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THE SOCIO-CULTURAL TRANSFORMATION
OF JAPANESE MEDICAL SYSTEMS

by

Takako Matsunaga

A Thesis
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
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THE SOCIO-CULTURAL TRANSFORMATION
OF JAPANESE MEDICAL SYSTEMS

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Western Michigan University, 1983

Medical systems, just as other social institutions, are not stable and, thus, are subject to change. This essay is an analysis of the socio-cultural transformation of Japanese medical systems in general, and of the "health care system" of the cosmopolitan medical system in particular. No medical system is able to provide problem-free medical care to any given population. Thus, the current health issues and changes in health seeking/enhancing behavior in contemporary Japan is examined as the reflection of the maladaptive nature of cosmopolitan medicine to its environment.

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Takako Matsunaga

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TABLE OF CONTENTS

ACKNOWLEDGMENTS	ii
LIST OF TABLES	v
 Chapter	
I. INTRODUCTION	1
Purpose and Nature of the Study	3
Methodology and Subject Area	4
Order of Presentation	6
Background Information	7
II. ALTERNATIVES TO COSMOPOLITAN MEDICAL SYSTEM	10
The Chinese Traditional Medical System in Japan	10
Folk Medicine	13
Spiritual Treatment	14
Mediating Structure: Nonprofessional Health Care	15
III. THE MAJOR SYSTEM OF HEALTH CARE DELIVERY: COSMOPOLITAN MEDICAL SYSTEM	17
History of Cosmopolitan Medicine in Japan	17
Medical Education	18
Political Activity of Japanese Physicians	19
Social and Economic Status of Physicians	20
Patients' Attitudes Toward Physicians	22
Medical Specialities	24
Medical Facilities	26

Table of Contents--Continued

IV. MEDICAL PROBLEMS IN CONTEMPORARY JAPANESE SOCIETY: THE HEALTH COST OF MODERNIZATION	30
Epidemiological Changes After the Meiji Restoration	30
Prevalence of Chronic and Degenerative Diseases	33
Man-Made Diseases	37
Environmental Health Hazards	37
Iatrogenic Harm	39
V. IMPACTS OF CURRENT HEALTH PROBLEMS ON MEDICAL SYSTEMS IN CONTEMPORARY JAPAN	48
Changes in Health Seeking/Promoting Behaviors . . .	49
Revival of Chinese Traditional Medicine	49
Mediating Structure: Nonprofessional Health Care	52
New Medical Model: Changes in the "Disease Theory System" in Cosmopolitan Medical System . . .	55
VI. CONCLUSIONS	58
BIBLIOGRAPHY	62

LIST OF TABLES

1. Number of Chinese Traditional Art Practitioners by Speciality	13
2. Number of Physicians by Type of Work	25
3. Average Length of Stay in Days by Different Types of Hospital	27
4. Number of Hospitals and Clinics by the Type of Ownership (1980)	28
5. Utilization of Beds and Average Length of Stay by Countries	29
6. Annual Change of Death Rates by Leading Causes (Rate per 100,000 population), 1900-1975	35

CHAPTER I

INTRODUCTION

The newspaper with the largest circulation in Japan, Asahi Shimbun, reported on July 18, 1982, that "Japanese life expectancy has almost reached eighty years." According to the article, the Japanese Ministry of Health and Welfare, Bureau of Statistics, recently reported that Japanese life expectancy for females reached 79.13 years and for males, 73.79. This report indicated that Japanese male life expectancy is at the top rank in the world, with the female expectancy ranked second to Iceland.

Japanese health status in general has improved very rapidly in the post-World War II period. In terms of life expectancy and mortality, it has reached the level of developed Western countries. In addition, epidemic diseases are no longer major causes of death. It should be noted that Japan is a postindustrial society with an advanced medical technology. However, longevity and lowered mortality rates do not necessarily indicate that any given population has maximized its health state. In fact, newspapers regularly report side effects of synthetic drugs, overmedication, malpractice cases, environmental hazards, and so forth. Just as in developed Western countries, Japanese cosmopolitan medicine is criticized, and a growing number of people have started seeking alternative forms of health care. Changes in health seeking/enhancing behaviors reflect maladaptation of cosmopolitan medicine to its environment.

Foster and Anderson view that medical system as a series of "socio-cultural adaptive strategies" (1978:33), and the adaptive nature of a medical system is well-described by Dunn: "The pattern of social institutions and cultural traditions that evolves from deliberate behavior to enhance health, whether or not outcome of particular items of behavior is ill health" (1976:135). Among highly industrialized Western countries, changes in mortality and epidemiological patterns and in the environment, which they themselves created, have challenged cosmopolitan medical systems considerably. In Powles's words:

Industrial populations owe their current health standards to a pattern of ecological relationships which serves to reduce their vulnerability to death from infection and to a lesser extent to the capabilities of clinical medicine. Unfortunately this new way of life, because it is so far removed from that to which man is adapted by evolution, has produced its own disease burden. These diseases of maladaptation are, in many cases, increasing.

We may now move forward to the following two questions: What has been the strategy for tackling these new diseases? Why has it not been more successful? (1973:12)

Japanese epidemiological changes have taken a course very similar to that of Western nations. However, it should be noted that the Japanese epidemiological transition took place in a little over three decades, only one-quarter of the period of the Western transition (Omran 1979:87). This rapid industrialization and modernization, followed by epidemiological and demographic changes, have placed unusual stresses on the state of Japanese health.

Purpose and Nature of the Study

This study is an analysis of medical systems in contemporary Japan in general, and of the cosmopolitan "health care system" in particular, which have contributed significantly to health care issues and created changes in health seeking/enhancing behavior. In so doing, various health issues and changes in behaviors relating to enhancing and maintaining health will be closely examined. Although more than the last hundred years will be covered, emphasis will be on the post-World War II period in which the rate of industrialization and modernization was accelerated. Pelto and Pelto (1978:404) suggest that it is important for anthropologists to define the new relationship between people's behavior patterns which concern the quest and the rapidly changing medical system. It is anticipated that analysis of these factors will demonstrate the maladaptive nature of Japan's cosmopolitan medical system.

Japan is an excellent source of useful and significant data for the fields of medical and applied anthropology. First, epidemiological and demographic changes and disease patterns enable us to make important comparisons with those of Western developed countries. Secondly, Japan is notorious for its environmental hazards. High population density and rapid industrialization have aggravated the situation. Developing countries, which are now undergoing a similar course of change, might well benefit from Japanese experiences. Thirdly, over one century of experience with cosmopolitan medicine can provide useful information for traditional societies to enhance

the introduction of modern medicine and to maximize health care achievement in pluralistic settings. Finally, the long history of Chinese medicine and the adoption of cosmopolitan medicine allow us to make interesting comparisons with countries such as the People's Republic of China, Taiwan, and Hong Kong, where both Chinese traditional and cosmopolitan medicine are practiced.

Methodology and Subject Area

Foster and Anderson (1978), in their recent book, *Medical Anthropology*, argue that a medical system can be separated into two categories: "disease theory system" and "health care system." In their definition (1978:37), "disease theory system" is "an ideational and conceptional system," which "embraces beliefs about the nature of health, the causes of illness, and the remedies and the other curing techniques used by doctors." Whereas "health care system" is "a social institution organized to care for the sick and to utilize disease knowledge to aid the patient" (Foster and Anderson 1978:37). It is clear that these two systems influence each other in terms of beliefs regarding disease causality, formation of a medical model, and applying the knowledge to cure patients. Yet Foster and Anderson (1978:37) argue that despite their closeness, these two systems are not the same, and that they should, for the sake of analysis, be considered as two separate entities.

The separation of "disease theory system" and "health care system" has some advantages. First, it helps us to analyze more clearly "the strength and weakness of total medical systems" (Foster and

Anderson 1978:37). Secondly, the distinction between the two systems helps us to analyze empirical data, and it is useful for cross-cultural comparisons (Foster and Anderson 1978:38). Besides these analytical advantages, this separation of the two would provide another advantage to those involved in the field of applied anthropology, viz., it would make for a more effective introduction of modern medical technology and practice to a population which utilizes only indigenous medicine. As far as a conceptual framework is concerned, the analytical advantages of Foster and Anderson's theory should be recognized. Their frame of reference will be applied in this effort.

A medical system can be approached from different perspectives, e.g., "biocultural-ecological" and "sociocultural-institutional frame of reference" (Foster and Anderson 1978:33). Just as other social institutions, a medical system is culture-specific and, therefore, subject to change according to several variables. These would be development of new technology, especially in a field of medical science, demographic and epidemiological transitions, and socio-economic and political institutions. The utilization of modern medicine and health promoting behavior is also culture-specific and dependent upon the individual's experience. However, recent studies show that these behaviors cannot be simply treated and described in terms of cultural traditions and medical beliefs. That is to say, socio-economic factors play very influential roles in people's decision-making processes (Pelto and Pelto 1978:404).

Lee conducted research on the pluralistic medical system in Hong Kong, where both cosmopolitan and Chinese traditional medicine are utilized, indicating that the real threat of disease makes people more "pragmatic" about shifting from one medical system to another (1975:232). Contemporary research suggests that socio-economic and institutional factors, in addition to cultural traditions and traditional medical beliefs, should be examined in order to obtain better insight into current health issues and changing patterns of health enhancing behavior. Thus, this study will deal with contemporary Japanese medical systems in general, and the cosmopolitan "health care system" as a socio-economic institution in particular. Biocultural and ecological factors such as epidemiological and demographic transitions and environmental hazards, which are also related to present health care issues, will be discussed briefly. Since these factors were brought into Japanese society as a result of industrialization and modernization, they will also be considered within a socio-economic institutional framework.

In order to present a total picture of the contemporary Japanese medical system, the "disease theory system" as integral, conceptual, and ideational parts of the medical system will also be considered. Traditional medical beliefs and practices will be noted by way of introduction, to provide a baseline.

Order of Presentation

The Japanese medical systems have pluralistic characteristics. The first chapter contains the introduction to the study. In the

second chapter, the types and nature of the Japanese medical systems will be noted, including how these systems have influenced and interacted with one another. The third chapter will provide an overview of cosmopolitan medicine and its system of health care delivery, which has been dominant in Japan for more than a century. Contemporary Japanese society faces different types of health problems. The goal of the fourth chapter is to synthesize these problems and examine their nature. As a consequence of these health problems, the Japanese people have started seeking alternative forms of health care. In the fifth chapter, changes in health seeking/enhancing behaviors are analyzed, and then the formation of new values and medical models will be discussed. The last chapter provides the summary and conclusions.

Background Information

The Meiji Restoration, a small civil war in 1868, brought the beginning of Japanese modernization. After the restoration, Japan opened its doors to the rest of the world. Leaders of the new Meiji government were eager to adopt Western institutions and new technology in order to modernize the nation. Gradually, Japan updated its industries and modified its political institutions. Japan's rapid technological and economic progress took place after World War II, especially in the period between 1960 and the "Oil Shock" of the early 1970s. This period is referred to as kodo seicho jidai (high economic growth era). It is reported that between 1962 and 1972, the average annual rate of increase in the Gross National

Product (GNP) was 10.3, and since 1971, Japan's GNP has been the second largest after that of the United States (excluding the Soviet bloc countries) (Europa Publications Limited 1982:638).

Japan is comprised of four main islands and hundreds of small islands, covering a land mass of 377,534 square kilometers (which is smaller than the state of California) (Murayama 1982:385). According to the Report of the Bureau of Statistics (1976), more than 112 million people resided in the country in 1976, with a population density of 300.5 persons per square kilometer. Since Japan is a mountainous country, less than 30% of the land can be utilized for industry, farming, housing, and so forth (Broida 1980:79). Consequently, the population density in the industrial areas is one of the highest in the world. It is reported that in the Tokyo area, the density is 5,321.1 persons per square kilometer and in the Osaka area, it is 4,110.2 (Bureau of Statistics 1976). Over half of Japan's entire population is concentrated in the so-called Pacific Sun Belt, the area along the Pacific Ocean between Tokyo and Osaka (Yamamoto and Ohmura 1975:42). Therefore, the nation suffers from maldistribution of population and overpopulation.

The total Japanese population is ranked among the top seven in the world (Murayama 1982:385). During the last 100 years, the population tripled (Bureau of Statistics 1976). However, the population growth rate has decreased to 1.2% per year, and it is estimated that zero population growth will be achieved by the year 2025 (Hashimoto 1978:168). And, as is true in most developed countries in the West, Japanese society is aging.

Ethnically, Japan is essentially homogeneous, with very few minority groups. The latter include Ainu, Koreans, and Chinese. Japanese is the official language and is used for the means of education. Virtually the entire population is literate, and education is an important social goal. After World War II, the Japanese education system was rearranged along the lines of the American system. The standard education process has the following stages: 1 to 3 years of kindergarten, 6 years of elementary school, 3 years of junior high school, 3 years of high school, 2 to 4 years of college or university, and graduate level education. While 9 years of education are required by law, it was recently found that over 95% of students attended high school (Hashimoto 1978:169). All in all, the Japanese education level is high, and due to the advanced mass communication technology, it is potentially a well-informed society (Lock 1980a:14).

CHAPTER II

ALTERNATIVES TO COSMOPOLITAN MEDICAL SYSTEM

The Chinese Traditional Medical System in Japan

Chinese traditional medicine, which is otherwise regarded as "Oriental medicine" (Lock 1976), or "East Asian medicine" (Lock 1980a, 1980b), was first introduced to Japan in the sixth century. Even with the adoption of cosmopolitan medicine throughout the world, Chinese traditional medicine is still widely practiced in Chinese communities. This system belongs to what Dunn calls a "Regional system" (1976:135). Chinese traditional medicine developed during the Han dynasty, from 202 B.C. to 220 A.D. (Bowers 1970:4). The philosophy underlying this system has been described in the following manner by Bowers:

the belief that the individual is a microcosm in the large universe, which is constantly interacting with and influencing his body and all of his activities. Health is dependent upon the maintenance of "harmony" in a highly complex series of relationships. There is a central unity, Tao, the "way", and everywhere, the human body included, there are two opposing forces which must be maintained in the perfect balance; yang is male--bright, warm, and positive--while yin is female--dark, cold, and negative. There are five basic elements--wood, water, earth, fire, and metal--from which spring a variety of relationships, including the organs of the body, seasons, colors, tastes, and symbols. (1970:4)

Thus, Lock (1980a:10) claims that the belief system of Chinese traditional medicine is based on a holistic concept.

Before the introduction of Chinese traditional medicine, Shinto, the Japanese indigenous religion, had a great influence upon medical belief and practice in Japan (Bowers 1970:3). Despite strict government restrictions upon medical practices after the Meiji Restoration, Chinese medicine has been practiced for 14 centuries.

Chinese traditional medicine, which the Japanese call kanpo, consists of different types of practices and curing techniques. In contemporary Japan, kanpo often refers only to Chinese traditional diagnosis and herbal therapy (Long 1980a:59). Since the official adoption of German medicine and the inauguration of national licensing of physicians after the Meiji Restoration in 1868, specialists in Chinese herbal medicine, kanpo doctors, suffered a great deal. Under the new regulations, those who wished to become kanpo doctors had to study cosmopolitan medicine and pass the national examination to be qualified physicians. Only then were they eligible to start practicing kanpo. Although the practice of kanpo was never legally forbidden, the number of kanpo practitioners and publications drastically decreased by the end of the 19th century (Otsuka 1976:322-340).

Today, all kanpo doctors obtain the M.D. degree and are trained in cosmopolitan medicine (Lock 1980a:247). Due to their dissatisfaction with cosmopolitan medicine, they either utilize both kanpo and cosmopolitan medicine in their clinical procedure or practice kanpo exclusively (Long 1980a:60). According to Lock (1976:22), there are, at present, only 100 kanpo physicians available throughout the country. As a result of the strict execution of the medical law, kanpo doctors remain as a minority among physicians.

In modern Japan, herbal medicine is available in pharmaceutical form, e.g., granules of extract, and is handled only by kanpo doctors and state licensed pharmacists (Natori 1980:65). A special government committee was set up to evaluate the safety and efficacy of Chinese traditional herbal drugs, and consequently, 210 out of over 700 Chinese pharmaceuticals were selected to be proprietary drugs (Natori 1980:67). Currently, more than 100 Chinese herbal drugs are available under the national health insurance system (Lock 1980b:245).

Acupuncture, massage, moxibustion, and bone setting are other types of therapeutic techniques used in Chinese traditional medicine. Even though these therapeutic arts are significant parts of Chinese traditional medicine, they have been treated under separate regulations since the Meiji Restoration, and therefore, they have developed independently from cosmopolitan medicine and kanpo. Thus, those who engage in those Chinese therapeutic arts maintain their identity as a group (Lock 1980b:247). Those who wish to practice those arts exclusively have to be trained at a special school and must obtain a license from a local government. As noted by Otsuka (1976:338), those arts are regarded as "paramedical activities like midwifery."

Table 1 shows the number of active Chinese traditional practitioners listed according to the type of practice. It is common for these practitioners to obtain more than one type of license; therefore, the actual number of the total practitioners is much smaller than the sum of these figures.

Table 1
 Number of Chinese Traditional Art
 Practitioners by Speciality

Type of practice	Number
<u>Kanpo</u> physicians	100 ^a
Acupuncture	42,720 ^b
Massage	76,175 ^b
Moxibustion	42,393 ^b
Bone setting	10,912 ^b

^aLock (1976:22).

^bMinistry of Health and Welfare (1978:152).

These professions have been open to visually impaired persons, and government law does not encourage sighted persons to engage in such practices in order to protect disabled persons (Ministry of Health and Welfare 1978:152-153). Therefore, it is estimated that about one-half of these practitioners of Chinese traditional art are blind (Otsuka 1976:338). The social and economic statuses of these practitioners remain lower than those of physicians (Lock 1980b:247).

Folk Medicine

The folk medical system, otherwise referred to as the "local medical system" (Dunn 1976:135), is not a scholarly-oriented institution. Self-diagnosis or diagnosing by a family member is a common practice. Treatment and therapy are also provided by either male or

female part-time practitioners or experienced nonprofessionals (Dunn 1976:139; Lock 1980a:15). Lock (1980a:15) argues that without applying scholarly knowledge to a therapeutic activity, massage and moxibustion remain a category of folk medicine.

Spiritual Treatment

Levin and Idler (1981:120) state that all religions deal with disease, hardship, and death, and help people through these traumatic experiences. When in trouble, people--consciously or unconsciously--tend to seek explanations for their suffering. Thus, religion plays an important role in healing procedures by providing the meaning for illness experiences.

The dehumanizing nature of cosmopolitan medicine has been criticized, and some segments of the population seek spiritual treatment as an alternative. Levin and Idler explain this by noting that "dehumanization of medicine is in large measure this abdication of responsibility for providing meaning for the experience of illness" (1981:118). It is also reported that in a modern society religion helps people by releasing social stresses, which often contribute to the onset of disease.

Some religious healing techniques and therapeutic procedures in Japan are very similar to those of folk medicine elsewhere (Long 1980a:57). Religious or spiritual treatment always consists of rituals and ceremonies, which are manifestations of religious symbols (Levin and Idler 1981:119).

Among a number of the Japanese "new religions," Soka Gakkai, based on Nichiren Buddhist tradition, and Tenrikyo, derived from Shinto, are the most recognized sects. It is reported that Tenrikyo started in rural areas, whereas Soka Gakkai arose in urban areas and still maintains its strength in cities (Earhart 1982:172). Long (1980a:59) addresses the influence of cosmopolitan medicine in the healing practices of Tenrikyo.

Healing has a more significant function among several new sects than in Soka Gakkai and Tenrikyo, and some of their belief systems are more closely associated with Western ideology and scientific thought (Earhart 1982:173). The number of converts, in fact, has increased with modernization (Sasaki 1976:241). Health problems of one's own or of one's family members are one of the important reasons for a Japanese to convert into one of these new religions (Earhart, personal communication).

Mediating Structure: Nonprofessional Health Care

Nonprofessional health care is referred to as "self-treatment" (Long 1980a:55) or "popular or lay medicine" (Starr 1982:47). This is the common health care practice to cure minor ailments like colds and stomach aches. Almost every household carries some kind of non-prescription drugs to treat these symptoms. Recently, Levin and Idler expanded the traditional concept of nonprofessional health care and redefined it as a "mediating structure," which is defined as a nonprofessional health care institution which lies between an individual and a society, such as family, friends, community, and

voluntary associations (1981:ix). They point out (1981) that these self and community health care treatments have a potential strength in coping with the current health care problems.

In concluding this chapter, it should be noted that clear isolation of the mediating structure from the other medical systems is not always possible, historically or contemporaneously (Lock 1980a:15).

CHAPTER III

THE MAJOR SYSTEM OF HEALTH CARE DELIVERY: COSMOPOLITAN MEDICAL SYSTEM

History of Cosmopolitan Medicine in Japan

Since the Meiji Restoration, cosmopolitan medical system, which may be called "Western" (Bowers 1970) or "modern" (Levin and Idler 1981) has been a dominant system. In the early 16th century, Western medicine was first introduced by the Portuguese, the first Westerners to arrive in Japan. Spanish and Portuguese physicians came to Japan and started practicing medicine. This medicine was called nanban igaku, which literally means "Southern barbarian medicine."

After the third Shogun of Tokugawa decided to isolate the nation from the rest of the world in 1634, the Dutch were the only people who were still allowed contact with Japan. The commerce was only permitted at Deshima, a very small island in the western part of Japan. Consequently, during a period of over 200 years of isolation, the Japanese learned Western medicine only through the Dutch physicians. This school of medicine, called rampo (the Dutch medicine), gradually gained a foothold in Japanese medicine (Bowers 1970:1-58).

After the Meiji Restoration in 1868, the government set up a new policy calling for the adoption of Western science and technology so as to modernize the nation. Along with this new policy, the government established a new license system for physicians.

The German medical system was officially adopted, and German medical terminology was used in medical education. This continued until after World War II, when American medicine assumed an influential role in the field of cosmopolitan medicine in Japan. Today, both English and Japanese medical terms are used in diagnostic and therapeutic procedures (Bowers 1965).

Medical Education

Since World War II, the Japanese education system, in general, has been rearranged along the lines of the American system. Because of severe competition, many students attend a preparatory school for one or more years prior to entering a medical school. Medical education consists of 4 years of premedicine and 2 years of clinical medicine. The degree of Doctor of Medicine is automatically given to anyone who finishes the program. An additional 5 years are required to obtain an advanced degree, Doctor of Medical Science, which is roughly equivalent to the Doctor of Philosophy degree (Fukushima and Sano 1981:482). Those who obtain medical degrees have to pass the national medical examination in order to start practicing.

It is estimated that the total cost of a medical education for one student falls in the range between \$50,000 to \$60,000 U.S. (Fukushima and Sano 1981:482). Thus, it is common for private medical schools to require large donations from students. It is charged that decisions regarding acceptance or rejection of students is based, not on academic achievement, but on the size of financial

contributions to the school. As a result, the quality of students in some private schools is not as good as those in national and a few other private schools.

Political Activity of Japanese Physicians

The Japanese Medical Association (JMA) has been characterized as a pressure group rather than as a professional organization. A large percentage of all physicians are members of the association. Steslicke (1972:914) argues that "in contemporary Japan, medical care has become highly politicized as doctors, patients, and government struggle to develop a new kind of relationship," and in a later work, *Doctors in Politics* (1973), he precisely describes the nature of the organization and the process of politicization.

The JMA has been actively involved in modifying the health insurance regulations so as to improve physicians' working as well as financial conditions. It is said that in the past the JMA tried to gain public sympathy by claiming that some physicians' income is below the poverty level (Steslicke 1972:928). Obviously, their claim is far from reality. There is no doubt that the average physician's annual income has been higher than that of most occupational groups (Long 1980a:24). This created a negative image of the association as well as of the physicians themselves. Recently, public opinion toward the JMA has become less favorable, and their activities are regarded as selfish and money-oriented (Steslicke 1973:237).

The change in physicians' image has contributed to their decline in social status. The JMA argues that the decline in their social as well as financial status may be attributed to the present system of health insurance and the socialization of the medical system (Steslicke 1972:927). Thus, it is pointed out that the nature of their political activity is characterized as "status politics to rationalize their frustration over their changed social positions" (Taguchi and Toshinai, cited in Steslicke 1972:928). Despite the unfavorable reputation of the association, there has been a number of "medical dietmen" in both upper and lower houses of the national legislature (Steslicke 1973:228). Thus, the association still functions as a strong pressure group and maintains its power in the Diet to represent doctors' interests.

Social and Economic Status of Physicians

It is said that the social status of physicians was extremely high during the Meiji era. This was attributed to the fact that they had an exclusive right to practice human medicine (Steslicke 1972:926). Physicians were also among the "cultural elites" in their communities and the symbol of modernization, and thus, were highly respected (Steslicke 1972:926).

Steslicke (1972:927) discusses the decline in physicians' status after World War II and points to several factors which have contributed to it. First, the increase in the total number of physicians has made them less scarce. Secondly, due to the increase in the education level of the nation and the development of mass media,

information on medicine and health care has become more available to the population at large. Thirdly, as earlier mentioned, the JMA has contributed to the negative image of physicians as a group via its political activities. Moreover, Long (1980a:31-32) indicates that dehumanization, the bureaucratic nature of cosmopolitan medicine, and the increased significance of paramedical personnel have detracted from doctors' expertise. As a result, their authority has declined.

Long (1980a:23-26) argues that the relationship between economic and social status is not clear-cut, and higher income status might widen the social distance between a physician and a patient and create a resentment toward a physician, especially when unfair advantage is suspected. For example, each year a number of doctors are charged as tax evaders. Furthermore, tax regulations are more lenient for physicians, allowing physicians to earn higher incomes. Several cases of "back-door" admissions to some private medical schools are also the center of public attention.

Since scholarly achievement is highly valued among cosmopolitan physicians, those who engage in research or teaching in medical schools have higher social status than private practitioners. Long (1980a:29-30) noted that physicians in academic fields are "medical elites" who have special privileges, e.g., a priority treatment in admitting patients to the university hospital.

Patients' Attitudes Toward Physicians

The doctor-patient relationship is affected by various factors, such as the socio-economic and political institutions of the society, medical beliefs, social values, and the level of medical technology. Bowers (1965:125) finds that a personal relationship between Japanese doctors and patients is much less common than in the United States, and he argues that this characteristic derives from patients' desire to maintain family privacy.

The research conducted by Long (1980a, 1980b) and Lock (1980a) both support Bowers's argument. Lock (1980a:242) notes that patients usually do not wish to have "formal established relationships" with their physicians and, instead, prefer the physicians' "objective and scientific approach." The nature of this relationship is well-illustrated by Long (1980a:38): "The variation arises in large part from the basic tension between the desire for the services of the healer and the desire to maintain control over one's body."

However, it should also be noted that many people still wish to keep a good relationship with their family doctors, especially in cases of emergency. Thus, twice a year gift-giving is still a common practice, not only to show their appreciation to a family doctor, but also to call, hopefully, for his special attention (Long 1980b:41). Long (1980b:44) finds that rapid change has overtaken this "not too far in, not too far out" relationship. She (1980b:44) indicates that patients have been developing a preference for

dependence on the doctor, both psychologically and physically. However, when a patient gets better, he or she starts seeking for a less personal and "outer" doctor-patient relationship (Long 1980b:45).

The doctor-patient relationship is also dependent upon patients' expectations as to what physicians should be. The social expectations of patients toward physicians may be well-described in the following proverb: "I wa jinjitu nari" (medicine is a benevolent art). Patients continue to wish physicians to be like this (Long 1980b:39). Recently, doctors have been widely criticized and are referred to as "arithmetic doctors," who are more eager to make money than to cure patients (Steslicke 1972:927). People claim, therefore, "I wa kinjutu nari" (medicine is a money-making art) (Lock 1980a:231). It seems that a gap has developed between the traditional, idealized doctor and present reality. An ideal doctor (mei) is considered to be benevolent, humanitarian, and devoted to his duty. Moreover, he must have good therapeutic techniques as well as skill in communicating with patients (Long 1980a:40).

Long (1980a:40-52) discusses the physician-choosing patterns of Japanese patients. Despite the shortage of physicians in rural areas, in urban areas selecting a physician is almost always a matter of individual preference. Thus, Long (1980a:52) argues that "different situations call for different doctors and types of facilities." When illness is thought to be minor, patients usually go to see their family physician near their home simply because of the convenience. Almost always, doctors both in hospitals and private

clinics do not take patients by appointment; patients have to wait for a long time to see a physician. Although physicians employed in large hospitals are considered to be less personal and very busy, patients will seek the assistance of a large hospital when their symptoms are serious enough to require special treatment and equipment that are not available in small clinics or in private practices.

Medical Specialities

As Table 2 shows, there were 150,229 qualified medical doctors in Japan in 1979, with 143,125 (95.3%) actively engaged in clinical practice. Among them, 78,451 (52.2%) were employed by either public or private hospitals and clinics, and 64,674 (43.1%) were private practitioners who owned either a hospital or a clinic. The rest, 5,455 physicians (3.6%), engaged in research, teaching, and public health projects.

In order to gain a better understanding of the nature of cosmopolitan medical system in Japan, it is important to recognize the difference between the status of a private practitioner and an employed physician (Steslicke 1972:929). It is reported that many interns and young doctors wish to own a hospital or a clinic, and therefore, few doctors regard a hospital staff position as a life-long career (Steslicke 1972:930). After gaining enough experience, financial success, and personal connections by working as an employee in a hospital, a significant percentage of them start their own medical practices (Steslicke 1972:929). It should be noted that

the JMA does not represent special interests of employed doctors (Steslicke 1972:930). Young employed physicians usually consider their positions as temporary, and thus, they have no desire to have their interests as hospital employees represented in the world of politics (Steslicke 1972:930).

Table 2
Number of Physicians by Type of Work

Type of Work	Physicians			
	1971		1979	
	Number	%	Number	%
Hospital or clinic owner	61,767	51.1	64,674	43.1
Hospital or clinic employee	52,447	44.1	78,451	52.2
Instructor or researcher	2,086	1.8	3,336	2.2
Public health service employee	1,895	1.6	2,119	1.4
Others	1,795	1.5	1,649	1.1
Total	118,990	100.0	150,229	100.0

Note. Ministry of Health and Welfare (1979b:8)

Although the proportion of private practitioners in the entire body of physicians has become smaller each year (see Table 2), private practitioners still play an important role in Japan. Private practitioners are not general practitioners. Many of them have a Doctor of Medical Science degree and they are specialists (Hashimoto 1978:173).

All cosmopolitan medical personnel, including dentists, pharmacists, nurses, midwives, public health nurses, laboratory technicians, dental hygienists, etc. are licensed by either national or local governments. In 1973, the government moved legislatively to increase the total number of physicians. Consequently, the total number of medical schools has been increased from 46 to 80 within the last 10 years, and approximately 8,000 students graduate from these medical schools every year (Fukushima and Sano 1981:482). In 1980, the ratio of physicians per 100,000 population reached 145, which is almost the same level as that of the United States and other Western, developed countries (Fukushima and Sano, 1981:482).

Medical Facilities

At the end of 1980, there were 9,055 hospitals with 1,319,406 beds in Japan (Ministry of Health and Welfare 1980b:14-18). There were several different kinds of hospitals available, based on the type of disease (see Table 3). Due to the change in epidemiological patterns, the number of general and mental hospitals has increased, whereas the number of communicable disease and tuberculosis hospitals has decreased. The hospital bed ratio was 11.3 per 1,000 population and if clinic beds are included, the ratio is over 13 per 1,000, which is about 70% higher than that of the United States (Hashimoto 1978:173).

According to the Medical Service Law of 1948, a clinic and a hospital are separate entities (Hashimoto 1978:174). By its

definition, a clinic is a place which provides medical facilities with fewer than 20 beds.

Table 3
Average Length of Stay in Days by
Different Types of Hospital

Type of hospital	1971	1980
Mental	455.4	534.8
Communicable disease	17.6	17.8
Tuberculosis	385.3	252.6
Leprosy	11,099.3	7,250.7
General	32.5	38.3
Total average	55.3	55.9

Note. Ministry of Health and Welfare (1980b:14).

In 1980, there were 77,611 general clinics, with more than 90% of them privately owned (Ministry of Health and Welfare 1981a:230). Depending on a patient's condition, these clinics provide primary and secondary care, including x-ray examination, blood and urine tests, etc. Finally, as Table 4 indicates, it should be realized that cosmopolitan medicine in Japan has been heavily dependent upon the private sector.

As Table 3 shows, it is also reported that in 1980 the average length of hospital stay, including all types of hospitals, such as those for mental and tuberculosis patients, was 55.9 days, and the average length of stay in general hospitals was 38.3 days. These

Table 4
Number of Hospitals and Clinics by the
Type of Ownership (1980)

Ownership	Hospital ^a		Clinic ^b	
	Number	%	Number	%
National	453	5.0	853	1.1
Prefectural	303	3.3		
Municipal	772	8.5	3,414 ^c	4.4 ^c
Other public	294	3.2		
Social insurance	140	1.5	776	1.0
Private and others	7,093	78.5	72,568	93.5
Total	9,055	100.0	77,611	100.0

^aMinistry of Health and Welfare (1980b:15).

^bMinistry of Health and Welfare (1981a:230).

^cAll public clinics are included.

figures are extremely high in comparison with those of other developed countries (see Table 5). There are several reasons for the notable difference in length of hospitalization. First, the traditional Japanese concept of hospitalization is different from its counterpart in Europe and the United States (Hashimoto 1978:173). There are no chronic care hospitals in Japan. Due to a lack of facilities, chronic patients share space in acute care institutions (Hashimoto 1978:173). Secondly, hospitalization expenses are relatively low, and most of the expense is covered by national health

insurance. This low cost encourages unnecessarily prolonged stays in hospitals. Thus, Yamamoto and Ohmura (1975:45) conclude that Japanese hospitals, in general, are not efficiently utilized.

Table 5
Utilization of Beds and Average Length
of Stay by Countries

Country	Year	Utilization of beds (percentage)	Average length of stay
Japan	1977	77.2	42.9
U.S.A.	1975	74.7	8.1
U.S.S.R.	1975	81.9	16.9
Sweden	1974	78.2	12.9
England	1972	79.0	13.9

Note. Ministry of Health and Welfare (1978:158).

Finally, the nature of the cosmopolitan "health care system" has been examined here. In the following chapter, this system will be further analyzed in relation to changes in epidemiology and demography and increases in man-made diseases.

CHAPTER IV

MEDICAL PROBLEMS IN CONTEMPORARY JAPANESE SOCIETY: THE HEALTH COST OF MODERNIZATION

Epidemiological Changes After the Meiji Restoration

Japanese disease and mortality patterns have changed drastically over the last 100 years. The trend of this rapid change is well-stated by Hashimoto, viz., "starting with the challenge of such epidemics as smallpox and typhus, then through the battle against tuberculosis, and now on to chronic and degenerative diseases and serious pollution episodes" (1978:165).

After 1868 when Japan opened its doors to the rest of the world, Japan suffered greatly from epidemics of such previously unknown diseases as smallpox, cholera, black plague, and dysentery. The spread of these diseases may be attributed to several factors. After the Meiji Restoration, Japan concluded a treaty of commerce and navigation with major Western countries, as a result of which Japan had to give up her right to quarantine Western ships on arrival. At the same time sanitation systems were not well-equipped. The situation was further aggravated by a polluted environment, poor nutrition, a high rate of population growth, and ignorance. Thus, the Japanese population was vulnerable to these communicable diseases. The result was the outbreak of many epidemics in a short period of time, health problems to which Western countries had been

able to adjust to over a longer period of time (Anezaki 1976:44).

In 1899, Japan succeeded in modifying the treaty and gained the right to quarantine incoming ships. In addition, the government strengthened the nation's communicable disease control program. As a consequence, those acute epidemics began to come under some control (Ohtani 1971:31).

After the threat of acute epidemics was almost over, tuberculosis became a major medical and social issue. Large numbers of rural people were attracted to large cities by Japan's rapid industrialization. Workers were not legally protected, and thus, they had to work under conditions that were generally detrimental to health. This situation was similar to that of England during the early Industrial Revolution. Due to undesirable working and living conditions in large cities, tuberculosis became more prevalent among factory workers. Once workers became ill, their employers laid them off without any compensation. Thus, large numbers of factory workers returned to their home villages. As a result, tuberculosis gradually spread throughout the nation. It is reported that in the beginning of the 20th century, several million people were suffering from tuberculosis, with about 140,000 patients dying each year. Other serious health problems were venereal diseases and leprosy (Iijima 1976:21-23).

During World War II and the post-war recovery period, almost the entire population suffered from malnutrition (Ohtani 1971:73). Many cities had been bombed, leaving living conditions in large cities difficult and chaotic. Ashitey (1980:74) notes that the

Japanese health state at that time was characterized by "(i) high incidence of communicable diseases, notably tuberculosis and gastroenteritis, (ii) high infant mortality, and (iii) high maternal mortality." Thus, health problems in post-war Japan may be considered similar to those of present-day developing nations (Ashitey 1980:74).

Those health problems have now been largely erased and may be considered comparable to those of contemporary Western countries. There is evidence that this improvement can be attributed to the success of community health programs (Ashitey 1980: Hashimoto 1976; Ohtani 1971). With the war over, a new government and the American occupation forces started to improve Japan's health state. In 1947, the Health Center Law was revised to emphasize the enhancement of community health and disease control (Hashimoto 1976:6). Within 30 years, the total number of health centers had increased from 46 to 858 (Ashitey 1980:74).

The centers play a dual role, i.e., to provide community health services and to supervise local health administration (Hashimoto 1976:6). The basic functions of the center are:

nutrition and food sanitation, environmental sanitation, public health nursing, medical social service, laboratory service, mental health, prevention and control of tuberculosis, venereal diseases and other communicable diseases, maternal and child health, dental hygiene, and other local health programs as required such as specific endemic diseases, etc. (Hashimoto 1976:7-8).

In order to guide and reinforce the functions of health centers, approximately 50 other laws were enacted, viz., Preventive Vaccination Law (1948), Tuberculosis Control Law (1951), Venereal Disease

Prevention Law (1948), Nutrition Improvement Law (1952), and Maternal and Child Health Law (1966) (Ashitey 1980:74-75).

It is interesting to note that many contemporary physicians and epidemiologists have concluded that cosmopolitan medicine has contributed little to an improvement of health in industrial populations (Preston 1981:116). McKeown (1976:91-118) indicates that lowered mortality rates and decreases in infectious diseases are to be attributed to an improvement in public health standards, an area concerned with preventive medicine, rather than to cosmopolitan medicine that is concerned primarily with treatment. Sobel states the argument well:

The most significant determinants of our better health are behavioral and environmental; namely, improved nutrition; more effective sanitation; less hazardous living and working conditions; and limited population growth, which preserves the benefits of improved nutrition. People are healthier not so much because they receive better treatment when ill but because they tend not to become ill in the first place, thanks to healthier environments and ways of living. (1979:4)

Finally, it is safe to say that the changes in epidemiological patterns in Japan cannot be fully understood without considering the course of its modernization and industrialization.

Prevalence of Chronic and Degenerative Diseases

Once a nation has overcome acute epidemics and sanitation problems, the next health problems with which to cope are chronic and degenerative diseases and those deriving from man-made health hazards. That is to say, the leading causes of death shift from tuberculosis and other communicable diseases to chronic and

degenerative illness such as malignant neoplasms and cardiovascular diseases, arthritis, emphysema, and cirrhosis.

As Table 6 indicates, the three major causes of death over the last 20 years have been cerebrovascular disease, cancer, and heart disease. Although cerebrovascular disease has been the greatest cause of death, the mortality rate has decreased in recent years. It is claimed that this phenomenon is due to a high blood pressure screening program, the use of anti-hypertensive drugs, improvement of home heating systems, and a decrease in the salt intake (Japan Society 1978:13). Nevertheless, it is reported that the ratio of death from cerebrovascular disease to the total deaths is approximately three times higher in Japan than in Western nations (Okino 1978:463).

Cancer is the second highest cause of death in the entire population (see Table 6). According to a report of the Ministry of Health and Welfare (1978), cancer was responsible for 21.1% of all deaths in 1978. This report also indicated that cancer is the single greatest cause of death for those aged between 30 and 69 (Ministry of Health and Welfare 1978). Since those who belong to this age group are socially active and many of them support a family, cancer is a big threat not only to the patients but also to their family members.

Although the total number of deaths caused by cancer has been increasing, there are substantial differences in the frequencies of types of tumors. It is reported that among the Japanese, stomach cancer is the most prevalent in both sexes (39.5% of cancer cases in

Table 6
Annual Change of Death Rates by Leading Causes
(Rate per 100,000 population), 1900-1975

Causes	Year							
	1900	1920	1940	1950	1960	1965	1970	1975
Cerebrovascular diseases	159.2	157.6	177.7	127.1	160.7	175.8	175.4	156.7
Malignant neoplasms	46.4	72.6	72.1	77.4	100.4	108.4	116.1	127.5
Heart disease	48.1	63.5	63.3	60.2	73.2	77.0	86.3	89.1
Senility without psychosis	131.0	131.3	124.5	70.2	58.0	50.0	38.0	26.9
Pneumonia and bronchitis	226.1	408.0	185.8	93.2	49.3	37.3	33.9	33.6
Hypertensive diseases	-	-	-	11.9	16.2	19.3	17.7	17.8
Tuberculosis	163.7	223.7	212.9	146.4	34.2	22.8	15.4	9.5
Accidents	45.3	46.8	39.5	39.5	41.7	40.9	41.9	29.9
Suicide	13.4	19.0	13.7	19.6	21.6	14.7	15.2	17.9

Note. Okino (1978:462).

males and 32.7% in females) (Japan Society 1978:13). This contrasts with the United States, where the figures are 4.7% in males and 3.7% in females (Japan Society 1978:13). Stomach cancer has decreased recently in Japan, and it is reported that there could be a number of contributing factors. Living standards and dietary habits have changed due to rapid socio-economic development. As a result, the Japanese people in general consume less salty food and more milk, milk products, and vitamins (Japan Society 1978:14). In addition, advanced medical technology makes it possible to detect cancer in its early stages (Yamamoto and Ohmura 1975:42).

However, cancers of the lung, breast, and colon have increased in recent years. Cancer of the colon and breast are thought to be related to fat intake. Thus, changes in dietary conditions may contribute to the increase in deaths from those cancers (Japan Society 1978:13).

Heart disease is the third most frequent cause of death in Japan. (It is interesting to note that among Western nations, heart disease is the most frequent cause of death) (Okino 1978:463). As Table 6 indicates, mortality due to heart disease has increased in Japan as it has in Western nations. Okino (1978:463) claims that this is also related to increases in fat consumption.

Finally, there seems to be a strong correlation between prevailing chronic diseases and socio-economic development. It is possible that not only the changes in diet and living environment but also social stress as a by-product of socio-economic development make the Japanese population more vulnerable to certain kinds of

chronic diseases. It is reported that Japan's epidemiological pattern has become similar to that of the United States, and that Japanese-American's epidemiological patterns are "midway" between the native Japanese and the American population (Japan Society 1978:14). This report also suggests that environmental factors, particularly those relating to life style, play a significant role in the onset of certain chronic diseases (Japan Society 1978:14).

Man-Made Diseases

Environmental Health Hazards

In Japan, environmental disruption and pollution have developed as by-products of industrialization and urbanization. It is reported that the first well-known environmental hazard developed in the late 19th century at Ashio Copper mine, where several people died from sulfur oxides and poisoning from copper compounds. Since then, the incidence of environmental hazards has increased in relation to the growth of Japanese industry and economy. Pollution-related health hazards became serious public concerns, especially after Japan entered the kodo seicho jidai (high economic growth era), with an emphasis on heavy industry and rapid population flow from rural areas into large cities (Iijima 1976:26).

Japan has experienced various types of environmental disruption and health-related hazards with varying degrees of severity, such as air pollution, water poisoning and the pollution of soil, noise pollution, and food poisoning. According to a report of the

Ministry of Health and Welfare (1981b:364-378), the following are the four most serious cases of health problems deriving from environmental hazards in contemporary Japan. Since 1955, two incidents have occurred due to methyl mercury poisoning in the Minamata Bay area and in Agano River area, with 533 deaths resulting. In the Jinzu Gawa basin, Itaitai (ouch-ouch) disease broke out due to cadmium poisoning, and it is estimated that over 66 lives were lost over the last 20 years. In the Yokkaichi area, over 931 people claimed their asthma was caused by the air contamination resulting from sulfur oxides emanating from factories in the area.

As public concern over environmental disruption and related health hazards grew in the 1970s, a term Kogai (Ko = public and gai = harm) came into general use (Japan Society 1978:18). By 1969, Kogai byo (environmental health disease) was officially defined by the Japanese government (Iijima 1976:26). According to the white paper on kogai (1971:148), the Japanese public was becoming more aware of their environment. This was reflected in the increasing number of reader contributions on these matters to newspapers. The white paper (1971:148-150) concluded that the mass media played an important role in arousing public opinion.

With regard to contemporary Japan, Shigematsu (1979:595) indicates that some improvement is evident, but pollutants such as mercury, sulfur oxides, and PCBs remain under-controlled. However, in urban areas air is still contaminated by oxidants, and photochemical smog still occurs occasionally, and it is claimed that air pollution contributes to certain kinds of health problems, such as

asthma and chronic bronchitis (Ministry of Health and Welfare (1971:7-8). Okino (1978:465) reports that the high incidence of pulmonary cancer in large cities is attributed to polluted air in those areas. Shigematsu (1979:598) conducted a multiple regression analysis to determine the relationship between environmental pollution and mortality rates. The analysis did not demonstrate significant relationship between environmental pollution and mortality rate in either sex of any age group. According to his interpretation, the increase in Japanese longevity may be attributed in large measure to the improvement in nutrition patterns and living standards, which have come with rapid economic development. These elements have a much greater influence on the Japanese mortality rate in urban areas than environmental pollution.

Iatrogenic Harm

Recently, some physicians, social scientists, and medical researchers have argued that cosmopolitan medicine causes more harm and injury than overall good (Carlson 1975; Illich 1976; Kane 1978; McKeown 1976; Mendelsohn 1979; Levin and Idler 1981; Preston 1981). The term iatrogenesis was coined to refer to harm and injury caused by physicians, surgeons, and paramedical personnel.

Iatrogenesis can occur at any stage of medical care. Mistakes in diagnosis or labeling are the most common and penetrating errors (Carlson 1975:16). Basically, there are two types of diagnostic error, "false positive" or overdiagnosis and "false negative" or incorrect diagnosis (Preston 1981:130). Usually, it is easier to

detect the latter, and the correct labeling is given as the disease gets worse (Carlson 1975:16). However, a more subtle and thus more dangerous error is "false positive" which involves the diagnosis of disease which does not actually exist (Preston 1981:130). Beyond diagnosis, excessive testing and overtreatment also can be harmful.

Reasons for Iatrogenesis

Several factors have contributed to increasing cases of iatrogenic harm. Some factors are related to the "disease theory system" of cosmopolitan medical system in Japan, and others are related to the "health care system." As was noted earlier, the separation of the two systems has an analytical advantage.

The "disease theory system" in relation to iatrogenesis. The conceptual and ideational basis of cosmopolitan medical system is referred to as the biomedical model (Engel 1977; Lock 1980a), or is regarded as the engineering approach (Powles 1973), reductionistic approach (Lock 1980a), or biophysical approach (Preston 1981). This medical model is well-described by McKeown:

The approach to biology and medicine established during the seventeenth century was an engineering one based on a physical model. Nature was conceived in mechanistic terms, which lead in biology to the idea that a living organism could be regarded as a machine which might be taken apart and reassembled if its structure and function were fully understood. In medicine, the same concept leads further to the belief that an understanding of disease processes and of the body's response to them would make it possible to intervene therapeutically, mainly by physical (surgical), chemical, or electrical methods. (1971:36)

Lock (1980a:248) finds that the biomedical model and the germ theory of disease are well-accepted by both Japanese physicians and patients. She also indicates that the reason for this acceptance derived from the Japanese socio-cultural norm, which reinforces people's tendency to avoid being ill (1980a:248). However, Lock maintains that traditional Japanese beliefs which are derived from the "disease theory system" of Chinese traditional medicine are still affecting Japanese patients and physicians despite the fact that cosmopolitan medical system has been the only official medical system for over 100 years (1980a:235):

when "scientific" medicine is newly adopted in a society, parts of the cultural tradition from the source society are also adopted. . . . Thus, cosmopolitan medicine in Japan at first reflected a German approach, particularly in medical education, to such an extent that it was usual for diagnosis forms to be written in German. Today, medical practice shows American influence. Second, beneath these influences lies a system of ideas derived from traditional Japanese values. Medicine, like so many other things in Japan today, appears, on first glance, to be thoroughly Westernized, but a second look confirms that the more correct word to apply is modernized, and modernized in a uniquely Japanese way. (Lock 1980a:235)

Lock finds that the reasons for overtreatment and overmedication are also to be found in the "disease system theory" of Chinese traditional medicine, by which, she claims, most Japanese physicians and patients are still influenced. The set of assumptions derived from the Chinese traditional medicine is well-reflected in an old proverb: Kaze wa manbyo no motonari (10,000 diseases arise from the common cold). Lock explains the belief of Chinese traditional medicine as the following:

In the East Asian tradition, if diseases are left untreated until an advanced stage, the doctor's chances of success are considerably lowered because the therapeutic techniques are not designed to deal with problems of this kind. Furthermore, if diseases are not caught in this early stage, it is believed, these nonspecific symptoms, rather than just going away, are likely to be the origin of serious diseases. In other words, all diseases, apart from sudden accidents, originate as minor states of imbalance, which gradually become chronic and more severe and may leave the patient susceptible to infection. (1980a:237-238)

It is interesting to note that cosmopolitan medicine and Chinese traditional medicine share basically the same assumption about the course of the disease, i.e., if it is untreated, it gets worse, and this assumption may lead to overdiagnosis and overtreatment. Sharing the same concept might have made it easier for the Japanese to accept the biomedical basis of cosmopolitan medicine.

Finally, it is necessary to note that professional incentive to treat a patient is also an important factor in iatrogenic harm (Preston 1981:150). Preston explains professional incentive in the following manner:

Physicians, like other professionals, tend to do what they are trained to do, and they respond to clinical problems by doing what they are best able to do. . . . Just as a matador must fight bulls to remain what he is, surgeons or physicians with technical skills must use those skills or they lose their expertise and self-respect, as well as that of their colleagues and patients. A surgeon is not a surgeon unless he is operating, and when a surgeon is faced with an operation or referring a patient for nonsurgical therapy, he is likely to interpret the indication in favor of the knife. (1981:144-145).

Preston (1981:146-148) points out that physicians are usually convinced that giving any kind of treatment or performing surgery is far more important than doing nothing, and that this is more true

when there is little chance for a cure (Preston 1981:147). Furthermore, he argues that when a patient is in a critical stage, the tendency to overtreatment substantially increases due to physicians' strong inclination toward "doing anything possible" (Preston 1981:149).

In sum, the "disease theory system" of cosmopolitan medicine in general, and that of cosmopolitan medicine in Japan in particular, has a built-in potential for iatrogenic harm.

"The health care system" in relation to iatrogenesis. The "health care system" of cosmopolitan medical system in Japan has been criticized in many respects. Preston (1981:140-144) argues that the economic incentive of physicians and hospitals is one of the most important factors contributing to iatrogenic harm.

The health insurance system in Japan is complex in nature. Introducing the nationwide health insurance system affected the relationship between patients and physicians and has had a great impact on Japanese society (Steslicke 1972:922).

The Diet passed the first health insurance act in 1922, and in 1961 it also passed a revision of the National Health Insurance Law with the policy of "health insurance for the whole nation" (Steslicke 1972:922). At present, it is estimated that over 99% of the Japanese population is covered by some sort of health insurance (Long 1980a:77).

Under the National Health Insurance Law, there are basically two different types of insurance schemes, Social Insurance for

employees of national and local governments, industries, etc., and their dependents, and National Health Insurance for self-employed, unemployed, and retired people and their dependents.

Physicians and other medical care providers are reimbursed for medical care and therapeutic treatment through standardized fee schedules. Each medical procedure such as treatment or medication is assigned a point value. One point was 10 yen (about 5 cents) in 1977, and the point value is also subject to change in each year (Lock 1980a:17). For example, most injections were 12 points (about 60 cents) (Lock 1980a:17), and the most expensive operation which an otolaryngologist would perform was rated at about \$500 (Long 1980a: 81).

The nature of the fee for service schedule in general, and rather low fee for each treatment in particular, have created many iatrogenic problems. First, in order to keep decent income levels, Japanese physicians see many more patients in a day than do American physicians. For instance, the average number of patients seen each day in Japan is 65, whereas the American counterpart sees 17 patients a day (Lock 1980a:234). As a result, Japanese physicians usually spend only a small amount of time with each patient. Thus, there is more potential for Japanese physicians to make a wrong diagnosis and give an inappropriate treatment. Secondly, in order to get greater reimbursements, physicians tend to choose treatments which have higher point values. Also, Long (1980a:81) points to "unnecessary work through repetition of procedures (especially office visits) and malingering." Thirdly, the structure of the

point system also contributes to prolonged hospitalization in Japan. As was noted earlier, Japanese hospitals usually encourage patients to stay longer than necessary. As Preston (1981:134) points out, iatrogenesis more frequently strikes in-patients than out-patients.

Many researchers point out the problems of overmedication in Japan (Iijima 1976; Lock 1980a; Long 1980a; Steslicke 1972, 1973; Yamamoto and Ohmura 1975). Preston (1981:133) adequately points out that the overuse of drugs is "epidemic," and this is also true in Japan. As in West Germany and several other countries, approximately 1,000 thalidomide impaired birth cases were reported in Japan (Lambert 1978:88). Sometimes, it takes a long time to determine the relationship between a drug and its side effects, and the Subacute Myelo-Optico Neuropathy (SMON) case falls into this category. SMON disease, a sensory and motor lesion disorder, was induced by a drug called chionoform (clioquinol), which was prescribed for treating abdominal disorders. Since the causation of the disease was not made clear in the early 1970s, approximately 11,000 people in Japan have suffered from it, with some deaths resulting (Sonoda 1978:497).

According to the Social Insurance Survey of 1979, drug and hospitalization were the two major sources from which physicians and health providers gained more point values. It should be noted that in Japan physicians are allowed to sell drugs. Lock (1980a:232) also points out that sale of drugs is the major source of income for Japanese private practitioners. Furthermore, Japanese physicians prescribe much more medicine than do American physicians (Lock 1980a:238). Therefore, the nationwide health insurance system and iyaku

bungyo (the separation of medical treatment and sale of medicine) have caused a major dispute between the Japanese Medical Association and consumer groups. The iyaku bungyo law was passed in 1951 despite the strong objections of the JMA (Steslicke 1973:46). However, the law was not enforced until recently, since an amendment, allowing physicians to continue to sell drugs, passed before the enforcement of the iyaku bungyo law (Lock 1980a:232).

The fact that physicians prepare and sell drugs is a derivative of the kanpo tradition. That is to say, main kanpo practice consists of mixing many different kinds of herbs and changing the proportion of each herb daily according to the patient's condition (Lock 1980a:232). Since Japanese physicians are still influenced by kanpo belief, Lock argues that some Japanese physicians still think it necessary to have absolute control over the preparation and sale of medicine (1980a:232). However, it would seem that the main reason for the physicians' objection to the iyaku bungyo is the profit motive (Steslicke 1973).

It is also claimed that physicians receive significant rebates from pharmaceutical companies (Long 1980a:82-83). It is said that physicians tend to sell products from which they are able to make the largest profit. Thus, not only the amount of drug prescribed but also the safety and effectiveness of prescribed drugs are in question. The total production of drugs increased by over 60% within 5 years (Ministry of Health and Welfare 1980a:1). It is claimed that the prosperity of pharmaceutical companies has been achieved at the expense of the health of the Japanese people.

The term yakugai was coined to describe the health damages done by medication. Since this term appears frequently in Japanese mass media, consumers have become more aware of side effects of drugs and problems in overmedication. However, it should be noted that iatrogenic incidents, which are recognized by the public, are but the "tip of the iceberg," and several factors account for this. As in other societies, trust in doctors is an important factor in maintaining a good doctor-patient relationship in Japan (Long 1980a:53). Preston (1981:127) argues that since iatrogenesis would possibly destroy the trust in a healer, it is not seen often. Moreover, since cosmopolitan medicine claims to be scientific, it is especially hard for physicians to admit iatrogenic injury (Lock 1980a:5). Thus, iatrogenesis is not often found or is not noted by physicians or patients.

In sum, despite the nature of iatrogenic diseases, it is claimed that iatrogenic incidents and the potential danger of such diseases have been more recognized by the Japanese public, and that physicians predict that the number of malpractice law suits will increase in the near future (Long 1980a:32-33). Iatrogenic harm has been analyzed in terms of the "disease theory system" and the "health care system" of cosmopolitan medical system. Findings indicate that both account for iatrogenic incidences in contemporary Japan. However, it seems that the "health care system" in general, and the health insurance and drug distribution systems in particular, have aggravated Japan's health state.

CHAPTER V

IMPACTS OF CURRENT HEALTH PROBLEMS ON MEDICAL SYSTEMS IN CONTEMPORARY JAPAN

The increase in iatrogenesis has stirred up fear and resentment in the Japanese public toward physicians and huge bureaucratic medical institutions such as the Japanese Medical Association, pharmaceutical companies, and the government. The national health insurance system and iyaku bungyo are the two main focal points of the dispute among the consumer groups, the JMA, and the government.

The prevalence of chronic and degenerative diseases have also made the public more sensitive about health issues. The doctor-patient relationship can be determined in terms of a patient's confidence and trust in a doctor (Long 1980a:33). Despite the public concern about health problems, if the relationship is boiled down to an individual level, it is reported that generally people still maintain a trust in their family doctors and are satisfied with their treatment (Lock 1980a:242; Long 1980a:36). However, it should be noted that in case a minor ailment develops into a chronic condition or in case patients cannot see any effectiveness in treatment, they become skeptical about physicians. Moreover, people eventually lose their trust in cosmopolitan medical system itself. Naturally, then, people start seeking alternative health care.

Changes in Health Seeking/Promoting Behaviors

As earlier mentioned, there are mainly four alternatives to cosmopolitan medical system, i.e., Chinese traditional medical system, folk medicine, spiritual treatment, and a mediating structure, (nonprofessional health care institution which lies between an individual and a society, such as family, friends, community, and voluntary associations). Among these four alternatives, Chinese traditional medical system and mediating structure, in particular, have drawn the public as well as professional attentions.

Revival of Chinese Traditional Medicine

There is good basis for believing that kanpo, Chinese traditional medicine, is now highly regarded (Lock 1978, 1980a, 1980b). This is reflected in the increasing consumption of herbal medicines (Natori 1980:67). Several factors contribute to the revival of Chinese traditional medicine. However, it should be first made clear that this revival phenomenon in contemporary Japan does not have anything to do with a nationalistic movement. In Chinese societies, the revival of Chinese traditional medicine is also reported, but these revival trends are deeply rooted in the rise of nationalism (Croizier 1976:341; Leslie 1976:319). In contemporary Japan, other factors should be considered in explaining the reasons for the revival of Chinese traditional medicine. First, Lock (1978, 1980a, 1980b) noted that the most important factor for the revival is rooted in individual experiences of chronic diseases. In these

situations, Lock (1980a:244) points out that patients are very concerned about side effects of synthetic drugs, which are usually prescribed in large doses. Since cosmopolitan medicine is the only official medical institution and it is covered by the national health insurance, the majority of the Japanese people choose cosmopolitan medicine, once they become ill. They wish to receive a scientifically accurate diagnosis and would like to find out what causes their illness through a cosmopolitan medical doctor (Lock 1980a:244). Nevertheless, Lock (1980b) and Otsuka (1976) point out that many patients who suffer chronic diseases find cosmopolitan medicine cannot deal very well with these sorts of illness. According to Lock's field research, only 10% of her informants with chronic disease experience kept their trust in a cosmopolitan physician. On the contrary, they are positive about Chinese traditional medicine (Lock 1980a:243). Kanpo medication is thought to have no side effects and to work very mildly, with healing progressing gradually (Lock 1980b:251).

Patients find beneficial therapeutic qualities in Chinese traditional medicine, which cosmopolitan medicine fails to provide. Kanpo physicians treat a patient more holistically than a cosmopolitan doctor (Lock 1980a, 1980b). That is to say, kanpo physicians consider patients' physical as well as socio-cultural environment, and thus, they try to eliminate patients' negative environment. In a sense, kanpo physicians provide physical therapy as well as psychotherapy (Lock 1978:152). Evidence for this is seen in the amount of time kanpo physicians spend with their patients (Otsuka 1976:322).

All in all, patients seek certain therapeutic qualities in Chinese traditional medicine, which cosmopolitan medicine is believed to lack.

Other factors should be considered in the revival of kanpo. First, scientific proof of effectiveness in Chinese traditional medicine should be noted. For instance, the success of acupuncture in anesthesia use in the People's Republic of China drew Japanese public attention. Secondly, Japanese mass media have played a significant role in raising public interest in Chinese traditional medicine (Lock 1980b:250).

Overall, the revival of Chinese traditional medicine is evident. Lock predicts that this trend will continue, and that a growing number of people will choose Chinese traditional medicine as an alternative to cosmopolitan medicine (1978:169). However, it should be noted that there are some drawbacks (Long 1980a:60-61). First, as mentioned earlier, at the present time there are only about 100 kanpo physicians available throughout the nation. Secondly, since most kanpo therapy and medication are not covered by national health insurance, it is cheaper for a patient to consult with a cosmopolitan physician. Thus, there are certain limitations to this revival trend which will persist unless the existing laws and social institutions are altered.

Mediating Structure: Nonprofessional Health Care

Self-Care: Individual and Family

Self-care is probably the oldest type of health care system in human history. The family is the smallest social unit, where "protection, nurturance and education" are the major functions (Levin and Idler 1981:68). In this unit, family members share the same belief system regarding the human body, disease causation mechanism, and therapeutic procedure. In recent years, however, this oldest type of health care unit has been reevaluated by health researchers and given a great deal of credit in coping with current health problems.

In the United States, for example, the self-care movement started as a reactionary movement and a protective strategy against the bureaucratic and dehumanistic nature of the cosmopolitan "health care system." It should also be recognized that reevaluation of self-healing capacities in the human body has had a significant impact on the movement. In Japan, the public in general has become more conscious and concerned about health and their environment, and has begun to realize the importance of autonomous health care. In other words, the public is more convinced that individuals are the only ones to be able to protect their own health.

The self-care movement includes various types of socio-cultural activities and interventions. These activities may be divided into two categories, viz., health promotion and illness prevention, and self-medication and therapy once people become ill. It is important

to recognize that jogging, Yoga, various types of exercise, and natural food are not just passing fads. Japan is a well-informed society, and there are many audiences for the increasing number of popular publications on disease prevention, various kinds of exercises, iatrogenic harm, health food, and so forth. Since accurate information about human physiology and iatrogenic disease is available to the public, these sorts of knowledge and information contribute to people's health promotion and disease prevention behaviors.

Chronic and degenerative disease management, self-medication and treatment, effective use of cosmopolitan medical care resources, etc. are the main objectives for the second part of the self-care movement (Levin and Idler 1981:251). An increasing number of Japanese people are successfully managing their own illnesses at home. This is made possible by the fact that contemporary medical technology and knowledge are available to lay people such as continuous ambulatory peritoneal dialysis (CAPD), home blood pressure monitoring, and diabetic self-monitoring.

Community and Voluntary Neighborhood Organization

Community health care activities in Japan have a long history. Miyasaka and Kawata (1979:78) indicate that these activities can be traced back to the early Meiji era. The Japanese epidemiological patterns have shifted from a high incidence of communicable diseases to one of chronic and degenerative diseases. The objectives of community health care have changed in coping with newly-arising health

care problems (Miyasaka and Kawata 1979:78).

Some of these health problems are area specific. In metropolitan areas, for instance, one of the important roles for a community would be environmental protection, including pollution control. However, there are health problems which all communities are currently facing, e.g., chronic and degenerative diseases and geriatric health concerns. The drastic change in family structure in the last few decades has made it very difficult for an individual household to deal with these sorts of problems. It is reported that three generation families have decreased rapidly and the average number of people in one household is approximately three (Samuma 1978:470). Thus, statistics indicate that, today, a growing number of the aged live by themselves (Samuma 1978:470). Furthermore, it is pointed out that the cosmopolitan "health care system" seemingly cannot adjust to this drastic change (Levin and Idler 1981:259). Hayakawa (1981:768) notes that due to the shortage of nursing homes in Japan, hospital beds are full of aged and chronic disease patients, and thus, sometimes acute illness patients have to wait for a long time until they can be admitted to a hospital.

Under these circumstances, the Japanese public began to realize the limitations of professional health care and to discover the potential strength and effectiveness of community health care (Hayakawa 1981:772). These neighborhood organizations are able to offer physical as well as psychological supports to long-term illness patients. It is apparent that community organizations contribute to a reduction in the ever-increasing health care expenses, both

of individuals and the government.

In sum, present nonprofessional health care movements were established in order to cope with various health problems with which the cosmopolitan medical system had failed to deal. However, these mediating structures are not an anti-institutional drive against professional health care. On the contrary, a mediating structure contributes to the effective distribution and use of cosmopolitan medical resources, and therefore, it helps to maintain public trust and interest in professional health care (Levin and Idler 1981;263).

New Medical Model: Changes in the "Disease
Theory System" in Cosmopolitan
Medical System

Besides the prevalence of iatrogenic disease, cosmopolitan medicine is criticized as providing dehumanizing, fragmented care and superficial treatment (with an emphasis only on removal of symptoms). This has been represented in a denial of the self-healing capacity of an individual, and a lack of concern about environmental and socio-cultural factors (Hayes-Bautista and Harveston 1977:8). These criticisms stem from the biomedical model or the reductionistic approach of cosmopolitan medicine's "disease theory system," and therefore, the biomedical model has been challenged and criticized. An attempt has been made to go beyond these limitations, and as a result, a new medical model has emerged. This new model is referred to as a "holistic health model" (Hayes-Bautista and Harveston 1977) or as a "biopsychosocial model" (Engel 1977).

The significant difference between the biomedical and holistic health models is the pathogenic location; in the holistic medical model, pathogeny is located outside of an individual body (Hayes-Bautista and Harveston 1977). Hayes-Bautista and Harveston (1977: 8-9) argue that placing the pathogenic location outside of a body carries the following assumptions. First, multiple causal factors have to be taken into consideration. That is, besides micro-biological aspects of illness, socio-cultural and environmental factors play a crucial role in the onset of a disease. Secondly, multiple causations require multiple interventions to regain a state of health. Multiple interventions consist of the two levels of practice.

In regard to individual level intervention, not only orthodox cosmopolitan medical treatments but also so-called "fringe" treatments such as chiropractic, acupuncture, and natural food are considered as optional means. Once the institutional level of causation is viewed as the major cause of an illness, institutional and environmental interventions such as improvement of working conditions are essential for the complete cure. Finally, once the lost health is restored, active efforts are important for the maintenance of a healthy balance (Hayes-Bautista and Harveston 1977:8-9).

The influence of the holistic health model upon the Japanese cosmopolitan medical system is subtle yet apparent (Lock 1980a:225). During the last decade, the holistic approach has been recognized among cosmopolitan physicians, and this is reflected in the increasing number of departments of psychosomatic medicine in large

hospitals (Ministry of Health and Welfare (1979b:8), and in the growing literature on a holistic approach. Japan has over 1,000 years of history in Chinese traditional medicine, and the belief and the philosophy of kanpo is based on a holistic concept. Thus, the concept of holism is not at all new to the Japanese. Moreover, according to Lock's hypothesis (1980a:246), despite the fact that cosmopolitan medicine has existed for centuries and is the only official medical system in Japan, physicians and patients are still influenced by the traditional beliefs and values derived from Chinese traditional medicine. Therefore, it is predicted that in the future, the holistic health model will become much more influential in the field of cosmopolitan medicine in Japan.

CHAPTER VI

CONCLUSIONS

This thesis has undertaken an investigation into the socio-cultural transformation of Japanese medical systems in general, and of the "health care system" of cosmopolitan medical system in particular. This transformation is closely related to the rapid modernization and industrialization accompanied by drastic changes in demography and epidemiology, especially after World War II.

No medical system is able to provide problem free health care to its population. The maladaptive nature of cosmopolitan medicine vis-à-vis its environment is also reflected in current health issues in contemporary Japan. Once a nation conquers sanitation problems and acute infections, it must face chronic and degenerative diseases and man-made health problems. It has been discussed that a lowered mortality rate and decreases in communicable diseases are largely attributable to the improvement in public health standards, and the nationwide health centers have played a significant role in this achievement.

Today, the major health issues are chronic and degenerative diseases and man-made health hazards, i.e., environmental health hazards and iatrogenic harm. It is obvious that environmental disruption and pollution were largely due to Japan's rapid industrialization and urbanization. As far as iatrogenic harm is concerned, findings strongly indicate that the "health care system" of

cosmopolitan medicine, particularly the drug distribution system and the national health insurance system, have made the Japanese population more vulnerable to iatrogenic harm, and thus, they have aggravated Japan's health state.

Due to those health concerns, growing numbers of Japanese have begun to seek alternative health care. Among the four main alternatives to cosmopolitan medicine, i.e., Chinese traditional medical system, mediating structure, folk medicine, and spiritual treatment, the first two are considered to have potential strength in coping with current health concerns.

Besides the above-mentioned health issues, geriatric health problems, maldistribution of cosmopolitan health resources and manpower are also factors in recent, rapid increases in medical cost (Broida 1980:89). In the researcher's opinion, mediating structure (nonprofessional health care) has flexibility, which is significant in dealing with these health problems associated with the rapidly changing socio-cultural-economic institutions.

Revival of Chinese traditional medicine is evident. However, there are some drawbacks. Since most kanpo therapy and treatment is not covered by the national insurance scheme, switching from cosmopolitan medicine to kanpo treatment would create a financial burden to a patient. Moreover, the shortage in kanpo physicians is reported (Long 1980a). Impacts of current health problems are also observed in the "disease system theory" of cosmopolitan medicine. It is claimed that Japanese patients and physicians are still affected by the belief system of Chinese traditional medicine, and

the philosophy of this system is based on a holistic concept (Lock 1980a:246). Thus, this study suggests that in the future, the "holistic medical model" will play an influential role in the field of cosmopolitan medicine.

Medical systems, just as other social institutions, are not stable and, thus, are subject to change. In these circumstances, Pelto and Pelto (1978:404) emphasize anthropologists' tasks for defining the new relationship between the changes in people's health seeking/promoting behavior patterns and rapidly changing medical systems and industrialization. This essay suggests that socio-economic factors, in addition to cultural traditions and traditional medical beliefs, should be examined. Foster and Anderson's (1978) conceptual framework, the separation of "disease theory system" and "health care system" has been applied to this attempt, and the analytical advantages of this framework have been demonstrated.

After the contact of Western culture, coexistence of both cosmopolitan and traditional medical systems has been observed in many countries, where traditional or indigenous medical systems were readily utilized. Therefore, Lock (1980a:2) argues that "pluralism rather than assimilation" takes place in such settings. Kunstadter (1975:691) also asserts that medical systems are subject to change and can never be homogeneous either in traditional or modern society. Under such pluralistic medical settings, traditional and cosmopolitan medical systems have influenced each other in regard to both the "disease theory system" and the "health care system." Cosmopolitan medicine has been implanted throughout the world, but regional

traditions are retained. Thus, Dunn (1976:136) states that cosmopolitan medicine is never "globally homogeneous."

Despite the interaction of cosmopolitan and preexisting medical systems, Lock (1980a:257) denies the possibility of blending them in the future, and stresses that the medical system will remain a pluralistic institution. The following factor supports her argument. In the future, epidemiological patterns will also change along with the development of technology and socio-cultural transitions. Therefore, it is safe to say that no medical system will be able to offer problem-free health care to any given population. Cosmopolitan medicine has been challenged by chronic and degenerative diseases and iatrogenesis. Thus, no matter how medical technology will develop, there will always be some segments of the population which are not content with and cannot be cured by cosmopolitan medicine. It should be recognized that "the existence of a pluralistic medical system offering a variety of approaches to the alleviation of suffering is highly functional" (Lock 1980a:259). Therefore, Lock (1980a:264) emphasizes the need for complex societies to nourish a pluralistic medical system.

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