Chapter 1

Introduction

This history of economic thought on health issues is a history of health economics before Arrow. The discipline of health economics conceived as a particular branch of economic science is defined as the “application of economic theory to phenomena and problems associated with health.” 1 Typically, Kenneth Arrow’s seminal study of 1963 marks the start of the discipline of health economics. 2 Economists have, however, thought about health for centuries, even putting the issue at center stage of their expositions (Justi). Since Paracelsus, the first social scientist systematically discussing the economics of health related institutions and services, lived 500 years ago, the focus of this book is not only broader, but primarily different from writing a history of health economics.

The leading question of the study is: what are the early economic ideas on health in the German and Austrian thought? A history of the theoretical development of health economics cannot be a *whig* history written as if the current state of health economics were a necessary and logical outcome of work that had been done as far back as centuries ago. 3 To the contrary, the added value of a history of thought on the economics of health issues is to emphasize different points of view and departure, different approaches, different methods, and different results from what is currently available in the professional literature in health economics.

In his presidential address before the meeting of the *History of Economic Society* in Riverside (1978), George Stigler said about the history of economic thought that it is either forgotten, because it has been integrated into the mainstream and need no longer be remembered, or it is not history of thought, because it is a classic, but looking at these rightfully forgotten authors is just something for economists, who have not mastered their trade. 4 In this book, I am looking at classical authors, which

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3 Nevertheless, this is the economic approach by Mark Blaug. 1985. (4) *Economic Theory in Retrospect*. Cambridge: Cambridge University Press.

have been selected to make the point about the neglect of the history of economic thought in modern economics of health. No attempt has been made to cover all subjects of economic thought on health issues.

I am in particular looking at those classical works that are not easily available, since they are locked into the German language. "English is the lingua franca of the academic world these days, and knowledge that is not transmitted in it becomes lost, certainly in economics and most other social sciences." Primary sources are used and relevant health issues and quotes are selected and analyzed in context in order to make these classical works accessible to English based scholars.

The topic I have chosen for my expedition into the history of thought is health from an economic point of view. The reader might ask why a history of ideas on the economics of health is relevant today. The issues raised in the earlier literature are hardly mentioned in health economics today, although they have not lost their relevance. For instance, Paracelsus and half a century later Oppenheimer looked at the relationship between environment and health, Justi focused on development and health, Althoff saw a connection between university reform and health, Schmoller pointed towards the interaction between the development of markets and health, or Bücher focused on the quality aspect through non-market provision. As will be pointed out in the final chapter, these issues do not figure prominently in modern health economic texts.

The shortcomings of current health care systems are well-publicized, and so are the prescriptions for reform. Short term prescriptions follow each other in rapid succession. It is unclear, where we go to, but could we take a step backwards in order to find the basic principles that underlie our health care systems? As the timetable given below shows, the authors selected in this study responded to the needs of their time. The advice they gave was politically relevant in their time.


6. This is also the mission of the Heilbronn Symposia on Economics and the Social Sciences. "The Heilbronn Symposia were conceived to offer a forum for the reconsideration of a tradition of German economic and social thought that had become almost entirely lost." Wolfgang Drechsler, 1998, op. cit., p. V.

7. The political relevance of the economic proposals by Schmoller and Menger has been shown by Erik Grimmer-Solem. 2003. The Rise of Historical Economics and Social Reform in Germany 1864-1894. Oxford: Clarendon Press. A gap, however, remains as to the political impact of the authors. This area has not been researched very well.
The relation between economic analysis of health and health policy cannot be clarified within the scope of this study. The focus here is on the economic analysis of health; it is assumed that research influences health policy. Health policy can also influence health economics. For instance, health economics as it is taught now largely reflects the different national institutions such as the British or Canadian Health Service, the differing institutions in the United States, Germany or France. This is why these textbooks differ. This nationally defined teaching agenda can very well exclude relevant policy options which are then in turn not presented to policy makers. Because of the strong interrelationship between theory and policy, both are discussed in the same chapter on the different authors.

The chapters of this study are roughly in chronological sequence, but there are some chronological overlaps. The timetable below shows how the authors selected relate to each other in time. The starting point of this study is set about five hundred years ago, when Theophrast Bombast von Hohenheim, called Paracelsus, (1493-1541) laid the groundwork for pharmaceutical medicine. Only recently, his social science readings have been discovered. By following a holistic approach to health care, he also included the social scientific point of view into his studies, which is the focus of the first chapter.

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**Timetable:**

**Authors Selected for a History of Thought on the Economics of Health Issues**

<table>
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<tr>
<th>Around 1520 the Plague raged through Europe.</th>
<th>Paracelsus (1493-1541) tried to find solutions.</th>
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<td>After the <em>Thirty Years’ War</em> (1618-1648) Cameralism emerged. Cameralism became a university science in 1727 at the Prussian Universities of Halle and Frankfurt on the Oder.</td>
<td>The desperately bad health states of the populations after the <em>Thirty Years’ War</em> led the Cameralists to propose early health policy measures. Wolff (1679-1754) suggested a bottom-up approach to health care. In accordance to Wolff’s principles, Justi (1717-1771) devised encompassing health policy measures.</td>
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<td>Early industrialization moved more and more people into the labor force for longer hours than farm labor required. Women and children were also recruited.</td>
<td>Roscher (1817-1894) identified the health related problems and looked for guidelines to protect the working population.</td>
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<td>Medium industrialization and agglomeration coupled with the depopulation of the land produce desperate sanitary and health conditions.</td>
<td>Wagner (1835-1917) defined an entire catalogue of new tasks of the state emphasizing cultural and technological progress.</td>
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<td>Cultural and industrial development led to a new post-feudal upper class with new attitudes and diseases.</td>
<td>Menger (1840-1921) explored issues of perception and education as determinants of better health.</td>
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<td>Rapid industrialization produced deep crises with massive insecurity, often involving poverty and infirmity of large segments of a mostly urban population. In this period the threat of a class-war was imminent. It is referred to as the First Founders’ Crisis.</td>
<td>Schmoller (1838-1917) designed and suggested market-based social institutions to address three basic risks of life: health insurance, cooperative accident insurance (Berufsgenossenschaft), and provisions in the case of the loss of the breadwinner. Loss of the work place is not yet compensated for.</td>
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<td>The social welfare state is still in an early stage of development and insufficiencies are gaping wide open.</td>
<td>Bücher (1847-1930) emphasized non-market, but exchange-based relationships to supplement state provision and market exchange.</td>
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<td>As Schmoller had diagnosed, urban agglomeration produced significant debasement of health.</td>
<td>Althoff (1839-1908) designed and implemented structures for the development of scholarship and science to address the conditions determining health. For instance, the three Nobel prizes by Behring, Koch, and Ehrlich were attributed to his enabling efforts.</td>
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<td>The Second Founders’ Crisis raging in the late 19th and early 20th century led to the economic downfall of large segments of the population, both urban and rural.</td>
<td>Oppenheimer (1864-1943) defined economics as social medicine. He emphasized cooperative forms of living and working in order to alleviate conditions leading to poverty and poor health. Schumpeter (1883-1950) emphasized in his early writings the social consequences of boom and bust in their many social repercussions, including health.</td>
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Paracelsus traveled widely, acquiring medical knowledge from various sources. He learned in Italy and Spain, and became familiar with Spain’s rich experience from the colonies. His medical, philosophical and theological contributions are well-known, but his social-economic contributions have not received much attention. Paracelsus posed critical questions concerning the organization of health care and monopoly structures herein. He pondered about the just price of health care and proposed an early concept of income prices. He investigated into the connection between medical conditions and working conditions when he studied the medicinal uses of minerals in the mines of the Fuggers. He established the connection between causes of (professional) diseases, the circumstances of the work, and conceivable treatment, both in terms of prevention and in terms of care.

Paracelsus was part of the early tradition of public health on the Continent, which emerged in the late middle ages, when cities, duchies, and territories governed by the church, appointed city and county physicians in order to control infectious diseases. As a military surgeon, Paracelsus was not only in charge of the cure of the wounded, but also of sanitary conditions and control of infectious diseases. He studied camps for the treatment of the plague, which raged during Europe at his time. When Paracelsus became the city physician of Basel, he was in charge of disease control. This position was combined with a professorship at the university. He showed that a concentrated effort at curing or caring for particular illnesses opens opportunities for improved efficiency, but also the opposite such as infections in hospitals or military camps. He emphasized this aspect, and can thus be seen as part of the early public health tradition, a tradition, which later was advanced by the Cameralists.

As Kenessey has shown, the role of statistics was crucial in introducing the economic perspective into health care. Early roots of health statistics can indeed be traced back to the time of Paracelsus, but this was before statistical methods had been developed leading to the concept of health insurance. Already in medieval times hospitals were set up as municipal foundations, which maintained record-keeping. Hospital data bases later allowed the application of methods of accounting and the introduction of principles of organization into hospitals. In upper Italy and upper Germany large foundations with social purposes continued sometimes for centuries and left records, which can be mined so as to construe long time series on mortality, morbidity and health states. Schmoller referred to guild records as yet another data base on health. The guilds provided early institutions of health insurance to their members on the basis of extensive data bases that included the death and health statistics of their members. Military concerns and the concern to

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control infectious diseases were two main reasons for individual states to set up data bases and evaluate them by statistical methods. Economic concerns also played a role in the development of statistical methods. An example is the evaluation of a human life. The concept of probability, which turned out to be particularly important to the introduction of health insurance and social security, has certain roots in the sixteenth century, the age of Paracelsus, but clearly evolved a century later in connection with marine and life insurance underwriting (Kenessey, op. cit., p. 292).

The public health tradition on the Continent was systematically advanced by the Camerlists. The existence of monopolies in health care has already been a problem to Paracelsus, who saw the possibility of fraud and low quality of health care provided. Veit Ludwig von Seckendorf (1626-1692), an early Camerlist, also demanded the abolishment of monopolies and gave guidelines for the improvement of the health of the population, which he recommended to write into the state’s constitution. He described an early territorial public health policy in Gotha, where he was the advisor to Duke Ernest II. Other interesting plans such as Krug’s proposal of an early health insurance can be found by digging into the archives. Cameralism received a strong impetus during and after the Thirty-Years’-War in response to the economic devastation, poor health states of people and depopulation of the countries. The Camerlists feared that the provision of health care to the population would be insufficient and possibly of low quality. They proposed public health measures and established health boards, which gathered data on particular illnesses and deaths. Camerlists interpreted the health of the populace as capital of the states.

The third chapter is devoted to Christian Freiherr von Wolff (1679-1754), who appears in Schmoller’s Blueprint in the context of and as a precursor of the Camerlist sciences. Desperately bad health states of the population after the Thirty-Years’-War led Wolff to suggest a bottom-up approach to health care. For

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every aspect of life, his focus is on the household and not on the individuals. This is important since many health-related services can best be provided within the immediate vicinity of the person to be treated. Even today, many such services are provided by the family directly. Conversely, many conditions depend directly on the lifestyle of the family. Wolff is the founder of economics within his general system of natural law (*jus gentium*). The subsidiarity principle, which gained new relevance today, is attributed to him.

The most prolific writer of the Cameralists was Johann Heinrich Gottlob von Justi (1717 - 1771), whose proposals with respect to health and health care are discussed in the fourth chapter. Since the happiness of the people is the focus of Johann Heinrich Gottlob von Justi's analysis, their health is his central concern and he considers every conceivable aspect in which the state through policy and administration can improve the health state of the populace.\(^{14}\) For instance, he focused on agricultural policy in order to prevent starvation and starvation-related diseases. He tried to improve sanitary conditions and initiated public health laws. He suggested that war should not be led in wintertime in order to minimize human losses. Justi proposed to set up a board that systematically studies the causes, including social and environmental reasons, of illnesses and epidemics. On the basis of these statistics, appropriate public health measures could be devised and implemented.

Wilhelm Roscher (1817-1894), (chapter five) stood still firmly in the tradition of Cameralism. He studied the consequences of the period of early industrialization, which moved more and more people including women and children into the labor force for longer hours than farm labor required. Roscher, who introduced the historic method to economics, saw the family unit as the beginning of a nation's economy, and not the individual. In line with the Cameralists he wanted to educate people in order to lead them out of poverty, and thus improving health. He proposed public regulation of factories and the institution of social welfare services and, in the Kingdom of Saxony, he was politically active in their implementation. While Roscher provided a documentation of early insurance programs, he did not systematically base the social economy on insurance principles as Schmoller did later (compare chapter eight). From today's point of view his contribution lies in building institutions for health care services and in his reflections on what could be called, parallel to constitutional public finance, constitutional health economics.

Adolph Wagner (1835-1917), (chapter six) was politically engaged in the same sense as Roscher and Schmoller. Wagner witnessed a time of medium industrialization and agglomeration, which was coupled with the depopulation of the land. He defined an entire catalogue of new tasks of the state emphasizing cultural and technological progress. He predicted that the state will become more influential

over time with an increase in cultural and technical development and the general sophistication and interconnectedness of a complex society. This prediction is referred to as Wagner's Law. Wagner also provided an early formulation of the public goods theory by formulating the conditions under which the state can and should play a role in the provision and finance of goods and services. He thus created a basis for legislation. The current explosion of health care expenditures is partly due to factors identified by Wagner, but partly also to deficiencies in health care organization. Policy relevance requires a distinction between these two sets of causes.

The cultural and industrial development had led to a new post-feudal upper-class with new attitudes and new diseases. Carl Menger (1840-1921), (compare chapter seven) emphasized issues of perception and education as determinants of better health. While Schmoller and Menger had basic methodological differences, they shared the same basic values with respect to their perspective on health. Menger tried to explain why some people make more and larger investments in health than others, a thought which is central to explaining the effects of individual life styles on health. This awareness has only recently led to an orientation towards social medicine in the curricula of medical sciences.

Gustav von Schmoller (1838-1917), (chapter eight) was engaged in both, research and organizational activities in order to pursue his research program. He was the founder of the Verein für Socialpolitik, whose research and debates entered the political discussion surrounding the introduction of a social security system in Germany. The social legislation Schmoller proposed tried to root out the social causes and in particular economic causes of poor health. In a time of rapid industrialization, which led to deep crises with massive insecurity (First Founders’ Crisis), often involving poverty and infirmity of large segments of a mostly urban population, the threat of a class-war was imminent. As a solution, Schmoller investigated insurance solutions for preventing hardships for families. He designed and suggested market-based social institutions to address three basic risks of life: health insurance, cooperative accident insurance (Berufsgenossenschaft), and provisions in the case of the loss of the breadwinner, but in his proposal he excluded compensation for loss of the work place.

Prince Bismarck (1815-98) introduced compulsory health insurance in Germany in 1883, compulsory accident insurance in 1884, and compulsory old age insurance followed in 1889. Although William II facing the industrial crisis shortly after having

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16 The activities of the Verein für Socialpolitik surrounding this legislation have been interpreted as an important root of the introduction of the economic perspective to health issues. Reiner Leidl. 1993. Gesundheitsökonomie als wissenschaftliches Fachgebiet. (Health Economics as a Scientific Field). Inaugural Lecture, University of Limburg, 10-21-1993, pp. 4-9.
17 Bismarck’s social welfare legislation is at the basis of a health care system in
ascended to the throne, very much wanted to establish a system of unemployment insurance, Bismarck intervened and prevented the measures, which the young Emperor had already proclaimed in his famous Easter Messages. This led to Bismarck's dismissal. The economic reasoning underlying the Chancellor’s confrontation with the young Emperor was sound, however. Under the conditions then prevailing, a bust always affected all industries alike, so the only conceivable buffer was the then very small public sector. An unemployment insurance system could therefore not be based on actuarial principles, as the rest of the “new social institutions” (Schmoller) had been. The risks were not unevenly distributed and therefore could not be pooled, the basic idea behind any insurance system.  

Schmoller laid the basis for an insurance system based on actuarial and, by implication, market principles, but guaranteed by the state. In building on the medieval institutions such as monasteries, charitable city foundations, guilds, etc., the new social institutions were designed in terms of constitutional design. This means that they would be independent agents not requiring constant political attention. On the other hand, the same principle implied that they would not be available for "economic manipulation for political profit." Modern discussions about such issues as care for the elderly, catastrophic illnesses and epidemics, although in principle open to an insurance based approach, are often dealt with by specific tailored programs. The insurance based approach has the advantage of creating incentives to reduce risks and losses. This is not true for most program based projects.

Based on Schmoller's work, his successor at the University of Berlin, Heinrich Herkner (1863 – 1932) devised the social legislation in Germany. Both authors are important to what is specific about the German development, for instance as

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18. Europe, which is best described as health care "from cradle to grave." The United States has adopted only some of Bismarck's proposals. The United States owes the standard retirement age of 65 to Bismarck. Many of his reforms have never been established in the United States. This accounts for the main differences between the European and the American health care systems.

19. Only the terms of the Treaty of Versailles led to a different situation. Now the Reich had every incentive to run deficits, and it used all available surpluses to let them disappear in disguised social programs. Examples include the introduction of the eight-hours workday, generous regulations in a contract regulating compensation in the form of wages and non-wage components for civil servants (Reichsangestelltentarifvertrag), and the regulation of taxes and levies (Reichsabgabenordnung, RAO), which contains many social components. Herkner took a leading role in achieving these contracts.


compared to England which had the *Poor Laws*. Specific about Germany is that the social legislation tried to root out social causes and in particular economic causes of poor health and this can be attributed to Schmoller and Herkner.

The beginnings of the social welfare state were laid, but great insufficiencies remained. In this situation Karl Bücher (1847-1930) (compare chapter nine) investigated the role of exchange in nonmarket situations. He formulated the conditions under which charity can lead to an efficient provision of health care.\(^\text{21}\) An example where his conditions have been instituted is the organization of blood donation in Germany, the Netherlands, Great Britain and the United States. The current political debate on health care focuses on the question whether health care should be provided by the state or by the market or a combination thereof. Bücher, by pointing towards the nonmarket elements in health care, showed that under certain conditions nonmarket exchange can supplement state provision and market exchange.

Building on Roscher, Schmoller, and Wagner, Friedrich Althoff (1839-1908), the legendary Prussian administrator in the Ministry of Culture and Science, took a holistic approach to health policy (compare chapter ten). Friedrich Althoff (1839-1908) was a Prussian administrator in the Ministry of Culture and Science, who through his skillfully designed science policy created an institutional environment in which science and scholarship could thrive. His attempt to modernize the Prussian university system through the foundation of Technical Universities and the insistence of granting them equal academic privileges at a par with traditional Universities was supported by Emperor William II. This partly enabled the Universities to conduct technological research and brought about many innovations, including some in the field of medicine. This innovative push was brought about through a change in the incentive structures.\(^\text{22}\) The industrial development had significant effects in relation to disease, for instance new diseases emerged among the proletarian class of the cities, and this required new ways to view and treat these diseases. Building on Schmoller, Althoff took a holistic approach to health policy. He viewed health policy as an independent policy that systematically builds on other sciences. Science development led to new insights for more livable cities, improved architecture, and better infrastructure. Althoff founded institutes and hospitals to further experimental and diagnostic research in health care. He gave excellent researchers a chance, even if they were outsiders in the traditional system. Under Althoff, Germany introduced public health legislation, as in the case of combating tuberculosis. Althoff


is particularly relevant in the light of the current discussion on technology. Is it to be preferred to cut back on development and implementation of new technology in health care in order to keep a check on raising costs, or is it rather to be preferred to set optimal incentives for innovation?

The Second Founders’ Crisis raging in the late 19th and early 20th century shaped Franz Oppenheimer’s (1864-1943) social economic approach to health (compare chapter eleven). Oppenheimer worked as a physician in rapidly industrializing Berlin. He realized that many diseases were caused by the social environment. Hence, he felt that it was the economy that had to be cured. Confronted with massive unemployment in the industrial quarters of Berlin, he designed a scheme to buy out defaulted large rural estates and turn them into small agro-industrial farms. The small business farmers took their unemployment insurance claims as down payments for these small business agricultural enterprises. Traces of these colonies survived the Communist regime and can be still found in Berlin and Brandenburg, even Mecklenburg. Oppenheimer tried to found the appropriate institutions in order to remove the causes of illness. He developed a new order of society, so that people would be able to lead a healthy life, both from a medical and a social point of view. He sees the two as the two necessarily linked sides of the same coin. Oppenheimer was the author of several major works. Die Siedlungsgenossenschaft (The Cooperative Settlement for Development), 1896, 1922(3), forms the starting point of his work and can serve as the basis for an analysis of health economic implications of his plan.23

Oppenheimer also developed a new approach to sociology, but this part of his work cannot be considered here. Apparently, at the time, when sociology was at its infancy, medical analogies of different kinds played an important role. While Oppenheimer saw himself as the physician of an economy, Goldscheid insisted that neither capital, nor labor, nor natural resources, but the human being in its entirety should be the focus of economic and sociological analysis.24 Schumpeter’s early German work fell into roughly the same time frame as that of Oppenheimer and Goldscheid, at the crossroads of sociology and economics.

The connection between the empirical (historical) approach of Schmoller and the more general issues, including health had been worked out by Joseph Schumpeter (1883-1950) (compare chapter twelve). The analysis is based on a work by Schumpeter, which has been untranslated and hard to get by. This part of Schumpeter’s work appears only in the first edition of his Theory of Economic Development in the German language and has been omitted from future editions and from the English translation.25 In the “Seventh Chapter,” Schumpeter sketched the

broader picture of economic development. Looking at this broader picture, we find many details with important implications for health policy. Schumpeter tried to integrate the discipline of economics into a larger social-economic context. He widened his scope to encompass innovation in other social realms, in political, artistic, or scientific processes.

In chapter thirteen, the historical authors’ perspective is summarized with respect to three major themes: cultural development and health, the principle of subsidiarity, and the role of the state in public finance. These contributions concern both, economic theory and policy of the time when they have been written. With respect to the principle of subsidiarity, Paracelsus, Wolff, Roscher, and Schmoller highlight issues of care provided within and outside the family. Nonmarket exchange as discussed by Bücher also has its roots in the principle of subsidiarity. The second major theme refers to economic and social conditions with respect to cultural development and health as discussed by Justi, Roscher, Schmoller, Oppenheimer, and Schumpeter. Different aspects are pronounced. For instance, Menger focused on health and errors in a culturally developing society and the role of time preference; Schmoller introduced the idea of insurance as a basic principle of a market economy in response to the needs of increasing industrialization and urbanization. Diversity is also present with respect to the third major theme, the role of the public sector: public preventive health care measures were addressed by Justi and Wagner; health care legislation was discussed by Justi, Roscher, and Schmoller; government as a source of finance, as well as the limits of government, were stressed by Wagner; an innovative role of government was realized by Althoff, who created efficient incentives in the organization of medical research; and the introduction of mandatory catastrophic health insurance for basic needs was proposed by Schmoller. The chapter ends with final remarks.

The difference in perspective between the old and the new health economics is described in chapter fourteen. The field of health economics has proliferated over the last few years. The handbook by Culyer and Newhouse provides an overview over the field as well as recent textbooks, the most important being those by Breyer and Zweifel, the reader by Fuchs, Folland, Goodman, and Stano, Getzen, Mooney. Websites by professional associations and the major professional journals

As Getzen has noted, “the study of health economics is relatively new and still in the process of refinement.” (Getzen, op. cit., p. iv). The description of the historic perspective in chapter fourteen is based on basic health economic terms, which are derived from the chapters of the book. Most of these terms can also be found in any current textbook of the field. This approach solves a methodological problem; historical contributions should not be compared to modern terms, which were not present at the time.

In this book, care has been taken to identify early ideas on economic issues of health, to unlock this knowledge from a foreign language or a hidden source, and to show how health economic issues can be approached from the point of view of historical authors. The study ends with a summary and propositions which transmit the central message of each chapter.

References


