

**UNIVERSITY COLLEGE LONDON**

University of London

**EXAMINATION FOR INTERNAL STUDENTS**

For The Following Qualification:–

*B.Sc. (Intercal)*

**CHIME 6: Maternal and Child Health in Developing Countries**

COURSE CODE : **CHME0006**

UNIT VALUE : **0.50**

DATE : **28-MAY-04**

TIME : **10.00**

TIME ALLOWED : **3 Hours**

The essay section of the paper is worth 70% of the overall marks. The scenario section is worth 30%. It is recommended that you spend approximately two hours on Section A and one hour on Section B.

## **SECTION A.**

**Write TWO essays from the following:**

1. Outline the Millennium Development Goals relating to maternal health and to gender equality. What are the key strategies to reduce maternal deaths? Comment on whether such goals are useful and whether the maternal health goal will be met.
2. What is IMCI? What is the logic behind an integrated approach compared to a single disease approach? What are the big challenges ahead for IMCI to reduce the major causes of child death where most deaths occur?
3. Describe the "Malnutrition/Infection Cycle". What interventions can prevent this or reduce the effect on child deaths?
4. The Global Alliance for Vaccines and Immunization (GAVI) was established in 1999 and has a one trillion dollar budget over 5 years. What are the priorities of this initiative? Discuss the impact of immunization on child mortality and the potential for further reductions in under-5 mortality through existing and new vaccines.
5. "Meeting the Millennium Development Goal for Child Survival will necessitate focused attention to reducing neonatal deaths". Discuss this statement covering why neonatal deaths are an increasing proportion of infant and under-5 deaths, the major causes of neonatal mortality and the feasibility of reducing these causes in low-income settings.
6. The burden of HIV is highest among the poorest countries of the world. Which should be the priority, prevention of new HIV infections or roll-out of anti-retroviral therapy?
7. Maternal and Child Health is a well-known term, but who does this include, and which "mothers" and "children" should be the priorities? Within the life cycle approach, which are the key time periods and which interventions are likely to have the most effect in reducing both maternal and child deaths?
8. "Money spent on improving health information and producing better estimates would be better spent on interventions". Discuss.

**CONTINUE**

## **SECTION B.**

**Read the following scenario and answer ALL the questions. The number in brackets gives the percentage of the total mark for this section awarded for each question.**

*You have been appointed as the special advisor to the Ministries of Health and Finance for Upper Afganola. Your task is to maximise chances of meeting the Millennium Development Goals for Maternal Health and Child Survival. In Upper Afganola, the maternal mortality ratio is 900 and the under-5 mortality rate is 210. HIV prevalence is 13% among antenatal women. The majority (90%) of the population live in rural areas and the average female literacy rate is 40%.*

Give definitions (specifying numerator and denominator clearly) for:

1. Infant mortality rate (5%)
2. Neonatal mortality rate (5%)
3. Maternal mortality ratio (5%)
4. HIV prevalence among antenatal women (5%)

*You want to understand why maternal and child mortality rates are so high. You commission a group from the DHS regional centre to train your survey team and then carry out cluster-randomized community-based surveys using a standardized verbal autopsy tool for child deaths. For cause of maternal deaths, only facility-based data is available.*

5. What is a Verbal Autopsy and what are the possible problems with cause of death data collected in this way? (5%)
6. List the major causes of maternal death likely in this setting (15%)
7. List the major causes of under-5 deaths likely in this setting (15%)
8. What are some of the reasons why poor children more likely to die? (10%)

*The survey reveals that 30% of maternal deaths and 40% of child deaths occur to mothers who are adolescents. Average age of first pregnancy is 15 years. Contraceptive prevalence rate (defined by use of modern methods) is 5% and condoms are used for less than 1% of high risk sex. The health budget allows US\$4 per capita per year. Currently most of this goes into supporting a teaching hospital in the capital and another big hospital in the second city. There is a network of rural health centres, most of which have a medical assistant but limited supplies of drugs, contraceptives etc.*

9a. Given the information from the survey and the current lack of capacity in the rural health centres, the Minister asks you what you think is the most important programme to develop first to reduce maternal and child deaths. Give your answer with justifications based on the epidemiology, and feasibility. List the major aims of this programme. (15%)

9b. What indicator(s) will you use to monitor this programme? (5%)

10. Over 80% of births are at home and there is little community demand for skilled care in labour. You have been given a large grant from the European Union to promote community demand for skilled care. What behaviour change approaches would you use?

(15%)