

# **Promoting Antenatal Care Services in Urban Health Centres of Mandalay, Myanmar to improve early detection of pre-eclampsia**

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Training Course in Reproductive Health Research

WHO 2008

WHO Scholarship

# 1. Introduction

**Pre-eclampsia** : a major cause of maternal and fetal death  
leading cause of premature delivery worldwide

**Worldwide** : 12% of all maternal deaths  
PE & E >50 000 maternal deaths each year  
5 fold increase in perinatal mortality

**United Kingdom** : 15% of direct maternal deaths

**In the developing world** : 42% of maternal deaths, Colombia

**In Myanmar** : pre-eclampsia remains one of the most common reasons for  
women to die during pregnancy (MOH, 2003; Khin-Thein, 2006)

**Central Women Hospital, Mandalay (CWH)** :

1st July 2004 to 30th June 2005 - 33% of maternal deaths, severe PE and E

CWH, 2006 - 10% caesarean section, 6% total deliveries, PE & E (Saw-Lwin 2006)

## 2. Problem statement

Urban Health Centres : providing health care to the urban and suburban population

Township Medical Doctor, Assistant Doctors, Health Assistant, Lady Health visitor, midwives, Public Health Supervisors I and II.

### 3. Research questions

- Can training on PE using the updated training modules based on PCPNC & Pre-eclampsia Community Guideline (PRECOG) improve the **diagnostic practice** of midwives on PE?
- Can training on PE improve the **referral of** PE cases by MW?
- Can training on PE enhance the **supervisory capability** of their supervisors - the LHVs?

## 4. General objectives

To determine the training on PE using the updated training modules based on PCPNC and PRECOG to improve the detection and referral of pre-eclampsia by midwives at the UHC hospital, reducing the complications and consequences of PE.

### Specific objectives

1. To improve the practice of MWs in the detection of pre-eclampsia at UHCs of Mandalay city using updated training modules based on PCPNC & PRECOG.
2. To improve the referral of women with pre-eclampsia to the Central Women's Hospital, Mandalay by MWs.
3. To enhance the supervision of MWs by the LHVs in the detection and referral of pre-eclampsia cases.



CHINA

NEPAL

BHUTAN

HIMALAYAS

Hkakabo Razi

Myitkyinā

CHINA

INDIA

Bhamo

Katha

Haka

Mandalay

VIETNAM

BANGLADESH

Monywa

Myingyan

Sagaing

SHAN PLATEAU

Taunggyi

Bay of Bengal

Sittwe

Ramree I.

Cheduba I.

Magwe

ARAKAN

YOMA

Loi-kaw

Mekong

Gulf of Tonkin

MYANMAR

LAOS

Henzada

Pegu

Pa-an

Bassein

YANGON

Moulmein

Gulf of Martaban

Indian Ocean

THAILAND

Andaman Is.  
(India)

Andaman Sea

Tavoy

BILAUKTAUNG RANGE

Mergui

Mergui Archipelago

CAMBODIA

Gulf of Thailand

South China Sea

# 5. Methodology

5.1. *Study location* - five Urban Health Centers (UHCs) of Mandalay city

5.2. *Study population* - MWs and LHVs in Urban Health Centers irrespective of their duration of services  
Each UHC -10-12 MWs and 2-3 LHV,  
a total of 50-60 MWs and 10-15 LHVs

## 5.3. *Sample size*

The proportion of pre-eclampsia in Mandalay = 6% of total delivery

The proportion of PE estimated after trial = 8%

Total pregnant women to be scanned = 5306 pregnant women  
where alpha is equal to 0.05 and power of the test to 80%

## 5.4. *Study design*

Quasi- experimental design, Pre and post test

## 5.5. Description of activities

### Phase I . Preparatory phase

1. Formation of project management team
2. Advocacy meeting
3. Reviewing of training manual for the midwives
4. Collection of background data ---  
no. of ANC attendance, no. of PE cases detected and referred within previous 6 months



# Data collection tools

1. Pts registers and monthly reports **at Urban Health Centers**
2. Pts registers and monthly reports **at Central Women Hospital**
3. **Summary** of Data from five **UHCs**
4. **Semistructured questionnaire for knowledge** on MWs on PE
5. **Checklist** in observation of **skill in screening, measuring blood pressure and urine protein** by midwives
6. **Supervision checklist** for LHVs
7. **Guide** for LHVs
8. **Informed consent forms:** Preintervention, Postintervention, Observation
9. **Evaluation forms** for the training workshop
10. **Visitor record book** of MWs

## Phase II. Intervention phase

1. Conducting training workshop on screening of pregnant women --- 2 days workshop
2. Supervision of ANC
3. Post intervention collection of data for 6 months

## Phase III. Evaluation and Dissemination

### 5.6. Operational definition

Hypertension

Pre-eclampsia

Severe pre-eclampsia

Eclampsia



## **6. Data processing and analysis**

Data will be entered in Epi-Info record files

Data analysis will be done by- Stata statistical software

## 7. REFERENCES

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8. Time line	M2	M4	M6	M8	M10	M12
<b>PHASE I – Preparatory Phase</b>						
Advocacy meeting	***					
Review of training manual	***					
Develop of training module	***					
Collection of background data	***	***	***			
<b>PHASE II – Intervention Phase</b>						
Conducting training workshop			***			
Supervision of ANC			***			
Post intervention collection of data			***	***	***	***

Time line	M2	M4	M6	M8	M10	M12
PHASE III – Evaluation & Dissemination						
Data entry, editing					***	***
Data analysis					***	***
Report writing						***
Dissemination workshop						***
Final report & Dissemination						***

## 9.BUDGET

<b>Budget summary *</b>	<b>First 6 months US \$</b>	<b>Second 6 months US \$</b>	<b>Year 2 US \$</b>	<b>Total US \$</b>
<b>Personnel (5.1)</b>	<b>1215</b>	<b>1215</b>		<b>2430</b>
<b>Supplies (5.2)</b>	<b>1400</b>	<b>400</b>		<b>1800</b>
<b>Subject costs (5.3)</b>	<b>1500</b>	<b>1500</b>		<b>3000</b>
<b>Animals (5.5)</b>				
<b>Travel of project personnel (5.6)</b>	<b>1700</b>	<b>1700</b>		<b>3400</b>
<b>Other costs (5.7)</b>	<b>3150</b>	<b>2000</b>		<b>5150</b>
<b>Subtotal of recurrent costs</b>	<b>8965</b>	<b>6815</b>		<b>15780</b>
<b>Major equipment (5.4)</b>				
<b>GRAND TOTAL</b>	<b>8965</b>	<b>6815</b>		<b>15780</b>

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