CHAPTER ONE

1 Theoretical Foundations for the Establishment of World Health Systems

SECTION I. THEORIES OF ECONOMIC DEVELOPMENT

Since the 1930s, five major schools of economics have deeply influenced and dominated the establishment and transformation of the healthcare and insurance systems in developed countries and areas. These schools of economics have become the main theoretical basis for the analysis and evaluation of each country's healthcare and insurance system. The theories of economic development since the 1990s, in particular, have had an even more profound impact.

"Economic development" refers to the modernization process of a country's economic and social structure that is based on economic growth. In other words, it is the balanced, sustainable, and coordinated development of a country's economic, political, sociocultural, environmental, and structural changes. Indicators for measuring economic development include not only indicators of economic growth but also indicators of social development, such as the total population size and net population growth, the domestic development index, the urbanization level, the tertiary industrial structure, residents' living conditions, the number of doctors per 1,000 people, the average population life expectancy, the government integrity index, and so on; indicators of educational development, such as total expenditure on public education as a percentage of GDP, national average years of schooling, the percentage of current college students in the college-age population, and so on; indicators of social equality and stability, such as the Gini coefficient, Engel's coefficient, gross national happiness, the index of sustainable economic welfare, the income gap warning line, income hierarchy standards, the poverty incidence, social security coverage, and so on; and environmental indicators, such as natural resource and energy efficiency, the environmental pollution composite index, and so on.

The main theoretical bases for economic development include Marx's theory of human needs and all-round development, the theory of balanced growth, the theory of the share economy (Weitzman et al.), theories of innovation (e.g., institutional innovation theory by

North et al. and technological innovation theory by Schumpeter et al.), theories of sustainable development (e.g., coordinated development of population, resources, and environment; cost-of-growth theory; return-to-nature theory; the theory of sustainable improvement in the human quality of life; and ecological development theory), and so on.

The theory of economic development, in a narrow sense, is development economics. This theory studies the industrialization process of less economically developed countries, which involves replacing an agricultural economy, which is based on individual manual production, with an industrial economy, which is based on machine production. From a historical perspective, developed countries have generally undergone three important stages of economic development, which have also formed three different modes of economic development.

The first mode of economic development involves models driven by the input of production factors and capital investment. The time period of this mode of development lasted approximately from the Industrial Revolution in the late eighteenth century until the beginning of the Second Industrial Revolution in the late nineteenth century. The historical background for this mode of economic development was the rise of the Industrial Revolution, which ushered in the replacement of workshop craft production with large machine production. Economic development in this stage required extensive machine manufacturing and the support of other heavy industries. The main driving force of economic development was manifested as high investment-driven growth.

The second mode of economic development involves models driven by technological innovation. The time period of this mode of development began around the late nineteenth century and ended in the mid-twentieth century. During this stage, limitations in the factors of production meant that economic growth based on the input of resources became unsustainable. Hence, the driving force of economic development became technological improvements and increased production efficiency.

The third mode of economic development involves models driven by information technology. The time period for this mode of development began around the 1950s and continues to the present. The main representatives of this stage of development are early-industrialized developed countries. These countries achieved industrialization at an earlier stage and have gradually entered the information age, which is characterized by the knowledge economy. The driving force of economic growth during this period is mostly based on information technology centered on the Internet and the application of high-end technology.

In a broader sense, the theory of economic development is the theory of the modernization process of a country's economic and social structure, which is based on economic growth.

1. Classical Political Economics

As the economic study of the transition from workshop craft production to large-scale mechanized production, the classical political economics of the UK are the predecessor to modern theories of economic development. The core of economic development theory in classical political economics is the idea that economic growth arises from the interaction between capital accumulation and the division of labor. That is, capital accumulation drives the specialization of production and the division of labor. The division of labor, in turn, enables society to generate greater capital accumulation by increasing total output and allows capital to flow towards production areas with the highest efficiency, thereby forming a positive cycle of economic development. In his discourse on how to increase national wealth, Adam Smith stated that there are two primary means by which to increase

wealth. The first is to improve labor productivity through the division of labor, and the second is to increase the number of people engaged in productive labor. The theory of economic development in classical political economics encompasses three major features: (1) Its methods of analysis do not merely involve the analysis of socioeconomic development from an economic perspective but also include the comprehensive examination of various factors influencing economic development, including society, political systems, and ethics. (2) Classical political economics holds that economic development is a process that involves the integration of internal factors, such as labor, capital, and land, and external factors, such as technological changes and socioeconomic systems. Economic development always involves the confrontations of power and conflicts of interest among different economic agents. Hence, the process of economic development is fraught with contradictions and conflicts. Thus, a reasonable system should be established to legally regulate the power relations among different economic agents in order to ensure the normal operation of economic activities and to effectively achieve economic development. (3) Classical political economics holds that economic activities and economic development are the processes resulting from human rationality. To the "economic man," who seeks to maximize his own interests, rationality is the intrinsic motivation for and fundamental guarantee of economic activity and economic development. The economic man is an abstraction of the average person in economic life who can perform calculations, is rational, and pursues his self-interests or maximizes his utility. The economic activity of the economic man is rational behavior. The pursuit of self-interest is the fundamental and universal motivation that drives the economic behavior of humans. Economic agents who engage in production and exchange are all rational individuals pursuing their self-interest, and each economic man will attempt to obtain the maximum benefit at minimal cost. Given the premise of a natural order (e.g., market mechanisms and good legal and social systems), the free actions of economic man in pursuit of maximizing his self-interests will drive economic development and maximize social benefits. Therefore, economic development should necessarily be a spontaneous and harmonious process.

Classical political economics propose that private property rights and free competition systems are the most suitable social systems for the self-serving nature and profit-oriented rationality of humans. Therefore, this school of thought advocates for the establishment and protection of private property rights and free competition systems, the reduction of government intervention in the economy, and the freedom of the "invisible hand" to guide economic growth, thereby consolidating and developing the capitalist mode of production. In general terms, the theory of economic development in classical political economics holds that rationality determines the system, and the system achieves rationality. Its theoretical paradigm of economic development is the integrated paradigm that combines rationalism and institutionalism – that is, an institutionalism paradigm based on rationality. This basic feature of economic development theory in classical political economics later became the historical origin of two major paradigms in economic development – the institutionalism paradigm and the rationalism paradigm.

Since the mid-1980s, a number of development economists have used institutional structure as a research methodology to study the issues of economic development in different countries. They believe that a key reason that developing countries are less developed is the lack of efficient political and economic systems, such as a property rights system. If departments providing public goods are too uniform, the mechanisms of competition will be lacking. If power is too concentrated, any mistake in decision-making will have an overall impact, resulting in great losses. Imperfect and unsound market systems and market institutions distort price signals and hinder fair competition. Development economists propose

that in the economic development of developing countries, increases in the rate of capital accumulation must also be accompanied by corresponding and extremely important changes to systems and institutions. In fact, in some sense, institutional reform plays an even more important role in economic development than does capital accumulation.

Neo-institutionalism states that institutions have three main functions in economic development. First, institutions can provide legal protection for physical and intellectual property, encourage innovation, and form the driving force of development. Second, institutions can influence the market through laws, rules, and ethical norms, thereby increasing the efficiency of resource allocation. Third, institutions can increase information transparency using rules, such that all individuals are able to make more accurate judgments about the behavioral responses of others and of society in general. The analytical paradigm of neo-institutionalism emphasizes the endogenous effects of institutional and temporal factors and believes that institutions are important. Not only do institutions determine the interrelations among people, but they also form the incentive structure for political, economic, and social transactions. Therefore, neo-institutionalism focuses on factors that determine economic performance, such as institutional incentives and information.

2. Welfare Economics

(1) Welfare Economics and Its Advocacy of Social Security Policy

The publication of *The Economics of Welfare* by Pigou in 1920 was the hallmark of welfare economics. Pigou defined the subject of welfare economics as the study of enhancing the economic welfare of the world or of a country. Based on the theory of cardinal marginal utility, Pigou proposed two fundamental theorems of welfare. The first is that the higher the total national income, the greater the social and economic welfare, and the second is that the more equalized the distribution of national income, the greater the social and economic welfare. He believed that economic welfare is determined to a large extent by the amount of national income and the distribution of national income among the members of society. Therefore, in order to increase economic welfare, production should increase total national income, and inequalities in the distribution of national income must be eliminated.

Pigou proposed that during the process of income redistribution, the increase in utility received by the poor is greater than the loss of utility experienced by the wealthy, so the total utility of society increases. Hence, social security policy that involves income redistribution will expand a country's economic welfare. In view of this notion, he advocated the following ideas with regard to social security: (1) increasing the necessary monetary subsidies to improve the labor conditions of workers, such that workers receive the appropriate material assistance and social services for illness, disability, unemployment, and pension; (2) imposing a progressive income tax on wealthy individuals with high incomes and increasing unemployment benefits and social relief for low-income workers or individuals who have lost the ability to work, so as to achieve the equalization of income and, hence, increase general welfare; (3) implementing a universal social security system, or a system of universal subsidy based on a minimum income, thereby achieving social equity through effective income transfer payments.

Pigou's welfare economics can be regarded as the most important theoretical foundation for the social security systems of developed countries and areas. These ideas have had a profound impact on the establishment and development of social security in all countries.

Following the economic crisis of the Western world from 1929 to 1933, economists from the UK, the US, and other countries made extensive modifications and additions to

welfare economics within this new historical context. It is generally accepted that the notion of welfare economics established by Kaldor, Hicks, Lerner, and Scitovsky on the basis of the Pareto principle is known as new welfare economics.

Over the past 20 years, Western economists have focused their discourse on the theory of external economies, the theory of the second best, the theory of relative welfare, the theory of the equity-efficiency trade-off, the theory of macro welfare, and other topics in welfare economics. In their view, the state can achieve the rational allocation of resources through government interventions in price and output adjustments. Although this allocation system may seem unreasonable from certain perspectives, any further changes may lead to even more unreasonable conditions.

Despite the substantial differences between the theories of new and old welfare economics, their starting points in welfarism, that is, the realization of equality, efficiency, and social welfare, are interlinked.

In summary, the value orientations of social security theory in welfarism are as follows:

1. **Equality.** The most prominent feature of Western social security theory is the predominant position occupied by the relationship between equality and efficiency in economic research. In particular, the economic theory of social security uses equality as its starting point, while welfare economics also uses social equality as its starting point to argue for the maximization of social welfare. This field considers social security to function as a mechanism for security and stability in order to meet the goal of social equality in order to compensate for the defects of market allocation. Therefore, social security must be considered a basic right and obligation of citizens that must be safeguarded in the law and enforced. Welfare economics advocates for the principle of a progressive income tax and a system of interpersonal income transfer payments, which forms a unique ideology of "robbing the rich and giving to the poor." This ideology is still the theoretical foundation for the social security systems of many countries to this day.
2. **Universality.** Welfarism emphasizes the universality of social welfare and the concepts of humanitarianism and human rights. Its service recipients are all members of society. The universality of social security is manifested in two ways. First, social security is a basic human right. Hence, it should be freely available to all, and no group should be excluded due to differences in race, gender, occupation, age, and so on. Second, the threshold of the social security system should be low, and the system should be easily accessible to members of society. It should be freely available to all in theoretical terms but is difficult to access in reality.
3. **Welfare.** The implementation of the welfare state is the best interpretation of the theories of welfare social security. Welfarism asserts that the goal of social security is to safeguard the security of every citizen from birth to death for all aspects of life and possible risks, including illnesses, disasters, old age, childbirth, death, widowhood, loneliness, disability, and so on. The welfare of social security is manifested in three ways. The first is that individuals do not pay or pay low levels of social security fees; welfare expenses are essentially borne by enterprises and the government. The second is the comprehensiveness of the social security program, and programs with high standards generally include "cradle-to-grave" coverage. The third is that the aim of social security is not purely to prevent and eliminate poverty but also to maintain the quality of life of the population at a certain standard and to enhance individuals' senses of security. Thus, the aim is not only to meet the people's social security needs but also to satisfy their social welfare needs.

The equality, universality, and welfare advocated by welfarism are, in essence, unified by equality, which serves as its cornerstone. Universality and welfare are the rational extensions of equality. To this day, equality remains the core foundation for the social security systems of most countries in the world. This fact is precisely the reason why social welfare ideology has been regarded as the origin and mainstream thought of social security theory.

(2) Beveridge's Main Theory of the Welfare State

The term "welfare state" was coined in 1941 by the British Archbishop of Canterbury William Temple in his book *Citizen and Churchman*. The welfare state refers to the concept whereby material goods are produced by enterprises, whereas the government provides an increasing number of social services and infrastructure improvements that are indispensable to raising the standards of civilization and culture, including social security, public health care, housing, cultural education, and so on. The aim of establishing a welfare state is to consciously utilize the strength of political power, organization, and management to rectify the shortcomings of allocations by market mechanisms for powerless workers, thereby providing particular members of society with material assistance. It is generally accepted that the majority of developed countries began moving towards the welfare state after World War II.

In 1941, the UK government commissioned Professor Beveridge, who was the former Director of the Labor Exchanges and Director of the London School of Economics, to formulate a plan for post-war social security. At the end of 1942, he published a report entitled "Social Insurance and Allied Services," which is also known as the Beveridge Report. Its central concept is that "social security should aim at guaranteeing the minimum income needed for subsistence"; "social security means security of income up to a minimum standard"; and "social insurance and national assistance organized by the State are designed to guarantee . . . a basic income for subsistence." The report recommended that UK social policy should aim to abolish the five Giant Evils: want, disease, squalor, ignorance, and idleness. It advocated a national security system that provides every citizen with seven aspects of social security: children's allowances, a pension, disability benefits, unemployment benefits, funeral grants, assistance for the loss of a subsistence source, and women's welfare. The basic methods by which these welfare aims are achieved include social insurance, national assistance, and voluntary insurance. The Beveridge Report proposed the three guiding principles of social security.

1. *Principle of universality*. The scope of social security should not be restricted to the poorest sections of society but should include all citizens, and insurance contributions should be paid at a flat rate regardless of income level.
2. *Principle of unified government management*. The organization and implementation of various social security measures should be carried out by the government through the redistribution of national income. The state is responsible for preventing poverty and misfortune; social welfare is a government responsibility.
3. *Principle of comprehensive security or citizen needs*. By being fully and gainfully employed, each citizen has the right to receive assistance from society to ensure that his standard of living reaches the national minimum. Beveridge not only established the main content, basic functions, and principles of social security in theoretical terms but also explained the mechanisms of social security in practice. Beveridge's theory of social security laid the foundation for the development of modern theories of social security and is a milestone in the development history of social security theory.

(3) Influence of Welfare Economics on the Construction of Healthcare Services and Social Security Systems

In 1948, the UK announced that it had established the world's first welfare state. Thereafter, economically developed countries, including Northern European countries such as Sweden, Denmark, and Norway, and other Western European countries such as France, the Germany Federal Republic, Austria, Belgium, the Netherlands, Switzerland, and Italy, all began following the example set by the UK in the implementation of social welfare policy and established their own welfare states. Subsequently, the US, Australia, New Zealand, and Japan also established their own social security systems according to the welfare state approach. The main contents of these social security systems were the universal provision of high-quality health services and health security systems. With the establishment and development of health services and health security systems, welfarism and welfare states have made an immense impact on the development of human society. The ideas of welfarism still have a profound impact on the future construction of health services and health security systems in all countries throughout the world.

3. Keynesian Economics

(1) Origins of the Theory of Keynesian Economics

In 1936, Keynes published *The General Theory of Employment, Interest, and Money*, which aimed to identify the causes and rescue measures of capitalist recessions. In Keynesian economics, social security theory is established based on demand management. Keynes asserted that a country's production and employment status are mainly dependent on effective demand. However, due to the effects of three major psychological laws, there will often be inadequate effective demand, which will result in economic crises and unemployment. Therefore, the state must intervene in the free-market economy and apply fiscal policies in order to guide the tendencies of consumer demand through purposeful and conscious fiscal expenditure and revenues. The guiding principle for government intervention is that the state should utilize changes in the taxation system, restrictions of interest rates, and other measures in order to provide relief to the unemployed and the poor through interpersonal fiscal transfer payments, thereby stimulating consumer demand.

His theoretical system and analytical methods have opened up a whole new perspective: the equalizing effect of social security on market economics. According to Keynesian thought, economic depression and widespread unemployment stem from inadequacies in effective demand, which in turn is due to low consumption levels. As the poor tend to consume more than the rich do, taxes should be increased on the rich and then redistributed via transfer payments to the poor in order to reduce savings and increase expenditure on consumption, thereby achieving macroeconomic equilibrium. Based on this idea, Keynes' successors argued for the long-term equalizing effect of social security on macroeconomics. Keynesian theory triggered a protracted "Keynesian Revolution" involving government intervention in the economy.

Keynesian economics transformed the blueprint of Western economics and shaped the fundamental economic systems of Western countries. After Keynes, laissez-faire liberalism had all but disappeared from the markets, and Western mainstream economic theories were marked with the stamp of Keynesian economics (i.e., the emphasis on effective government intervention in markets). Typical theories included the idea of a "social market economy" by Alfred Müller-Armack and Ludwig Erhad and its practical implementation in

Germany. The concept of a social market economy was first proposed by Professor Müller-Armack – specifically, that a social market economy is not a laissez-faire market economy but rather a market economy that is consciously controlled from the perspective of social policy. Müller-Armack once stated that a social market economy is based on the laws of a market economy but is supplemented by the economic system of social security. Its significance lies in combining the principle of market freedom with that of social equality.

By the 1980s, a new school emerged that advocated government intervention: New Keynesian economics. These economists proposed that government initiatives should abide by the principle of maximizing public welfare or generally assumed that the government has good intentions, and, hence, the policies formulated by the government should, in theory, focus on maximizing social welfare. They strongly advocated that government interventions should play the following roles in market failure: maintaining competition and restricting monopolies, directly conducting economic affairs and providing typical public goods, utilizing monetary and fiscal policies to regulate the related economic variables so as to achieve the stability of the macroeconomic environment, actively regulating income redistribution to abolish poverty and inequality, and defining and protecting property rights to encourage the internalization of economic externalities.

The greatest contribution of Keynesian economics to social security theory is the introduction of the concept of an equalizer in social security, that is, to regard social security as an important means for state intervention in the economy and also as an equalizer or stabilizer for adjusting economic operations.

(2) Influence of Keynesian Economics on the Establishment of Social Security Systems

Keynes deduced the necessity of state intervention in the macroeconomy by analyzing the shortcomings of the capitalist economy, and he justified the stabilizing effect of social security on economic fluctuations based on measures of state intervention. Therefore, Keynesian theory fundamentally demonstrates the rationality of and necessity for the existence of a social security system. This theory resulted in the birth of the modern social security system in the US. Since then, all countries in the world, especially developed countries, have applied Keynesian theory when establishing social security systems but have also strengthened government intervention in public utilities, including health services and social security systems. Keynesian theory was also used as the foundation of practice and played a crucial role in driving the establishment of health services and health security systems.

4. Liberal Economics

(1) Economic Theories of Liberalism

The economic theories of liberalism are deeply rooted in western economics and can be said to be the traditional school of western economics. However, with regards to the field of social security theory, liberal economic theories did not have the opportunity to rival the reigning welfare economics before World War II. Then, in the 20–30 years after World War II, the domination of Keynesian economics did not leave any room for the development of liberal economic theories. It was not until after the 1970s, with the crisis of Keynesian economics in the theoretical domain and that of Western social security in the practical domain, that liberal theories underwent a resurgence, the most representative of which was neoliberalism. Neoliberalism launched fierce attacks against Keynesian state intervention, the

"mixed economy," and social welfare systems, claiming that these concepts had violated the principles of the free-market economy. Since the 1980s, and especially in the 1990s, the ideology of Western liberalism and its policies have once again influenced all spheres of socioeconomic life from a different angle. Liberalization and privatization have become important threads that run through Western socioeconomic development. In the field of social security, the sudden rise of corporate and commercial insurance plans has constituted a key component in the privatization of social insurance and has played an even more important role in subsequent development.

Neoliberalism, represented by Milton Friedman, criticized state-owned enterprises and the social welfare system on the grounds of upholding a free-market economy, opposing state intervention in the economy, and alleviating the state's spending burden. In the view of neoliberalists, strengthening the role of the government is a curse on economic interests and individual freedoms. They claim that excessive macroeconomic management and social security will lead to bureaucracy and, thus, result in inefficiency. The only solution is to reduce social welfare and accept high levels of unemployment in the short term. The central tenet of neoliberalism is the restoration of a free-market economy and the stimulation of strong individualism. Neoliberal policies played a primary role in effectively stimulating the redevelopment of the Western economy throughout the 1980s.

Representatives of neoliberalism, including modern monetarism, social market economy, and public choice, all believe that social security undermines the functions of market mechanisms and seriously affects the market order of free competition. Therefore, neoliberalism opposes the welfare state and advocates for the marketization, privatization, and diversification of social security.

According to the views of neoliberalism, not only should businesses be privatized and marketized, but welfare and social security, including health services and health security, should also be privatized, marketized, and commercialized, such that the welfare received by each individual is determined by that individual's ability to pay. Doing so inevitably leads to a widening gap in the social security treatment received by different social classes, which will exacerbate social inequality. However, neoliberalism claims that this process will address the drawbacks of the capitalist social welfare system, as it will stimulate the labor motivation of workers and the investment motivation of capitalists, which will benefit economic development. Friedman pointed out that in order to ensure the effective operation of the free market, we should not strive for equality as advocated by the welfare state but instead should maintain inequality. He stated, "A society that puts equality above freedom will get neither." The US health insurance system is a typical example, in that it overemphasizes the public's freedom of choice, leading to uneven healthcare coverage and insufficient equality. Although the US spends 16% of its GDP on healthcare, it has achieved poor outcomes, and up to 15% of the population does not have health insurance (approximately 40 million). Within three months of the financial crisis in September 2008, the number of people without health insurance increased by a further 6 million. In comparison, France spends 11% of its GDP on healthcare, and all residents of France are covered by health insurance.

(2) Influence of Neoliberalism on the Health Security System

In response to the failures of Keynesian economic theories and the crises experienced by welfare-type social security systems, monetarism and supply-side economics used the principle of economic interest as their starting point to put forward policy suggestions on reducing social security expenditures. These policies have been widely adopted and implemented in the reforms of social security systems in different countries. The efficiency

of health services is mainly reflected in the effective control of healthcare costs and the improvement of healthcare services. In the past 20 years, Western developed countries have identified effective methods for managing the rise in healthcare costs, and key issues include the organization and financing of health services. The most effective methods include diversified insurance plans that are financed by the national budget or under a global budget and healthcare cost-sharing systems. The current problems not only include controlling costs but also include providing a variety of cost-effective health services while ensuring that patients and the public are reasonably satisfied.

The US health security system is a typical case of a social security system that is influenced by neoliberalism. The US health security system is essentially based on the principles of neoliberalism. It is operated by the market; the government only assumes limited responsibility, such as providing healthcare and assistance to the elderly and the poor. In other words, the government only intervenes in issues that cannot be solved by the market.

The influence of neoliberalism on health services and health security systems can be seen from the fact that an increasing number of countries worldwide have begun to adopt multilevel health services and health security systems. The diversification of health services and social security systems is manifested in the simultaneous adoption of administrative means and market-based instruments, the close cooperation between governmental and nongovernmental organizations and between for-profit and nonprofit organizations, and cost-sharing among individuals and families, businesses, communities, and the government. Diversified health service and social security systems consist of two parts. The first is the government's promise to satisfy basic healthcare and basic social security, and the second is provided by multiple agents, including specialized health services, supplementary health insurance cooperatives with voluntary participation, and the government's medical aid system.

5. Information and Institutional Economics

(1) Analysis of Health Services and Health Security Systems based on Information Economics

In 1961, George J. Stigler published "The Economics of Information" in the *Journal of Political Economy*. In the same year, William Vickrey published "Counterspeculation, Auctions, and Competitive Sealed Tenders" in the *Journal of Finance*. The publication of these two articles marked the birth of information economics. Many key topics in information economics are based on game theory, such as, for example, signaling and adverse selection, mechanism design, contracts and moral hazard, auctions, reputation, and so on. Most of these issues involve information asymmetry. In essence, information economics is the application of information asymmetry to game theory in economics. In the literature on information science, players in a game who possess private information are known as "agents," and those who do not possess private information are known as "principals." Thus, all analyses in information economics can be conducted within the framework of principal–agent problems.

1. Information Asymmetry and Adverse Selection When individuals conduct transactions, the quality of the product is an important feature. In many cases, only the seller truly knows the quality of the product, whereas the buyer does not. Different sellers (manufacturers) provide goods of different quality, and sellers of poor quality goods (defective goods or "lemons") will hide the information on product quality to protect their own interests. At this point, all sellers claim that they have high-quality goods. Since the buyers

are unable to distinguish between sellers who are telling the truth and those who are telling lies, they can only decide on the quantity to be purchased and the price to be paid based on their estimation of the overall market. When high-quality goods and lemons are treated in the same way by the customers, the lemons have an advantage in terms of cost, and, hence, may gain the upper hand in sales. When customers find that the purchased goods are not of the quality that they expected, they will lower their expectations of product quality even further and the price that they are willing to pay decreases. At this point, high-quality goods with higher costs may be eliminated from the market, leaving behind the lemons. This outcome, in which high-quality goods fail in competition and defective goods remain, goes against the selection rule of survival of the fittest in market competition.

In 1970, Akerlof analyzed the used car market (lemon market) and proposed the theory of adverse selection. Adverse selection explains the damaging effect of fake and defective goods on the market. Such goods may push high-quality goods out of the market and will eventually destroy consumers' trust in the market, which will cause the market to shrink. This occurrence is common in the market and has currently arisen in the local vicious competition found in the service market of private medical institutions.

However, in such situations, it is the buyers rather than the sellers who are able to withhold information, as in the case of the health insurance market. In health insurance, individuals who know that they have poor health and may need to be hospitalized at any time will take the most initiative in purchasing insurance, whereas those with good health will have a far lower willingness to purchase insurance. Under these circumstances, an insurance company will increase insurance prices (reduce the amount of compensation), which may run the risk of driving away healthy customers from the insurance market, leaving behind customers who are at risk of illnesses at any time or who need compensation. This example illustrates the problem of adverse selection.

During the transaction process, the price mostly relates to the quantity. However, when quality information is unclear in a transaction, the traditional price competition model loses its explanatory power for economic phenomena. Hence, information on quality becomes crucial for the existence of the market. Evidently, this type of problem is not limited merely to the used car and insurance markets. In practice, it is an extremely widespread problem that is prevalent in an economic society. We can see that if these problems are not properly dealt with in an economic society (i.e., distinguishing between high and low quality), then the market may not exist. This principle implies that the issue of distinguishing between goods of different quality and different features is an important component in the non-price system of an economic society.

Information screening and methods of product differentiation can be established by those who do not have private information, that is, the agents (i.e., used car buyers and insurance companies) can formulate a set of strategies or contracts for the car sellers or insured parties to choose from. For example, in the health insurance market, insurance companies can formulate contracts for insured parties with different features. Naturally, when products of different quality are mixed together such that consumers or customers are not able to differentiate between them, businesses will also actively reveal their own characteristics to show that their goods are of better quality so that customers can differentiate them from poorer quality goods. One of the key functions of economic systems is to ensure that participants in the economic society can display their true signals through the economic system. When agents with private information attempt to use signal transmission activities to differentiate their own features from those of other members of society, an economic system that shares the common trust of society plays an important role.

The problem of adverse selection shows that screening the authenticity of information is extremely important to the market economy. The principal can screen the characteristics of agents who possess private information through the use of contract diversification. However, it is also very important to screen the authenticity of information transmitted by the agents. At this point, the government and legal departments play an important role in signal management. An economic system established on this basis should become a basic tool or means for the effective transmission of authentic information.

2. Moral Hazard After both parties to a transaction have signed a contract, if the interests of the principal are also dependent on the actions of the agent, then the principal may face a "moral hazard" when achieving his interests. This is because the principal cannot confirm whether the agent is willing to or is actively trying to achieve the principal's interests. In economics, moral hazard mainly involves an agent's action selection that cannot be clearly defined in the contract. The agent has private information, which is hidden from the principal, regarding this action selection, and the principal is unable to observe these actions. Hence, the agent's action selection affects the interests of the principal. For example, when a patient seeks medical treatment from a hospital, he has already paid the treatment fees. Thus, according to the contract, the patient should receive the corresponding treatment. However, what standard of physician will the hospital provide for the patient's treatment, and will the physician be conscientious and responsible? The selection of these actions depends on the hospital, and the average patient does not know if he has received the best or most appropriate treatment that the hospital can provide.

3. Incentive Measures The key to avoiding the occurrence of moral hazard is to provide others with the incentive to perform actions that will benefit oneself. It should be said that a promise is itself an incentive, and the price system is also intended to motivate others to engage in certain actions. However, when there is information asymmetry, this method is inadequate. Mechanism design theory illustrates the basic idea of determining the final price to be paid (e.g., a manager's or employee's salary) based on the ex-post outcome. An alternative is to partially (or completely) transform the principal's ex-post risk caused by moral hazard into the agent's own risk within the contract. For instance, the fixed quota system is one such mechanism. Without a contract, the risk is borne by the principal, but after a contract is in place, the risk is borne by the agent. Individual rational decision-makers will allow others to face moral hazard but will not perform actions that will hurt their own interests. However, this scenario further involves more complicated issues, including choosing the specific forms that these incentives should take and identifying methods that are more rational under different circumstances. For example, individuals can formally resolve the issue of mutual incentives through contractual agreements, which can specify the interests of both parties in more detail under all possible circumstances. Such contractual solutions to the problem must be legally binding.

In addition, individuals can also resolve this issue through the notion of "reputation." It is not possible for any individual to maintain stable, long-term relationships with different societies. Thus, reputation becomes important capital for profit-making. If reputation is used to solve the problem of moral hazard, then the need for professional ethics arises in the economic society. The economic society will form requirements and evaluation standards for the professional ethics of different occupations. Individuals who do not conduct their professional activities according to these standards may lose their professional qualifications, and this threat will cause members of society to restrain themselves from undertaking

unethical behaviors. Thus, the formation of social professional ethics and the punishment of unethical behavior are important measures by which to resolve moral hazard.

In the practice of health insurance, mechanism design is especially important to health insurance management and healthcare institutions due to the presence of third-party payments. The various approaches in the settlement of healthcare costs are intended to induce healthcare institutions to adopt behaviors that will benefit health insurance institutions. However, the theories of information economics tell us that urging healthcare institutions to establish good professional ethics is also an important approach.

4. Analysis on Adverse Selection and Moral Hazard in Health Insurance Management

(1) Uncertainties in the health insurance market There are numerous particularities and uncertainties in the health insurance market. From the perspective of information asymmetry, the first is the presence of adverse selection, and the second is the problem of moral hazard. After comparing the health market with a standard competitive market, economists have found that the former consists of numerous particularities. The differences between a standard competitive market and the health market are shown in Table 1.1.

Due to the differences of the health insurance market from a standard competitive market, there is an extreme dearth of information. This lack of information is mainly reflected in a few ways. First, patients lack health-related information and do not possess expert knowledge. Second, consumers can only consult physicians to understand this information, but physicians are precisely the sellers of these products. Hence, it is difficult for physicians to impart this information to patients in a fair and comprehensive manner. Third, even when consumers receive some information, they may not be able to make an accurate judgment. Finally, errors in judgment are likely to result in wrong choices, and wrong choices are associated with very high costs. Compared to the case of other products, these wrong choices are often unchangeable, unrepeatable, or even irreversible. Therefore, patients are dependent on the information provided by physicians and find it difficult to make their own decisions.

(2) Excessively high transaction costs The transaction costs of private health insurance systems are considered to be higher than those of social health insurance systems. Part of the reason is that accounting and litigation costs, which are due to the lack of information, account for a substantial portion of the transaction costs of the former type. There are two direct consequences of higher transaction costs. First, there is a lower level of medical welfare. Proponents of social health insurance have cited this reason to assert that even having no insurance is better than having private health insurance. In the absence of third-party payments, transaction costs can be avoided, which can improve the utilization efficiency of

TABLE 1.1 Differences Between a Standard Competitive Market and the Health Market

Standard Competitive Market	Health Market
Many buyers	Limited number of hospitals
Homogenous goods	Nonhomogeneous goods
Adequate information for buyers	Inadequate information for buyers
Companies aim to maximize profits	Most providers are not-for-profit
Payments made directly by consumers	Consumers pay only part of the costs

funds. Second, private health insurance causes the prices of health insurance products to increase. Insurance products have high prices due to transaction costs, and the percentage of the population who cannot afford insurance may increase each year. This possibility is another important reason cited by proponents of social health insurance. These claims are substantiated by reality. Take the US, for example, where the private health insurance system is widely prevalent. The percentage of the population without insurance in 1980 was 12.5%. By 2002, this percentage rose to 15.5%, meaning that 36.5 million people did not have any health insurance. In 2010, this number increased to 16.3%, which implies that the number of people without health insurance had risen to 49.9 million. This outcome is related to increases in the prices of health insurance products.

(3) Adverse selection Adverse selection is one of the major reasons leading to insufficient supply in the health insurance market. Different individuals have different probabilities of contracting diseases. In theory, individuals with poor health will need to pay higher premiums to purchase health insurance. However, the result of adverse selection is that high-risk individuals will hide their true risk statuses, and the pool of consumers who actively purchase insurance may consist entirely of individuals with poor health. The eventual outcome is the continuous reduction of the population with health insurance. Individuals with below-average risk must bear the costs of having an average risk level, causing them to think that the insurance is not cost-effective, which reduces their purchase demand. Individuals with above-average risk will need to increase their insurance premiums, or they may be rejected. The continuation of this vicious cycle causes an increasing number of people to withdraw from the market. Many countries have imposed mandatory social health insurance to solve the problem of adverse selection on a fundamental level.

(4) Moral hazard Both social health insurance and market-based private health insurance face the problem of moral hazard. In the case of third-party payments, both doctors and patients may reach an agreement due to shared interests, which leads to excessive service and consumption, thus jointly sacrificing the third-party interests of the health insurance sector. Therefore, the key challenge in health insurance lies in the health consumption process after enrollment. However, the standards of health and treatment outcomes are more difficult to define and measure compared to those of other goods. The standardization, programming, and normalization of health behaviors and processes are challenging, and, hence, the supervision of health consumption is constrained both by cost and technology. From a broader perspective, moral hazard will also be manifested beyond health consumption, as insured parties may spend less effort on avoiding risks, such as by not paying attention to their diets, smoking, or not exercising. The reduction in individuals taking health precautions will necessarily affect health insurance demand, and the result will inevitably lead to the deviation of private and social costs. The more comprehensive the social health insurance is, the less responsibility the insured party will bear with regards to their health service behaviors, and the more likely it is that they will over-consume. This outcome is also a reason why the level of health security should not be too high.

By analyzing the health services and health insurance markets using information economics, we find that the sustainable development and long-term management of health and insurance systems is far more challenging than establishing such a system is. Although information economics cannot provide targeted and immediate effects in the management

of health insurance, its theories can serve as a profound analysis on the loopholes and drawbacks in the application of health services and health insurance. Therefore, these theories can be used as powerful tools to analyze and evaluate the design, policy formulation, and management operations of health services and health insurance systems.

(2) Analysis of Health Service and Health Security Systems Based on Institutional Economics

Institutional economics is a branch of economics that focuses on institutions, which originated from the German historical school in the late nineteenth century. This field studies the influence of institutions on economic behaviors and economic development as well as the influence of economic development on institutions. Institutions refer to rules in interpersonal interactions and the structure and mechanisms of social organizations. John R. Commons proposed that an institution was a series of behavioral codes or rules though which collective action controls individual action. Schultz defined institutions as rules of conduct that involve social, political, and economic behaviors. North pointed out that institutions are a series of man-made rules, legal norms, behavioral ethics, and ethical norms. They are the "rules of the game" of a society, which aim to restrain individual actions that maximize subjective benefits or effects. These constraints govern human interactions. Kasper and Streit stated, "Institutions are widely accepted, man-made rules which constrain possibly arbitrary and opportunistic behavior in human interaction. Institutions are shared in a community and are always enforced by some sort of sanction." Although each of the definitions above has its own focus, all of them share a common meaning. That is, institutions are rules and constraints to limit and govern individual actions. Moreover, these rules and constraints are manmade. Therefore, in the process of institutional evolution, individuals can take the initiative to change old institutions and formulate and implement new institutions.

Institutional economics places great emphasis on the role of rules. Rules are the means or measures used to constrain the members of an organization and compel them to work towards a common direction. They are the operational mechanisms of institutions. To achieve the development of institutions, it is first necessary to refine the mechanisms or rules of the institutions. At the same time, corresponding adjustments must be made to the institutions when problems are uncovered. The adjustment of institutions is essentially the control and regulation of human behavior, whereas the operation of institutions is also dependent on human actions. The relationship between humans and institutions is bidirectional. On the one hand, all institutions are formed, maintained, and developed through human behaviors. On the other hand, all human actions and their underlying motivations are also constrained and influenced by established institutions. Perfect and lawful rules or operational mechanisms of institutions will promote the continuous development and improvement of institutions.

The field of institutional economics also believes that the evolution of institutions is closely associated with their environmental conditions. The operation of institutions is achieved by specific organizations, whereas the existence and development of any organization cannot be separated from its environmental conditions. A given set of environmental conditions will give rise to corresponding institutions. As the environment changes, the rules of the organization, that is, the operational mechanisms of the institutions, will also need to undergo corresponding adjustments; otherwise, the institutions may disintegrate. Of course, powerful institutions may also have an impact on the environmental conditions to some extent. However, a discussion of institutions that is divorced from environmental

conditions is meaningless. The current differences among the health systems of different countries exist precisely because each country has combined its national needs with its historical and cultural environment to produce a health security system that conforms to its actual circumstances.

The concepts of institutional functions, including institutional structure, institutional change, institutional efficiency, institutional allocation, institutional coupling, institutional conflicts, and institutional vacuums, are important analytical tools in institutional economics. They play a crucial role in studying institutional evolution, evaluating institutional performance, and identifying the problems that exist in institutions. North proposed that institutional change is the spontaneous process of incremental alteration to capture potential opportunities for profit during institutional disequilibria. However, in practice, the selection of the mode of institutional change is mainly constrained by the power structure among interest groups and the preference structure of society. The health security systems of all countries are also constantly undergoing transformation. The public will always include institutions in their complaints about health insurance. Hence, institutional economics can indeed provide some theoretical guidance regarding the healthcare and health security systems.

1. Path Dependence of Institutional Change Path dependence refers to the fact that once a specific system has been chosen, the presence of certain factors, such as economics of scale, learning effects, coordination effects, and adaptive expectations, results in the self-reinforcement of the system such that the system continues to follow the established direction. Since the theory of path dependence was proposed, it has been widely used in all aspects of choice and customs. To a certain extent, all of the choices made by humans are subjected to the dreaded influence of path dependence, and all theories related to customs can be explained using path dependence.

Based on Arthur's path dependence in technological change and David's path dependence in historical change, North introduced the theory of path dependence in his analytical framework of institutional change. From this analysis, he established the path dependence theory of institutional change. This theory has become extremely important and well-known in the current new institutional economics.

North asserted that path dependence is akin to inertia in physics. Once something takes a certain path, it may produce dependence on this path because, as with the physical world, economic life also has mechanisms for increasing returns and self-reinforcement. These mechanisms imply that once a certain path has been chosen, it will receive continuous self-reinforcement in future development. By following a set path, changes in economic and political institutions may enter the trajectory of a virtuous cycle and undergo rapid optimization, or they may follow the wrong initial path and undergo a downward slide. A system that reaches lock-in will find it extremely difficult to escape. Doing so often requires the help of external effects, such as the introduction of exogenous variables or changes in political power, in order to reverse the original direction. This is due to the background considerations of interests and the costs that can be borne. After an institution has been established, organizations will form vested interest groups that have a strong demand for the existing institution. It is only by consolidating and strengthening the existing system can they guarantee their continued interests, even if a new institution would be more efficient overall. As for individuals, once they have made a choice, they will continually invest their efforts, money, and various material resources. They will not change paths easily even if they discover that the path they have selected is unsuitable because this change will render their previous substantial investments worthless. This idea is known as "sunk costs" in economics. Sunk costs are a major reason for path dependence.

2. Theoretical Perspective of Institutional Structure

Institutional structure refers to the sum of formal and informal institutional arrangements for a given object. Here, a given object can refer to a country, a society, or a specific concrete activity. Formal institutions include political rules, economic rules, and contracts as well as the hierarchical structure constructed from this series of rules. From the constitution, to statutory and common law, to specific bylaws, and finally to individual contracts and from general rules to particular specifications, institutions collectively constrain human actions. Informal institutions are formed subconsciously through long-term human interactions that have lasting vitality and constitute a part of the culture that has been passed down through generations. From a historical perspective, before the establishment of formal institutions, the relationships among individuals were maintained mainly based on informal institutions. Even in developed market economies, formal institutions are only a small part of the total set of constraints that determine choices. The majority of economic operations is still constrained by informal institutions. In North's view, informal institutions include values, ethical norms, moral codes, customs, and ideology. In informal institutions, ideology occupies a core position because it implicitly contains values, ethical norms, moral codes, and customs. It can also formally constitute an a priori model of certain formal institutional arrangements.

According to the theory of new institutional economics, a contract can simply be understood as an agreement reached by two parties on certain mutual obligations in a legal bilateral transaction (Furubotn and Richter, 1998). All transactions are carried out through some form of contract. Therefore, health insurance can also be understood as a legal contract signed between the government, healthcare institutions, and individuals concerning the transaction of health resources. Adopting the perspective of contract economics not only allows us to examine the transaction itself at the level of health insurance mechanisms, it also deepens the scope of research to the institutional level, on which the survival of health insurance mechanisms depends. As stated by the German economist W. Eucken (1951), contracts are not only the means by which to engage in transactions, but they can also be used to create economic organizations and power structures in different economic situations.

Health insurance itself has a clear contractual nature. The health insurance contract is a long-term contractual relationship that emphasizes not only specialized cooperation but also the maintenance of long-term contractual relationship. To maximize their expected returns in the resource transaction of health insurance, the government and an individual will stipulate the attributes and conditions of the transaction based on the situation at the time of establishing the health insurance system, in accordance with economic principles. Provisions that cannot be clearly stipulated at that time or costly terms are be dealt with accordingly or await reforms in due course. Therefore, health insurance contracts can be considered as typical relational contracts. With regards to the completeness of the contract, as the actions and decisions of the public and the government are constrained by limited rationality and information asymmetry, it is impossible to predict all changes in the health insurance contract, and, hence, it is also not possible to formulate complete and nonexhaustive contractual terms. The presence of transaction costs could also cause the government to artificially design an imperfect health insurance system during its establishment. Dimensions that are too costly or fundamentally cannot be defined are temporarily excluded from the health insurance system and will be dealt with by future reforms or constrained by the law, customs, and other institutions.

Due to the incompleteness of health insurance contracts, the key to preserving health insurance mechanisms lies in how the government prevents individuals and healthcare institutions from exploiting the incompleteness of the contract and using too many healthcare

resources. The field of new institutional economics generally believes that implicit contractual guarantees are more suitable for the requirements of a competitive contracting process and are more effective than explicit contractual guarantees at ensuring the implementation of incomplete contracts. New institutional economics emphasizes the importance of implicit contracts, whereas the key to implicit contracts is addressing the issue of "quasi-rent." Quasi-rent in health insurance refers to the opportunism that may encroach on health resources, which mainly comes from information asymmetry among the state, healthcare institutions, and individuals, as well as to the related incomplete social security contract. Health insurance quasi-rent is mainly divided into the quasi-rents of individuals using their information advantage and the quasi-rents of healthcare institutions using their information advantage. Individual quasi-rent is similar to commercial insurance. The information advantage of individuals in the noncommercial health insurance market also leads to moral hazard and adverse selection. Due to third-party payments, the moral hazard in this case is often manifested as individual over-consumption of health resources (e.g., the use of health services, expensive drugs and advanced medical equipment, long hospital stays, etc.).

SECTION II. THEORIES OF PUBLIC GOODS

1. Concept and Characteristics of Public Goods

The theory of public goods is one of the hot topics in economic theory. Its theoretical innovations can provide guidance for the effective supply of public goods. In a narrow sense, public goods refer to nonrivalrous *and* nonexcludable goods. In a broader sense, public goods refer to nonrivalrous *or* nonexcludable goods, which include three major types: pure public goods, club goods, and common-pool resources. Samuelson, Buchanan, and Ostrom have described the typical problems faced by public goods in the broader sense. Examples include the free-rider problem, exclusion costs, the tragedy of the commons, and financing and distribution problems. These economists have also proposed corresponding theoretical models based on the different types of goods and their respective problems, such as the theory of pure public goods, club theory, and the theory of common-pool resources. There are differing criteria for the classification of goods, including the excludability and rivalry criterion, the publicness criterion, and the relative costs criterion. For example, Head and Shoup found that relative cost can be used to differentiate between public goods and private goods. This finding is also known as the economic efficiency criterion. They proposed that, regardless of how a service is being supplied, if it can be rendered at a lower cost under nonexcludable conditions at a given time or place, then it is a public good. Holtermann proposed that the criteria for defining public goods should be the attributes of the goods. Different economic goods have different publicness levels corresponding to different allocations of property rights. However, Barzel believes that, due to the presence of information costs, it is impossible to fully define any individual right. Part of the value of ecological resources remains in the public domain due to the lack of any definition of its rights. Hudson and Jones also asserted that changes in property rights and technology will cause changes in the attributes of a particular good, and the only classification criterion remaining is publicness.

Public goods can be consumed or enjoyed by the vast majority of the public and are produced and provided by the government (or the public sector). Once public goods are provided, they can be enjoyed by everyone, and no effective measures can be taken to induce the beneficiaries to actively and voluntarily pay for these public goods. Due to the inability

to recover costs or make profits, private individuals and businesses are unwilling to invest in public goods. Public goods generally cannot be provided by the market; they can and must only be led by the government or the public sector. As such goods are nonexcludable, everyone believes that they can enjoy the benefits of public goods regardless of whether they have paid the costs. Hence, consumers are not motivated to pay voluntarily, and they will tend to become free riders, thus causing the inability to recover investments in these goods. This free-riding phenomenon will inevitably lead to an insufficient market supply of public goods, which will result in market failure.

In theoretical terms, defining whether a good or service is a public good depends on whether it has two characteristics: nonexcludability and nonrivalrous consumption. Nonexcludability means that when one party provides a public good, it cannot effectively exclude others from consuming this good, regardless of the providing party's intentions. The inability to exclude others from enjoying the benefits of the public good may be because it is technologically infeasible or extremely difficult or because the cost of exclusion is too high, rendering exclusion impractical. Nonrivalrous consumption refers to the situation in which the marginal cost of adding one more consumer to a particular good is zero (i.e., for a given amount of a public good, the marginal cost of allocating the good to one more consumer is zero). This definition does not imply that the marginal cost of providing one more unit of public good is zero. In this case, the marginal cost of providing one more unit of public good is positive, which is similar to that of other goods, because the provision of public goods also consumes a limited amount of resources. Based on these two criteria, we can classify different goods as pure public goods, quasi-public goods, and private goods. Goods that possess both of the characteristics above are pure public goods. Goods that do not possess either of these characteristics are private goods. Goods that only possess one of these characteristics are quasi-public goods. It should be noted that in a strict sense, the definitions of the two characteristics above are not absolute but are dependent on technological conditions and specific environments. When determining whether a type of good is a public good, it is necessary to consider the number of beneficiaries and whether these beneficiaries can be excluded from using this good. If there are numerous beneficiaries and it is technologically infeasible to exclude any beneficiary, then a good can be regarded as a public good. Samuelson's classical definition of public goods is goods for which each individual's consumption does not lead to subtractions from any other individual's consumption of that good.

In the real world, true pure public goods are very rare, and most goods can be regarded as quasi-public goods in between pure public goods and private goods. Based on the differences between and relationships among public goods, quasi-public goods, and private goods, we will analyze the scope, scale, and funding sources for the government's supply of public goods. We will also explore the division of labor among the different levels of government in this process and, hence, analyze the different methods of supplying public and quasi-public goods. Finally, we will discuss the theoretical and practical significance of public goods theory for China's new healthcare reforms. By applying the theories of public goods, we can determine the scope and scale of public goods in the domain of China's health system reforms, thus allowing us to clarify the nature of public health spending, that is, the public goods financed by the government. In the field of healthcare reforms, the role of government finance should be limited to the public attributes of public and quasi-public goods, and it should gradually withdraw from the private attributes of private and quasi-public goods. In other words, government finance should withdraw from the commercial and rival domains. Analyzing existing problems from the perspective of public economics and identifying the phenomena of market failure in China's current healthcare reforms according to public goods theory will give us insights into perfecting China's health system reforms.

2. Classification Criteria of Public Goods

Based on the classification criteria, the concept of public goods is the inverse of that of private goods, which refers to indivisible, nonexcludable, and nonrivalrous goods with utility in consumption activities. Such goods are also known as collective consumption goods. Goods can be classified into four different types according to whether they are nonexcludable and nonrivalrous in the consumption process: (1) Goods that are both nonexcludable and nonrivalrous are pure public goods. (2) Goods that are both excludable and rivalrous are pure private goods. (3) Goods that are nonexcludable and rivalrous are common-pool resources. (4) Goods that are excludable and nonrivalrous are quasi-public goods or mixed goods.

3. Theoretical Analysis of Public Goods

In the term "public goods," "public" means "shared." Under given conditions, the interests of public goods do not belong to an individual's private property rights. According to the principle of market exchange, it is difficult to produce exchange behavior for such goods, and the relationship between the consumers and the supplier is interrupted. Although there is market demand, there is no market supply. At this point, the government must intervene to compensate for this market defect, leading to the birth of public goods. There are three typical characteristics that can distinguish public goods from private goods. The first is nonexcludability; if a public good is provided to a specific group, then an individual cannot prevent others from consuming that good or extremely high costs are associated with preventing others from consuming that good. The second is nonrivalry; the same unit of the public good can be consumed by multiple individuals, and the supply to one individual does not reduce the supply to other individuals. The third is indivisibility. Comparatively speaking, public goods (e.g., national defense and foreign affairs) are indivisible, and economies of scale must be considered for the majority of public goods. For example, railways, bridges, and museums cannot be divided. Public goods can be further categorized as pure public goods and quasi-public goods. A typical example of a pure public good is national defense. Quasi-public goods can be even further divided into two types. The first type is natural-monopoly public goods, which are goods related to economies of scale, such as sewer systems, water, and power supply systems. The second type is merit goods, which are public goods that should be consumed or received by everyone regardless of their income level, such as primary and secondary education, healthcare, and pension insurance. Merit goods are the opposite of demerit goods. The former generally refers to goods (or services) with high utility that can benefit individuals and society, such as primary education and seatbelts on aircrafts. In contrast, tobacco and marijuana are typical demerit goods. The difference between merit goods and public goods lies in whether there is consumer excludability. There are vast differences among public goods, quasi-public goods, and private goods, which are shown in Table 1.2.

Health service products are typical merit goods that are rivalrous. When the number of consumers increases from zero to a relatively large positive number (i.e., the point of congestion) then an increase in consumers will reduce the overall utility. The consumption process of health services and health insurance has strong characteristics of private goods. Hence, if the government offers free healthcare or charges a nominal fee, the public may overconsume this product, which will exacerbate congestion. In reality, the public will always hope that the state will provide free healthcare services. This is a typical free-riding state of mind, which is prevalent in welfare states. The nature of public goods is such that private individuals (manufacturers) are unwilling to provide such goods. Hence, it is beyond doubt that the government should be the main provider of public goods. In contrast, the nature of private

TABLE 1.2 Differences between Public Goods and Private Goods

Features	Pure Public Goods	Quasi-Public Goods	Private Goods
Divisible during consumption?	No	Partially divisible	Yes
Exclusive upon purchase?	No	Basically not	Yes
Method of purchase	Indirect payment (e.g., taxes)	Partially direct, partially indirect	Direct payment by self
Principle of distribution	Political vote	Political vote and market purchase	Market price
Individual freedom of choice?	No	Virtually none	Yes
Can it be enjoyed without purchase?	Yes	Partially	No
Can its quality be determined?	Not easily	Not very easily	Easily
Wastage during use	Not easily wasted	Relatively high waste	Relatively low waste
Examples	National defense, police	Compulsory education	Hairdresser, clothes, radio

goods includes excludability in property rights and divisibility in consumption, which implies that private manufacturers are willing to produce such goods. If no one is producing such goods, their prices will increase, which will attract a large number of producers to this sector. Conversely, too many producers flooding a market leads to overproduction, and prices fall, which once again causes many producers to withdraw automatically. Hence, for private goods, as long as a policy monopoly is avoided, production by manufacturers is much more efficient than that by the government. The interests and risks are all borne by the manufacturers, and there are no concerns about the lack of alternative choices for the consumers.

The providers of quasi-public goods are not homogeneous. It is generally accepted that it is ideal for public goods to be produced by manufacturers and subsidized by the government. Consumers need quasi-public goods. However, due to restrictions in consumption, manufacturers cannot guarantee their returns without government subsidies, which affect their production. However, if such goods are completely produced by the government, it may lead to communalism, which will reduce efficiency.

At the same time, it is not possible to absolutely reject the government's role in the production of private goods. If the government intends to fulfill the following two objectives, then it is not only possible but also necessary for the government to produce private goods. The first objective is to limit the usage of such goods to ensure the rational utilization of resources. Furthermore, the scarcity of resources implies that there is a need to limit the use of certain resources to ensure sustainable socioeconomic development. However, the private sector may plunder these scarce resources for their immediate gains, resulting in the depletion of some resources. The other objective is to disrupt monopolies and achieve social equality. If it is the government's intention to fulfill these aims, then it should produce private goods. Generally speaking, the government's production of private goods involves the resolution of the principal-agent interest mechanism and the agency cost problem. If these two problems can be resolved, then the performance of the government may be superior in the production of private goods.

The supply of public goods mainly involves two problems, namely, efficiency and price. As public goods are nonexcludable, they inevitably give rise to the free-rider problem. In general, the free-rider problem has two causes: moral behavior and natural behavior. Moral behavior is due to human self-interest, also known as egoism, whereas natural behavior is due to the nonexcludability of public goods. That is, if a consumer needs to consume this type of good and does not need to pay any fees, then these conditions imply that the consumer will not pay a meaningless price. Free-riding means that the cost of resources cannot be recovered, which affects the return on capital investment and is a manifestation of inefficiency. The production behavior under such conditions will result in a serious shortage of public goods, thereby leading to the loss of social welfare. This outcome is often the case for health services under excessive health security.

The following methods can generally be used for the pricing of the public goods supply. The first is the principle of marginal-cost pricing. The most appropriate level of general welfare corresponds to selling all goods at their marginal costs. The second is the introduction of competitive price mechanisms. These include the implementation of price hearing systems to form a mechanism of public pricing among producers, consumers, and managers; open bidding systems, which introduce competition mechanisms among manufacturers; the price regulation of the public goods supply; government pricing; and price limiting of public goods.

Health security comes under the scope of quasi-public goods, as it has the characteristics of both public and private goods. The consumption of such a good should be paid for by individuals, but its costs should also be partially supported by the government to ensure its efficient supply. There are two possible methods for doing so. The first is for public goods to be supplied by private individuals and subsidized by the government, and the second is for the government and private individuals to cooperate in the joint provision of public goods.

Under perfect market conditions, the supply and demand of health insurance goods involves individual residents raising and paying the increased healthcare costs, whereas the provision of health services is completely regulated by market demand. The health insurance products that can be accessed by individual residents are determined by their financial abilities. The total amount of individual payments determines the amount of supply; a higher amount of payments leads to a greater supply of services.

However, in reality, it is difficult to operate the health service market based on the general principles of market supply and demand because, in the health service market, there is information asymmetry between the service providers and consumers. Physicians can directly influence the patient's level of demand by changing the patient's perception of his own needs and inducing his satisfaction with the pursuit of cutting-edge medical technology. Thus, an inverse relationship cannot be formed between an increase in price and the service quantity demanded, implying that healthcare costs will remain high, ultimately leading to the failure of market rules. We can observe in real life that since consumers are lacking in professional knowledge when they utilize healthcare services, it is physicians who guide, and even dictate, the healthcare services that consumers use. Physicians also hold the power in deciding the quantity of supply. Over time, in order to seek greater economic gains, physicians (with the exception of ethical physicians with patients' best interests in mind) and healthcare institutions will inevitably exploit their excessive power in supply determination to increase healthcare consumption. However, due to the uneven distribution of wealth in society and the concentration of wealth among a privileged few, the price of healthcare services will rise more rapidly than the financial ability of the majority of the general population. That is, under a self-funded health system with a proportion of low-income residents who cannot access healthcare services, there may be an increasing

number of residents who are unable to receive the healthcare services that come with socio-economic development. Therefore, we can see that health service and health security products are special goods. Although the general theories of supply and demand can be used to analyze basic trends, these theories cannot fully explain the supply and demand and price determination of health service and health security products. In particular, physicians may exploit their power to determine consumption to induce demand, and consumers may over-utilize limited health resources within the context of third-party payments in health insurance. To address these issues, we need another theory, namely, information economics, for further research and analysis.

SECTION III. THEORIES OF SOCIAL EQUALITY

The representative theories of equality in contemporary Western society posit that equality is a cyclical process that involves four aspects: equality of starting conditions, equality of opportunity, equality of process, and equality of outcomes. The association between social security and social equality is as follows: Equality is the core concept of social security. The social security system originates from the demand for equality. The design of the social security system should embody the principle of equality. Its own equality will ensure the equality of opportunity and protect the equality of process. The social security system has a function in equality, that is, to compensate for the inequality of starting conditions and reduce the inequality of outcomes, thereby increasing the overall level of equality in society.

Equality is the rational allocation of political, economic, and other interests among all members of society. It entails equal rights, rational distribution, equal opportunities, and justice. It is subject to the influence of the given social and political environment, interest structure, ideology, religious ethics, philosophical thoughts, and cultural traditions. Hence, everyone has different views of equality.

1. Concept of Equality in Classical Liberalism

Classical liberalism posits that equality refers to the equality of starting conditions, that is, the equality of rights and not the equality of welfare. The role of the government is to ensure that everyone shares the same rights and freedoms rather than directly providing happiness and well-being. Classical liberalism advocates for the principle of value neutrality and denies the positive significance of the state in society. However, modern administrative theories assert that the government is not value-neutral, as it needs to protect the right to freedom while also striving for the core value of equality. In terms of its views on equality, classical liberalism insists on the equality of starting conditions and the equality of rights but not the equality of welfare.

2. Concept of Equality in Utilitarianism

The main representatives of utilitarianism are Jeremy Bentham and John Stuart Mill. Bentham insisted on the hedonism of morality and posited that the approval or disapproval of an action is based on whether the action has augmented or diminished the happiness of all parties involved. If the party involved is an individual, then the happiness of the individual is used as a criterion. If the party involved is the government, then the happiness of society is used as a criterion, and this happiness follows the law of diminishing marginal utility.

Mill, on the other hand, insisted on the hedonism of the spirit, that is, that the quality of happiness should be considered along with its quantity. Under the principle of the "greatest happiness for the greatest number," utilitarianism holds that the main responsibility of the state and the government is to ensure survival, achieve prosperity, promote equality, and preserve safety. Utilitarianism requires people to not only not harm others but also benefit others in an attempt to maintain the "greatest happiness for the greatest number." As stated by Mill, "The utilitarian morality does recognize in human beings the power of sacrificing their own greatest good for the good of others." Any sacrifice for the good of others is praised in utilitarianism.

3. Concept of Equality in Rawlsianism

Rawls first proposed a hypothetical "original position," which he argued will guarantee the equality of the basic contract it reaches and the justice of any principle that has unanimous agreement. When individuals make choices in the original position, they insist on two principles. The first principle is the priority of rights and liberties, and the second principle is the priority of fairness and justice in efficiency and welfare. Justice has priority over the efficiency principle and the principle of greatest benefit; equal opportunity has priority over the difference principle. The difference principle is also known as the "maximin principle," which states that unless there is a distribution that improves the statuses of both individuals, if one individual receives nothing, then an equal distribution is preferred, regardless of how much improvement the other individual will experience.

4. Concept of Equality in the School of New Public Administration

Represented by Frederickson, the school of new public administration regarded equality as the third normative pillar of public administration, along with efficiency and economy. To this end, Frederickson proposed the compound theory of equity to explain a series of social equity problems, including employment, contracts, government services, public policy, and the social, economic, and political sectors. This theory mainly comprises the following types of equality: (1) simple individual equality, which refers to one-to-one single relationships of equality; (2) segmented equality, which assumes equality of individuals within the same category but inequality between the categories; (3) block equality, which calls for equality between different groups and subclasses; (4) the domains of equality, which can be defined narrowly or broadly, as domains are constantly shifting, aggregating, or breaking apart and may involve intergenerational problems of equality; (5) equalities of opportunity, which include prospect and means equalities of opportunity; and (6) the value of equality, which is the notion of a person's equality in public administration that respects the individual rather than a notion of equality that is neutral, arbitrary, and insensitive to variations in people's needs.

5. Concept of Equality in Marxism

The concept of equality in Marxism generally includes three aspects. First, permanent and absolute equality does not exist from the perspective of human social development. Equality is a historical and transient category constrained by the conditions of productivity in real life. Second, the qualitative definition of equal distribution in future society depends on the public ownership of the means of production. Third, the form taken by equal distribution in future society is not static but is ever-changing.

In theoretical terms, equality is not a single concept but a comprehensive theoretical system. At different historical stages, there have been great dissimilarities in the concept, content, and implementation of equality. The reason for these differences is the conflict between the concreteness and complexity of society in the abstraction and simplification of the concept of equality. China is currently in a stage of social transformation, which is both a period of major strategic opportunities and one with numerous potential risks. Properly addressing the issue of equality will have important significance to the harmonious and sustainable development of the whole society. Based on the theories of equality, the government should not pursue efficiency excessively while ignoring the basic values of democracy, equality, and justice. Instead, it should actively respond to the preferences of citizens and service users and determine the role of the government while also respecting the value of efficiency that is in line with its goals.

A variety of social contradictions have emerged recently in Chinese society. Under these circumstances, it is insufficient to use only one theory of social equality to consolidate the different contradictions in society. The views of Marx and Engels on equality have laid the legitimate basis and moral foundations for system reforms and an institutional framework in contemporary China. This is the mainstream view of equality in China. However, in practice, China is faced with confrontations and conflicts among different views of equality. Hence, during the process of establishing and promoting a socialist concept of equality, China should also absorb and learn from the Western concepts of equality, which will have great significance for building a harmonious society. Whether in theory or in practice, the utilitarian concept of equality, the concept of income equality in classical liberalism, and the Rawlsian concept of equality, which are found in welfare economics, will serve as valuable theoretical references as China establishes and develops its social welfare and social security systems and a distribution system for health resources.

SECTION IV. THEORIES OF UNIVERSAL HEALTH COVERAGE

1. Proposal of UHC Theory

The World Health Organization (WHO) first proposed the concept of universal health coverage (UHC) in The World Health Report 2000. According to the definition of The World Health Report 2000, "universal coverage" means the "effective health protection and spreading of financial risks for all citizens; providing basic and accessible healthcare packages to all according to their needs and preferred choices, regardless of their income, social status, or place of residence; and the high-quality delivery of essential care for everyone, rather than all possible care for the whole population."

At the 58th World Health Assembly in 2005, the WHO formally proposed to its Member States the goal of moving towards health systems with universal coverage. In this meeting, the WHO urged all Member States to commit in 2005 to establishing their own health financing systems so that all people have access to health services and do not suffer financial hardships in paying for them. This goal was defined as "universal coverage," also known as "universal health coverage."

Based on the document of this meeting, UHC was defined as "access to key promotive, preventive, curative, and rehabilitative health interventions for all at an affordable cost, thereby achieving equity in access. The principle of financial-risk protection ensures that the cost of care does not put people with serious illnesses at risk of financial catastrophe." Subsequently, in the World Health Report 2010, the WHO once again called upon all

Member States to move toward the goal of universal coverage, and the main topic of the 2010 report was "Health Systems Financing: The Path to Universal Coverage."

2. Definition and Implications of UHC Theory

The WHO report gave a detailed elaboration of how countries can modify their financing systems to move more quickly towards the goal of providing universal coverage and sustaining the results that have been achieved. The report stated that the WHO Member States have formulated their own goals for developing their own health-financing systems so that all people have access to health services and do not suffer financial hardships paying for them. This report provides a set of actions for countries at all stages of development, which are based on new research results and lessons learned from the experiences of different countries. The report also suggests ways that the international community can support low-income countries to achieve universal coverage and improve their health statuses. Achieving UHC and ensuring that every citizen can receive fair, accessible, high-quality, and reliable health services and security will have an important and positive effect on political stability, building a social safety net, and promoting social equality. China has always attached great importance to improving the health of its citizens. Since 2009, the various measures to deepen healthcare reform have laid a solid foundation for achieving UHC.

The World Health Report 2013, entitled "Research for Universal Health Coverage," emphasized that research plays a vital role in the process of promoting UHC and that research should be used to provide everyone with high-quality health services. UHC refers to a system that ensures that everyone has access to the health services they need without the risk of financial ruin or impoverishment. The WHO 132nd Session of the Executive Committee in January 2013 and the 66th World Health Assembly in May 2013 comprehensively summarized the latest progress made towards the Millennium Development Goals set in 2000. In particular, substantial improvements have been made in decreasing child and maternal mortality rates and in controlling major diseases. In addition, the post-2015 global development agenda was confirmed, and one of its most important goals was to achieve UHC. This goal is the foundation and premise for achieving the WHO's fundamental mission, which is the "attainment by all peoples of the highest possible level of health."

In recent years, during a systematic discussion by the United Nations agencies (including the WHO) on the Post-2015 Development Agenda, it was once again emphasized that a major post-2015 challenge that the world must face is the formulation of a universally accepted and feasible goal for UHC. Currently, the consensus reached by the international community on the concept of UHC includes equitable access to health resources, equitable access to health services, and equitable access to social security systems. This conceptual framework is aligned with the target model of health systems advocated by the World Bank (Availability, Accessibility, Affordability; the 3As), and is in line with the basic policy framework of China's deepening healthcare reforms. Correspondingly, the policy priorities for attaining UHC and deepening healthcare reform must also focus on the following three aspects:

1. Ensuring the accessibility and availability of health resources implies that there must be sufficient resource input in the field of healthcare, including human resources, financial resources, and facilities for health.
2. The affordability of healthcare costs and protection against the risk of diseases refer to the level of health security. This domain can be divided into three dimensions. The first dimension is the coverage population. If the health security system aims to achieve

equitable coverage, then priority should be given to ensuring that the poor enroll in insurance; it should also ensure that the rich subsidize the poor and the healthy subsidize the sick. The second is the content of insurance. Not only should hospitalization costs be reimbursed, outpatient costs should also be reimbursed, which can be extended to health promotion, disease prevention, health rehabilitation for key populations, long-term elderly care, and palliative care. This is a necessary trend in the development of health insurance systems in modern society. The third is the level of insurance (i.e., the ratio of reimbursement), which should avoid the impoverishment of patients caused by the self-funding of healthcare costs. The specific policy is that the pay line should not affect a patient's medical-seeking behavior, whereas the cap line should not be the upper limit to prevent overdrafts of the health insurance funds but should ensure that the enrolled families can avoid impoverishment or disruptions in daily living due to disease. This dimension is one of the essential differences between a social health security system and commercial health insurance.

3. All citizens should be guaranteed access to safe, high-quality, and effective health services that they need – that is, healthcare services should be provided based on need rather than an individual's ability to pay. UHC ensures that every individual can access good quality health services without suffering financial hardships in paying for them. This coverage, in turn, requires a strong, efficient, and well-functioning health system that can provide basic drugs and technology as well as an adequate number of motivated and proactive healthcare workers. The challenge faced by most countries is the expansion of health services and the use of limited resources to meet growing demand. Therefore, it is very important to actively perform research on UHC.

The World Health Report 2013 urged the following: (1) increased international and national investment and support for research, especially targeting the improvement of health service coverage between and within countries; (2) closer collaboration between researchers and policy-makers, that is, a movement of research activities away from academic institutions and into public health planning, which is closer to health service supply and demand; (3) well-trained and motivated teams of researchers in all countries to build up countries' research capacities; (4) a comprehensive code of conduct for good research in each country; and (5) the use of global and national research networks to promote collaborations and information exchange in coordinated research activities.

Along with rapid economic development, changes in the spectrum of disease, and growing demand for disease risk protection, the calls for reforms of the healthcare system are becoming louder. At present, China is undergoing five key healthcare reforms. Together, the Urban Employee Basic Medical Insurance, Urban Residents Basic Medical Insurance, and the New Rural Co-operative Medical Care Scheme (NRCMS) have covered 95% of urban and rural residents. The achievements attained by this reform measure are even more remarkable in rural areas. Through economic incentives and administrative interventions, the NRCMS has covered more than 800 million rural residents. From an economic perspective, since the NRCMS is generally coordinated and managed at the county level, the central and province-level governments have increased their efforts in transfer payments to provide the NRCMS with adequate subsidies. These subsidies will help to incorporate more rural families into the health insurance system. From an administrative perspective, the NRCMS incorporates the target responsibility system for the management of local officials, which has helped to reduce personal out-of-pocket expenses and to provide medical aid to poor rural residents. In summary, the NRCMS is currently operating smoothly and is maintaining good momentum in terms of financing and enrollment. It is also closely integrated with economic adjustments.

Recently, the WHO and the World Bank jointly held a meeting to discuss how countries can achieve UHC. The meeting concluded that countries continue to face many challenges in attaining UCH, including a shortage of human resources and uneven distributions of health resources between urban and rural areas and between rich and poor areas. Furthermore, all countries are faced with the serious issue of reaching a balance between ensuring the accessibility of health services and setting a level of healthcare expenditure that the government can afford. Addressing these issues will require the political commitments of policy-makers at the highest level to UHC as well as improvements in information systems and more accountability of the government and healthcare providers for health outcomes. In addition, the progress of UHC should be monitored while also incorporating the key roles of researchers, civil society groups, and international institutions. In response to the demands of all countries, the WHO and the World Bank have already begun formulating a monitoring framework to help countries track their progress towards UHC. Over the past decade, China has continuously deepened its health system reforms and has made remarkable strides in the establishment of a basic health security system and moving toward UHC. After five years of implementing the new round of healthcare reforms, it is especially important for China to further clarify the concept of UHC, continuously improve the relevant policies, and formulate strategies and plans for achieving UHC.

SECTION V. THEORY OF PERFORMANCE EVALUATION FOR WORLD HEALTH SYSTEMS

1. Definition of Concepts Related to Performance Evaluation

The concept of "performance" originated from business management, which includes two levels: business results and employee productivity. As the problems of low service quality and low productivity are also present in the field of healthcare, the theory and practice of performance evaluation have gradually been extended to include health systems. The WHO defines a health system as all activities with the primary purpose of promoting, restoring, and maintaining health. The basic goals of a health system include contributing to the improvement of residents' health, good responsiveness, and equitable sharing of healthcare costs. The performance of a health system refers to the execution ability of the overall health system and its affiliated institutions in achieving its health goals. Attaining a good level of health system performance requires a country to set development goals for its health system as a yardstick and to make timely modifications of its development direction so as to achieve the ultimate goal of providing high-performance health services to the public. In practice, countries around the world have already established different performance evaluation frameworks to monitor, evaluate, and manage their own health systems.

Performance evaluation is an effective method for monitoring a health system and improve the quality of health services. Hence, governments around the globe have been paying great attention to performance evaluation. The performance of a health system has a direct impact on the accessibility of health services and the equity of health, which ultimately determines the health level of the population. The World Health Report 2000 introduced the theme "Health Systems: Improving Performance," which was a turning point for governments across the world to transform their health development strategies. A consensus was reached by all countries that the contribution of health services to improving the population's health has not reached its fullest potential. The reason for this is not merely due to the limitations of health technology; the true obstacle is the low resource integration and utilization of the overall health system (i.e., low performance levels).

2. Model of Performance Evaluation for Health Systems

As the public's health expectation increases, its health level is determined by the performance of the health system. Even among countries with the same level of income, there is significant variation in the performance of healthcare work. Hence, it is necessary for decision-makers in health policy to understand the opportunities and challenges faced by health systems in order to improve their performance and, hence, improve the health of the population. The WHO defines a health system as all organizations, institutions, and resources associated with health actions. Any action performed by individual healthcare services, public health services, and nonhealth sectors that are related to improving the population's health can be referred to as a "health action." Therefore, based on the broader definition, the scope of health systems needs to be expanded, and all actions with a view to improving health should come under the scope of a health system. The World Health Report 2000 presented a new framework for the analysis of national health systems. It proposed that a health system should have three main goals:

1. *Access to good health*. Not only does this goal imply increasing health levels, raising healthy life expectancy, and reducing the burden of disease, but it also includes improving the status of the population distribution and alleviating the inequitable distribution of health status, with a particular emphasis on improving the health status of the poor.
2. *Strengthening the responsiveness to the population's expectations*. This goal refers to the design of relationships between institutions. It is based on the universal, reasonable demands of the population and the outcome (nonhealth outcome) of responding to these demands appropriately. This concept touches on two aspects. The first is respecting the dignity of the individual, the autonomy and privacy of individuals and families for their own health and treatment, and basic human rights. The second is the responsiveness to health service users (recipients), which includes service satisfaction, whether prompt attention is paid to a patient's needs, the utilization of social support networks, the infrastructure and environment of healthcare institutions, and the possibility of choice for health service users.
3. *Ensuring the fairness of health-financing*. This goal includes two aspects. The first is the fairness of financing. Financing is considered fair when each family contributes the same level to the health system. The second is protection against serious illnesses such that no individual faces financial risk due to paying for healthcare costs. The financing system is unfair if a family's disposable funds are needed to cover the high costs of serious illnesses. Fair and reasonable financing involves spreading the risk of paying for healthcare costs across all families according to their ability to pay. A fair health system should be able to protect everyone in society, including the poor, and should not allow the impoverishment of some families due to medical costs.

In the World Health Report 2000, the WHO ranked health systems based on the evaluation outcomes of these three basic goals. It also suggested that the performance in achieving these goals is determined by four health service functions: service provision, financing, resource generation, and stewardship. See Figure 1.1.

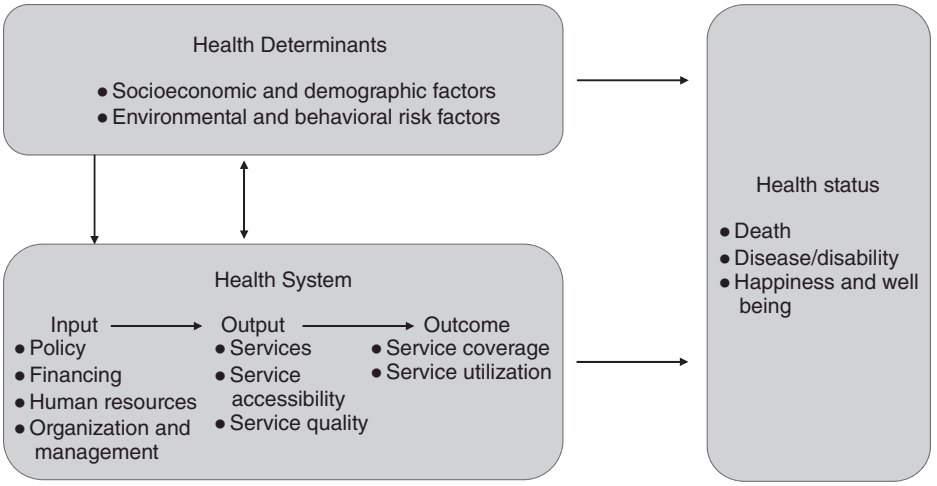

FIGURE 1.1 Model of framework for the performance evaluation of health systems.