

HUMAN RESOURCE POLICY IN SUSTAINABLE DEVELOPMENT: GLOBAL TRENDS IN HUMAN HEALTH

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Contents

1. Introduction
 2. Prevention and Control of Communicable Diseases
 3. Prevention and Control of Non-communicable Chronic Diseases
 4. Prevention and Control of Environment and Work-related Ill-health
 5. Health policy and Health Services
 6. Perspectives
- Glossary
Bibliography
Biographical Sketches

Summary

The health of all people is an essential part of life support systems. This article presents an overview of global trends in human health. The prevention and control of communicable diseases, non-communicable chronic diseases, environment and work-related ill-health, as well as the development of health services have been emphasized, to ensure the best health for the greatest number that is the main human resource in achieving sustainable development.

1. Introduction

The health of all people is an essential part of life support systems. Weighing the evidence of the past and the present, there are outstanding landmarks on the pathway of human evolution since the beginning of this century. These developments could not have occurred without the tremendous advances in medicine and public health.

The most important pattern of progress in health now emerging is a significant trend towards healthier, longer life. Half a century ago, the great majority of the population died before the age of 50. In 1998, at least 120 countries with total population above 5 billion had a life expectancy at birth of more than 60 years; the global average was 66 years (the highest being 80 years in some developed nations) compared to only 48 years in 1955. It is projected to reach 73 years in 2025. Such advances are continuing at a remarkable pace, and offer real hope for a better and healthier future for mankind.

However, in today's rapidly changing world, there are transitions of human health, suffering and disability which need to be re-judged. For example, the infectious diseases can no longer be regarded as restricted to developing countries. This is clear from the

evidence of their international resurgence and the intercontinental spread of HIV/AIDS. Nor can chronic non-communicable diseases continue to be judged only as problems of the richer nations. The chronic non-communicable diseases are also emerging at an alarming rate in poorer regions where communicable diseases still flourish. Other transitions that significantly affected health status and disease patterns include growing environmental health problems resulting from natural resources degradation and pollution, and improper use and disposal of hazardous materials; accidental injuries; unhealthy lifestyles and behaviors; as well as significant demographic changes caused by rapid population growth and unplanned urbanization in some countries and global population aging. In addition, the gaps between the health status of rich and poor are still wide, and are becoming wider.

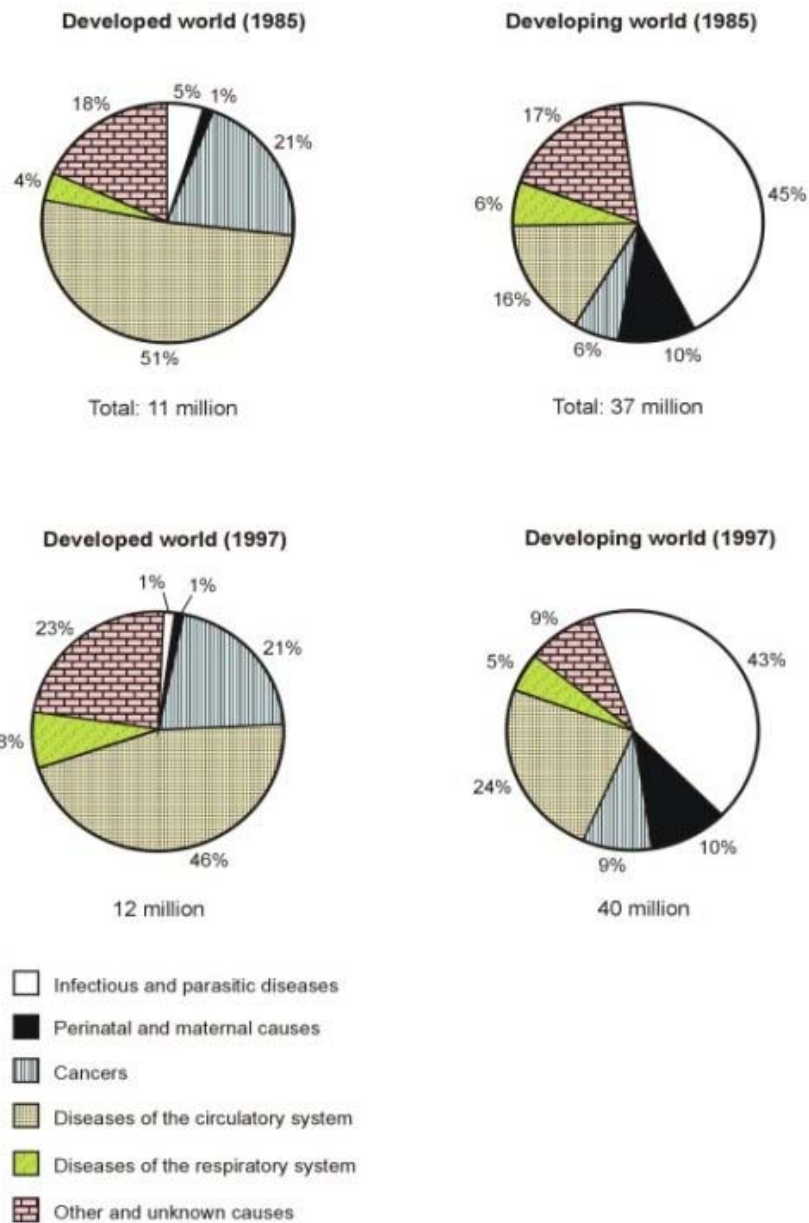


Figure 1: Causes of Death: Distribution of Deaths by Main Causes, by Level of Development, 1985 and 1997

It is evident that both increased longevity and quality of life are important. Health expectancy is even more important than life expectancy. On the other hand, the health status of people has an immediate and direct impact on national and world economies. The enormous economic losses due to illness and injury are a serious burden on economic development. To ensure the best health for the greatest number, is the main human resource in achieving sustainable development. The prevention and control of communicable diseases, non-communicable chronic diseases, environment and work-related ill-health, as well as the development of health services, are the main priorities.

2. Prevention and Control of Communicable Diseases

During the past few decades, substantial progress has been made in controlling some major infectious diseases, due to immunization. As a result of immunization, over 80% of the world's children had been immunized against diphtheria, tetanus, whooping cough, poliomyelitis, measles and tuberculosis by 1995, compared to less than 5% in 1974. Global eradication of smallpox was declared in 1980 at the end of an eradication campaign which began in 1967, with the systematic vaccination of entire populations in over 30 endemic countries. The tropical disease, yaws, which mainly affects the skin and bones, has been successfully treated by penicillin and has virtually disappeared. The elimination of poliomyelitis in the Americas in the past decade, and great progress in control elsewhere, hold out the promise that poliomyelitis will join smallpox as a disease known only to history. Leprosy will be a similar case of global elimination by successful drug treatments and prevention, so too are the two parasitic diseases, Chaga's disease and dracunculiasis. In recent decades, improvements in standards of sanitation and hygiene have also made outbreaks of relapsing fever, transmitted by lice, rare today.

While some communicable diseases have disappeared or have been almost eliminated as a public health problem, others remain daunting threats. Cholera is endemic in some 80 countries and is of concern in all regions of the world. The global threat of plague has declined in the last four decades, largely due to the impact of antibiotics and insecticides and other control measures, but cyclical epidemics still occur. Some countries in Africa, the Americas and Asia report these kind of cases almost every year.

Despite most children worldwide being immunized against major childhood killers, infections now cause premature death in 10 million small children worldwide each year. Based on available information provided by the World Health Organization in 1997, one-third of more than 50 million deaths worldwide were due to infectious and parasitic diseases such as acute lower respiratory diseases, tuberculosis, diarrhea, HIV/AIDS and malaria. The spread of the HIV/AIDS pandemic and the resurgence of diseases such as tuberculosis has not only threatened the improvements in health status, particularly in terms of life expectancy and infant mortality, but also led to health deterioration in some countries, further inhibiting economic development. The proportion of the world's population at risk of malaria, presently estimated at 2.4 billion people, could increase from around 45% to 60% by the year 2050. The estimated number of annual deaths from malaria would rise from between the present 2–3 million to 3.5–5 million. Reducing premature deaths resulting from communicable diseases is one of the greatest challenges facing humanity at the dawn of the twenty-first century.

3. Prevention and Control of Non-communicable Chronic Diseases

In the industrialized world, the communicable diseases are under better control. It is non-communicable chronic diseases that now pose the greatest threat to health in terms of disability and life lost in developed countries. Special attention has been given to cancer, stroke, cardiovascular diseases, diabetes mellitus, mental disorders, chronic respiratory conditions and musculoskeletal disorders. In developing countries, the infectious diseases are more prevalent among poorer and rural people, while middle- and upper-income urban dwellers, whose life expectancy is higher, also suffer increasingly from non-communicable chronic diseases. WHO statistics show that deaths due to circulatory diseases increased from 16% to 24% of total deaths in the developing world during 1985–1997; cancer deaths increased from 6% to 9% of total deaths in the developing world, while they formed a constant proportion of 21% of total deaths in the developed world. Infectious and parasitic diseases decreased from 5% to 1% of total deaths in the developed world and from 45% to 43% of total deaths in the developing world (see Figure 1). This confirms that non-communicable chronic diseases are also emerging as a major killer in the developing countries.

Leading selected causes of mortality	Deaths	
	Rank	Number
Ischemic (coronary) heart disease	1	7200
Cerebrovascular disease	2	4600
Acute lower respiratory infection	3	3745
Tuberculosis	4	2910
COPD	5	2890
Diarrhea (including dysentery)	6	2455
HIV/AIDS	7	2300
Malaria	8	1500–2700
Prematurity	9	1120
Cancer of trachea, bronchus and lung	10	1050

Table 1: Global Health Situation: Leading Causes of Mortality, Selected Causes for which Data are Available; all Ages, 1997 Estimates by WHO

Globally, chronic diseases are responsible for almost half of the 52 million or so deaths that occur every year (see Table 1). Among adults, the leading causes are heart disease and stroke which kill more than 15 million people. Cancer kills more than 6 million; chronic obstructive pulmonary disease almost 3 million. In addition, 400 million adults suffer from mental illness, ranging from chronic depression and schizophrenia to Alzheimer’s disease. All impose heavy burdens of disability, social cost and economic loss.

The development of these diseases is seldom due to one single cause. Genetics are undoubtedly of great importance and remain to be explored. Life style and environmental factors are known to increase the risks: factors such as smoking, alcohol, inappropriate diet, and inadequate physical activity. These are, at least to some extent, within the control of the well-informed individual, although there are others, such as the effects of poverty, environmental pollution or stressful working conditions etc., over

which the individual alone has little control. The interplay of these and other factors is complex and is only gradually being investigated and understood. The interaction between one chronic disease and another also requires further investigation.

Some evidence, however, already shows that the majority of chronic diseases are preventable, though they cannot as yet be cured. The emphasis must therefore be on preventing their onset, delaying their development in later life, reducing the suffering that they cause, and providing the supportive social environment to care for those disabled by them. The ‘tobacco free’ initiative is supporting and leading this approach. Appropriate diet is essential to a healthy life. The premature deaths among adults from heart disease have been dramatically reduced in many countries which are experiencing a transition from high incidence of circulatory diseases to low incidence, as estimated by the WHO from 51% (1985) to 46% (1997) of total deaths in the developed world, mainly due to the adoption of healthier lifestyles. It is imperative that such a favorable shift, conducive to further reduction in the incidence of these diseases, should be sustained and if possible, accelerated.

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Biographical Sketches

Fengsheng He is a married lady who has held the following appointments: 1994, Professor in Occupational Medicine and Neurotoxicology; Honorary Director, Institute of Occupational Medicine, Chinese Academy of Preventive Medicine, Beijing, China; 1991–1994, Medical Officer, Office of Occupational Health, World Health Organization, Geneva; 1985–1991, Professor in Occupational Medicine and Neurotoxicology; Director, Institute of Occupational Medicine, Chinese Academy of Preventive Medicine; 1979–1985, Associate Professor and Head, Department of Occupational Medicine, Institute of Health, China National Center for Preventive Medicine, Beijing, China; 1962–1978 Lecturer, Department of Occupational Medicine, Institute of Health, Chinese Academy of Medical Sciences, Beijing, China; 1955–1961 Neurologist, Department of Neurology, Peace Hospital, Beijing. She has been invited to speak at 73 international conferences between 1980–1999. Selected Publications: *Books* 1. Fengsheng He, ed. (1999). *Chinese Occupational Medicine*, Beijing: People’s Health Publishing House. 2. Tordoir W. F., Maroni M. and Fengsheng He, eds. (1994). *Health Surveillance of Pesticide Workers*.

Amsterdam: Elsevier. Papers: More than 130 papers have been published, including 30 articles published in international journals.

Wang Ke-an is a married man who has held the following appointments: 1996, President, Chinese Academy of Preventive Medicine (CAPM), Professor in Epidemiology; 1989–1996, Vice President, CAPM, Professor in Epidemiology; 1988–1989, Deputy Director, Institute of Parasitic Diseases(IPD), CAPM; 1984–1988 Deputy Chief, Dept. of Epidemiology, IPD, CAPM; 1977–1979, Resident, Liyang County Hospital, Jiangsu Province, China; 1970–1976, Resident, Zhaozhou County Hospital, Heilongjiang Province, China. Publications: About 60 papers published since 1994.