Renewal of Goals for Health of the People

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ABSTRACT

The global environment in which we live has changed dramatically in the past 50 years. High-speed transport implies that an infectious disease that breaks out in one region may quickly spread to encompass the entire world. Cases of dermatitis caused by chemical fibers are on the rise as chemical fibers replace natural fibers in the clothing we wear. Unbeknown to us, residual pesticides and postharvest chemicals undermine our health.

The life span of people living in this new environment has also changed dramatically. Health targets designed for an aging society are how to raise quality of life and how to reduce the time spent bedridden before death. One example of medical technology for terminal care in an aging society is the medical examination.

One typical medical technology of Multiphasic Health Testing and Services is the establishment of standard values. A factor that affects standard diagnostic values is normal reference values of test reagents. One method of measurement has 100 test reagents, and the normal values for each are different. The sensitivity of dipsticks, for example, differs depending upon the manufacturer. This situation makes it difficult to follow health trends continuously. Reagents are now an integral part of pharmaceutical manufacturers’ global strategy. It will not be easy to achieve standardization if manufactures think only of themselves.

An international conference such as this is the perfect place for us to speak out as one in favor of standardization. I would also like to touch upon how reagents currently stand internationally.

Key Words Quality of Life; Reduce the Time Spent Bedridden Before Death; Normal Reference Values; Standard Diagnostic Values

Human beings by nature have a sincere desire to attain health and longevity, both of which are human rights. To ensure these fundamental human rights of health and longevity we need a peaceful, bountiful and clean living environment. If asked to give a definition of health, most people would, without hesitation, answer in the same way as in the 1946 Preamble to the Constitution of the World Health Organization. This describes health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” We find ourselves not even able to ensure the health of the people around us let alone all citizens of the world. Our minds are falling ill, our bodies are falling ill and the societies in which we live are also getting sick.

A healthy society is one where there is peace, a sufficiency of food and other commodities necessary to sustain life, a high level of industrial activity, a fair distribution of wealth and one where people lead meaningful and satisfying lives.

The World Health Organization, in addressing the question of what is health, has, in addition to the physical and mental health of the individual, emphasized the role of society and recognized the importance of the environment as it relates to human health. This idea incorporates the passage of time and the well-being of society as a group in addition to the biological and medical evaluation of each individual’s health. This can be interpreted as meaning that people do not live by bread alone and that healthy participation in civilization and production is a fundamental part of life. Regardless of whether this means people adapt in a healthy way to a particular society or whether it indicates that the society itself must not fall ill, the inclusion of “society” in the definition of health from both of these aspects is a revolutionary approach.

Their declaration of “health for all citizens of the world by the year 2000” in the Alma-Ata Declaration could paradoxically be considered to be a warning to the world. Could it be that we are polluting the environment in which we live to such an extent that the world will no longer be able to sustain healthy life? As we see the entire global environment being affected by such regional changes as global warming or the El Nino effect, we realize that any discussion of health must incorporate the health of society in addition to the biological and medical health of the individual.

Differing cultures and societies have developed in various regions of the world. Yet each society and culture must not only endeavor to create a healthy life for its own people, but also support the global community.

In Japan during the years immediately following World War II, there were other more pressing considerations than health and longevity. The main concern of the Japanese population was to find sufficient food to eat. It was enough to make it through the day and live to see another one. Poverty led to malnutrition. Not only did the health of the individual suffer but society itself suffered and became impoverished. At that time, many people contracted tuberculosis and infectious diseases of the digestive system. The well-being of society as a whole was lost in the process. But as the country recovered economically, society gradually regained its health. So much so, that today Japan boasts the highest life expectancy of any country in the world.

The people of Japan concentrated all of their efforts on economic recovery, and the result was phenomenal economic growth. Some called the Japanese people “economic animals.” Then the country was hit by the collapse of the so called “bubble economy.”

The Japanese people now face new challenges. Although Japan now has the world’s highest life expectancy it is now faced with the issue of maintaining health in a society that is aging at an unprecedented pace. In addition to the normal physiological deterioration that is part of the aging process, Japan must deal with chronic impediments to health that have resulted from unhealthy lifestyles.

It is almost as if nature were lashing back at us with emerging and re-emerging infectious diseases such as HIV (human immunodeficiency virus) and MRSA (methicillin-resistant staphylococcus aureus), etc. sending new shock waves through society. Japan
is now about to enter an age in which primary prevention against new lifestyle related diseases will be all-important.

The statistics show the changes that have taken place in the social environment in just 30 short years. You can see that the structure of disease has changed dramatically (Fig. 1).

A look at the incidence of the major diseases, heart disease, diabetes and cancer over the 30 years since 1965 shows that their order of prevalence has changed.

Unhealthy lifestyles may have had a large influence on the number of people suffering from these diseases, but if high blood pressure, cerebrovascular disease and the like are viewed as an inevitable part of the aging process, then aging itself must be seen as a major contributing factor.

Death rates categorized by cause show that Japan has lived down the reputation it had after World War II of having a major tuberculosis problem and it has conquered infectious diseases. It has also greatly reduced the death rate due to cerebrovascular disease. But the mortality rate due to cancer is on the rise and shows no sign of abating (Fig. 2).

The life expectancy of the Japanese people has continued to climb since 1955 and Japan now has the highest life expectancy of any country in the world. Japanese people have long had a sincere desire for health and longevity. We now realize that once health and longevity are attained a whole new range of problems arise.

Gerontology questions the practice of prolonging life with no regard given to the quality of that life. I believe this is what the World Health Organization means when it talks about a healthy society. It certainly does not support the concept of an aging society of bedridden people. This serves as a reminder that the right to health and longevity goes hand in hand with a healthy participation in society until the very end. Our new goal for health care is to reduce the amount of time spent bedridden before death and to increase the length of healthy and active life.

Changes in the social environment have resulted in huge biological changes in the individual. The following changes in the physical build of today’s youth clearly show that those changes have more to do with acquired social customs and lifestyles than with congenital genetic factors. This emphasizes to us that future health care issues must be considered in conjunction with social issues (Fig. 3).

The change in the build and proportions of school students can be cited as an indicator of the relationship between developments in society and those in the area of health.

An annual comparison of measurements of 13-year-olds shows that each year they continue to both get taller and heavier. As there is no indication of an increase in the sitting height of these children, there is clearly a trend towards longer legs (Fig. 4).

People are also working less hours. In 1997 employees in Japan worked 1900 hours and the average number of days worked per month was twenty. This compares with over 2000 hours worked in 1987 with an average of twenty two days a month. This combination of working fewer hours and sleeping less has resulted in increased leisure time.
Breslow has suggested that there are seven lifestyle habits that are detrimental to health. The risk factors concentrated on the causality between unhealthy habits during leisure time and a person’s health. He devoted the greatest amount of discussion to exercise, but his list of healthy habits did not include physical activity at work or while commuting. I believe that physical activity while commuting should be included. I also believe that it is important to quantify all other habits as well. There is a growing need for analysis of the behavior of people, whether a person drives to work or jogs to work, from the standpoint of behavioral science, and those results must be factored into any discussion of preventive medicine (Fig. 6).

Social changes have brought about drastic differences in people’s habits. Take, for example, eating habits. Ideas about eating meals at regular hours and eating out have changed greatly with the advent of snacks and fast food restaurants. The trend toward the nuclear family in Japan has stripped the family of the harmony of collective life. What effect do these changes in our eating habits have on our health? Let’s take a look at the risks inherent in the food we now eat in Japan. Food is being produced further and further away from the point of consumption, resulting in longer shipping times. To maintain freshness, farm products are sprayed with insecticides and many preservatives are added. Farm products are being improved and genetically altered to cater to consumers who base their purchasing decisions on appearance (Fig. 7).

It is said that the jet plane, capable of mass high-speed transport, is making the world a smaller place. Food from all over the world can be obtained anywhere at any time of the year. This globalization of culture, where people can eat food whenever and wherever they want, is one product of aeronautical technology.

Nowadays in Japan, it is commonly experienced that some imported fruits such as oranges do not spoil or become moldy after being left to sit for several months. In order to make food from all over the world available anywhere and all year round, they have to be sprayed with post-harvest chemicals and “make-up” has to be applied to maintain their freshness. When food is treated with preservatives or wax it is still possible, in some instances, for end consumers to detect that chemical agents have been used, but with foods that have been genetically altered or irradiated for preservation purposes, it is nearly impossible to distinguish them from untreated foods. It is important for us to determine just what effect these developments are having on our health (Photo 1).

The indoor environment in which we live continues to change dramatically. The environment is being polluted by dioxins, formalin, environmental hormones and other new artificial substances that are not products of nature. I believe that an epidemiological assessment must be made in an effort to come up with measures to

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Fig. 5 Trend in sleeping hours.

Fig. 6 Trend in total annual working hours and number of days worked a month.

Fig. 7 Risks lurking in food.

Fig. 8 Changes in living environment.

Fig. 9 Clothing.
Today, people place a higher priority on how clothes look rather than their utility. Clothes are an indispensable part of a healthy life because of the role they play in protecting our bodies. Most clothes are now made from petroleum products. It seems that wearing clothes made from natural fibers is now a privilege afforded only to the rich. Chemical fibers are very effective when used to make waterproof fabrics or clothing designed for extreme weather conditions, but the effects of physical contact with them on our health has yet to be assessed. Because roughly one-third of our lives is spent in bed, there is good reason to investigate the relationship between health and materials used in bedding such as cotton and down. Rest and sleep should be measured not only by the amount of time we sleep or spend in bed. Just look at how important the actual quality of sleep is to our ability to recover from the grind of daily life (Fig. 9).

Over the 50 years or so since World War II measures taken in Japan to prevent adult disease associated with aging have met with great success (Fig. 10).

In 1998 the Japanese Government announced a very important policy change with regard to health. It directed its attention to changing lifestyles amidst rapid social change and addresses the issue of prevention of lifestyle related diseases. This is a totally different concept from adult diseases which are greatly affected by changes that come with aging. This trend is a global one. Enhancement of primary prevention of disease by promoting healthier lifestyles is vital to the maximization of limited medical resources. Three major factors are involved in the onset of disease. They are genetic predisposition, the environment and lifestyles. With regard to the environment, in the past diseases triggered by pollution were often cited. Today attention is centered on environmental hormones, dioxin, PCB and other so-called
microchemicals as causes of disease. Despite this, we humans continue to pollute the very environment in which we live with our garbage and waste (Fig. 11).

The lives we now lead in such an environment differ vastly from the agrarian and industrial societies of the past (Fig. 12).

Lifestyles are made up of daily repetition and individuals change greatly as they enter each new stage of their life. Changes are caused by social factors as we grow older and by the different life-events in life. Everyone has experienced the transition from student to worker. Next comes marriage, then pregnancy, parenthood and child rearing. Each of these stages is different in terms of lifestyle. These changes in lifestyle exact a great psychological toll resulting in stress (Fig. 13).

Major lifestyle changes often occur when job postings necessitate a move to another city, or possible, even another country, sometimes with people having to leave their families behind, which, by the way, is a common practice in Japan. It is vital that we identify as soon as possible the causes of lifestyle related diseases lurking in our daily activities such as eating, sleeping, bathing, exercise and mental stress. Once identified we can take steps to either eliminate or alleviate the negative aspects (Fig. 14).

CONCLUSION

In this presentation we have considered the definition of health given by the World Health Organization. This broadens the concept of health to incorporate the social aspect. We looked at the historical background and factors affecting health today and Japan’s new primary prevention policy, where attention is now being directed to lifestyles. In near future, we will come to the inevitable realization that any discussion of renewal of health goals for the new millenium which only address the conventional, biological view of the physical and mental health of the individual in the narrow medical sense, is bound to fail.

Whether we like it or not, the global environment, that is the space in which we live, and social factors, have become vital components in any discussions regarding the evaluation and maintenance of health.