

Educator's Guide
High School

Maternal and Newborn Health: A Global Challenge

U.S. Fund for UNICEF Youth Report
The State of the World's Children 2009



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Introduction

Welcome!

Welcome to TeachUNICEF's Educator's Guide to *Maternal and Newborn Health*. This guide has been designed for high school educators and accompanies the *U.S. Fund for UNICEF Youth Report, The State of the World's Children 2009*.

Each year, UNICEF publishes *The State of the World's Children (SOWC)*, a detailed report on worldwide conditions affecting children. Each report examines a significant issue. In 2008, *Child Survival: A Global Challenge* was the first report adapted specifically for youth. It describes both the successes and the challenges of child survival efforts.

The 2009 *State of the World's Children* report complements this theme by examining maternal and newborn health across the world.¹ The U.S. Fund for UNICEF is once again pleased to make available a youth version of this important report. The *Maternal and Newborn Health: Youth Report* can be downloaded at www.teachunicef.org.

For many families in the industrialized world, pregnancy and the birth of a new baby are occasions for celebration. But in developing countries they can also be times of anxiety over the survival of both the mother and the new baby. The lifetime risk of maternal death for a woman in a least developed country is more than 300 times greater than for a woman living in an industrialized country. As highlighted in the *Youth Report*, cost-effective solutions are available that could bring rapid improvement. But urgency and commitment are required.

Overview

TeachUNICEF has developed this Educator's Guide to help students explore the scale and scope of this critical global health problem. As summarized in the chart on page 5, the guide contains four lesson plans.

National Standards

TeachUNICEF lesson plans are designed in line with National Standards. For more detail, refer to the National Standards section at the beginning of the Unit. Using the National Standards alignment as a guide, TeachUNICEF lesson plans can be aligned to state standards.

¹ View the full SOWC and learn more about UNICEF at <http://www.unicef.org/sowc09/docs/sowc09.pdf>

Unit Overview

Most maternal and newborn deaths around the world can be prevented. The overall goal of this Unit is to help students understand the great disparity in trends and levels of maternal and newborn health around the world. Focusing in particular on Asia and Africa, students will examine some of the direct and indirect causes of maternal and newborn mortality and morbidity, as well as the actions that must be taken to save lives. Stressing the importance of both national and international partnerships, the Unit helps students to see the need for a global call to action. The Unit comprises four related lesson plans of increasing complexity; Where Do We Stand on Maternal and Newborn Health?; Community Partnerships; Global Partnerships; and Food Price Implications.

Learning Objectives

The lessons are designed to be used in sequence, increasing in complexity from 1 to 4. However, each can also stand alone. The student learning objectives for each of the four lessons are as follows:

Lesson 1: Where Do We Stand on Maternal and Newborn Health?

- Recognize the scope and scale of maternal and neonatal mortality for women in the developing world.
- Compare and contrast patterns of maternal and neonatal mortality rates across regions.
- Identify some of the underlying causes of maternal and neonatal mortality at household, community, and country levels.

Lesson 2 Community Partnerships

- Review a strategy designed to address maternal mortality in rural Nepal.
- Examine the social and economic factors giving rise to Nepal's high rate of maternal and neonatal mortality.
- Identify the challenges, as well as the strengths, of the Female Health Volunteer program in addressing this issue.

Lesson 3: Global Partnerships

- Examine some of the global partnerships that are working hard to create to improve maternal and newborn health.
- Explore ways to strengthen and maintain these important partnerships.

Lesson 4: Food Price Implications

- Become familiar with the meaning of the food commodity price index and why it is important.
- Investigate a country's level of risk for a food shortage crisis.
- Become aware of the special nutritional needs of mothers and newborns.
- Develop effective advocacy messages.

Each lesson includes:

- Step-by-step classroom as well as extension activities
- Handouts and background information
- Links to online information and additional resources

Teaching Methods

This unit was designed using student-centered teaching methods. Activities include:

- Review and interpretation of tables, graphs and figures
- Creation of illustrative statistical tables
- Online investigation and research
- Case study analysis

Materials Needed

- Copies of the 2009 Youth Report
- Large map of the world or a globe
- Sheets of newsprint/chalkboard/whiteboard
- Internet access

Student Evaluation

Throughout this unit students can be evaluated on their participation in whole and small group settings using anecdotal notes and responses to handouts and teacher and peer questions. In this unit students should demonstrate ability to:

- Compare and contrast maternal and newborn mortality rates from different geographic regions
- Identify the main causes of maternal and newborn mortality
- Discuss the indirect causes of high rates of maternal and newborn mortality
- Recognize elements of successful health interventions
- Summarize the efforts of international partnerships focused on maternal and neonatal health
- Explain the impact of the food crisis on maternal and newborn health

Unit Overview

Lesson Plans	Time	Handouts	Youth Report 2009	Internet Access Needed	Page in this Guide
National Standards					Page 6
Lesson 1: Where Do We Stand on Maternal and Newborn Health?	1 h. 5 m.	1, 2	x	x	Page 9
Extension Activity: Millennium Development Goal 5 — Maternal and Child Health					
Lesson 2: Community Partnerships	55 m.	3, 4	x	x	Page 18
Extension Activity: Interpreting the Continuum of Care		5			
Further Research					
Lesson 3: Global Partnerships	1 h.	6, 7, 8, 9	x	x	Page 27
Extension Activity: International Health Partnerships				x	
Lesson 4: Food Price Implications	1 h. 15 m.	10, 11, 12	x	x	Page 34
Extension Activity: Global Information and Early Warning System					

National Standards

TeachUNICEF lesson plans are designed in line with National Standards. Using the National Standards as a guide, these TeachUNICEF lessons can be aligned to State Standards.

ENGLISH LANGUAGE ARTS

Grades K–12

Standard 1: Students read a wide range of print and non-print texts to build an understanding of data, of themselves, and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment.

Standard 4: Students adjust their use of spoken, written, and visual language (e.g., conventions, style, vocabulary) to communicate effectively with a variety of audiences and for other purposes.

Standard 5: Students employ a wide range of strategies as they write and use different writing processes to communicate appropriately with different audiences for a variety of purposes.

Standard 7: Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize data from a variety of sources (e.g., print and non-print texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience.

Standard 8: Students use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.

MATHEMATICS

Mathematics Standards — Grades Pre-K–12

Standard 5: Data Analysis and Probability

Instructional programs from pre-kindergarten through grade 12 should enable all students to formulate questions that can be addressed with data and to collect, organize, and display relevant data to answer them.

Mathematics Standards — Grades 9–12

Standard 9: Connections

In Grades 9-12 all students should recognize and apply mathematics in contexts outside of mathematics.

Standard 10: Representation

In Grades 9-12 all students should formulate, create, and use representations to organize, record, and communicate mathematical ideas.

HISTORY/SOCIAL STUDIES/GEOGRAPHY

World History Standards — Grades 5-12

Era 9: The 20th Century Since 1945 — Promises and Paradoxes:

Students will understand the search for community, stability, and peace in an interdependent world.

Social Studies Standards — Grades K-12

Strand III: People, Places, and Environments

Strand IX: Global Connections

Geography Standards — Grades K-12

The geographically Informed person knows and understands

The World in Spatial Terms

Standard 1: how to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.

Places and Regions

Standard 4: the physical and human characteristics of places.

Human Systems

Standard 8: the characteristics, distribution, and complexity of Earth's cultural mosaic.

Standard 11: the patterns and networks of economic interdependence on the Earth's surface.

Standard 13: how the forces of cooperation and conflict among people influence the division and control of the Earth's surface.

Environment and Society

Standard 16: the changes that occur in the meaning, use, distribution, and importance of resources.

SCIENCE

Science Content Standards — Grades 9-12

Content Standard E: Science and Technology

Students should develop an understanding of:
the potential of technological design.

Content Standard F: Science in Personal and Social Perspectives

Students should develop an understanding of:

personal and community health;

science and technology in local, national, and global challenges.

HEALTH

Health Education Standards — Grades 9–12

Standard 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.

Standard 2: Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.

Standard 8: Students will demonstrate the ability to advocate for personal, family, and community health.

Lesson 1: Where Do We Stand on Maternal and Newborn Health?

Suggested Class Time: 1 hour, 5 minutes

Objectives

Students will:

- Recognize the scope and scale of maternal and neonatal mortality for women in the developing world.
- Compare and contrast patterns of maternal and neonatal mortality rates across regions.
- Identify some of the underlying causes of maternal and neonatal mortality at household, community, and country levels.

Session Plan

Opening Activity: The Greatest Health Divide (15 minutes)

Group Activity: Taking a Look at Global Trends (20 minutes)

Group Activity: Examining Causes of Maternal and Infant Mortality (30 minutes)

Extension Activity: Millennium Development Goal — Maternal and Child Health

Vocabulary

Developing

Industrialized

Maternal mortality

Neonatal mortality

Under-five mortality rate

Materials Needed

- Copies of the *Youth Report 2009*
- World map or globe
- Copies of Handout 1, “Global Trends — Maternal and Neonatal Mortality” for the whole class
- Copies of Handout 2, page 2, “Countries with the Highest Lifetime Risk of Maternal Death”

Opening Activity: The Greatest Health Divide

Directions

1. Write “The Greatest Health Divide in the World” on the board. Ask students to confirm (from reading the *Youth Report 2009*) that the statement refers to a woman’s lifetime risk of dying from complications related to childbirth or pregnancy. On one side of the divide is the developing world, where the risk is 300 times greater for women than it is in the industrialized world, which is the other side of the divide.
2. Ask students to recall, or provide to them, other statistics that highlight this great divide between industrialized and developing countries. Two important statistics are:
 - Every day almost 1,500 women around the world die from complications related to pregnancy and childbirth.
 - In the developing world a woman has a 1 in 76 lifetime risk of maternal death, compared with a probability of a 1 in 8,000 lifetime risk for women in industrialized countries.
3. Facilitate further discussion by asking the following questions:
 - What was your immediate reaction to the magnitude of this problem?
 - Were you surprised to learn that many of these deaths are preventable?
 - Do policy makers and government leaders in the industrialized world recognize this great health divide?
 - How could these decision makers be made aware of the issue?

Group Activity: Taking a Look at Global Trends

Directions

1. Divide the class into an even number of small groups. Everyone should have Handout 1–**Global Trends — Maternal and Neonatal Mortality**. Instruct half of the groups to address the questions related to Figure 1 in Handout 1, Maternal Mortality Ratios, 1900 and 2005. The remaining groups will answer questions related to Figure 2 in Handout 1, Regional Rates of Neonatal Mortality.

 **Tip: Ensure that students understand the meaning of neonatal mortality as defined in the summary’s glossary. Point out that a child born in the developing world is almost 14 times more likely to die during the first 28 days of life than a child born in the industrialized world. Most neonatal deaths are preventable.**

2. Have each group make a presentation of their answers to the questions in the handout; then facilitate a larger group discussion. Ask the students to compare the similarities and differences in the pattern of maternal and neonatal deaths.

Following are the answers for questions on Handout 1, Figure 1:

Question: Where are the highest rates of maternal mortality?

Answer: Sub-Saharan Africa and South Asia. These two regions accounted for 85 percent of the world's pregnancy-related deaths in 2005

Question: Where are the lowest?

Answer: Industrialized countries.

Question: How does this graph illustrate "the greatest health divide"?

Answer: The data dramatically illustrate the vast discrepancy between developing countries and industrialized countries.

Question: Compare the data for the world, Sub-Saharan Africa, developing countries, and the least developed countries. What conclusions can you draw?

Answer: There was little change in maternal mortality ratios between 1990 and 2005 for all regions. Sub-Saharan Africa had the highest ratio, followed by the ratio for the least developed countries. By contrast, the ratio for developing countries was almost half that of the countries in Sub-Saharan Africa. The world ratio remained far too high, with very little decrease during the period from 1900-2005.

Following are the answers for the questions on Handout 1, Figure 2:

Question: Where are the highest rates of neonatal mortality?

Answer: The highest rates are found in South Asia and West and Central Africa.

Question: Compare the data for the world, sub-Saharan Africa, developing countries, and the least developed countries. What conclusions can you draw?

Answer: These data correlate closely to those of maternal death. The lowest rates are found in industrialized countries. The ratio of least developed countries ratio is just slightly higher than that found in Sub-Saharan Africa. The world rate is far too high.

3. Use Handout 2 with the two pie charts — **Deaths of Children Under Five, 2007** and **Maternal Deaths, 2005** — as either an overhead or copied as a handout.

Divide the group into an even number of small groups. Instruct half of the groups to address the questions related to Pie Chart 1 — **Deaths of Children Under Five, 2007** — and the other half of the groups to address the questions related to Pie Chart 2 — **Maternal Deaths, 2005**.

Facilitate a group discussion of the data presented in the handout using the question on page 9 and on the overhead/handout. Students should draw the conclusions indicated by the answers.

Pie Chart 1 — Deaths of Children Under Five, 2007

Question: What percentage of deaths took place in Asia and Africa in 2007?

Answer: 92 percent

Question: Where is the most difficult place for child survival?

Answer: Half of the world's under-five deaths occurred in Africa, which remains the most difficult place in the world for a child to survive until age five.

Question: What is happening to child survival in Asia?

Answer: Although Asia has seen a remarkable reduction in the annual number of child deaths since 1970, it still accounted for 41 percent of global under-five deaths in 2007.

Pie Chart 2 — Maternal deaths, 2005

Question: How many women died from causes related to pregnancy and childbirth in 2005?

Answer: An estimated 536,000 women died from causes related to pregnancy and childbirth. Almost all of the deaths occurred in Africa and Asia.

Question: How do the maternal mortality rates in Africa compare with those in Asia?

Answer: Africa is the continent with the highest rate of maternal mortality, estimated at 820 maternal deaths per 100,000 live births in 2005. Asia's rate of maternal death is 350 maternal deaths per 100,000 live births.

Group Activity: Examining Causes of Maternal and Infant Mortality

Directions

1. Introduce this activity with a simple review of the direct causes of maternal and neonatal mortality. Ask the students to determine the main causes from the *Youth Report 2009*, pages 00-00, while you jot them down on the board.
 - Maternal
 - Complications during childbirth — hemorrhage, infections, and prolonged labor
 - Anemia exacerbated by malaria, HIV, and other conditions
 - Neonatal
 - Severe infections
 - Asphyxia
 - Preterm birth
2. Explain that students will now examine more closely some of the underlying causes at the household, community, and country levels. Point out that some of these causes are related to education, nutrition, health care services, and poverty.

3. Working in pairs, assign one of the following ten countries to each pair (Note: these ten countries have the highest lifetime risk of maternal death):

Afghanistan	Liberia
Angola	Mali
Chad	Niger
Democratic Republic of the Congo	Sierra Leone
Guinea-Bissau	Somalia

4. Ask students to use the statistical tables found at http://www.unicef.org/statistics/index_countrystats.html to find data for the following variables:
- Maternal mortality rate
 - Lifetime risk of maternal death
 - Neonatal mortality rate
 - Under-five mortality rate

 **Tip: Invite students to choose additional indicators to develop a more in-depth picture of the country.**

5. Discuss: What does this data tell you?
6. Ask student pairs to complete their country's section of Handout 2 by recording data on some of the underlying causes associated with high maternal and neonatal mortality rates: (i.e., maternal literacy, percentage of low birthweight infants, life expectancy, gross national income.)
7. Ask pairs to exchange fact sheets. Allow enough time for each pair to review several countries.
8. Conclude this activity by asking students to summarize some of the underlying causes at the family, community, and country levels that lead to high rates of maternal and neonatal mortality.

Extension Activity: Millennium Development Goal 5— Maternal and Child Health

Directions

1. Review the information presented in the box on page 7 of the *Youth Report 2009*. (Students can find out more about the Millennium Development Goals by using the unit and lesson plans dedicated to the MDGs at www.teachunicef.org or the goals listed at <http://www.un.org/millenniumgoals>).

2. Invite students to write to their elected representatives in Congress, expressing an opinion on Millennium Development Goal 5.A: “Reducing by three-quarters, between 1990 and 2015, the maternal mortality ratio.” In presenting an argument in favor of Congressional action on this goal, suggest they mention maternal mortality rates for women in developing countries, lack of progress in comparison to the success of efforts to improve child survival, and the availability of proven preventative strategies.

 **Tip:** To identify Congressional representatives and access their contact information, go to “Write Your Representative” at <https://writerep.house.gov/writerep/welcome.shtml> For Senators, go to “How to contact U.S. Senators” at http://www.senate.gov/reference/common/faq/How_to_contact_senators.htm

Global Trends —Maternal and Neonatal Mortality

Directions: Answer the questions below after studying the graphs.

Figure 1 Maternal Mortality Ratios, 1990 and 2005

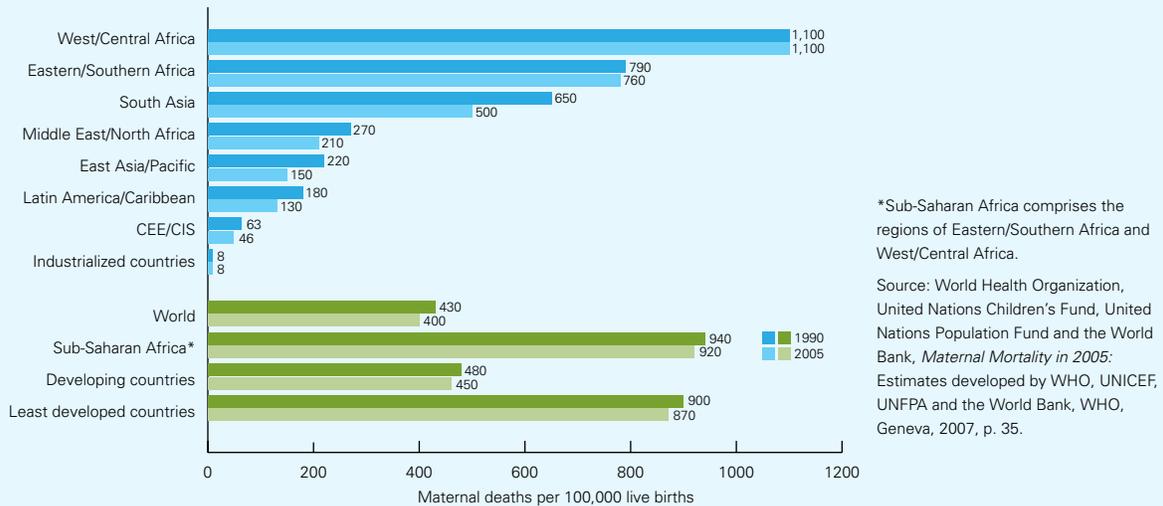


Figure 1 Questions

- Where are the highest rates of mortality? The lowest?
- How does this graph illustrate “the greatest health divide”?
- Compare the data for the world, Sub-Saharan Africa, developing countries, and the least developed countries. What conclusions can you draw?

Figure 2 Regional Rates of Neonatal Mortality

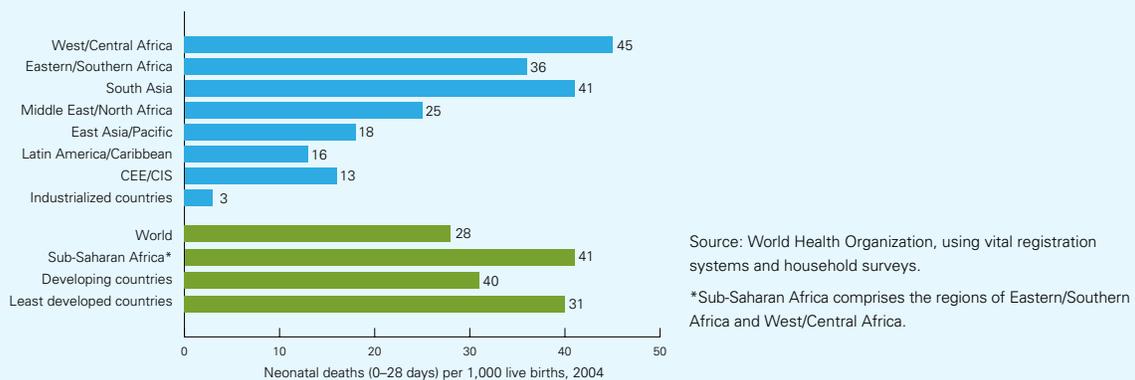
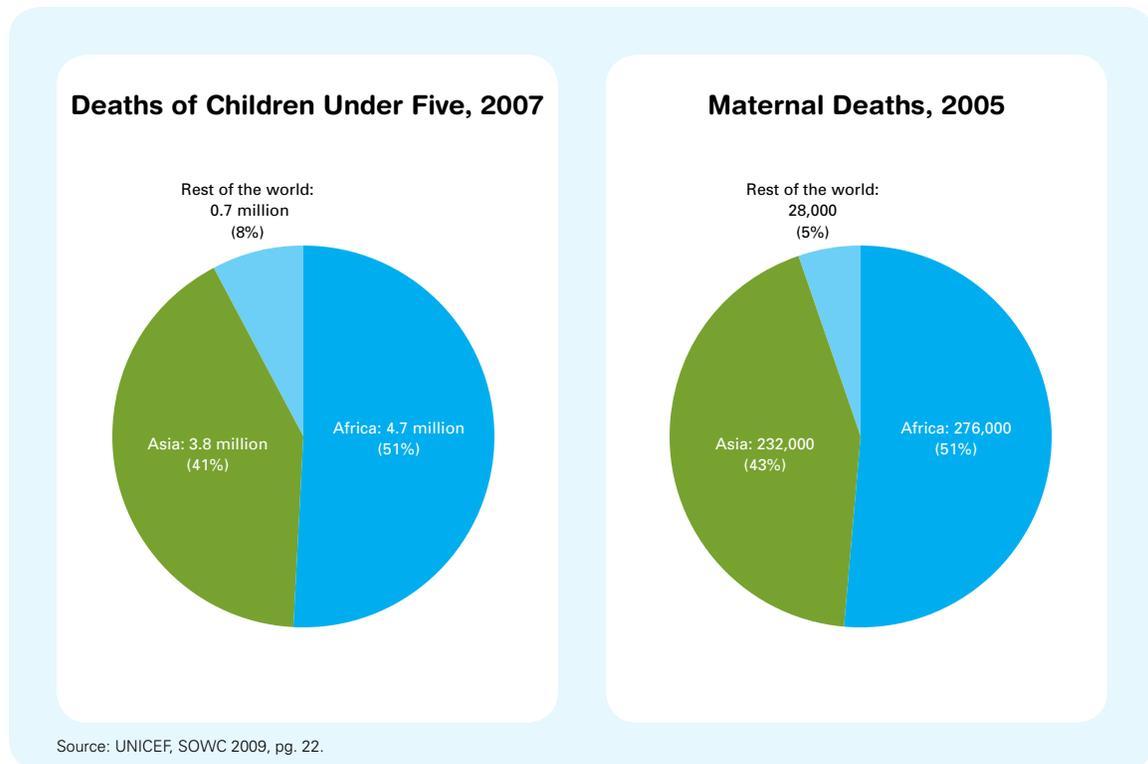


Figure 2 Questions

- Where are the highest rates of mortality?
- Compare the data for the world, sub-Saharan Africa, developing countries, and the least developed countries. What conclusions can you draw?

Under Five and Maternal Deaths



Working in your group, take a few minutes to write answers to the following questions for your assigned chart. Be prepared to present your answers.

Deaths among children under five, 2007

- What percentage of deaths took place in Asia and Africa in 2007?
- Where is the most difficult place for child survival?
- What is happening to child survival in Asia?

Maternal deaths, 2005

- How many women died from causes related to pregnancy and childbirth in 2005?
- How do the maternal mortality rates in Africa compare with those in Asia?

Countries with the Highest Lifetime Risk of Maternal Death

Directions

The countries listed in this table have the highest lifetime risk of maternal death. Follow your teacher's directions for locating the required statistics for the country you are to investigate.

	Afghanistan	Angola	Chad	Democratic Republic of the Congo	Liberia	Mali	Niger	Sierra Leone	Somalia
Maternal mortality rate									
Lifetime risk of maternal death									
Neonatal mortality rate									
Under five mortality rate									
Maternal literacy rate									
% of infants with low birth-weight									
Life expectancy									
GNI per capita									

Lesson 2: Community Partnerships

Suggested Class Time: 55 minutes

Objectives

Students will:

- Review a strategy designed to address maternal mortality in rural Nepal.
- Examine the social and economic and factors giving rise to Nepal's high rate of maternal and neonatal mortality.
- Identify the challenges, as well as the strengths, of the Female Health Volunteer program in addressing this issue.

Session Plan

Opening Activity: Nepal by the Numbers (15 minutes)

Group Activity: Case Study — Community Partnerships (35 minutes)

Closing Activity: Reflection (5 minutes)

Extension Activity: Interpreting the Continuum of Care

Vocabulary

Community partnerships

Continuum of care

Maternal mortality

Neonatal mortality

Materials Needed

- Copies of the *Youth Report 2009*
- Copies of Handout 3, pages 1-3, "Nepal: Basic Statistical Information," cut into individual cards, one card per student
- Copies of Handout 4, pages 1 and 2, "Nepal: Community Partnerships," for the whole class
- Copies of Handout 5 (extension activity): The Continuum of Care
- World map or globe

Opening Activity: Nepal by the Numbers

Directions

1. Begin with a discussion of a general overview of Nepal. Ask students to locate Nepal on the world map or globe and then volunteer to tell what they know about Nepal — its culture, people, economy, government, and social structure.
2. Randomly distribute one card from Handout 3, “Nepal: Basic Statistical Information,” to each student. One set of cards will state a variable or question, the other set will state a number or text that answers a question. Challenge the students to find the person with the card that complements their own. After 5 minutes, ask the students to share their results, then provide the class with the answers.
3. Discuss: Ask students what they find surprising about the data. How does it compare to their general understanding of the conditions in Nepal as discussed above?

Group Activity: Case Study — Community Partnerships

Directions

1. Introduce and distribute both pages of Handout 4, “Nepal: Community Partnerships.”
2. Facilitate a discussion of the questions raised on Handout 4, page 2. They can be discussed in small groups or with the class as a whole. Answers to these questions are indicated below.

Only 19 percent of all deliveries in Nepal are aided by a skilled birth attendant.

Question: What are some of the geographical and economic conditions making it difficult for Nepali women to receive care?

Answer: Difficult weather conditions and scarcity of roads make it hard to reach health care centers; and the expense of travel is a deterrent for poor families.

Community partnerships can prove invaluable in reaching women and children.

Question: How do community partnerships broaden access to services?

Answer: They make it possible to reach women and children, by providing outreach and education services for both mothers and children.

Question: What positive behavioral changes are encouraged through community partnerships?

Answer: Exclusive breastfeeding, regular hand washing, sleeping under bed nets.

The Female Community Health Volunteer Program has succeeded in reducing child mortality by two-thirds in the past 15 years.

Question: What is the Female Community Health Volunteer Program?

Answer: It is a program that trains women to provide key services and interventions for pregnant women and children. The volunteers are known as pillars of the health system.

Question: What services do they provide?

Answer: Vitamin A supplementation, distribution of deworming tablets, treatment of diarrhea and pneumonia, and support of polio and measles immunization campaigns.

Question: Why do you think it has the program been so successful?

Answer: It is able to reach many mothers and children who lack access to health services.

Neonatal deaths have not fallen as dramatically as child mortality has.

Questions: What are some of the factors preventing a decrease in neonatal mortality? What are the causes of newborn deaths?

Answers (for both): Hypothermia, asphyxia, complications from low birthweight, and infection.

Experts estimate that community workers can prevent 67 percent of all neonatal deaths.

Question: What additional components need to be added to the services provided by community health volunteers in order to prevent neonatal deaths?

Answer: Proper wrapping and wiping of the newborn, encouraging skin-to-skin contact to prevent hypothermia and asphyxia, and monitoring for severe infections.

Closing Activity: Reflection

Directions

1. In closing, ask the students to write on a piece of paper or note card write two or more things they learned or felt were important and one or more questions they still have.
2. Collect the papers or cards to assess student learning.

Extension Activity

Interpreting the Continuum of Care

Directions: Distribute copies of Handout 5, “The Continuum of Care,” to interested students. Then invite students to interpret the idea of continuum of care through a new graphic, created with pens and paper or on a computer. Have students present their graphic interpretations to the class through PowerPoint presentations or by posting the graphics on a bulletin board.

Further Research: Ask volunteers to do independent research into community partnerships. Students can use Chapter 3 of the *Youth Report 2008* (<http://youth.unicefusa.org/assets/pdf/sowcyouth08.pdf>) as a resource for answering this question: How could community partnerships broaden access to services in Nepal? They can present their answer to the class.

Nepal: Basic Statistical Information (Activity Cards)

Directions

Cut these as individual cards to use in a group activity.



What is the meaning of “under-five mortality rate”?	The probability of dying between birth and exactly five years of age, expressed per 1,000 live births.
What is the meaning of “infant mortality rate”?	The probability of dying between birth and exactly one year of age, expressed per 1,000 live births.
Percent of mothers and newborns for whom modern health care facilities are out of reach.	95 percent
What do community partnerships do for mothers?	<ul style="list-style-type: none">• Educate mothers about proper nutrition and hygiene for themselves and their children• Identify health problems
Lifetime risk of maternal death (ratio)	1 in 31



Where do women typically give birth?	At home
Percentage of neonatal deaths that can be prevented by community health workers providing services during home deliveries.	67 percent
In the past 15 years, community health workers have reduced child mortality by how much?	By two-thirds
Total population in 2007	28,196,000
Annual number of births	796,000



Percent of people in Nepal with access to all-weather roads.	Less than 50%
Number of members of the Female Community Health Volunteer Program	50,000
What obstacles prevent rural families from reaching maternal or neonatal care?	Mountainous terrain, difficult weather conditions, and scarcity of roads

Nepal: Community Partnerships

Directions

Use this information to answer questions posed on Handout 4, page 2.

The Challenge: Providing Health Care

In Nepal, mountainous terrain, difficult weather conditions, and the scarcity of roads are obstacles for rural families in need of maternal or neonatal care. In regions where a single footpath winding its way through the mountains is all that connects one village to the next, women typically give birth at home, without the assistance of a nurse, doctor, or midwife. Only 19 percent of all deliveries in Nepal are aided by a skilled birth attendant.

Less than half of Nepal's population has access to all-weather roads, making it difficult for up to 95 percent of mothers and newborns to have access to modern health care facilities. For many Nepalese parents, it takes several days to reach a health care center. The expense of travel can be a deterrent for poor families. For those in need of emergency obstetric care, this geographic divide is far too often a death sentence for mother and child.

Community Health Volunteers: A Promising Solution

Community partnerships can prove invaluable in reaching women and children, providing outreach services to monitor their health, educate mothers about proper nutrition and hygiene for themselves and their children, and identify problems that require facility-based treatment. Community partnerships not only broaden access to services and facilitate closer contact between health workers and remote communities through home visits, they also encourage behavioral changes — such as exclusive breastfeeding, regular hand washing or, where necessary, sleeping under insecticide-treated nets to prevent malaria.

Community health workers in Nepal have collaborated with skilled medical personnel for decades to provide care to mothers, newborns, and children. Launched in 1988 by the Nepalese Government with support from UNICEF and other partners, the Female Community Health Volunteer Program boasts nearly 50,000 women throughout the country who have been trained to provide key services and interventions for pregnant women and children. Known throughout Nepal as pillars of the health system, these volunteers provide services such as vitamin A supplementation, distribution of deworming tablets, treatment of diarrhea and pneumonia, and support of polio and measles immunization campaigns at the community level. Largely thanks to their efforts, Nepal has succeeded in reducing child mortality by two-thirds in the past 15 years.

Caring for Newborns

By contrast, neonatal death rates have not fallen as dramatically. Many newborns born at home are lost due to hypothermia, asphyxia, complications resulting from low birthweight, and infection. To combat this problem the Government of Nepal, together with UNICEF and partners, has introduced a newborn care package component to the community health partnership, enabling a series of interventions to drastically reduce neonatal mortality. By providing services during home deliveries such as proper wiping and wrapping of the baby, encouraging skin-to-skin contact to prevent hypothermia and afterbirth asphyxia, and monitoring for severe infections, community health workers can prevent 67 percent of all neonatal deaths, experts estimate.

Directions

Read the following excerpted statements from the “Nepal: Community Partnerships” section on the previous page and above and answer the questions below. Use information both from Handout 4 and the *Youth Report 2009*.

Only 19 percent of all deliveries in Nepal are aided by a skilled birth attendant.

Question: What are some of the geographical and economic conditions making it difficult for Nepali women to receive care?

Community partnerships can prove invaluable in reaching women and children.

Question: How do community partnerships broaden access to services?

Question: What positive behavioral changes are encouraged through community partnerships?

The Female Community Health Volunteer Program has succeeded in reducing child mortality by two-thirds in the past 15 years.

Question: What is the Female Community Health Volunteer Program?

Question: What services do they provide?

Question: Why do you think the program has been so successful?

Neonatal deaths have not fallen as dramatically as child mortality has.

Question: What are some of the factors preventing a decrease in neonatal mortality?

Question: What are the causes of newborn deaths?

Experts estimate that community workers can prevent 67 percent of all neonatal deaths.

Question: What additional components need to be added to the services provided by community health volunteers in order to prevent neonatal deaths?

Handout 5 (Extension Activity)

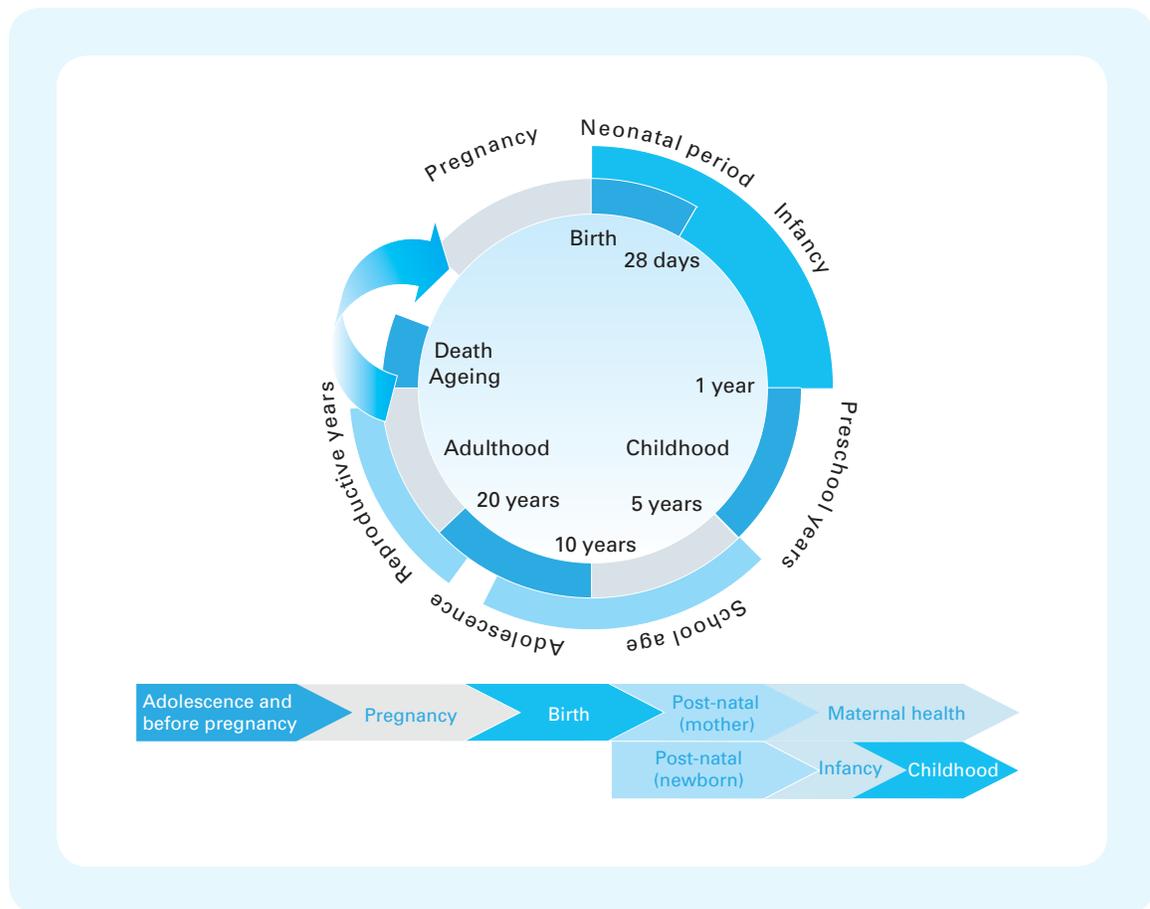
The Continuum of Care

Introduction

The continuum of care aims to integrate maternal, newborn, and child health care. Its central premise is that essential services for mothers, newborns, and children are most effective when delivered in integrated packages at critical points in their life cycle. The continuum of care means more than just enhancing primary health care. It also means creating a supportive environment for mothers and children that safeguards and promotes their rights.

Directions

Study the information in the chart below. Then create a new graphic showing the following points in the life cycle: pregnancy, neonatal, infancy, and preschool years. Your new graphic should convey the important message that continuity of health care and support services is crucial for mothers and babies.



Lesson 3: Global Partnerships

Suggested Class Time: 1 hour

Objectives

In this lesson students will:

- Examine some of the global partnerships that are working hard to improve maternal and newborn health.
- Explore ways to strengthen and maintain these important partnerships.

Session Plan

Opening Activity: What is a Partnership? (10 minutes)

Small Group Activity: Learning about Maternal and Newborn Partnerships (35 minutes)

Class Discussion: Keeping Them Strong (15 minutes)

Extension Activity: International Health Partnerships

Vocabulary

Global health partnerships

Partnership

Materials Needed

- Copies of Handout 6, "Global Partnerships," sufficient for members of 4 or 8 groups of students
- Poster paper, markers

Background

The increase in global health partnerships for maternal, newborn, and child health is not without challenges. Depending on the definition used, global health partnerships number over 100, and developing countries have sometimes reported difficulties in interacting with the large number of initiatives. Many partnerships focus on a specific target, such as malaria, measles, and HIV and AIDS. The challenge is to complement the flow of assistance to disease-specific interventions, while strengthening the continuum of care for mothers, newborns, and young children.

The International Health Partnership (IHP), launched in September 2007, is a coordinating partnership that brings together governments, donors, and international agencies in their efforts to support national health development plans. Country and global compacts are the key mechanisms by which the IHP aims to support this process. In August 2008, Ethiopia became the first nation to sign a country compact with the IHP. Mozambique endorsed a country compact in September 2008, and other countries in Africa and Asia are expected to sign agreements.

Opening Activity: What is a Partnership?

Directions

1. Write "partnership" on the board. Generate a list of word associations that students might connect with the word "partnership." These could include: cooperation, friendship, companionship, mutual interest, common goals, sharing.
2. Now write the word "global" before "partnership" to introduce a discussion of the role of partnerships in international development. Pose the following questions to stimulate the discussion:
 - What is a global health partnership?
 - What are some of the functions of global partnerships?
 - What are some of the characteristics of successful global partnerships?

Small Group Activity

Directions

Maternal and newborn health issues have drawn specific attention from global health partnerships and initiatives in recent years. This has led to the formation of several new collaborations.

1. Create four or eight groups of students. Assign each group one of the four global health partnerships.
 - The Partnership for Maternal, Newborn, and Child Health
 - The Deliver Now for Women + Children Campaign
 - The Initiative for Maternal Mortality Programmed Assessment (Immpact)
 - Countdown to 2015
2. Distribute the appropriate Handout to each group (Handouts 6-9). Ask students to review goals and functions of the partnership assigned to their group and address the questions listed on the handout.
3. Ask each group to create a poster informing the general public of the activities and progress of the partnership.
4. Place the posters around the room. Invite students to walk around the classroom to view them.

Class Discussion: Partnerships — Keeping Them Strong

After students have had a chance to look at each of the posters, facilitate a group discussion. The questions below should help you and your students draw some conclusions about the role and function of the emerging global partnerships for maternal and newborn health.

- What do these partnerships have in common?
- What impressed you most about the efforts of these partnerships?
- What are some of the characteristics of successful global partnerships?
- What are some of the ways in which partnerships can evaluate how well they are doing?

Extension Activity: Reporting on the International Health Partnership (IHP)

Directions

- 1.** Present the following information to students: The International Health Partnership (IHP) brings together governments, donors, and international agencies to synchronize their efforts and support national health development plans. Country and global compacts are the key mechanisms used to support this process. Ethiopia was the first country whose government and partners signed a compact with the IHP.
- 2.** Invite a small group of students to learn more about the IHP and to report their answers to the following questions:
 - What are the objectives of Ethiopia's compact with the IHP?
 - How will the compact help the government, donors, and international agencies work more efficiently?
 - What other countries have compacts with IHP?

Students can find information on the IHP website at www.internationalhealthpartnership.net

Global Partnerships: The Partnership for Maternal, Newborn, and Child Health

The Partnership for Maternal, Newborn, and Child Health is a global health partnership launched in September 2005 that brings together concerned organizations into an alliance of some 240 member groups. The partnership, hosted and administered from Geneva by the World Health Organization, advocates for greater investment and commitment to saving the lives of mothers and children. In July 2008, it issued a Global Call asking G8 leaders to fund basic health services for women, newborns, and children and urging organizations and individuals to commit to its demands for political leadership and investment.

Directions

Answer the following questions using information found on the website:

<http://www.who.int/pmnch/en>. Then follow your teacher's instructions for presenting this information to the class.

Questions

1. What is The Partnership for Maternal, Newborn, and Child Health?
2. Who are the members of the partnership?
3. What does the partnership offer?
4. How is the partnership carrying out its key objectives for 2009-2011? Give examples of current activities in different countries.

Global Partnerships: The Deliver Now for Women + Children Campaign

The Deliver Now for Women + Children Campaign, coordinated by The Partnership for Maternal, Newborn, and Child Health, is a new advocacy drive to eliminate maternal and child deaths and improve the health of women and children around the world. It is a response to the concern that the world is lagging far behind in reaching the Millennium Development Goals (MDGs for reducing maternal and child deaths).

Directions

Answer the questions below using information on this page and at the website: <http://www.who.int/pmnch/activities>. Then follow your teacher's instructions for presenting this information to the class.

Questions

1. What is The Deliver Now for Women + Children Campaign?
2. Who are the members of the partnership?
3. What does the partnership offer?
4. How is the partnership carrying out its key objectives? Give examples of current activities in different countries.

Global Partnerships: The Initiative for Maternal Mortality Programme Assessment (Immpact)

The Initiative for Maternal Mortality Programme Assessment (Immpact) is a global research initiative whose aim is to promote better health for mothers-to-be in developing countries by carrying out studies of different strategies. Immpact also judges their effectiveness and the value-for-money they represent. Immpact aims to improve measurement techniques and the supporting evidence that will help in the assessment of each strategy's potential.

Directions

Answer the following questions through information found on the website: www.immpact-international.org. Then follow your teacher's instructions for presenting this information to the class.

Questions

1. What is the Initiative for Maternal Mortality Programme Assessment (Immpact)?
2. Who are the members of the partnership?
3. What does the partnership offer?
4. How is the partnership carrying out its key objectives? Give examples of current activities in different countries.

Global Partnership: Countdown to 2015

Countdown to 2015 was formed in 2005 by a group of scientists, policy makers, activists, and institutions to track progress towards Millennium Development Goal 4: Reduce Child Mortality. Coverage reports were made available at a conference for 60 priority countries for child survival initiatives. The second conference, held in April 2008, expanded the mandate of the Countdown to include maternal and neonatal survival, and the number of countries tracked in reports increased to 68.

Directions

Answer the following questions through information found on the website:

<http://www.countdown2015mnch.org>. Then follow your teacher's instructions for presenting this information to the class.

Questions

1. What is Countdown to 2015?
2. Who are the members of the partnership?
3. What does the partnership offer?
4. How is the partnership carrying out its key objectives? Give examples of current activities in different countries.

Lesson 4: Food Price Implications

Suggested Class Time: 1 hour, 15 minutes (including time on a second day)

Objectives

In this lesson students will:

- Understand food prices implications.
- Investigate a country's level of risk of having a food crisis.
- Become aware of the special nutritional needs of mothers and newborns.
- Develop effective advocacy messages.

Session Plan

Opening Activity: Introducing food groups (10 minutes)

Group Discussion: What does the food commodity price index tell us? (15 minutes)

Group Activity: Risk Factors of the Food Crisis (25 minutes)

Class Activity: Communicating the Special Nutritional Needs of Women and Newborns (25 minutes)

Extension Activity: Global Information and Early Warning System

Vocabulary

Commodities

Food commodity price index

Materials Needed

- Copies of Handout 10, "Food Commodity Price Index," for the whole class
- Copies of Handout 11, "Country Profiles: Health and Nutrition Status of Women and Children," for the whole class
- Copies of Handout 12, "Promoting UNICEF's *Facts for Life*," for the whole class

Opening Activity: Introducing Food Commodities

1. Write the following food commodity categories on the board for students to see when they enter the classroom: (1) oils and fats, (2) meat, (3) cereals, (4) sugar, (5) dairy.
2. Have students identify which category each of these items fall into, as outlined in #1 above: olive oil (1), bread (3), milk (5), steak (2), and cheese (5).
3. Explain that the United Nations Food and Agricultural Organization (FAO) tracks the prices of these commodities around the world in order to identify where food shortages and hunger may occur.
4. Working in pairs, have students draw a graph that shows what they estimate to be the change in the price in your community of one of the five commodities. Select a time period, such as the last five years — 2004-2008, or create a month-by-month graph for the current year.

Group Discussion: What Does the Food Commodity Price Index Tell Us?

Directions

1. Distribute copies of Handout 10 (Figure 1.8, p. 24, SOWC).
2. Facilitate a group discussion by asking students:
 - What does the graph indicate?
 - What are some of the implications of rising food prices?
World hunger is increasing.
High food prices share much of the blame.
The poorest and landless and female-headed households are the hardest hit.
Pregnant women and infants are among those most at risk due to their higher nutritional requirements.

Note: Prices of most agricultural food commodities have risen sharply during the past two years. Several factors have contributed to this development:

- low levels of world stocks (especially for wheat and maize) following two years of below-average harvests in Europe in 2006 and 2007;
- crop failures in major producing countries like Australia in 2006 and 2007;
- rapidly growing demand for grain-based biofuel production supported by subsidies;
- gradual changes in agricultural policies of industrialized countries, where reduced levels of subsidies have led to lower surplus production.

 **Tip:** For more information on the state of food insecurity access the two-page flier “*The State of Food Insecurity in the World 2008.*”

<http://www.fao.org/docrep/011/i0291e/i0291e00.htm>

Homework (or Extension Activity)

Directions

Have students volunteer to interview the managers of local food stores in their community to find out how much the prices of particular foods have increased over the past two years. They can report back to class and compare the information they gathered with their original graphs to see how accurate they were.

Group Activity: Food Crisis — Assessing Risk

Directions

1. Point out the following information to students: The Food and Agriculture Organization (FAO) of the United Nations identified 22 countries as particularly vulnerable to the food crisis. Their assessment was based on the following three risk factors:
 - an underweight prevalence rate of 30 percent or more in the population;
 - a high degree of dependence on imports of food staples such as rice, wheat, and maize;
 - a high degree of dependence on imported petroleum products.
2. Divide the class into five small groups. Randomly assign each group to one of the following countries:
 - Comoros
 - Eritrea
 - Haiti
 - Liberia
 - Niger
3. Distribute Handout 11 and ask students to complete it by adding data about their assigned country for each of FAO's indicators.
4. Have students use the data found in the Basic Indicators and Nutrition tables associated with their assigned country (http://www.unicef.org/statistics/index_countrystats.html) to select five indicators that describe the health and nutrition status of children and women in that country. Then have them fill in the chart on Handout 11.
5. Ask each group make a brief report on their findings. The reports can be done using a PowerPoint format, or a poster or bulletin board display accompanied by a written or oral report. In their reports, groups should answer these questions: What is the current political situation in your country? What impact has this had on the food crisis?
6. Draw the activity to a close by highlighting both the similarities and the differences among these five assigned countries.

Class Activity: Communicating the Special Nutritional Needs of Women and Newborns

Directions

1. Write the numbers 285 and 500 on the board. Then present the following information to students: During a food crisis, infants and pregnant and lactating mothers are among those considered most at risk of undernutrition because of their higher nutritional requirements. For example, pregnant women require almost 285 additional calories per day, and women who are breast-feeding require an additional 500 calories per day. Their micronutrient needs are also higher, and they require adequate intake of iron, folate, vitamin A, and iodine to ensure the health of both mothers and infants.
2. Distribute Handout 12, Promoting UNICEF's *Facts for Life*.
3. Point out that this is a publication containing information that parents and other caregivers need to save and improve children's lives. The challenge is to ensure that everyone knows and understands these facts and is motivated to put them into practice. The messages contained in *Facts for Life* are based on the latest scientific findings, as established by medical experts around the world. These facts are presented in non-technical language so they can be understood and acted upon easily by people who do not have a scientific background. Their actions can save lives.
<http://www.unicef.org/ffl/>
4. Ask the class to select one of the following *Facts for Life* key messages.

Safe Motherhood:

- Key Message 3: All pregnant women need particularly nutritious meals and more rest than usual throughout the pregnancy.

Nutrition and Growth:

- Key Message 1: A young child should grow well and gain weight rapidly. From birth to age two, children should be weighed every month. If a child has not gained weight for about two months, something is wrong.
 - Key Message 2: Breast milk is the only food and drink an infant needs until the age of six months. After six months, the child needs a variety of other foods in addition to breast milk.
5. For the key message selected, ask students to create a communications strategy. Make sure they address the following questions.
 - What is the content of your message?
 - Who is your audience for this message?
 - What channel will you use to disseminate your message?
 - What information do they need to know?
 - What is the most effective communications channel to reach this audience?

6. Invite a communications professional to the class to provide feedback on the strategy. What are some of the strengths of the proposed campaign? What are some ways the campaign might be improved?

Extension Activity: Global Information and Early Warning System

Directions

1. Point out to students that information and early warning signs play a crucial role in ensuring that timely and appropriate actions can be taken to avoid suffering.
2. Invite volunteers to research an answer to the question: How is FAO's Global Information and Early Warning System demonstrating its capacity to alert the world to emerging food shortages?
http://www.fao.org/giews/english/giews_en.pdf.

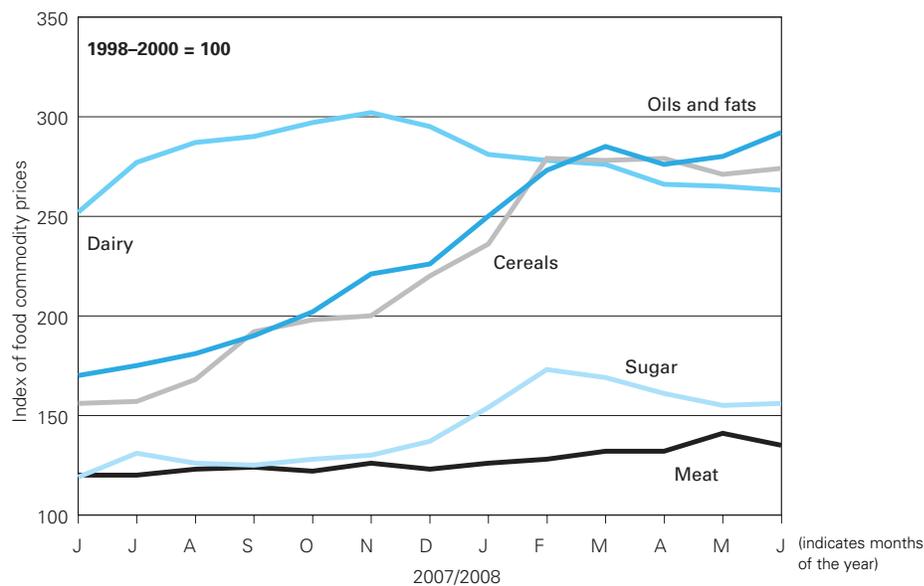
Handout 10

Food Commodity Price Index

Directions

Answer the questions posed by your teacher about this graph.

Food Prices Have Risen Sharply Across the Board*



* The food commodity price indices displayed above are the weighted averages of price indices from a basket of basic goods under each commodity group. The weights are the average export trade shares for 1998–2000. For examples, the Oils and Fats Price Index consists of the price indices of 11 different oils (including animal and fish oils) weighted with average export trade shares of each oil product for 1998–2000. For a fuller explanation of the composition of each food commodity group index, see Source.

Source: Food and Agriculture Organization of the United Nations, Food Price Indices, <http://www.fao.org/worldfoodsituation/FoodPricesIndex/en>, accessed 1 August 2008.

About the Graph

The food commodity price indicators are the weighted averages of price indexes from a basket of basic goods under each commodity group. The weights are the average export trade shares for 1998–2000.

For example, the Oils and Fats Price Index consists of the price indices of 11 different oils (including animal and fish oils) weighted with average export trade shares of each oil product for 1998–2000. For an in-depth explanation of the composition of each food commodity group index, see <http://www.fao.org/worldfoodsituation/FoodPricesIndex>.

Country Profiles: Health and Nutrition Status of Women and Children

Background

The Food and Agriculture Organization (FAO) of the United Nations identified this country as one of 22 nations that are particularly vulnerable to the food crisis. The FAO's assessment was based on the following three risk factors:

- An underweight prevalence rate of 30 percent or more in the population;
- A high degree of dependence on imports of food staples such as rice, wheat, and maize;
- A high degree of dependence on imported petroleum products.

Directions

Fill in the name of the country at the top of the table.

Locate information about the country by clicking on the country name in the list at http://www.unicef.org/statistics/index_countrystats.html

Using the Basic Indicators and Nutrition tables, select five indicators reflecting the health and nutrition status of women and children in the country.

	Indicator	Statistics
1.		
2.		
3.		
4.		
5.		

Promoting UNICEF's *Facts for Life*

Directions

Create a communications strategy for the key message you selected. Additional information can be found at: <http://www.unicef.org/ffl/>

Make sure to address the following:

- What is the content of your message?
- Who is your audience for this message?
- What channel will you use to disseminate your message?
- What information do they need to know?
- What is the most effective communications channel to reach this audience?



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