMENT ANALYSIS**

A Baseline Needs Assessment, i.e., a situational/context analysis, including identification and engagement of stakeholders, description of in-country organization/networking and construction of a template for needs assessment allowing for the study of across country differences, must serve as prerequisites for the formulation of an intervention program. Such an assessment should be carried out for each Academy/Country participating in the project.

Since the success of the project to a great extent depends on the involvement of the local Academy and stakeholders it is important that they are involved from the very beginning.

As mentioned above, a needs assessment analysis has recently been carried out in the Dar-es-Salaam region in Tanzania and can be used as a model (Annex 2). Although this study is extremely comprehensive, there might be other variables and factors that a particular country would find appropriate to include. A list of possible variables is provided here.

### **Maternal Mortality**

- Education for girls and boys rate
- Early pregnancy identification
  - Health care seeking behaviour
- Provision of antenatal care (basic package)
  - Content of the visits
  - Frequency
  - Week of pregnancy when they take place
- Delivery care
  - Location ( health unit / home )
  - Qualifications of birth attendants
  - Provision Of Emergency Obstetric Care (equipment, levels of care)
- Postpartum care
  - Prevention and treatment of infections
- Referral system
  - Identification of risks (recognition of warning signs)
  - Transport (ambulance)
- High level care
  - Availability
  - Organization
  - Training level of professionals
  - Equipment
  - Incentives for staff

### **Perinatal Mortality**

- Birth attendance
- Qualification of staff
- Staff knowledge of provision of early postnatal care
  - Stimulation/resuscitation
  - Warming
  - Phototherapy
  - Cord care
- Referral system
  - Identification of risks (recognition of warning signs)
  - Transport (ambulance)
- High level care
  - Availability
  - Organization
  - Training level of professionals
  - Equipment
  - Incentives for staff
- Routines for Vaccination
- Prevention and treatment of infections
- Nutrition

- Routines for breastfeeding
- Other types of infant feeding practices
- Micro nutrient supplements for the mother and infant

### **National/regional determinants related to maternal and perinatal mortality**

- National statistics, epidemiologic data,
- National legislation
- National educational systems
  - Literacy
  - Universities
  - Nursing schools
  - Curricula, etc
- National policies
  - Guidelines
  - Protocols
- Community participation
  - Traditional and cultural systems
  - Opinion leader
  - Religious groups
- Health institutional capacity
  - Antenatal and well baby clinics
  - Equipment
  - Other infrastructure
- Drug procurement and storage
  - E.g. systems for Transport, Communication, Management, Data collection and Logistics
- Human resources /staff
  - Number and Training level
  - Distribution
  - Continuous education
  - Incentives (e.g. Salary levels, leave, housing)
- Financial systems
  - Health services/Cost of care
  - Access to service for the mother and child (education and finances)
  - Financial support for mothers and babies

### **Interventions**

- Brief descriptions of ongoing interventions in the country
- Lessons learned from previous national/local interventions
- Other countries (Annex 3)
- Models for interventions (e.g. standardization of care)
- Maternal interventions, e.g., Emergency Obstetric Care
- Infant interventions, e.g. Training of resuscitation techniques

### **Ongoing monitoring**

- Outcome measures for monitoring
- Mechanisms for evaluation of efficacy
- Audit of mortality rates

- Role of confidentiality in data collection

### **Ongoing implementation**

- Current national plan for selected area(s)

### **CONCLUSION**

Although the availability of data varies among countries, some degree of standardization of the data collection might of interest for comparative reasons. Therefore the Steering Committee would appreciate the possibility of having an input on the protocols of the needs assessment studies before these studies are initiated.

## Annex 1

### IAMP Reducing Maternal and Perinatal Mortality Programme Steering Committee

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# **Dar es Salaam Region Perinatal Care Needs Assessment**

**Final Report  
Submitted to AXIOS  
Dar es Salaam, March 2006**

By

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2. Muhimbili National Hospital
3. City Medical Officer of Health

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## Annex 3

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Copies of these articles can be obtained from the IAMP secretariat ([iamp@twas.org](mailto:iamp@twas.org))

