

# Maternal mortality and obstetric care

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<b>Registration date</b> 05/12/2007	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 25/05/2017	<b>Condition category</b> Neonatal Diseases	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Maternal and perinatal mortality (death of mother/newborn baby) are major problems for which progress in sub-Saharan Africa has been inadequate, although childbirth services are available even in the poorest countries. Reducing these deaths is the aim of two of the main Millennium Development Goals. There have been many initiatives to remedy this situation, such as the Advances in Labour and Risk Management (ALARM) International Program, whose purpose is to improve the quality of obstetric services in low-income countries. However, few interventions have been tested in this context with rigorous methods for analysing effectiveness in terms of health outcomes. The aim of this study is to assess the effectiveness of the ALARM International Program (AIP) at reducing maternal mortality in referral hospitals in Senegal and Mali.

### Who can participate?

Pregnant women from 12 to 45 years old who deliver in one of the participating hospitals

### What does the study involve?

Participating hospitals are randomly allocated to the intervention group or the control group. The intervention group hospitals receive a combination of two approaches aimed at improving the performance of health personnel: educational outreach visits and the introduction of facility-based maternal death reviews. The intervention lasts 2 years. The control group hospitals do not receive the intervention. Maternal mortality rates, resource availability, quality of care, maternal morbidity (illness), perinatal mortality, and health personnel satisfaction are compared between the two groups.

### What are the possible benefits and risks of participating?

Not provided at time of registration

### Where is the study run from?

Université de Montréal (Canada)

### When is the study starting and how long is it expected to run for?

March 2007 to November 2011

### Who is funding the study?

Canadian Institutes of Health Research (CIHR) (Canada)

Who is the main contact?

1. Dr Alexandre Dumont (scientific)  
alexandre.dumont@ird.fr
2. Dr Pierre Fournier (scientific)  
pierre.fournier@umontreal.ca
3. Dr Idrissa Diop (public)  
hygea@sentoo.sn
4. Dr Mamadou Konate (public)  
Mamadou.konate@caref.org

## Contact information

### Type(s)

Scientific

### Contact name

Dr Pierre Fournier

### Contact details

Université de Montréal  
3875 St Urbain  
Montreal  
Quebec  
Canada  
H2W 1V1  
+1 (0)514 890 8000 ext. 15926  
Pierre.fournier@umontreal.ca

### Type(s)

Scientific

### Contact name

Dr Alexandre Dumont

### Contact details

Université de Montréal  
Montréal  
Canada  
-  
+221 (0)33 820 78 16  
alex.dumont@orange.sn

### Type(s)

Public

### Contact name

Dr Idrissa Diop

### Contact details

HYGEA Senegal

-

Senegal

-

-

hygea@sentoo.sn

### **Type(s)**

Public

### **Contact name**

Dr Mamadou Konate

### **Contact details**

CAREF Mali

-

Mali

-

-

Mamadou.konate@caref.org

## **Additional identifiers**

### **Protocol serial number**

MCT-82503

## **Study information**

### **Scientific Title**

Quality of care, risk management and obstetrical techniques in developing countries (Qualité des soins, gestion du Risque et TEchniques obstétricales dans les pays en développement [QUARITE])

### **Acronym**

QUARITE

### **Study objectives**

Principal hypothesis:

The program ALARM international reduces by 30% the global case fatality rate, measured in the hospitals during the post-intervention period, compared to the control group.

Secondary hypotheses:

1. Reduction of stillbirth and early neonatal mortality
2. Improvement in the quality of care by a better utilisation of local resources and changes in professional practices
3. Increase in health workers satisfaction

### **Ethics approval required**

Old ethics approval format

## **Ethics approval(s)**

1. Research Ethic Committee, Saint Justine's Hospital (Le comité d'éthique de la recherche, l'Hôpital Sainte-Justine), Montréal, Québec (Canada), 20/11/2006, ref: # 2425
2. Ministry of Health and Preventive Medicine, Health Directorate, Republic of Senegal (Ministère de la santé et de la prévention médicale, Direction de la santé, République du Sénégal), 10/05/2007, ref: # 0869 MSPM/DS/DER
3. National Ethics Committee for health and life sciences, Ministry of Health, Republic of Mali (Comité national d'éthique pour la santé et les sciences la vie [CNESS], Ministère de la santé, République du Mali), 18/06/2007, ref: # 034/MS-SG-CNESS

## **Study design**

Multicentre international two-arm randomised cluster trial of educational nature

## **Primary study design**

Interventional

## **Study type(s)**

Treatment

## **Health condition(s) or problem(s) studied**

Maternal mortality/neonatal mortality

## **Interventions**

Training of opinion leaders to optimal professional practices and to maternal deaths audits (training of trainers):

1. Training of obstetric team in hospital
2. Implementation of audit in hospitals
3. External facilitators visits
4. Recertification of opinion of the leaders

## **Intervention Type**

Other

## **Phase**

Not Applicable

## **Primary outcome(s)**

Global case fatality rate measured in the hospitals in post intervention period (year 4)

## **Key secondary outcome(s)**

1. Distribution of principal causes of maternal morbidity and mortality
2. Case fatality rates for obstetric complications
3. Mortinatality rate in hospital
4. Early neonatal mortality in hospital
5. Obstetric interventions rate
6. Emergency obstetric care availability score
7. Human resources satisfaction score

## **Completion date**

01/11/2011

# Eligibility

## Key inclusion criteria

At the hospital level:

1. Public referral hospital (district, department, regional or national)
2. Availability of surgical theatre
3. Annual number of deliveries greater than 800
4. Consent form signed by the maternity director and hospital director to participate in the study

At the individual level:

1. Women admitted for delivery including those referred to the hospital or who died in the transport to hospital
2. Pregnant women from 12 to 45 years old

## Participant type(s)

Patient

## Healthy volunteers allowed

No

## Age group

Adult

## Sex

Female

## Key exclusion criteria

At the hospital level:

1. Private hospital
2. Public hospital with less than 800 deliveries per year
3. Surgical theatre not operational
4. Hospitals where the maternal deaths audit were already implemented
5. No signed consent form directors of maternity and hospital

At the individual level:

1. Women admitted not pregnant
2. Women admitted for complications during the first quarter of pregnancy (miscarriage, ectopic pregnancy)
3. Women admitted after 42 days after the end of pregnancy
4. Late maternal deaths or deaths from accidental causes

## Date of first enrolment

01/03/2007

## Date of final enrolment

01/11/2011

# Locations

## Countries of recruitment

Canada

Mali

Senegal

### **Study participating centre**

**Université de Montréal**

Quebec

Canada

H2W 1V1

## **Sponsor information**

### **Organisation**

Sainte-Justine Hospital Research Centre (CHU Sainte-Justine) (Canada)

### **ROR**

<https://ror.org/01gv74p78>

## **Funder(s)**

### **Funder type**

Research organisation

### **Funder Name**

Canadian Institutes of Health Research (ref: MCT-82503)

### **Alternative Name(s)**

Instituts de Recherche en Santé du Canada, The Canadian Institutes of Health Research (CIHR), Canadian Institutes of Health Research (CIHR), Canadian Institutes of Health Research | Ottawa ON, CIHR - Welcome to the Canadian Institutes of Health Research, CIHR, IRSC

### **Funding Body Type**

Government organisation

### **Funding Body Subtype**

National government

### **Location**

Canada

# Results and Publications

## Individual participant data (IPD) sharing plan

### IPD sharing plan summary

#### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	18/09/2009		Yes	No
<a href="#">Results article</a>	results	29/10/2012		Yes	No
<a href="#">Results article</a>	results	25/01/2013		Yes	No
<a href="#">Results article</a>	results	13/07/2013		Yes	No