CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

PLAN FOR STRENGTHENING MIDWIFERY CENTER
IN THAILAND

A Graduate Project submitted in partial satisfaction
of the requirements for the degree of
Master of Public Health

by

Aroon Boonmark

July, 1975
The Graduate Project of Aroon Boonmark is approved:

California State University, Northridge

July, 1975
ACKNOWLEDGEMENTS

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approval Page</td>
<td>ii</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>iii</td>
</tr>
<tr>
<td>List of Tables</td>
<td>vi</td>
</tr>
<tr>
<td>List of Figures</td>
<td>vii</td>
</tr>
<tr>
<td>Abstract</td>
<td>viii</td>
</tr>
<tr>
<td>CHAPTER</td>
<td></td>
</tr>
<tr>
<td>1. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Health Care in Developing Countries</td>
<td>1</td>
</tr>
<tr>
<td>Health Care in Rural Thailand</td>
<td>2</td>
</tr>
<tr>
<td>Background of the Problem</td>
<td>2</td>
</tr>
<tr>
<td>Purpose of the Study</td>
<td>9</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>9</td>
</tr>
<tr>
<td>2. THAILAND IN BRIEF: PHYSICAL SETTING, PEOPLE, HEALTH SERVICES</td>
<td>11</td>
</tr>
<tr>
<td>Physical Setting</td>
<td>11</td>
</tr>
<tr>
<td>People</td>
<td>11</td>
</tr>
<tr>
<td>Health Services</td>
<td>11</td>
</tr>
<tr>
<td>The Present Organization of the Ministry of Public Health</td>
<td>12</td>
</tr>
<tr>
<td>Provincial Administration</td>
<td>15</td>
</tr>
<tr>
<td>Peripheral Health Units</td>
<td>18</td>
</tr>
<tr>
<td>Section</td>
<td>Title</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
</tr>
<tr>
<td>3.</td>
<td>REVIEW OF LITERATURE</td>
</tr>
<tr>
<td></td>
<td>Basic Concepts of Health and Health Education</td>
</tr>
<tr>
<td></td>
<td>Principles of Training Auxiliary Health Personnel</td>
</tr>
<tr>
<td></td>
<td>The Role of Midwife in Family Planning Services</td>
</tr>
<tr>
<td></td>
<td>Importance of Maternal and Child Health Care Services</td>
</tr>
<tr>
<td></td>
<td>Factors Related to the Seeking of Medical Care</td>
</tr>
<tr>
<td></td>
<td>Interpersonal Influence in Health Related Behavior</td>
</tr>
<tr>
<td>4.</td>
<td>THE PROPOSED IN-SERVICES TRAINING PROGRAM</td>
</tr>
<tr>
<td></td>
<td>Goal Setting</td>
</tr>
<tr>
<td></td>
<td>Behavioral Objective</td>
</tr>
<tr>
<td></td>
<td>Characteristics of Participants</td>
</tr>
<tr>
<td></td>
<td>Methodology</td>
</tr>
<tr>
<td></td>
<td>Unit I Bathing the Baby</td>
</tr>
<tr>
<td></td>
<td>Unit II Birth Control</td>
</tr>
<tr>
<td></td>
<td>Unit III Nutrition for Mothers</td>
</tr>
<tr>
<td></td>
<td>Unit IV Strategies for Getting the Information from the Housewives</td>
</tr>
<tr>
<td>5.</td>
<td>SUMMARY</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>61</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table No.</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Population Growth Rate, Thailand, 1911-1970</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Selected Infant Mortality Rates, Selected Countries, 1969-1972</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>Death Rates According to Delivery, Child Birth and the Puerperium per 100,000 Population, Selected Countries, 1960-1963</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>Selected Death Rates from Leading Causes per 100,000 Thailand, 1966-1970</td>
<td>13</td>
</tr>
<tr>
<td>5</td>
<td>Death Rates Under 1 Year from Leading Causes per 1,000 Live Births, Thailand, 1966-1970</td>
<td>14</td>
</tr>
<tr>
<td>6</td>
<td>Staffing Pattern of the Health and Midwifery Center, Thailand</td>
<td>19</td>
</tr>
<tr>
<td>7</td>
<td>Selected Measures of Morbidity in Males and Females, United States, 1967</td>
<td>30</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

Figure No.       Page

1. Infant and Maternal Mortality Rates,
   Thailand, 1937-1970...................... 4

2. Provincial Health Organization Chart........... 17
ABSTRACT

PLAN FOR STRENGTHENING MIDWIFERY CENTER IN THAILAND

by

Aroon Boonmark

Master of Public Health

July, 1975

The purpose of the project is to study: 1) the principles of training auxiliary health personnel, 2) the role of the midwife in family planning, 3) the importance of maternal and child health care services, 4) factors related to the seeking of medical care, and 5) interpersonal influence in health related behavior. The whole project consists of two main portions; 1) the development of some basic concepts of health and health education, and 2) the implementation of such concepts to a midwife training program.

The study is mainly concerned with the health care in Thailand. A number of health problems are identified, for example, the high rate of population growth, the limitation of financial resources to provide for health care and education, the inadequacy of transportation, the shortage of professional health personnel and inadequate supervision in such remote areas, and the high rate of infant death. Such problems lead to the necessity of family planning and improvement of health education including training of health
supervisors, e.g., midwives, to be able to work with the people in the community. By strengthening maternal and child care services rendered by midwives in midwifery centers, it will be possible to provide more comprehensive services to mothers and infants at the village level.

For the midwife training program, six steps in designing a curriculum can be applied: (1) defining objectives, (2) deciding the types of needs, time allotment and target population, (3) selecting and organizing the appropriate human, physical, materials, and financial resources, and (6) recruitment of participants. The most important teaching methods used in training should provide the learner with the opportunity to articulate his own ideas in working with the people. A set of topics is provided to illustrate the methodology of training. The topics, all related to maternal and child health problems are:

- Bathing the Baby
- Birth Control
- Nutrition for Mothers
- Strategies for Getting Information from Mothers.

The suggested program is a four-day workshop. Three kinds of participants, trainers, trainees, and actual subjects are to be involved. The workshop is divided into two main portions. The morning session is planned for the midwives to be trainees to be trained. The afternoon session is for the midwives to practice from what they have learned in the morning session. The suggested program should not be construed as final. It needs to be tried as a pilot project on a trial basis and then, adapted to the needs of the people in the different parts of the country.
CHAPTER I

INTRODUCTION

Health Care in Developing Countries

The lack of sufficient physicians to provide health care services, particularly in the rural areas, is a common problem throughout the world. In developing countries, health problems and health needs of the people strongly suggest that new methods for rendering health services must be found. The need for training, increasing numbers, and new types of allied health personnel has been the subject of many recent articles and reports (25, 29). Projections for future needs have shown that not only will the present training methods fail to meet these requirements, but the actual demand for such workers is likely to increase, further aggravating what is already considered to be critical shortages.

In many countries, emphasis has been placed on developing new methods of education and new career roles for allied health workers. As an approach to this problem, recruitment of several new types of health personnel, has been reported (8). Although the trend in medicine has been toward more and more specialization, training multipurpose workers at various levels is less expensive and suitable for a country that lacks financial resources. Proper training of such persons will enable them to gain the confidence of their clients and other professional workers.
Health Care in Rural Thailand

The provision of modern health services in an agricultural nation such as Thailand, where more than 80 percent of the population lives in rural areas, is not easy. In 1953, the Department of Health organized a rural health services program. The main objective was to provide modern health care to the people living in rural areas. The service was operated under the administration of the local health centers. The activities encompassed curative, preventive, and promotive aspects of medicine. The program was gradually expanded to serve larger portions of the rural population by building Health and Midwifery Centers, increasing manpower, facilities, equipment, and medical supply.

In 1961, a new plan for strengthening rural health service was formulated. This project was later incorporated into the overall socio-economic development plan of the country; and very recently, it was accepted as an integral part of the overall plan. The project calls for the establishment of 253 First Class Health Centers, 2,488 Second Class Health Centers, and 2,183 Midwifery Centers by the end of 1974. Even this number of centers is considered as only one-third of the rural population would be served.

Background of the Problem

It is estimated that 50 years ago Thailand's national infant death rate exceeded 300 per 1,000 live births. In recent years the rate has been substantially reduced from 109.8 in 1940 to 26.2 in 1969. There also has been a steady decline in the maternal mortality rate and the fetal death rate. The
maternal mortality rate has been reduced from 4.4 to 1.5 per 1,000 live births during the corresponding period (Figure 1).

Expanded Maternal and Child Health services (MCH services) improved nutrition, and better care for expectant mothers have contributed to reducing the above mortality rates.

In Thailand, the reasons for maternal and child health problems (MCH problems) may be classified into these categories:

1. **Restricted Financial Situation.** Because of a low Gross National Product and limited per capita income, the total expenditure for health services is very limited. In other words, the nation has to support health care, education, transportation, and defense needs with very scarce financial resources. Moreover, the people are very poor. The per capita income was 126 U.S. dollars, in 1965 (6:26), and many residents of the lower socio-economic areas who need medical care do not use the available services (limited as they are) because they cannot afford the high costs.

2. **Inadequate Transportation.** About 85 percent of the population live in rural areas. The roads are not good and some are damaged in the rainy season. Sick people can neither be delivered to hospitals or health centers nor receive prompt medical services at home.

3. **Underdeveloped Infrastructure.** There are shortages of professional personnel. Too many of the professional staff are insufficiently trained. Neighborhood clinics are understaffed and often in such a remote area, that central supervision is very difficult. In particular, certain pro-
Figure 1: Infant and *Maternal Mortality Rates, Thailand. 1937 - 1970

*Maternal mortality rate = \( \frac{\text{number of deaths assigned to puerperal causes in calendar year}}{\text{number of live births in that calendar year}} \) x 1,000

grams cannot be launched because the level of medical service is not high enough. This is illustrated the failure to provide equal quality malaria eradication throughout the country (53).

4. **Insufficient Education.** Because of the minimal educational system, people have a lack of knowledge and a lack of motivation in general. They are not equipped to inform themselves properly about a variety of health problems including maternity and health care.

5. **Too Rapid Increase of Population.** The population is increasing so rapidly (Table 1) that the nation cannot provide a sufficient personnel to realize the aim of universal health care.

6. **High Infant and Maternal Mortality Rates.** The infant mortality rate is still high compared to those of other countries (Table 2), and the maternal mortality rate also is higher than those of some countries (Table 3). The present medical services are insufficient to reduce these rates.

High infant mortality rate are associated with poverty, limited education of mothers, illegitimacy, extreme youth of parents, prematurity of delivery, the short interval between pregnancies, and inadequate prenatal care (23).

The low socio-economic status of the rural population results in a lack of education and lack of knowledge to prevent illness. Poor sanitation, and inadequate nutrition are two main factors in deterioration of human conditions. Short life expectancy, and high death rates from preventable diseases
<table>
<thead>
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<th>Censal year</th>
<th>No. of Population</th>
<th>Increase Rate per 1,000 per year</th>
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<tbody>
<tr>
<td>1911</td>
<td>8,266,408</td>
<td></td>
</tr>
<tr>
<td>1919</td>
<td>9,207,355</td>
<td>13.6</td>
</tr>
<tr>
<td>1929</td>
<td>11,506,207</td>
<td>21.9</td>
</tr>
<tr>
<td>1937</td>
<td>14,464,105</td>
<td>29.6</td>
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<tr>
<td>1947</td>
<td>17,442,689</td>
<td>18.9</td>
</tr>
<tr>
<td>1960</td>
<td>26,257,916</td>
<td>32.2</td>
</tr>
<tr>
<td>1970</td>
<td>34,152,000</td>
<td>26.8</td>
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TABLE 2

Selected Infant Mortality Rates, Selected Countries, 1969-1972

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<thead>
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<td>Thailand</td>
<td>26.2</td>
<td>25.5</td>
<td>22.5</td>
<td>-</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>18.6</td>
<td>18.4</td>
<td>17.9</td>
<td>17.5</td>
</tr>
<tr>
<td>Japan</td>
<td>14.2</td>
<td>13.1</td>
<td>12.4</td>
<td>11.7</td>
</tr>
<tr>
<td>Philippines</td>
<td>67.3</td>
<td>60.0</td>
<td>62.0</td>
<td>67.9</td>
</tr>
<tr>
<td>Sweden</td>
<td>11.7</td>
<td>11.0</td>
<td>11.1</td>
<td>10.8</td>
</tr>
<tr>
<td>Mexico</td>
<td>68.4</td>
<td>68.5</td>
<td>40.9</td>
<td>31.5</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>21.0</td>
<td>19.2</td>
<td>17.7</td>
<td>17.4</td>
</tr>
<tr>
<td>Singapore</td>
<td>20.7</td>
<td>20.5</td>
<td>20.1</td>
<td>19.2</td>
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Source: Demographic Yearbook, United Nations, New York, 1974
TABLE 3

Death Rates According to Delivery, Child Birth and the Puerperium per 100,000 Population, Selected Countries, 1960-1963

<table>
<thead>
<tr>
<th>Countries</th>
<th>1960</th>
<th>1961</th>
<th>1962</th>
<th>1963</th>
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<tbody>
<tr>
<td>Thailand</td>
<td>14.7</td>
<td>13.4</td>
<td>13.0</td>
<td>12.7</td>
</tr>
<tr>
<td>Burma</td>
<td>17.7</td>
<td>14.8</td>
<td>16.2</td>
<td>20.1</td>
</tr>
<tr>
<td>Ceylon</td>
<td>11.1</td>
<td>9.3</td>
<td>10.5</td>
<td></td>
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</table>

produce an adverse effect on the economy and security of the country.

**Purpose of the Study**

The purpose of the project is to delineate the:

1. principles of training auxiliary health personnel,
2. role of the midwife in family planning services,
3. importance of maternal and child care services,
4. factors related to the seeking of medical care, and
5. interpersonal influence in health related behavior and

the focus of the study is to apply the above to the development of training programs for midwives in Thailand in order to strengthen the midwife's activities in delivering more comprehensive maternal and child health care services so that infant and maternal mortality rates are lowered.

**Definition of Terms**

**Antenatal (prenatal)**

The period during which a woman conceives and carries through a full pregnancy up to the time of birth.

**Crude Birth Rate**

The number of births in a given area divided by mid-year population and multiplied by one thousand.

**Crude Death Rate**

The deaths in a year in a given area divided by mid-year population and multiplied by one thousand.
Family Planning  

The action taken by individuals and couples to plan the number and timing of children that they want.

Infant Mortality Rate  

The deaths of infants under one year of age divided by total live births in a year and multiplied by one thousand.

Maternal Mortality Rate  

The number of deaths assigned to puerperal causes in a calendar year divided by the number of live births in that calendar year and multiplied by one thousand.

Postnatal  

The period after the delivery of a child.

First Class Health Center  

A health center that is staffed with fifteen health personnel.

Second Class Health Center  

A health center that is staffed with only one junior health worker and one midwife.

Midwifery Center  

A center that is staffed with one midwife.

Traditional Midwife  

An unqualified person who delivers babies.

Trained Midwife  

A qualified health personnel who completed the training program from the midwifery school.
CHAPTER II

THAILAND IN BRIEF: PHYSICAL SETTING, PEOPLE, HEALTH SERVICES

Physical Setting

Thailand is situated in Southeast Asia. Because of its location in the tropical zone, the climate is warm and humid. The country is divided into 4 regions: Northern, Southern, Norther-eastern, and Central. The area is approximately 198,000 square miles, about the size of Spain or three-fourths of the size of Texas.

People

The mid-1970 population was estimated to have reached 37,399,000. The percentage of population residing in rural areas was 85 percent (40:3, 37). The majority of the population are farmers. About 22 percent of land area is used for agriculture with the principal crop being rice. (38:1).

The national language is Thai, English is the second language of the country. There are approximately 16,377,000 children under the age of 15 and about 4,737,970 married women between the ages 15 and 44. About 94 percent of the population are Buddhists (40:1).

Health Services

The nation's health today may be said to be in a much more favorable
position than it has ever been before in the history of this country. Fatal epidemics, such as cholera, used to play havoc time and again, almost decimating the population of the affected areas during each of the various visitations. Malaria also was so prevalent that all fevers were treated as such. However, the health of the general populace gradually began to improve. The first modern medical school was established at Siriraj Hospital in 1889 to provide qualified doctors for the country. The subsequent setting up of the Department of Public Health of the Ministry of Interior took place in 1918 (56).

The most important causes of ill health and death are intestinal and parasitic infestations (Table 4). In an effort to do away with intestinal diseases associated with unsanitary conditions, the Village Health and Sanitation Project was implemented in 1960. The purpose of this project was to stimulate and help in developing organized community action in improving environmental sanitation of villages, with an ultimate aim to control and eventually eliminate intestinal diseases. Main emphasis has been placed on protection of the water supply, adequate disposal of human waste and premise sanitation (38:68). Deaths in infancy and young childhood are mainly caused by diseases associated with poor sanitation and infection (Table 5).

The Present Organization of the Ministry of Public Health

The Department of Public Health was transferred to the newly founded Ministry of Public Health in 1942. The enormous task of the Ministry of Public Health is distributed among its 4 major component parts; the Office
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<thead>
<tr>
<th></th>
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<td>1. Certain diseases of early infancy and ill-defined diseases of under 1 year</td>
<td>39.9</td>
<td>36.3</td>
<td>35.5</td>
<td>30.4</td>
<td>29.5</td>
</tr>
<tr>
<td>2. Gastro-enteritis and colitis</td>
<td>37.1</td>
<td>27.6</td>
<td>27.1</td>
<td>24.8</td>
<td>15.0</td>
</tr>
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<td>3. Tuberculosis of respiratory system</td>
<td>26.4</td>
<td>28.3</td>
<td>26.9</td>
<td>23.7</td>
<td>21.1</td>
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<td>4. Accidents, Poisoning and Violence</td>
<td>25.4</td>
<td>26.2</td>
<td>25.5</td>
<td>26.0</td>
<td>27.7</td>
</tr>
<tr>
<td>5. Pneumonia</td>
<td>20.5</td>
<td>19.6</td>
<td>17.1</td>
<td>16.2</td>
<td>15.2</td>
</tr>
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<td>6. Diseases of Heart</td>
<td>18.4</td>
<td>16.5</td>
<td>13.8</td>
<td>15.6</td>
<td>15.6</td>
</tr>
<tr>
<td>7. Malaria</td>
<td>14.7</td>
<td>12.9</td>
<td>10.4</td>
<td>10.4</td>
<td>10.1</td>
</tr>
<tr>
<td>8. Malignant neoplasm of all forms</td>
<td>11.7</td>
<td>12.9</td>
<td>11.5</td>
<td>11.9</td>
<td>13.3</td>
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<td>9. Diseases of pregnancy, childbirth, and puerperium</td>
<td>10.6</td>
<td>10.1</td>
<td>10.0</td>
<td>8.9</td>
<td>7.6</td>
</tr>
<tr>
<td>10. Cirrhosis of liver</td>
<td>4.8</td>
<td>4.0</td>
<td>3.9</td>
<td>3.2</td>
<td>4.1</td>
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<tr>
<td>Total</td>
<td>775.2</td>
<td>740.2</td>
<td>729.2</td>
<td>737.2</td>
<td>658.5</td>
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TABLE 5

Death rates under 1 year from leading causes per 1,000 live births, Thailand, 1966-1970

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<td>Total</td>
<td>33.5</td>
<td>27.9</td>
<td>26.5</td>
<td>26.2</td>
<td>25.5</td>
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<tr>
<td>1. Ill-defined diseases peculiar to early infancy and under 1 year</td>
<td>8.5</td>
<td>7.5</td>
<td>7.0</td>
<td>6.3</td>
<td>6.5</td>
</tr>
<tr>
<td>2. Gastro-enteritis and colitis, diarrhea of new born</td>
<td>2.7</td>
<td>2.4</td>
<td>2.1</td>
<td>2.1</td>
<td>1.3</td>
</tr>
<tr>
<td>3. Pneumonia</td>
<td>2.0</td>
<td>1.8</td>
<td>1.6</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>4. Certain symptom referable to nervous system and special senses</td>
<td>1.8</td>
<td>1.6</td>
<td>1.7</td>
<td>1.8</td>
<td>1.0</td>
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<tr>
<td>5. Dysentery</td>
<td>0.6</td>
<td>0.2</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
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<td>6. Nutritional Maladjustment</td>
<td>0.4</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>7. Malaria</td>
<td>0.4</td>
<td>0.1</td>
<td>0.1</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>8. Acute nasopharyngitis</td>
<td>0.3</td>
<td>0.4</td>
<td>0.6</td>
<td>0.9</td>
<td>1.3</td>
</tr>
<tr>
<td>9. Influenza</td>
<td>0.3</td>
<td>0.2</td>
<td>0.1</td>
<td>0.1</td>
<td>0.2</td>
</tr>
<tr>
<td>10. Measle</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Others</td>
<td>16.4</td>
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<td>13.0</td>
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<td>13.2</td>
</tr>
</tbody>
</table>

Source: Division of Vital Statistics, Public Health Statistics, Bangkok
of the Under-secretary of State, the Department of Medical Sciences, the Department of Health, and the Department of Medical Services. In addition, there are several committees at the ministerial level to deal with important problems such as Occupational Health, National Health planning and Administration, Accelerated Rural Health Development, and Population Planning.

(38:32)

The Office of the Under-secretary of State, besides its administrative functions and correlation of the work of the various departments, exercises its duties through various divisions.

The Department of Medical Services provides medical and nursing care for the physically and mentally ill in its 102 hospitals, commensurable to the annual allotment. District hospitals are also part of the program.

The Department of Medical Sciences has as its main objectives the promotion of research in medical sciences and the provision of modern diagnosis procedures in the treatment and prevention of diseases. Thus it functions as the public health laboratories for the Ministry and also for the medical profession in general.

The Department of Health deals with prevention and control of diseases and promotion of health in the nation. This enormous task is carried out by 17 divisions in the central administration, 71 provincial offices and nearly 4,000 health centers in the provincial administration. The Department also maintains hospitals for tuberculosis, infectious diseases, and leprosy.

Provincial Administration
All the basic health services are dispensed to rural people by the Provincial Health Offices through the network of peripheral health units located in the villages. The Provincial Health Officer is responsible for all preventive health activities in his province. No measure can be taken in the province, however, without the approval of the governor, to whom the Health Officer is directly answerable (Figure 2).

To relieve the Provincial Health Officer of the heavy burden of health work, many divisions in the Department of Health have their own headquarters or mobile teams operating in the provinces to carry out some specialized health programs. This is the case with the Division of Malaria Eradication, Venereal Disease and Yaws Control, Tuberculosis Control, Leprosy Control, Maternal and Child Health. Certain divisions have established regional centers in different parts of the country, such as Maternal and Child Health Centers.

Provincial Health Offices

Rural health services in each province, administered through the Rural Health Division, are headed by the Provincial Health Officer (a physician with special training in public health) whose headquarters is situated in the town district. Directly under him are a number of physicians, public health nurses, sanitarians, midwives, technicians, and clerks. Some of these personnel are stationed at the headquarters, but most sanitarians and midwives are assigned to health centers and midwifery centers located in the villages.
Figure 2: Provincial Health Organization Chart


Ministry of Public Health

Governor

Deputy Governor

Provincial Health Officer

First Class Health Centers

District Health Officers

Second Class Health Centers

Midwifery Centers

--- Advisory Line

--- Administrative Line
Peripheral Health Units

All basic health services are rendered to the rural people through the network of peripheral health units which have sprung up in large numbers during the recent years. There are three types of peripheral health units in rural communities:

1. **The First Class Health Center.** This type is expected to serve a population of not less than 50,000. It is staffed with 15 different categories of personnel (Table 6). With approximately 10 beds for emergency cases, it provides all basic health services including family planning and medical care for the people at the district level. A referral system is maintained in corporation with the provincial hospital.

2. **The Second Class Health Center.** The staff consists of only one junior health worker and one midwife. The services are limited to maternal and child welfare, family planning, environmental sanitation, communicable disease control, health education, medical care of minor ailments, and sale of simple household remedies. At least 5,000 population are expected to be served by this type of health unit at the village level.

3. **The midwifery Center.** This health unit is staffed with only one midwife to render health services to at least 2,000 people at the hamlet level. Her responsibilities are mainly maternal and child health, family planning, school health, and vaccination (38:63-64).
TABLE 6

Staffing Pattern of the Health and Midwifery Center, Thailand

<table>
<thead>
<tr>
<th>No.</th>
<th>Category of Staff</th>
<th>1st HC</th>
<th>2nd HC</th>
<th>MWC</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Physician</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>one additional nurse will be assigned to 2nd HC located in the district</td>
</tr>
<tr>
<td>2</td>
<td>Nurse</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Junior Health Worker</td>
<td>3</td>
<td>1</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Midwife</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Practical Nurse</td>
<td>3</td>
<td>1</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Laboratory Technician</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Dental Hygienist</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Clerk</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Total 15 3 1

CHAPTER III

LITERATURE REVIEW

Basic Concepts of Health and Health Education

There is considerable variation among health educators as they define the content, purposes, and the teaching methods of health as a subject. Some emphasize health as a goal to be sought; others see it as an intellectual discipline involving the study of disease, the mind, the human body, and so on. Still others are concerned with the physical, mental, emotional, and social needs and interests of the people. Other health educators feel that pupils need to grow in these areas in order to achieve a sense of identity, express themselves, and develop a sense of community responsibility (5).

The most accepted definition of individual health is that of the World Health Organization, "Health is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity." (9:3). Dubos (14:111) sees health as "the expression of the extent to which the individual and the social body maintain in readiness the resources required to meet the exigencies of the future."

Bauer (3:16) defines health as:

... a state of feeling well in body, mind, and spirit, together with a sense of reserve power. It is based on the normal functioning of tissues.
and organs of the body... and a harmonious adjustment to the physical and psychological environment, together with an attitude which regards health not as an end in itself, but a means to a richer life as measured in constructive service to mankind.

In the late 1950's health education began to move from the imparting of information through nonpersonal methods to an attempt to change attitudes and actions through personal methods. This led to much greater attention to the behavioral sciences and their utilization.

"Health education, like general education, is concerned with changes in the knowledge, feelings, and behavior of people. In its most usual form it concentrates on developing such health practices as are believed to bring about the best possible state of well-being" (61:8). This definition of health education was adopted in 1954 by the World Health Organization Expert Committee on Health Education. This same group later broadened the role of health education to encompass the sum total of all experiences that change or influence health-related behavior (63).

Some health problems can be prevented, others can be reduced. As scientific research discloses more ways by which good health can be promoted and maintained. Studies were suggested to find ways to get this information to people and to stimulate them to use this knowledge. Paul (43:4) said,

In the long run the most efficient method of combating is to stop at its source, to prevent its occurrence in the first place. The health sciences are discovering new means to promote sound health and prevent specific disabilities. The great challenge is to find ways of weaving the discoveries of science into the fabric of
daily living. This is a task in community education or more accurately, of reeducation.

... It is a task in reeducation because every human community has developed an elaborate set of ideas, attitudes, and modes of behavior in response to the persisting problems of social living. Whether these are imparted to individuals through formal instruction or through the thousand diffuse ways in which cultural conditioning is effected, the adults of all communities are already educated.

To promote more desirable levels of health and to alleviate health problems, it is necessary to educate and reeducate people. Henskel (19:328) concludes the components of health education are (1) communicating the facts, and (2) stimulating or motivating action.

In communicating health knowledge to people, Rosenstock (48:333) gives some pointers about selecting material appropriate to the listener or potential user: "(1) Every attempt should be made to gather good information on the kinds of relevant beliefs initially held by members of the audience. Such data serve as the basis for setting educational objectives. Frequently, different educational campaigns will be required for different groups in the same population. (2) Careful estimate should be made of the psychological distance between current beliefs of the audience and those that reflect sound medical knowledge. If the distance is great, the educational program may have to be divided into a series of related successive steps. Communications are most effective in changing the opinion of people when the messages are not excessively dissimilar from initial opinion. (3) The greater the prestige of the educator or communicator, the more influential will be the communication. Prestige, of course, is defined by the opinions of the audience.
and not by the opinion of the profession.'"

Hochbaum's study on Public Participation in Medical Screening Program concludes that, "... the reaction of people to the thought of possibly contracting a serious disease can range all the way from complete and unbelieving indifference to an almost phobic fear (20:11). He also concludes that "Knowledge may equip a person to give correct answers to questions but may not in any way influence his behavior" (20:4).

The Principles of Training Auxiliary Health Personnel

"Training for midwives was instituted by Hippocrates, in the fifth century B.C., but for several centuries thereafter efforts to elevate their standards were sporadic and ineffectual. Self-taught or instructed by older midwives, most remained ignorant of the simple principles of obstetrics. Noteworthy as a guide for midwives was the celebrated text of Soranus (A.D. 98-138), the leading Greek authority on obstetrics and gynecology during the reign of the emperors Trajan and Hadrian. No significant contribution was made toward the education of midwives until 400 years later, when Eucharius Rosslin's Rosengarten appeared, a German Language text, based in part on the early work of Soranus" (52:163-167).

Technical knowledge is essential, but unless the customs, beliefs and traditional practices of the people are understood, its application is of limited effectiveness. Many variations in the practices relating to pregnancy, childbirth, and care of the new born, are due to differences in traditional beliefs. Some customs are definitely useful; others have no recognizable harmful
effects; and a number are considered as harmful and undesirable. Respect for traditional beliefs that are harmless and full utilization of those that are valuable will give the best opportunities for gaining the confidence of the mother and her family (55). However, midwives need to be trained. Carlaw (7:754-759) has pointed out that training has an overall objective, and that is to prepare a group of people to fit into a particular organizational situation or activity. This may be called the organizational fit, and it involves not only the trainees but also the supervisor and other staff to whom the trainees may relate. The real test of a sound instructor comes in this after training stage, especially as it relates to the preparation of the professional to receive the trainees. This is particularly true in the highly professionalized atmosphere of a public health agency. Lynton came up with the saying "training is not for knowing but for behaving differently" (32).

There are several governing factors in training which are worth reviewing. The most important is time, for there is never enough of it. A final governing factor in training is methodology. One cannot train people in human relations. The best that can be done is to create situations in which they can learn. Training methodology sometimes degenerates into a kind of circus with entertainment or enjoyment becoming more important than learning. The test of an adequate methodology lies in the evaluation of regular feedback when the feedback is measured against the objectives (2:31-42).
General principles underlying training programs for health personnel are essentially the same. An educational program is needed for the midwife which not only will train the student to be a competent technical worker, but also enable her to develop into a good citizen, capable of managing her own affairs and making her maximum contribution to the community to become technically competent and to remain so (2:34-35).

In selecting content, all phases of curriculum development must be interrelated with planning a component throughout. According to Taba:

If curriculum is a plan for learning, and if objectives determine what learning is important, then it follows that adequate curriculum planning involves selecting and organizing both content and learning experiences, is one of the major tasks of curriculum planning (54:266).

The selection of learning activities is of utmost importance in curriculum planning and should be developed with care and consideration equal to that given to selection of content. The educators' role is to plan learning activities and use teaching methods to provide the learner with opportunity to make the content his own. Learning is a highly individualistic process, and is experienced within the individual (31). Developing the design for each curricular offering, involves certain decisions and operations. Low (31:50) identified these decisions as "(1) defining objectives, (2) deciding on the type of offering depending upon needs, time allotment, and target population; (3) selecting and organizing content and learning activities; (4) planning for consultation and evaluation; (5) identifying appropriate human, physical, material, and financial resources and; (6) recruitment of participants."
The Role of Midwife in Family Planning Services

The use of midwives to provide family planning services has been tried in many countries, including the United States, with great success (18).

In Ghana, midwives provide the bulk of the family planning services, after proper training they are able to examine patients, prescribe oral contraceptives, and insert intrauterine devices. They supervise the family planning assistants who interview patients, discuss methods of contraception, and conduct certain laboratory and physical tests. This conserves valuable physicians manpower and allow the family planning program to reach many more people (44:30).

In Taiwan, the role of the midwife in family planning is a limited one. This is simply because the program is presently centered on one method, an intrauterine contraceptive device, and there is a special full-time family planning worker. In a variety of ways, however, she has helped the family planning program and her role in future will be a larger one. In one sense, she is a virtually untapped resource for a successful family planning program in Taiwan. With the present shortage of qualified physicians at the remote rural health stations, there is a possibility that certain qualified midwives will officially be allowed to make intrauterine insertions, in Taiwan (21).

In Nigeria two branches of the Family Planning Council of Nigeria have been established and functioning successfully in Western Provinces and arrangements have been made to open more provincial centers. Nurses and midwives assist doctors in running these clinics. It is hoped that more
midwives will take interest in this field (13).

The role of midwives in Indonesia in family planning is at present to assist the doctors during the period that patients come in for family planning services of the clinic. However, the midwife will have to play a greater role if family planning becomes a government policy, the success of which will depend on reaching the women in the rural areas (45:132).

In Thailand, field workers and paramedical personnel are widely dispersed throughout the country. By mid-1970, there were over 350 family planning clinics. In mid-1970, the Ministry of Public Health ruled that auxiliary midwives could prescribe oral contraceptive without the requirement of physician's examination (41:13).

**Importance of Maternal and Child Health (MCH) Care Services**

In Thailand, a priority is given to the care of mothers and children and the requirements of MCH services because:

1. Children are the future of the nation. No community has any survival except in its children.
2. Mothers and children form the majority of the population.
3. Children are particularly vulnerable and subject to diseases.
4. Most of the diseases that cause mortality and morbidity in children and those associated with pregnancy are preventable.
5. MCH services provide an appealing and appreciated introduction to modern medicine.
6. Certain characteristics--mental, physical, and economic are found to be typical of areas where there is a high infant mortality.
7. Children are inarticulate. Without the special consideration, their needs are neither considered nor understood.
8. In decreasing childhood diseases, the incidence of damaged lives with their physical, mental and social burdens can also be reduced” (59:22-26).

A high priority of the World Health Organization, since its inception,
a quarter of a century ago, is maternal and child health. Some reports of
Expert Groups on Maternal and Child Health and Family Planning published
since 1957 include the following: the midwife in maternity care; midwifery
training; maternity care and mental health; health aspects of family planning;
teaching of human reproduction; family planning, and population dynamics in
nursing and midwifery education programs; and health education in health
aspects of family planning (61).

Maternity care is defined by a WHO Expert Committee in 1966 as:

The object of maternity care is to ensure that every
expectant and nursing mother maintains good health,
learn the art of child care, has a normal delivery, and
bears healthy children. Maternity care in the narrow
sense consists in the care of the pregnant women, her
safe delivery, her postnatal care and examination, the
care of her newly born infant, and the maintenance of
lactation. In the wider sense, it begins much earlier
in measures aimed to promote the health and well-being
of the young people who are potential parents, and to
help them to develop the right approach to family in
the community. It should also include guidance in par-
rentcraft and in problems associated with infertility
and family planning (34:30).

Bannerman (2:31-42) broadens some factors, linking countries of
the Third World with poverty of financial resources; paucity of education
services and educated manpower reservoirs; tragically high and wasteful
fertility patterns invariably resulting in maternal depletion; common epide-
miologic patterns of disease characterized by recurrent infections and parti-
cularly serve in children under 5 year of age; and underlying base of under-
nutrition and malnutrition; and an entrenched traditional and conservative
peasant culture. This state of underdevelopment and health pattern is seen
to a certain extent in developed and industrialized countries, where such communities are designated as deprived, disadvantaged, or underprivileged.

In the health of the child a matrix of profound influence is represented by the parents. A corollary might be the statement of Dicks:

Some factors making for deprivation and for social and psychological damage to children are the tensions and breakdowns in marital relations: because . . . parents come before children, and the quality of marriage is the quality of the cement of a society . . . . (11:295).

It is also indicated that females admit to illness more rapidly than males or they experience a higher incidence of illness (Table 7). In observing the period 300 years ago, Graunt noted, "... yet I have heard physicians say that they have two women patients to one man . . ." (33:112).

By the time of first prenatal examination, "the fetus has already passed the most critical period of its development. Furthermore, the effect of various noxious influences on the germ cells before fertilization cannot be nullified by earlier prenatal care" (16:495). Preconception care services are aimed at improving the health of women who anticipate pregnancy and avoiding hazards to the fetus. Emphasis is placed on routine visits to a physician several months before a pregnancy is planned, to insure an adequate diet, to detect and treat any systematic disease, and to correct endocrine imbalance prior to conception, as well as to counsel about the hazards of drug and X-rays (51).

Antepartum care is a planned program of observation, education, and medical management of pregnant women (1). Its original focus was on the
TABLE 7

Selected Measures of Morbidity in Males and Females
United States, 1967

<table>
<thead>
<tr>
<th>Measures</th>
<th>Rate per 1,000 persons per year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
</tr>
<tr>
<td>Incidence of acute conditions</td>
<td>183</td>
</tr>
<tr>
<td>Days of restricted activity</td>
<td>685</td>
</tr>
<tr>
<td>Days lost from work</td>
<td>329</td>
</tr>
<tr>
<td>Discharge from short-stay hospitals</td>
<td>10</td>
</tr>
<tr>
<td>Physician visits</td>
<td>378</td>
</tr>
<tr>
<td>Days of bed disability</td>
<td></td>
</tr>
<tr>
<td>all ages</td>
<td>284</td>
</tr>
<tr>
<td>aged under 6</td>
<td>375</td>
</tr>
<tr>
<td>ages 6-16</td>
<td>317</td>
</tr>
<tr>
<td>ages 17-44</td>
<td>247</td>
</tr>
<tr>
<td>ages 45 and over</td>
<td>261</td>
</tr>
</tbody>
</table>

early detection and treatment of toxemia and other life-threatening complications of pregnancy. It now has encompassed all the elements of health supervision of presumably healthy pregnant women, with definitive diagnosis and prompt treatment of abnormalities related to or associated with pregnancy (24). Cure during pregnancy is one of the relatively few areas of medical practice in which clearly formulated minimum standards are available concerning time for initiation of medical care, frequency of patient visits, and content of professional care (12). The standards are accepted by medical practitioners and health agencies. Women should be examined as soon as pregnancy is suspected. Prenatal visits are normally scheduled every four weeks for the first 28 weeks of pregnancy, every two weeks thereafter until the thirty-sixth week, and then weekly until delivery (45).

Factors Related to the Seeking of Medical Care

The stages by which the patient, having perceived himself as ill, goes to the physician for care, follow a definite sequence. First, there is a self-diagnosis, an essential and legitimate step in efficient utilization of medical care (28). This is followed by a period of "consultation with family and friends, the corner druggist, or even a 'casual' exploration of the local doctor at cocktails." There follows a period of procrastination and self-medication. After varying amounts of time spent in each of these stages, the patient finally "submits to medical authority." Each stage is influenced by the culture of which the patient is a part, and by the knowledge, attitudes, and beliefs which the patient holds (26).
Seeking medical care is dependent upon recognition both by the patient and by those around him that he is ill. Recognition of illness is the first step in entering what Parson (42) calls the "sick role"--a role which implies a formalized set of rights and obligations--a way in which society approaches the problem of illness. Koos (27) indicated a social class difference in attitudes toward symptoms--lower class persons were less likely to view a specific symptom as requiring medical attention than persons in higher social classes. This differential appeared to relate to the cost of entering the "sick role" in terms of giving up usual activities. In addition, there appeared to be a lack of recognition that specific symptoms might be medically significant and lack of belief in the efficiency of medical care in dealing with these symptoms. Zola (64) found differences in response to pain, an interpretation of symptoms between Americans of Italian, Irish, Jewish, and Anglo-Saxon or "old-stock" origin, which appeared to be related to differences in perception of the effect of the symptoms or illness on the activities of the patient.

Mechanic (33) explored illness behavior in terms of the ways symptoms might be differently perceived, evaluated and acted upon. He proposed that illness behavior would be dependent upon identification of the illness as "routine" or "non-routine" and upon "inclination to seek medical advice."

He concludes that:

"... our findings suggest a theory of learned alternative channels for dealing with life stress situations, including illness. Symptoms represented to the physician by Jews and Episcopalians may be presented to priests, lay practitioners and druggists by members of other groups." (33:194)
Cultural components of the definition of illness and the decision to seek medical care were demonstrated further in studies by Saunders (50). In a study among Mexican-Americans and in urban and rural areas in Kentucky, it was found that the physician was called upon to treat "natural" diseases, but other help is sought for diseases which are thought to be "supernatural" in origin.

Although available clinics are crowded, underusage of modern health institutions is a significant issue in Thailand; and it is of interest to consider the origin of users, particularly in relation to population distribution and the lines of transportation, as well as the issue effecting underusage. Inevitably geographical access to modern facilities, the socio-economic position of potential users, the variety and the age of available modern facilities, and certain cultural filters, have an effect upon health behavior and the transition of villagers from "sick-person" to "patient" (10).

Interpersonal Influence in Health Related Behavior

Rural sociologists, in the course of studying the diffusion of innovations in communities, became aware of personal roles as instrumental in the diffusion process. The criterion used by these investigators for identifying informal leaders was that of their having been asked for information or advice. However, a distinction between the leadership roles described by different investigators was based on whether the informal leader was merely a source of information or advice, or was actually instrumental in the adoption of a new practice.
Wilkening (59:272-275) considered the formal leader primarily as a source of information for others, and Lionberger (30) found that the informal leaders were consulted before the decision was made. Ryan and Gross (49) reported the informal leader to be a source of information, advice and influence by stating that "when an individual asks a peer for information, he probably receives information and is at the same time influenced. The distinction between influence and information, while conceptually clear, is not always a sharp one." Katz and Lazarsfeld (22:138) used the term "opinion leader" and defining leadership as "... guiding opinion and its changes rather than leading directly into action."

The influence of the informal leader in effecting change was specified by Merton (36:215) when he interpreted personal influence as "... the direct interaction of persons in so far as it effects the future behavior or attitudes of participants." Actually Merton distinguished two types of "influentials" (who were described as confining their interests to the community), and "cosmopolitan influentials" (who were defined as being oriented to the world outside their community and were likely to hold high-status position in the community.

Bell et al. (4) described the five approaches that have commonly been used to detect leadership in community as:

1. Personal influence--revealing those persons to whom other people usually turn for information and advice.

2. Position--identifying those persons in titled (actual or
understood) positions or offices, such as Mayor, Councilman, Supervisor.

3. Reputation--indicating those persons named by others as authoritative, especially in the specific subject

4. Social participation--identifying those persons who are active in community organization, churches, clubs, etc.

5. Decision making--leading to identification of those persons who are in policy forming and decision making positions.

According to Rogers and Cartano (47) there are three separate methods for finding opinion leadership. They include the sociometric method, in which the procedure used is for the respondents to designate persons to whom they go for advice and information and self-designation. Then, a respondent is asked questions to determine the degree to which he sees himself as an opinion leader. Thirdly, there is the method of identifying key informants, in which respondents are asked if they are likely to know the opinion leaders. Freeman (15) found, however, that the reputation and position methods appear to identify the same individual.
CHAPTER IV

THE PROPOSED IN-SERVICE TRAINING PROGRAM

Utilization of the available health services and participation in any health education programs is considered to be difficult, especially for promotive and preventive medicine because the people of rural Thailand lack knowledge of health care. According to statistics in Thailand, there will be approximately one million newborns each year. From this number, 800,000-850,000 will be delivered by traditional midwives, or friends or their relatives. Those persons are considered to be unqualified medical personnel. Only 150,000-200,000 will be delivered by qualified medical personnel in hospitals, MCH clinics, and health centers. Warat (58:14-15) concludes from his experiences that most of the pregnant women in rural Thailand prefer the traditional midwives to the qualified medical personnel for six reasons: (1) economic problems, (2) hospitalization, (3) familiarity, (4) beliefs and superstition, (5) transportation problems, and (6) traditional beliefs in seniority (i.e., the traditional midwives are older and have more experiences than modern midwives, therefore the traditional midwives are more credible).

The Causes of Maternal and Child Deaths

Many factors are involved, but according to 1971 statistics, 81 percent of maternal deaths was due to complications of delivery. The statistics
revealed that the main causes of complications of delivery were (1) postpartum haemorrhage, (2) retained placenta, (3) abnormality of bony pelvis, and (4) foetopelvic disproportion (39:61). It is possible at this point to hypothesize that many of these deaths were preventable if those pregnant women had a prenatal examination and regular prenatal and postnatal care from qualified medical personnel such as midwives, nurses or physicians.

Lack of child care and nutritional maladjustment are two of the ten leading causes of death for children under one year of age, during the years 1966 to 1970 (Table 4 p.13). This data indicates that there exists a wide gap in communication of health knowledge between health workers and the people. Many factors are involved, but the most important one seems to be the failure of health workers themselves to adequately utilize the existing resources and opportunities in the dissemination of health knowledge. The data also indicates that most of rural people do not have proper practices in curative, preventive and promotive health measures. Thus, in-service training programs for midwives whose responsibilities are mainly in maternal and child health can bring about a change in behavior of mothers in utilization and participation in health programs provided for them. They need help in learning what to do and to whom to go for proper care. Midwives can be the persons who can reach these rural folk, but they need more training in method of education as well as content.

It is the purpose of the project to illustrate how to set up a program for retraining midwives so that they would be able to teach and associate with
housewives in rural areas where they are working. This does not mean that
the preservice training is not effective, but due to the inadequacy of supervi-
sion, and because the refresher course of four weeks (once a year) can service
only one hundred midwives, more training is necessary. Midwifery schools
produce approximately four hundred graduate midwives a year. To try to
cover all of these midwives in the regular refresher course is not possible.
Thus, there is a need to establish a short program for inservice training to
help them solve the problems they face on the job. Such a training program
will enable them to gain more confidence in working with the people in the com-
munities they serve, especially with housewives. Moreover, the purpose of
this program will be to upgrade the midwives. The format of program plan-
ning and budgeting may be stated in the following diagram:

```
Goal Setting
  ↓
Defining Behavioral Objective
  ↓
Planning and Budgeting
  ↓
Implementation
  ↓
Evaluation
```
Goal Setting

How the Topics are Selected.

There is a demand for improving the actual practice of the midwives in advising or teaching the housewives in many topics related to promotion of maternal and child health. The topics are selected through a study of each community. First, the health educator who is responsible for the training program must study the needs of the community before setting the topic content. Health problems may vary from place to place. For example, in the northeastern part of Thailand, malnutrition may be a serious problem, whereas in the southern part, child health care may be the most important. It is not necessary for the health educator to fix the topics for the midwives training project in advance. Second, the midwives who are going to participate in the training program, are supposed to select the topics they consider to be serious problems in their working areas.

However, since this is a preplanned project, a set of topics is provided to illustrate the methodology of training rather than the subject content. Four topics related to maternal and child health problems have been selected for this purpose:

Unit I "Bathing the Baby"

It is generally found that a newborn infant is kept away from bathing. One reason is that mothers believe that the water will make the umbilical cord of the infant wet become abscess and cause a stomach ache. Too, when mothers bathe their infants, they do not know the right way or the method of
bathing. As a result some infants get the water into their ears. Often, this results in otitis media. The correct concept and method of bathing the baby, therefore, becomes an important topic to be considered.

Unit II "Birth Control"

This topic is extremely important because the population growth rate in Thailand needs to be controlled. The objective of the national policy of the family planning program is to reduce the population growth rate from 3 percent to 2.5 percent by the end of 1976 (41:8). It is also generally accepted that high growth rate of the population in developing countries brings several consequences e.g., starvation, uneducated people, insufficient health care services, and juvenile delinquency.

Unit III "Nutrition for Mothers"

Malnutrition of mothers makes their newborns unhealthy. Avitaminosis and other nutritional deficiencies are causes of deaths, e.g., in 1967, 4,252 cases at the rate 13.6 and in 1971, 3,210 cases at the rate 9.1 per 100,000 were noted (39:12). Many uneducated mothers believe that after the baby is delivered, the mother should only eat dry and preserved foods. Otherwise, it might cause her to become ill (57:19). Some mothers may drink some kind of herbs mixed with an alcoholic beverage which might cause constipation. Too, the practice might lead to alcoholism. Therefore, nutrition for mothers is an important topic to be selected because it is closely related to the health of both mother and child.

Unit IV "Strategies for Getting Information from Housewives"
There are still many traditional beliefs that influence mothers to select the traditional midwives rather than the modern midwives. Most of the uneducated mothers prefer to receive the services, such as prenatal care, delivery, from the older traditional midwives. The mothers feel unfamiliar with the modern midwives who serve the community as government officials (government officials are recognized as masters or bosses rather than as those appointed to serve people). Therefore, it is difficult for the midwives to directly obtain information from the housewives. Unless a symptom of illness is serious, they do not seek help from the midwives. as a result, some persons wait too long to be cured. Finally, human relation training strategies are not offered as a part of the preservice training in the midwifery schools (38:19). It is important to put this topic into the training program because this will lead to a more effective informal working relationship between housewives and midwives. By teaching the midwives this approach, it is hoped that they will apply the techniques to small group discussion with housewives and other groups.

Behavioral Objective

At the end of the in-service training period the housewives will be able to give advice or teach on the topics mentioned above. The objectives for each topic will be clearly stated.

Characteristics of the Participants

There are three groups of the participants involved in this training program: (1) the trainers (2) the trainees, and (3) the actual subjects.
The Trainers

The trainers consist of one health educator and one public health nurse. Both of them are invited from the Department of Health, Bangkok, Thailand. The reasons for inviting the health educator is that he is knowledgeable in the methods of determining community needs and for training; and for the public health nurse is that she will be knowledgeable in the specific techniques for the tasks that midwives perform. She is the supervisor in the maternal and child health care services performed in health centers and midwifery centers.

The Trainees

The trainees consist of 15 midwives who work in the midwifery centers in a province located in the northeastern part of Thailand. The reasons for selecting the northeastern province is that the maternal and child death rates during 1937-1971 are the highest compared to other parts of Thailand (39:61). Only the midwife who has at least 2 years experience in working at the midwifery center will be selected to be a trainee.

The Actual Subjects

The actual subjects consist of 15 housewives who are paid for attending the workshop in the afternoon session. Each of the actual subjects should have at least one child.

Methodology

Each unit consists of 4 major steps from the morning period through the afternoon period:
1. The presentation of the training model is provided by the trainers in different kinds of activities, e.g., demonstration, explanation, and discussion.

2. The small group practice immediately follows the presentation of the trainers. The whole class is divided into small groups consisting of approximately 5 members. Each member is provided the opportunity to practice the techniques demonstrated by the trainers.

3. The actual practice is the third step designed to provide the trainees the opportunity to apply the teaching techniques to the actual subjects (i.e., the housewives).

4. Evaluation is the final step. There are 2 different types of evaluation: 1) process evaluation and 2) product evaluation.

   1) Process evaluation concerns about deficiencies in practice by the participants in each step. It is necessary to observe, and discuss the effectiveness of the process of the training program in order to correct the ineffective ones before going to the next steps.

   2) Product evaluation is concerned about the final product of the training program observed or evaluated from the trainee's performance in teaching the subjects. The techniques used in the product evaluation are observation, and
discussion. Oral questions may be used in some topics.

Written test is not appropriate as the subjects may not be able to read and write.

The first two steps are held in the morning period, and the last two are in the afternoon period. There are ten minute break periods between steps.

**Scheduling**

The schedule of the training program may be diagramed as follows:

<table>
<thead>
<tr>
<th>Time</th>
<th>Day</th>
<th>9:00-10:20</th>
<th>10:30-12:00</th>
<th>13:00-14:50</th>
<th>15:00-16:00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>Presentation</td>
<td>Small group practice</td>
<td>Teaching practice</td>
<td>Evaluation</td>
<td></td>
</tr>
<tr>
<td>Tuesday</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
<tr>
<td>Wednesday</td>
<td>&quot;</td>
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<td>&quot;</td>
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<tr>
<td>Thursday</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

**Remarks:**

1. 8:30-9:00 a.m. on Monday is scheduled for the opening session. General purposes are clearly presented to the whole class in this session.

2. 16:00-16:30 p.m. on Thursday is scheduled for closing the whole session. Discussion and recommendations for the whole program can be made in this period.
Budgeting

The budget used in this training program can be preplanned as follows:

1. Allowance

<table>
<thead>
<tr>
<th></th>
<th>Trainers and coordinator</th>
<th>Trainees</th>
<th>Subjects</th>
<th>Sub-total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 persons</td>
<td>15 &quot;</td>
<td>15 &quot;</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

2. Transportation

3. Materials

4. Miscellaneous

Total
UNIT I "Baby Bathing"

Objective

At the end of the session the participants (midwives) will be able to demonstrate "baby bathing" to the housewives. And the housewives, then, are able to perform the same task.

Procedure

1. Preparatory Phase

1.1 Description of "baby bathing" prepared by the Health Department will be used for the instructional purpose.

1.2 The following materials and equipments are prepared by the demonstrator (here after; D), and also each group needs one set of the materials and equipments for practicing and teaching purposes.

   1.2.1 Cake of mild soap for use on the baby only.

   1.2.2 Pieces of absorbent cotton in a jar with a cover.

   1.2.3 Washcloth (or squares of old soft cloth).

   1.2.4 Small towel or diaper to put in the bottom of the tub (to keep the baby from sliding on the wet surface).

   1.2.5 Large towel to dry the baby (soft flannel, terry cloth or jersey).

   1.2.6 Clean clothes: diaper, shirt, pins, nightgown.

   1.2.7 Warm mineral oil, powder or lotion.

   (17:59)

1.3 D reviews the description of "baby bathing" and practices
2. Implementation Phase

This phase is divided into 2 session-periods: morning period is designed to train the midwives how to teach the housewives "baby bathing", and Afternoon period is designed to have the midwives practice with the real subjects, i.e., the housewives who are paid to attend the practice session.

Training Session (Morning period)

2.1 D explains the objective of the training unit to the class (midwives).

2.2 D introduces the materials and equipments needed in "baby bathing" to the class.

2.3 D demonstrates how to bathe a baby by using a baby doll instead of a real live-baby. At the same time, for each step of baby bathing, D states the description of the process.

2.4 After the demonstration, the class is divided into small groups. Each group may consist of 5 members and is provided a set of materials and equipments similar to the ones used by D.

2.5 Each member in the group takes turn in demonstrating the baby bathing to the others. D walks around the class and observes if the midwives are able to perform the
baby bathing correctly.

Practicing Session (Afternoon period)

2.6 The same groups as divided in the morning period are assigned as teaching teams, to teach the housewives. The proportion of the midwives and the housewives in each group is approximately one to one.

2.7 One of the midwives selected among themselves demonstrates and explains how to bathe a baby to the housewives by using the same procedure trained from the morning period. The others watch and may take note on some comments for discussing in the evaluation phase.

3. Evaluation Phase

All of the midwives get back together, and the D conducts the class discussion on the evaluation of their practice in the afternoon session.

UNIT II "birth control"

Objective

At the end of the session the participants (midwives) will be able to have the housewives state how and where to receive birth control services. Three methods of birth control, i.e., safety period, pills, IUD are emphasized while giving information to the housewives. The housewives, then, are able to identify the places (i.e., hospitals, health centers etc.) where birth control services are offered.
Procedure

1. Preparatory Phase

1.1 A description of the birth control techniques is prepared by the Health Department or by the supervisory staff who will give the training.

1.2 The following materials are prepared to be used as samples in teaching the birth control techniques.

   1.2.1 Calendar
   1.2.2 Pills
   1.2.3 Loops
   1.2.4 A map of the province

2. Implementory Phase

2.1 Morning session is designed to demonstrate to the midwives the techniques of how to teach the housewives about the methods of birth control, how and where to receive such services.

   2.1.1 D clearly introduces the objectives of the training unit to the class (midwives).

   2.1.2 D demonstrates how to motivate the housewives about the advantages of birth control by comparing the socio-economic status of the family with small number of children with that of the family with large number of children.

   2.1.3 D introduces materials used in birth control to the
class in the following order: safety period, pill taking, IUD.

2.1.4 D shows the location of the hospitals and health centers which are close to the community.

2.1.5 D evaluates by questioning the midwives.

2.1.6 The class is then, divided into small groups. Each group consists of about 5 members. The small groups of midwives practice in teaching birth control using a procedure similar to that provided by D. At the same time, D walks around and observes their teaching practice.

2.2 Afternoon session

2.2.1 Each group is divided to teach the actual subjects (housewives) by selecting one of the midwives in the group to demonstrate the methods and identify the place where birth control knowledge can be obtained.

2.2.2 The other midwives in the group observe the teaching and prepare for the evaluational discussion at the end of the session.

2.2.3 The midwife who performs the teaching evaluates the teaching effectiveness by asking the subjects a number of questions which have been prepared before hand.

3. Evaluation Phase

All of the midwives get together and the D conducts the class
discussion on how effective their teaching practice is and what modifications are needed.

UNIT III "Nutrition for Mothers"

Objective

At the end of the session, the midwives will be able to teach the housewives to state the kinds of food that produce good breast milk with nutritive values for their babies.

Procedure

1. Preparatory Phase

1.1 The following materials will be prepared in advance:

1.1.1 A number of pictures of healthy mother and child showing the eating habits and a set of pictures of unhealthy mother and child who are starving and/or obtaining inappropriate diet.

1.1.2 A chart of nutritive diet required daily. Pictures of raw material are considered to be more appropriate than words used in training because some actual subjects (mothers) may not be able to read.

1.1.3 A set of puzzle pictures of five group of nutritional diet used with flannel board.

1.1.4 Three sets of jigsaw puzzle pictures of 5 groups of nutritional diet used in small group practice and in the afternoon session.
1.1.5 Raw materials which are available from the local community, e.g., meat, rice, vegetable, salt, egg, liver, etc.

1.2 D plans what to explain in each step and prepractices the puzzle pictures at least one time in each group of materials.

2. Implementation Phase

In the morning session D introduces the objectives of the class and makes sure they understand clearly. After the introduction the following steps begin:

2.1 D shows the pictures of healthy mother and child comparing with unhealthy ones due to the lack of nutritional diet.

2.2 D asks the class (i.e., midwives as learners) about the differences between the pictures shown to them. One of the expecting answers is "malnutrition".

2.3 D shows the chart of nutritive diet required daily for mothers and explains what kinds of food they are.

2.4 D introduces the puzzle pictures of five groups of nutritional diet (i.e., protein, carbohydrate, mineral, fat, and vitamin) on the flannel board. D also explains the kinds of food contained in each group and then mixes all pictures together.

2.5 D asks the class to rearrange the pictures into
categories of protein, etc.

2.6 The class is divided into three small groups. Each group consists of 5 members. A set of the jigsaw puzzle picture of five groups of nutritional diet is given to each group to try out as they did in 2.5 individually.

3. Evaluation

The whole class get together. D shows the raw materials or model of local food to the class and asks the class randomly and individually about which one belongs to which group of nutritional diet.

Afternoon Session

In the afternoon session these steps will be followed:

2.7 The class is divided into 3 groups consisting of same members as in the morning session. Fifteen actual subjects (housewives) are also distributed equally to those three groups.

2.8 One of five midwives in each group is selected to teach the actual subjects in the same manner that D had demonstrated in the morning session, i.e., he/she is expected to perform and conduct the class the same as D did.

2.9 While a midwife is performing as a teacher the other midwives are supposed to observe the method of teaching and take turn in practice when the actual subject are not able to
perform or answer the questions in the evaluation step.

Evaluation

The class gets back together and evaluates the effectiveness of the method of teaching by open discussion. D works as a coordinator.

Suggestions and comments are recorded and distributed to all members after the final session.

UNIT IV "Strategies in Getting the Information from the Housewives"

Objective

At the end of the session, the midwives will be able to compile a list of reasons for the housewives not preferring the services offered by the midwifery center.

Procedure

There are at least two sources for obtaining the information on the reasons for housewives not preferring to use the services offered by the midwifery center:

1) from the midwives themselves; and

2) from the housewives.

The procedure consists of the following steps:

Morning Session

1. The midwives are divided into three groups. Each group consists of 5 members. And then one leader and one recorder are selected from each group.

2. The leader of each group conducts the group discussion
on the topic of what is considered their major problems in counseling the housewives about health services, e.g., pregnancy, child rearing, and nutrition etc. Each problem is recorded by the recorder of each group. A list of at least five problems is expected.

3. After each group obtains at least five problems, the leader of each group goes in front of the class and reports what they considered the major problems were. One of the midwives is asked to put the problems on the chalkboard.

4. Each group, again, is asked by the demonstrator to rearrange the problems shown on the chalkboard, in the sequence of their importance i.e., from the most important to the least.

5. Each group selects one representative of the group to report on the importance rating of the problems.

6. The demonstrator conducts the whole class by open discussion in order to assess the importance of different reasons and obtain an agreement.

The final list of the problems obtained from step 6 is considered to be the problem of the midwives in counseling the housewives to receive the services from midwifery centers.

Afternoon Session
1. The small groups of the midwives are matched with the group of the housewives in one to one correspondence, i.e. 5 midwives to 5 housewives. (In fact, one midwife can conduct a discussion with one group of five housewives.)

2. In each group, the housewives are asked by the midwives to express their feelings why they do not prefer receiving health services from midwifery centers. One of the housewives is selected by the members of the group to be a coordinator. The midwives may help her in asking the other housewives about their problems.

3. Each group is conducted by the midwives as the midwives had been asked to perform in the morning session. (see step 3 to 6).

The final conclusion obtained from the last step in the afternoon session is considered as the housewives' problems in receiving health services from the midwifery centers.

4. The problems obtained from both groups (midwives and housewives) are combined when the whole class of the midwives get back together at the last period of the session. And strategies for overcoming housewives' difficulties in obtaining services will also be discussed.

Evaluation

The midwives are asked by the demonstrator to state the strategies
and steps in obtaining such information.
CHAPTER V

SUMMARY

The purpose of the project is to study:

1. the principles of training auxiliary health personnel,
2. the role of midwife in family planning,
3. the importance of maternal and child health care services,
4. factors related to the seeking of medical care, and
5. interpersonal influence in health related behavior.

The whole project consists of two main portions;

1. the development of some basic concepts of health and health education, and
2. the implementation of such concepts to a midwife training program.

The study is mainly concerned with the health care in Thailand. A number of health problems are identified, for example, the high rate population growth, the limitation of national financial resources to provide for health care and education, the inadequacy of transportation, the shortage of professional health personnel and inadequate supervision in such remote areas, and the high rate of infant death. Such problems lead to the necessity of family planning and the improvement of health education including training of health supervisors, e.g., midwives, to be able to work with the people in
For the midwife training program, six steps in designing a curriculum can be applied:

1. defining objectives,
2. deciding the types of needs, time allotment and target population,
3. selecting and organizing the content and learning activities,
4. planning,
5. identifying appropriate human, physical, materials, and financial resources, and
6. recruitment of participants. The most important teaching methods used in training should provide the learner with the opportunity to articulate his own ideas in working with the people.

Due to the fact that the high rate of population growth creates a number of health problems, it is necessary for Thailand to motivate, inform and educate the people about the necessity of family planning. In order to accomplish this family planning task, the training of the midwives should be conducted under the supervision of the health department.

In addition, the maternal and child health care service is also very important. Healthy children are the bright future of the nation. The mother and child health care needs to be emphasized on the first prenatal examination.
A pregnant woman should make routine to a physician several times before the baby is delivered. The adequacy of nutritive diet during the pregnant period and after the delivery of the baby, must be stressed.

In terms of factors related to the seeking of medical care of the people, especially the housewives in rural areas, it is generally accepted that the culture, the general knowledge, attitudes toward the midwifery center, and some other beliefs of those people highly dominate them in seeking the health care. It is the responsibility of the modern health institutions to develop strategies and to train the professional personnel, e.g., the midwives. Training is illustrated on the basis of demonstration of training procedure rather than the subject contents. Those units are: bathing baby, birth control, nutrition for mothers, and strategies in getting information from the housewives.

Finally, the author would like to comment on some important aspects of this project and to make a suggestion on how it may be applied in the actual situation. First, the main idea of the project is to study the health problems in rural areas rather than in the city areas. Especially the focus is placed upon the developing countries, e.g., Thailand. Secondly, the design of the implementation section is set up to help the midwives learn how to work with the people in those areas. Thirdly, to make the practice in counseling the actual housewives possible, a number of the housewives are hired to participate as subjects in the training program.

In order to determine the effectiveness of the training program, a
number of small pilot studies need to be tried out and the results obtained from each study are, then, compared to each other. Furthermore, there should be a center of coordination located closely to the midwifery centers in the province that plans, collects, and provides data rather than the Health Department in Bangkok.


