CHAPTER VI

BIBLIOGRAPHY

Bobadilla, J.L., Frenk, J., Lozano, R., Frejka, T. &
Stern, C. (1993), <u>The Epidemiologic Transition and
Health Priorities : Disease Control Priorities in
Developing Countries. An Overview,</u> Oxford University
Press for the World Bank.

They said, improvement in health has created new
problems and challenges. In a very real sense, it can be
said that the health field has been a victim of its own
successes.

They described Omran's (1971) three era of
epidemiologic transition. Also by Frenk and others' (1988) a
new model, protracted polarized model of the epidemiologic
transition.

Center for Disease Control (1986), Premature Mortality in
the United States. <u>Morbidity and Mortality Weekly
Report,</u> 2(35), 1S-11S.

It mentioned that importance of PYLL indicator in
prioritization of diseases. It regularly uses this indicator
because of the easy applicability, cost effectiveness and
medium applicability. They use potential limit of 65 years
to calculate PYLL.

Ghana Health Assessment Project Team (1981). A quantitative
method of assessing the health impact of different
diseases in less developed countries. International
Journal of Epidemiology. 10, 73-78.

The impact of a disease on a community is measured by
the number of healthy days of life which are lost due to the
diseases. The measure is derived by combining information on
the incidence rate, the case fatality rate and the extent
and duration of disability produced by the disease.

They also reported that when we consider about priority
setting, it is sufficient to be determined by days of
healthy life lost. Priorities should be considered on the
basis of which procedures most reduce the burden of illness,
disability and death for a given unit cost.

A particular health program may have an effect on more
than one disease (e.g. improved nutrition--> reduce
incidence of kwashiorkor and measles case fatality rate),
and a particular disease may be affected by more than one
procedure (e.g. the incidence of neonatal tetanus can be
reduced either by maternal immunization).

Days of healthy life as a measure of benefit may be
useful for determining allocation of resources within the
health sector, but it can not be used to determine the
appropriate allocation of resources between the health and
other sectors (such as education and agriculture).

Haculinen, T., Hansluwka, H., Lopez, A.D., Nakata, T.
(1986) Global and Regional Mortality Patterns by Cause
of Death in 1980: International Journal of
Epidemiology, 3, 24-28.

They said that statistics on causes of death are
important and widely used for a number of purposes. They may
be employed in explaining trends and differentials in
overall mortality, in deciding on priorities for health and
the allocation of resources, in designing intervention
programs , and in the assessment and monitoring of public
health problems and programs.

Holland, W. W. & Fitzsimons, B. (1994) Oxford Text Book of
Public Health: Determinants of Priorities.(3) 35, 605-
611. Oxford University Press.

They said that the public health practitioner is not
free to determine his or her own priorities. Sometimes the
media and subsequently, public opinion may affect the
decision making process. Some unimportant things are given
more priority due to this reason. (e.g. Lead pollution from
motor vehicle emissions and lead contamination of water
supply by using lead pipes)

Hughes, J.M., & La Montagne J.R. (1995) **The Challenges**
   Posed by Emerging Infectious Diseases. 1995. ASM NEWS,
   3, 12-15.

These authors described that although we could
eradicate some infectious diseases like small pox, some more
new infectious are introducing into human life. Previously
assumed low leveled communicable diseases like tuberculosis
and cholera are re-introduced in western countries. Outbreak
of plague reminded us to keep continuous surveillance.

Institute for Population and Social Research, Mahidol
   University (1988). Country Report on New Development
   in the Analysis of Mortality and Causes of Death,
   Thailand. Bangkok:

Mortality questionnaire was put into inter censal
National Survey of Population Change (SPC), but morbidity
was conducted separately by the MMD team. Mortality
variables included causes of death and attendant at death.

It was learned that like other countries, Thai
mortality statistics were seriously affected by the changing
revisions of ICDs. Cultural differences appear to play a
significant role in the classification of an external cause
of death e.g. suicide.

Tendency to code into ill-defined category among
certifiers can cause difficulty in comparison of causes to

other region or countries. Thailand data has about 45-50% of ill-defined deaths.

Due to the limitations of data, the accurate estimation of morbidity and mortality levels and trends at small units may not be feasible and study was limited to regional and national levels.

Out of 1306 deaths they had investigated,

-30% of death was instant

-50% was attended by medical doctors at least once

-5% sought treatment from health personnel

-15% went for traditional healers

In 100 deaths,

-80 were registered

-40 death certificates were found

Health Statistic Division of MOPH put " senility without psychosis " under ill-defined symptoms and unknown cause of death.

Regionwise, the North has the highest rate of medical attendant at death. The next in order are, the northeast, the central and the south. Cultural and religious affiliation might play a major role under the reason apart from the coverage of health services.

Regional differences of the diseases leading to deaths among the general population seems to correlate well with the degree of social and health development of each region.

The proportion of ill-defined and unknown causes of death in the mortality survey is much lower, approximately by half, than reported in the registration data.

Regional differentials found in the survey was claimed more reliable than the registration data since place of residence of the deceased person is identified.

Kinney, T.M. & Baker T. (1994) Impact of Motor Vehicle injury in Taiwan using PYLL. Asia-Pacific Journal of Public Health, 7(1), 21-37.

Kinney and associate reported that PYLL indicator can be used for international comparisons and it also highlights the importance of the problem as a public health issue. They used life table method to calculate burden of motor vehicle accidents.

Kumaresan, J.A., Raviglione, M.C. & Murray C.J.L. (1994) Global Burden of Disease. Oxford University.

They claimed that infectious diseases like tuberculosis can be kept at low level of incidence if we can utilize current available resources and preventive measures undertaken properly.

Laixuthai, A. (1995) Health Policy and Planning. <u>Secondary Data Analysis</u>. Unpublished manuscript, Chulalongkorn University at Bangkok.

He told us secondary data include individual and aggregate data. In handling secondary data, we should choose a research question and review the literature thoroughly. Then, identify data bases that might include the variable of interest. After that, choose the best data bases.

Lopez, A.D. (1993) Causes of Death in Industrial and Developing Countries: <u>Estimates for 1985-1990</u>. New York: Oxford University,

He said that the estimation of cause specific mortality for the developing regions of the world is even less precise. Global estimates of disease specific morbidity and mortality have been prepared by several technical programs in the World Health Organization.

These estimates are frequently based on the inadequate surveys carried out at the community level in various developing countries and then extrapolated to yield regional and global figures. This is clearly a very imprecise method, but in the absence of vital registration there is little alternative but to evaluate and extrapolate.

Due to that fact, the estimates must be viewed with considerable caution, particularly for individual diseases.

The vast majority of childhood death in developing countries occur within a complex epidemiological environment. Children are often afflicted with multiple infections, which in turn are aggravated by malnutrition and poverty. The estimation of mortality attributable to a single underlying cause is thus extremely difficulty in developing countries, where infectious diseases are still common.

Menzel., P. T. (1992) Philosophy and Health Care: QALYs, Quality of Life and Rationing. Avebury, England.

He described how quality adjustment works, what is the judgment of quality, quality of life improvements versus life saving.

Ministry of Health, Myanmar. (1989) Health Statistics, 1987. Yangon: Department of Health.

It describes mortality and morbidity data during 1987. Since Myanmar has only few private hospitals, majority of deaths confined to public hospitals. Therefore, theses data represent the entire country.

Ministry of Health, Myanmar. (1995) <u>Development in Health</u>
   <u>in Myanmar</u>. Yangon: Department of Health.

It describes recent achievements in Health Sector in
Myanmar. It also includes health profile in the country.
Improvement during 1988 to 1994 were described. National
Health Plan stages are included.

Ministry of Public Health, Thailand. (1995) <u>Health in</u>
   <u>Thailand, 1994</u>. Health Policy & Planning Bureau.

It described recent achievements in health sector,
country health profile including manpower and health
centers. Achievement in BMN indicators by regions were also
mentioned. Brief description of health activities during
1994 were included.

Ministry of Public Health, Thailand. (1994) <u>Public Health</u>
   <u>Statistics, 1992</u>. Health Policy & Planning Bureau.

It described yearly morbidity and mortality patterns in
the country. Mortality by cause and age groups were found to
be useful for calculation of PYLL.

Ministry of Public Health Thailand. (1995). Division of
    Health Statistics: <u>Deaths in Government Hospitals by</u>
    <u>Region, Thailand, 1993</u>. Bangkok.

It shows unequal government hospital deaths in
different regions. Factors influencing admission to
government hospitals and subsequent deaths in those
institution may differ from one place to another.

Ministry of Public Health Thailand (1995). Division of
    Health Statistics: <u>Deaths by Cause Group According to</u>
    <u>ICD Basic Tabulation List, 9th Revision, Thailand</u>
    <u>1987-1993</u>. Bangkok:

It was found to be compiled from death certification
registers. Therefore, under reporting in some places may
mask the real situation.

Mooney, G. and Creese, A. (1994) Disease Control
    Prioritites in Developing Countries. <u>Priority Setting</u>
    <u>for Health Service Delivery: The role of Measurement</u>
    <u>of Burden of Illness</u>. Appendix C, 731-740. Oxford
    University.

I learned that the need to set priorities arises from
the fact that not all illness can be eradicated nor all

needs met. Prioritization methods are necessary especially in developing countries due to the scarcity of resources.

Prioritization manage resources in ways that maximize health outcomes, whether this means deploying resources, allocating limited new resources, or cutting back on the use of existing resources.

I learned that information on the burden of illness can contribute to the process of priority setting.
Burden of illness and priority setting

Study on the illness as a social and economic burden is found to be very old. The reason for attempting to measure the burden of illness is thus to allow a better (that is, more efficient) use of scarce resources in reducing the effect of illness on a population, a group of individuals, or even single individual.

I also found what is allocative efficiency measures involved in it.

Mosley, W.H., Bobadilla, J.L., & Jamison, D.T. (1993)
Disease Control Priorities in the Developing
Countries. The Health Transition, Implications for
Health Policy in Developing Countries(29) 673-696. New
York: Oxford University.

This article revealed disease control priorities in the developing countries is a reasonable projection of probable

changes in the pattern of disease. Four parts in Health
Transition was noted as follow:

-the first deals with the demographic transition,

-the second deals with the epidemiologic transition,

-the third deals with the changing risk environment
that has been occurring, and

-the fourth deals with the widening gap in health
problems and health needs across social and economic
classes.

This was found to be compiled from death certification
registers. Therefore, under reporting in some places may
mask the real situation.

Murray, C.J.L., Michaud, C., Qiao, X., Lozano, R. &
Mahapatra, P. (I994) <u>Designing and Implementing a
National Burden of Diseases Study, 1994</u>.
Kennebunkport: Maine. Harvard Center for Population and
Development studies.

They described measures of premature mortality. Mere
mortality rates do not tell the whole story. Assumption is
that deaths at younger ages are considered a greater loss of
life than a death at age 90.

Authors said, Dempsey (1947), first proposed that
premature mortality should be measured in units of time
lost. Since 1947, a wide variety of measures of time lost
due to premature mortality have been developed.

This book also describes four families of years of life lost.

They also described burden of Disease Assessment Package (BDAP). It manages data bases on incidence, prevalence, age of onset, duration, disability weights and mortality for each disease by various ages, sexes, regions and sub-regions. It calculates DALYs and the two components of DALY. Years of Life Lost due to premature mortality (YLL) and years Lived with a Disability (YLD).

Some Indicators of Social and Economic Development in the country were detected.

Murray, C.J.L., Lopez A.D. & Jamison, D.H. (1993) Global Burden of Disease in 1990: Summary Results, Sensitivity Analysis and Future Directions. Health Transition Working Paper Series 93.06, 15. 1993. Harvard Center for Population and Development Studies, Harvard School of Public Health.

They said that information on the burden of disease is useful baseline information for health policy makers, the logical next step is to assess overall health sector performance with trends in the burden of disease.

Testing and application of successful sample monitoring systems for mortality by cause and disability by cause are urgent priorities if monitoring burden is to be a more reliable approach to assessing health priorities.

They also discussed the three Partitions of the Burden of Disease in the community.

Narain J.P, Raviglione, M.C. & Kochi A. (1993) Disease Control Priorities in Developing Countries. HIV-associated Tuberculosis in Developing Countries: Epidemiology and Strategies for Prevention. Oxford University.

They said tuberculosis problem is one of the re-emerging health issue in developed countries in association with HIV infection. HIV sero-prevalence is higher in tuberculosis patients who live in the country where both infections are common.

National Epidemiology Board of Thailand. (1987) Review of he Health Situation in Thailand: Priority Ranking of Diseases. Bangkok.

It describes various priority ranking methods including PYLL indicator. Comparison of different methods are also discussed. Past health activities and achievements were properly reviewed.

National Statistical Office of Thailand (1992) <u>National Halth and Welfare Survey, 1991</u>. Bangkok.

It was conducted by National Statistical Office in order to understand better health status of Thai population and more importantly to obtain health information of the Thais for planning the health services and manpower development.

Park, J.E., & Park K. (1991) TextBook of Preventive and social Medicine: <u>Measurement of Health</u>. 2, 19-21.

This text book contains basic health indicators. How to get information about morbidity and mortality data of a country are briefly described. Method of standardization and adjustment of data are also discussed.

Potts., S.G. (1992) Philosophy and Health Care: <u>The QALY and Why it should be restricted</u>. Avebury: England.

This author described cost effectiveness and cost benefit analyses in consideration of Quality Adjusted Life Years (QALYs).

He mentioned grating of disability, valuation matrix, grades of distress and ways to measure each disease. He also

described difficulties in cost calculation and discounting in QALY.

Prohmmo, A. & Guest, P. (1994) <u>Mortality Registration in Thailand</u>. Bangkok: Mahidol University.

This paper mentioned importance of mortality data in Thailand and how to collect accurately by routine registration system. It pointed out some defects in registration system and suggested to improve existing system based on future research findings.

Sitthi-Amorn, C. (1995) Health Transition and Needs-based Technology Planning and Implementation. <u>International Journal of Technology Assessment in Health Care</u>, <u>11</u> (4), 663-672.

Ajarn mentioned that mortality has long been used as the main indicator to assess the progress of health care. Mortality is expressed in many forms.

Recently many deaths are found to be due to avoidable burden of illness. According to World Bank, in 1990, 1.36 billion DALYs were lost worldwide. Of this loss, two thirds were from premature death and one third from disability.

The burden of illness involves not only prevalence and incidence but also peoples' perceptions.

Task Force on Health Research for Development (1994).
Essential National Health Research: <u>A Strategy for
Action in Health and Human Development</u>. Bangkok:
Thailand.

It describes about factors to be considered in setting
priorities for national health researches.

In priority setting, we have to consider the cost of
disease -both the economic and social costs to communities,
individuals and families apart from clinical measures of
impact on mortality and morbidity.

World Health Organization. (1992) <u>International Statistical
Classification of Diseases and related health
problems</u>. 10th revision. Geneva: author.

In this book symptoms, signs and abnormal clinical and
laboratory findings, not elsewhere are classified under
(R00-R99)

Category in this chapter included the less well-defined
conditions and symptoms that, the necessary study of the
case to establish a final diagnosis, point perhaps equally
to two or more diseases or two or more systems of the body.
Practically all categories in the chapter could be
designated "not otherwise specified", "unknown etiology" or
"transient".

World Health Organization. (1995) *The World Health Report,*
    1995. **Geneva: author.**

It described us most of the people in the world today
are under the double burden of poverty and disease.
Although average life expectancy is increasing, at the
global level for scores of millions of people it is actually
becoming shorter.

Poverty is still main cause of death in many countries.
W.H.O's ICD 9th revision code Z59.5 stands for extreme
poverty.

World Bank. (1993) World Development Report , 1993:
    Investing in health. New York: Oxford University.

It describes cost and benefit of investing in health.
It explained the Demographic and Epidemiologic Transition.
Also mentions health in developing countries, successes and
challenges.

Although some communicable diseases were under control,
some still have epidemic potentials. Problem of emerging new
infectious diseases and increasing burden of the more
expensive non-communicable diseases prevailed.

In measuring burden of disease, many countries used
mortality data. Because death is an unambiguous event and
many countries have such data.