CONTENTS

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Introduction

World-wide, health care is provided in different systems of organization and finance. No definitive answer has yet been given concerning the optimal structure of the health care system. This is especially difficult, as most systems are still in a state of transition and operating in different socio-economic environments. Nevertheless, attempts should be made to examine their performance.

In this paper, the health care system of Poland will be evaluated. We will use as main criteria the efficiency, effectiveness and equity of care (defined precisely in par. 1.11). Are the resources for health care spent in a rational way? Do all people have access to a decent level of health care? And what is the ultimate effectiveness of the system on the health status of the population?

In order to restrict the scope of this paper, we focus our analysis on the primary health care sector in Poland. In this way, we can use the Health for All program of the WHO, which deals first of all with primary health care. Probably, this program will significantly influence Polish health policy in the next years.

Thus, the main aim of this paper is to evaluate the efficiency, effectiveness and equity of primary health care in Poland.

In the first chapter, a theoretical framework and subsequently, criteria to evaluate the primary care system will be provided. The criteria will be classified according to the organization, resources and finance of primary health care in Poland. These aspects will serve as the main line for the other chapters as well. In chapter two, we will describe the organization of the whole Polish health care system, being the context in which the primary health care sector is functioning. The organization and delivery patterns of primary health care are described in chapter three.

It is not sufficient to describe only the organization structure of primary health care. We also have to examine the availability and use of resources. This will be done in chapter four. In chapter five, the financing of these reources in health care will be discussed. According to the criteria in chapter one and the results from the other chapters, we will evaluate the primary care system of Poland in chapter six. Reforms and proposals for reforms will be discussed in the seventh chapter.

Most statistics in this paper are represented for 1975, 1980, and 1985. This period was chosen for reasons of comparison. Data in constant prices are calculated by means of the general price index for goods and services (see appendix).

While discussing the Polish primary health care system, it should be recognized that the country experiences a severe

economic crisis. Its debts are among the highest in East-European countries, economic growth is low and shortages affect every sphere of activity.

However, the conclusion of this paper is that improvements in primary health care are both necessary and possible. They are necessary, as the efficiency and to a smaller extent the effectiveness of primary health care are low. The reasons are the highly fragmentated and badly coordinated organization of primary health care, inflexible methods and concentrated sources of finance and a lack of supply and equipment. The equity of care is high in a free health care system such as Poland. However, it is endangered by shortages of resources, the care for special groups of society, the lack of support from health care workers, the existence of a private sector and the uneven rural-urban distribution of resources.

Improvements are possible, as more financial resources are being spent on health care from 1980 and as the current conditions for reforms are favorable.

CHAPTER 1: THEORETICAL BACKGROUND

1.1 Principles of health care economics

1.11 Efficiency, effectiveness and equity

In this chapter, we will define the terms efficiency, effectiveness and equity of health services. Next, we will introduce the concept of health systems based on primary health care (phc) and consider the role of efficiency, effectiveness and equity in these systems. In paragraph 1.2, on a lower level of abstraction, we will formulate the criteria to evaluate the phc sector of Poland.

There are different concepts of efficiency. Brooks distinguishes between allocative, managerial, dynamic and distributive efficiency (1. In this paper, we will concentrate on the first two forms of efficiency. Dynamic efficiency, which is concerned with the identification of the optimum rate of technological change within an organization, is not highly relevant for phc, where investment costs are comparatively low. The concept of distributive efficiency will be included in our discussion of equity.

Several approaches exist concerning the notion of allocative efficiency. For instance, one of the criteria for economic efficiency in the demand for a service is that consumers will use the service until the price they pay for the last unit equals the additional value they receive from it. If perfect competition in a free market exists, the 'principle of optimality' of Pareto holds, in which the pattern of consumption of goods and services in a society cannot be rearranged to make one individal better off without making another worse off. However, in Poland, where prices in the health sector are either virtually absent or difficult to measure and other conditions for perfect competition are heavily violated, this approach cannot be applicated.

In our concept of efficiency, we will concentrate on the input structure (2. The allocation of resources within the health system will be the focus of our analysis (3. We must distinguish between technical and economic efficiency. "Technical efficiency means that the medical services will be

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1) Ray Brooks, 'Efficiency in Health Care'. In: Health Services Performance. Effectiveness and Efficiency. Edited by Andrew F. Long and Stephen Harrison. London, Croom Helm Ltd., 1985, p. 57.

produced using the minimum number of inputs of any given proportion." (4. As more input combinations can be technically efficient, the decision maker must determine the least costly, that is, the economically efficient combination.

Obviously, this is a rather static picture. In practice, the input structure of a health care system is changing and developing continuously. At any point in time we should evaluate the extent to which the resources for health services are being used as well as possible, for example, in terms of the amount of adequate services provided in relation to the costs.

Managerial efficiency is related to internal organizational performance rather than to the intraorganizational behaviour, which is the focus of allocative efficiency. In order to evaluate managerial efficiency (or X-efficiency) we can, among others, compare the organizational performance over time and across organizations. In this paper, we will focus on the evaluation of the organization structure across and within different health organizations.

In the following, we will attempt to use the division between allocative and managerial efficiency. When using the more general unspecified term efficiency, both forms are denoted.

The effectiveness of care is the extent to which health care activities are contributing to the attainment of the objectives and targets to reduce the dimension of a problem or improving an unsatisfactory situation. The impact of health services, being its overall effect on the health status and socio-economic development, is included in our definition of effectiveness as well (5. Many other definitions of effectiveness exist (6. However, most of them have in common that they link objectives of health care with the performance of the system, which is the achievement of these objectives. Usually, this is expressed in health indicators. In chapter six, we will discuss the difficulties which arise when

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2) The marginal condition for a Pareto-optimal allocation of factors of production requires that the marginal rates of technical substitution between labour and capital be equal for all commodities produced by different firms. However, as mentioned above, this approach is difficult to apply in reality.

3) It would require a far more comprehensive analysis to evaluate whether the resources for health care could produce greater benefits when allocated to other sectors of the economy and vice versa.

4) Paul J. Feldstein, Health care economics. New York, John Wiley & Sons, 1983, p. 8.

evaluating the health status of the population.

Equity of health care is attained when it is accessible to all individuals and families in an acceptable and affordable way and with their full involvement. One of the preconditions to achieve equity is the equal distribution among the population of whatever resources for health are available. This value judgement seems applicable to Poland, for the Polish law states that all citizens should have equal opportunities to use the health care system. It is the task of economics to determine the most efficient way to achieve this situation. Following the literature, we will use the term equality in connection with the distribution and access of resources, while the term equity is used in connection with the more general concepts of health care, health services etc..

1.12 Health systems based on primary health care

As mentioned before, in this paper we will concentrate on the primary health care (phc) sector of Poland. In recent years and not only in Poland, more attention has been devoted to phc. The WHO conference in Alma-Ata in 1978 attempted to strengthen the position of phc in the different health systems. After the conference, regional and country programs were created to implement the policy. The approach was intended for both developed and less developed countries, although it got less attention in the developed countries. However, the Polish Health for All program, published in 1988, received a reasonable amount of attention in the press.

The definition of phc has been changing over the last decades. The function and activities of phc increased and its scope widened. According to the declaration of Alma-Ata:

> "Primary health care is essentially health care based on practical scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their

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5) The definitions of effectiveness and equity which are provided in this paragraph are derived from terms used in the Health for All series. However, as we restrict ourselves to phc from economic-organizational point of view, the definitions are presented in a summarized form and can differ slightly from their WHO counterparts.

6) See: Andrew F. Long, 'Effectiveness: Definitions and Approaches'. In: Health Service Performance. Effectiveness and Efficiency. Edited by Andrew F. Long and Stephen Harrison. London, Croom Helm Ltd., 1985, p. 57.

full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self- reliance and self-determination. It forms an integral part of the country's health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process." (7

It is obvious that in this definition primary care is more than only the provision of curative health services. Otherwise it would be impossible for phc to be an integral part of the social and economic development of the society. Consequently, it should include at least eight essential elements:

"Education concerning prevailing health problems and the methods of preventing and controlling them; promotion of food supply and proper nutrition; an adequate supply of safe water and basic sanitation; maternal and child health care, including family planning; immunization against the major infectious diseases; preventing and control of local endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs." (8.

The central preoccupation of the Health for All strategy concerns equity. Inequities in health within and among European countries should be reduced and all people should have equal access to care. In this light, emphasis is laid on the promotion of healthier lifestyles and a healthy environment, and on the reorientation of health care systems based on phc. According to the WHO, such a system should:

"- Encompass the entire population on a base of equity and responsible participation;
- include components from the health sector and from other sectors whose interrelated actions contribute to health;
- provide the essential elements of phc at the first point

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7) World Health Organization, Declaration of Alma-Ata, Health for All series, 1, Geneva, 1978, p. 21.
8) World Health Organization, Declaration of Alma-Ata, Health for All series, 1, Geneva, 1978, p. 22.

of contact between individuals and the health system;
- support the provision of phc at the local level as an important priority;
- provide, at intermediate levels, the skilled and specialized care needed to deal with the more technical health problems requiring referral from the local level, as well as continued training and guidance for communities and community health workers;
- provide, at the central level, planning and managerial skills, highly specialized care, teaching for specialized staff, the services of such institutions as central laboratories, and central logistic and financial support;
- provide coordination throughout the system, with referral of problems between levels and among components whenever appropriate." (9

If the new definitions of phc and health systems based on phc will be transferred to health policy, inequities will be reduced by definition. Health care would be "universally accessible" to the people, and the health system should "encompass the entire population". The effectiveness of care would be high while phc would be based on "practical sound and socially acceptable methods and technology" with the full participation of the community. The consequences for efficiency cannot be derived directly from these definitions, but if health care is provided at a cost that the country can afford at every stage of its development, efficiency should be high.

It is difficult to evaluate the efficiency, effectiveness and equity of the Polish primary health care system by comparing it with this ideal structure. We have to continue our train of thought on a lower level of abstraction. In the remainder of this chapter we will create criteria to evaluate the efficiency, effectiveness and equity of phc in Poland.

1.2 Criteria to evaluate primary health care

1.21 Classification structure

In order to set up criteria to evaluate the efficiency, effectiveness and equity of phc in Poland, we have to classify these criteria according to aspects of the health care system. Such a system can be conceptualized as shown in figure 1.1 (10.

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9) Bogdan M. Kleczkowski et. al., Health system support for primary health care. Geneva, WHO, 1984, p. 7.

The second row of figure 1.1 represents the aspects of the health care system (organization, resources and finance), which, as mentioned before, will be the main line in all further chapters of this paper. The third row provides us with the basic criteria to evaluate the (primary) health care system of Poland. In the rest of this chapter, we will relate these criteria to the concepts of efficiency, effectiveness and equity wherever this is feasible. More detailed criteria and some hypotheses will be formulated as well.

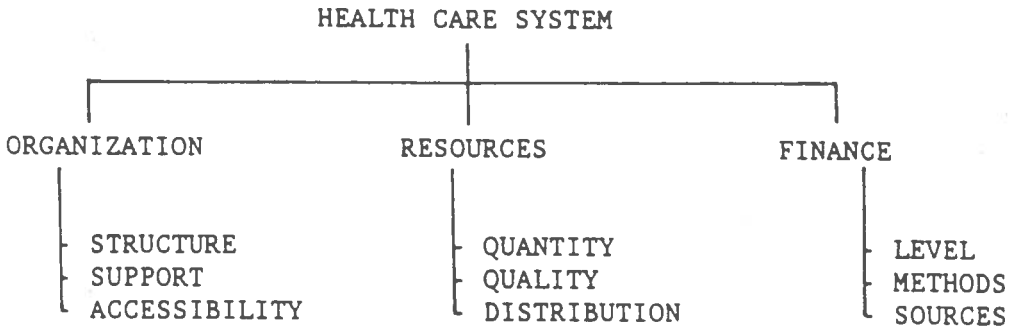

Figure 1.1: Conceptualization of a health care system

1.22 Organization

The organization of health services deals with the manner in which resources are coordinated and controlled in the delivery of health services. As represented in figure 1.1, at least three basic criteria exist concerning the organization: The structural organization of health care, the organization of public and professional support and the accessibility of the organization. Although each of these criteria can affect the managerial and allocative efficiency, the effectiveness and equity of care, it is difficult to establish quantitative criteria to evaluate the organization of phc. Therefore, except for accessibility, we will mainly formulate questions which should be answered in this paper.

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10) The conceptualization was derived from the one used by Anderson, Odin W., Health care, can there be equity? The United States, Sweden, and England. New York, John Wiley & Sons, 1972, p. 102

a) Structural organization: It is not always clear how the organization structure of phc influences the efficiency, effectiveness and equity of care. The impact of the structural component of phc on utilization patterns and health indices is hard to establish. This is partly caused by the fact that the structure of organization is highly interrelated with other components. Accessibility depends on structure and structure depends on the resources made available.

In order to create a basis for our evaluation, we start from the assumption that the organization of phc consists of several institutions (health centers etc.). Each body can provide different fields of primary health care, in different ways and in a different relation to the rest of the health care system. To ensure efficient, effective and equitable care, cooperation and integration between and within these institutions as well as cooperation and integration with the rest of the health care system is necessary. Health centers should cooperate with each other, with other organizations providing phc and with hospitals, specialist centers etc..

Therefore, our first questions to evaluate the organization of phc are: To what extent does integration and cooperation between and within phc institutions in Poland exist and how are these institutions related to the rest of the health care system? To answer these questions first of all a description (ch. 3) and evaluation (ch. 6) of the organization of phc in Poland will be provided. The continuity of care, referral patterns and the documentation system of patients will be taken into account as well.

b) The organization of public and professional support: The 29th target of the European Health for All strategy states that: "by 1990, in all member states, phc system should be based on cooperation and teamwork between health care personnel, individuals, families and community groups."(11. Questions connected with this target are: How is the present teamwork provided?; does a network of health education exist?; what activities concerning phc are performed at the community level?; and how are the medical personnel and public stimulated to pay attention to phc?

c) Accessibility: The accessibility of the organization is closely connected with equity of care (see par. 1.11) and distributive justice. Are the resources in primary care allocated in such a way that all people have equal access to care or are there socio-economic groups in society that can obtain greater access? In order to answer this question, in chapter three, we will examine the prices and waiting times in

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11) World Health Organization, Targets for Health for All. Copenhagen, 1985, p. 110.

health care. In chapter four, we will discuss the geographical distribution of resources and the utilization patterns of health services.

1.23 Resources

Health care facilities (buildings etc.), health personnel and supply and equipment are the resources most often used in primary care in Poland. To evaluate them, three criteria can be distinguished: The quality, the quantity and the distribution of these resources. Roughly stated, the quality affects first of all the effectiveness of care, the quantity the allocative efficiency, and the distribution the equity of care. We must consider these statements more precisely.

The quality of health care facilities, personnel and supply and equipment influences the effectiveness of care. An incompetent physician working with second-hand equipment in an old shelter does not provide effective care in most cases. This is obvious. The problem is to estimate the quality of resources in less obvious examples. The quality of health care workers can be estimated, for instance, according to the level of initial education, the availability of inservice training and post-graduate courses. An indicator for the quality of buildings is their vintage structure. For the restricted scope of this paper and the problems concerning data, only a general picture of the quality of health resources can be provided.

The level, or quantity, of resources is connected with the allocative efficiency within the health care system. If we assume a given level of output (health services) Xi and two factors of production capital K (buildings etc.) and labour L (health personnel) and two primary health centers a and b, we can represent the situation as shown in figure 1.2. The health centers can minimize their costs by using the combination Ke and Le determined by the point of tangency of the Xi isoqant with the lowest isocost line. Point e is known as the least cost point.

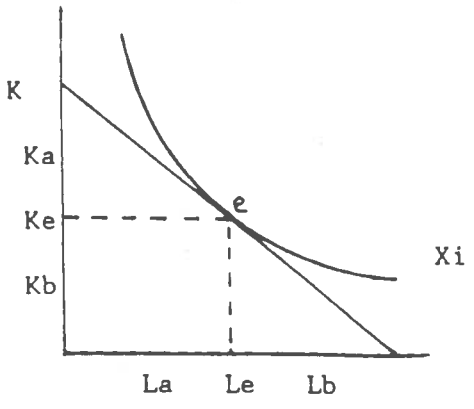

Figure 1.2

However, when the primary health centers a and b do not respond adequately to input prices and employ resp. Ka, La and Kb, Lb factors of production, lower costs for both centers could be attained through a reallocation of labour and capital between the centers. Hence a gain in allocative efficiency results.

A variant on this L,K figure is the situation in which we replace L by F (resources with fixed overhead costs such as L and K) and K by V (resources with variable costs sch as supply and equipment). We further assume the primary health system to be one organization employing Fo and Vo factors of production (figure 1.3). Starting from point o, better and more efficient health care could be attained when financial resources were transferred from 'fixed' to 'variable' resources or from, for example, physicians to supply and equipment. Indeed, as Kleczkowski argues, "one of the commonest forms of inefficiency in many countries is the failure to allocate sufficient operating costs to allow the efficient use of resources with fixed overhead costs, such as health facilities and manpower." (12.

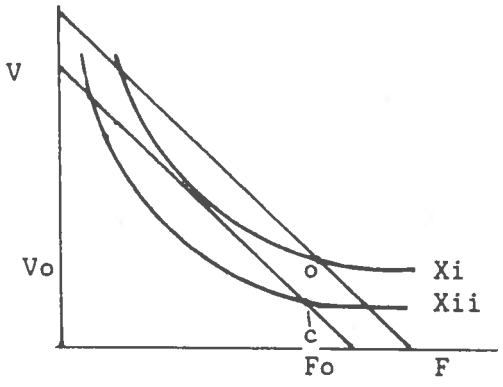

Figure 1.3

If the input combination is such that a lower output level is attained (for instance Xii in point c) even the effectiveness of care is endangered. This can be caused by, for example, a shortage of 'variable resources' on the market. In this case, a transfer of financial resources is no solution.

Another form of inefficiency of health resources is the loss of a country's money spent on the education and training of health service manpower. This loss can be caused by migration, private practices which serve only the elite and jobs in other fields of activity than health care.

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12) Bogdan M. Kleczkowski et. al., Health system support for primary health care. Geneva. WHO, 1984, p. 62.

Finally, we will examine the distribution of resources and the utilization patterns in order to evaluate the accessibilty of the organization of phc and thus the equity of care. The rural- urban distribution and the distribution of resources between specialist care and primary care will be taken into account.

1.24 Finance

Three main criteria concerning the financial aspects of health care are taken into account. First, the level, second, the methods, and third, the structure of the financial resources.

The level of finance is often expressed in percentages. What is the share of the expenditures for health care in the national income and the government's budget and what is the share for phc in the total costs of health care? These shares represent the priority a society attaches to health care, although the level of economic development should be taken into account as well.

It is particularly important to examine the effect of the different methods of finance on the allocative efficiency of the resources and the managerial efficiency of phc organizations in Poland. These effects might be considered as criteria to evaluate the methods of finance. The flexibility of the financing system, the presence of a cost accounting system and methods of financial management such as cost benefit and marginal analysis will be considered as well.

Sources of finance for phc are, among others: Local and central government budgets; social sources; sources from voluntary organizations; local enterprises; insurance systems; and direct household payments. To strengthen the financing of phc all these sources could be used. If there is only one source of finance, it might be difficult to attract more resources for extra programs etc.. Thus, our last indicator to evaluate the sources of finance will be their degree of concentration.

CHAPTER 2: THE STRUCTURE OF THE POLISH HEALTH CARE SYSTEM

2.1 Historical introduction

The present-day health care system of Poland mainly developed after the Second World War. In the inter-war period, Polish health services were organized in several sub-systems. Hardly any structure of health organization existed on national and provincial level. Few hospitals and ambulatory care centers were financed and controlled by local governments, and most medical care was private and largely centered in urban areas. There were also various hospitals, dispensaries and sanatoria, which were established by charitable organizations and religious bodies.

The Second World War had a devastating effect. Many hospitals and clinics were destroyed and the number of physicians was halved. However, other sectors were in equally desperate straits, so health care had no first right when scarce resources were allocated. A separate Ministry of Health was established in April 1945, but the coordination on the national level remained difficult. Several ministries such as the Ministry of Work and the Ministry of Education still retained their responsibilities concerning health care. Local and provincial authorities retained their separate sovereignties and insurance, religious and private hospitals continued to exist.

By means of decree of Sejm, the Polish parliament, on 28th October 1948, the Ministry of Health was given the administration of all health care facilities (except for the military and transport services). This intended to improve the possibilities on the national level for planning the development of the health care system. Indeed, the Ministry started a process of integrating and nationalizing health care institutions. In 1950, the maternal and child health service was set up. In 1951, pharmacies were nationalized and part of the insurance system, including several health care institutions, was transferred to the Ministry of Health. The same was done with school health services in 1952 and the State Sanitary Inspection in 1954. Since the Ministry of Labor and Social Welfare was abolished in 1960, the Ministry of Health took over the rehabilitation services, the orthopedic appliance workshops and the department of Social Welfare (which was added to the title of the Ministry).

Despite all these measures aimed at integration, the organization of health care remained rather fragmentated. Hospitals, emergency services, general health centers and industrial health centers continued to be autonomous units,

lacking horizontal links, causing an inefficient use of resources. Reorganization was difficult because of the underestimation and consequently underfunding of social policy. Both in the Stalinist period before 1956 and in the Gomulka period after 1956, heavy industry played a dominant role (although in the latter period emphasis was officially laid on consumer goods, agriculture and housing). So, it was only towards the end of the sixties that a discussion about health care policy could start again.

A new Minister of Health and Social Welfare was appointed in 1968 after an internal struggle within the faction of the Party. The fifth party congress of November 1968 directed the new minister to pay urgent attention to the improvement of the organization and functioning of the health service. This stimulated the adoption of the proposal of the Central Council of the Union of Health Care Workers (ZZPSZ) to convene a group of experts to prepare a project for health care reform.

The new commission pointed out two main reasons of health service inefficiency: a) Basic organizational weaknesses causing coordination problems and b) the existing methods of finance, which were based on static and out-dated data. To solve these problems a basic organizational reform was mandatory.

This was emphasized when a massive strike, started in Gdansk in December 1970, broke out against increases of the prices of fuel and food. The criticism was extended also to other fields of society, e.g. health care. The press emphasized "the long queues in local surgeries and health centres and the difficulties of obtaining home visits. It stressed the overcrowding of hospitals, their poor physical condition and the difficulties of admission. Health service personnel came under attack for cursory examinations, rudeness, lack of punctuality and outright corruption. The situation was variously attributed to shortages of personnel, high turnover of primary care physicians, inadequate coordination, shortages of drugs and equipment, low salaries, the system of finance, excessive delays in the building program and chronic underinvestment (1".

In July 1970, some reform experiments were started. They were extended in 1970 by a year-long full-scale experiment in 11 counties (Powiaty). Although later criticism was voiced that the choice of the counties was not aselective, the experiment turned out to be succesful. At the basic level the

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1) Frances L. Millard, 'Health care in Poland, from crisis to crisis'. International Journal of Health Services, 3, 1982, p. 500.

reform proposals envisaged an integrated health service (Zespol Opieki Zdrowotnej, ZOZ), which would provide primary health care through a network of local health centers. Emergency and specialized care would be provided through specialized health centers and the general hospitals. At the provincial level, all basic specialties as well as first referral to highly specialized fields would be delivered. Next, the Medical Academies and the National Research Clinics would deal with the more complicated cases.

The formal introduction of health reorganization took place in March 1973. The reorganization was complicated by the fact that the period from 1973 till 1975 was one of national administrative reform. The number of provinces increased from 17 to 49 and the district (Powiat) tier disappeared. Several new ZOZs were divided or subject to different provincial authorities.

Before 1972, independent farmers and their families, forming 26 per cent of the population, were not included in the insurance system. The reorganization and extension of the health insurance program in 1972 entitled 99 per cent of the Polish population to comprehensive health care. For the remaining one per cent some specialist care and diagnostic methods were free.

With the first manifestations of a general socio-economic crisis in 1975-1976, the tensions in the health care system increased too. These tensions were caused by the introduction into the system of six million farmers without an extension of the health budget, and the new administrative division of the country. Of course, the reorganization of the health care system caused already enough problems and could not counteract the tensions mentioned.

Before 1980, it was difficult to discuss openly the state of crisis in health care. This was changed with the strikes of the summer of 1980. Numerous demands were voiced and included in the Gdansk Agreement (Protokol Porozumienia, item 16) in which was asked for improvements of the conditions of work in health care in order to give good medical care to all working people. Higher investments, higher wages and more medicines were the main demands concerning health care in this agreement.

After the Martial Law was canceled in 1983, a process of critical evaluation started. At present, criticism can be voiced openly and several proposals for reforms are in the pipeline. These proposals will be discussed more extensively in the last chapter.

2.2 The national organization of health care

2.21 The place of health care policy in the political structure

In order to comprehend health care policy and planning in Poland, a general description of the current political structure of the country is useful. In figure 2.1 the main elements of the political structure are represented. At the national level the supreme authority is the Polish parliament, Sejm, which meets twice a year in an autumn and a spring session. During the year, commissions of Sejm (including a commission for health care) have regular meetings. The Sejm consists of three parties and a Christian Association (which are mainly catholics who are not involved in any party). The present Minister of Health is such a non-involved member of the parliament. The dominant political party in Poland is the Polish United Workers Party (PZPR). The PZPR has its Central Committee from which a small number of ten persons is elected, the Politbureau. This executive body is responsible for overall public policy. At present, the chairman of the Politbureau is Wojciech Jaruzelski, who, by tradition, is also the first secretary of the Central Committee and chairman of

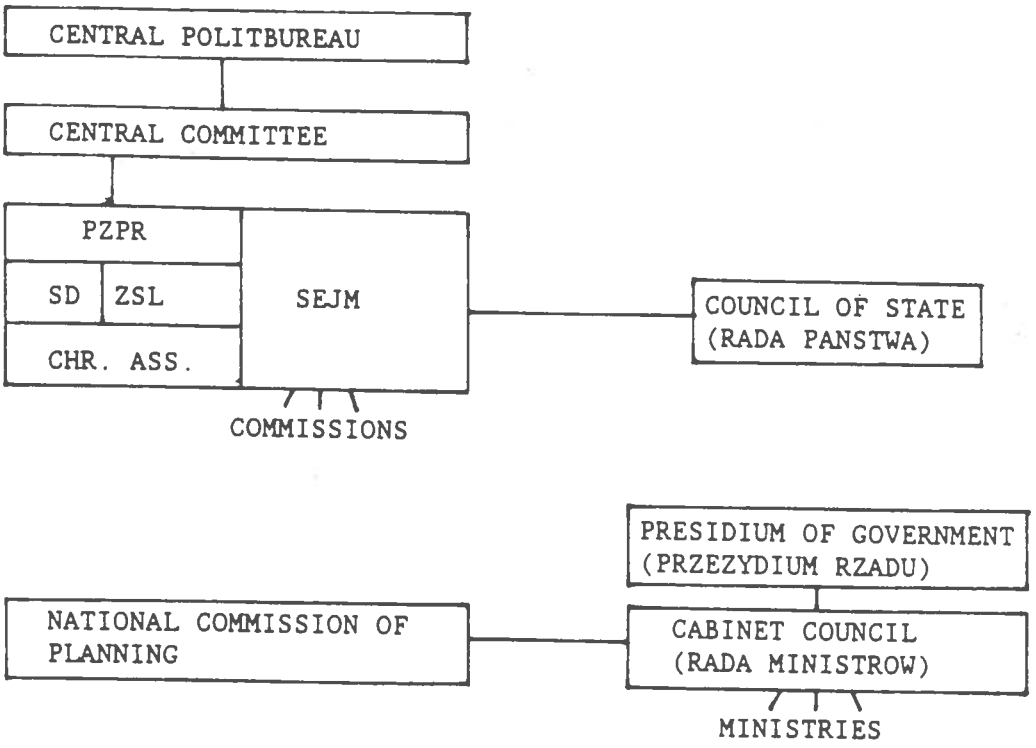

Figure 2.1: The political structure of Poland

Rada Panstwa, the Council of State, which has mainly representative functions.

The National Commission of Planning (NCP) and the Cabinet Council (Rada Ministrow) are executive bodies on the national level. From the Cabinet Council the prime-minister and the vice prime-ministers form the Presidium of the Government. All ministers are chosen by Sejm every four years.

Major policy proposals are made by the political party apparatus. Other budget and planning proposals are discussed by the NCP, the provincial authorities, pressure groups and representatives of the Central Committee. However, the latter do not play a very important role in the preparatory process (this cannot be said in the case of heavy industry. After the strong emphasis in the fifties on this sector in socialist countries, it still has a strong influence on the distribution of resources). When proposals are ready, they are sent by the Cabinet Council to Sejm and are discussed by the relevant commissions of the parliament. Next, they are sent back to Sejm and usually approved on the sessions.

Despite all these legislative activity, health legislation in Poland is rather chaotic. Many important laws date back to before World War II. The reforms of 1973 were based on the law of 1948, which is the most important law from a formal point of view nowadays. However, in practice other laws are more dominant.

In figure 2.2 the organization structure of the health care system in Poland is roughly represented. This structure will be followed from the top downwards in the next paragraphs.

2.22 The Ministry of Health and Social Welfare

The most important executive body in the field of health policy is the Ministry of Health and Social Welfare. The Ministry leads the administrative activities of the health care institutions and it realizes, initiates and coordinates the implementation of laws concerning health care. The functions of the ministers are different from those in western countries, where ministers are political leaders. In Poland, the minister can be compared with the director-general in a Western-European ministry. He or she is responsible for the execution of policies. Therefore, the Minister of Health is often a fully qualified physician.

Among others, the tasks of the Ministry are connected with the organization and finance of the health care system, formulating and supervising of plans and maintaining of relationships. The Ministry also controls enterprises connected with health care.

Separate from the Ministry of Health and Social Welfare, other ministries exist which have an impact on the health care

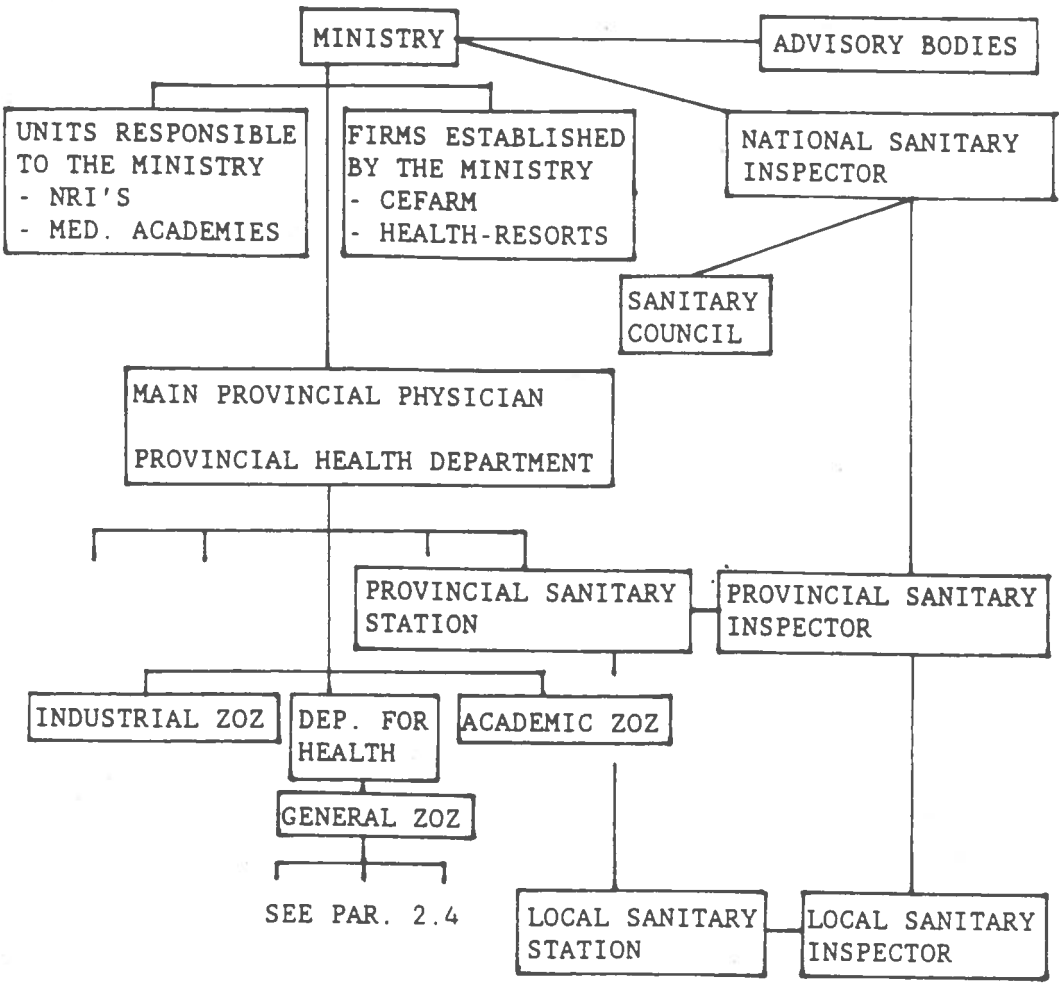

Figure 2.2: Organization structure of the Polish health care system

system. The Social Insurance Institute is located in the Ministry of Labor, The Ministry of Finance allocates the money for health care and the Ministry of Chemistry supervises the production of drugs (which are approved by the Ministry of Health and Social Welfare). Separate health systems exist for the Polish military forces, the national police, and for employees of railroads and airlines. These systems are subordinated to respectively the Ministries of National Defence, Internal Affairs, and Transport.

2.23 Organizations responsible to the Ministry of Health and Social Welfare

Over the years a number of National Research Institutes have been established in Poland. These Institutes were usually a response to certain health problems. Thus, there are institutes for psychiatry, tuberculosis, onkology, but also for occupational medicine, mother and child care etc..

A second body in the field of education and research are the Medical Academies. Except for the training of medical students, the Academies are of vital importance for the clinical treatment of patients transferred from the provincial hospitals, the organization of refresher and post-graduate courses for medical personnel as well as doing research. Other centers concerning education and research are the Center for Post-Graduate Education and the Center of Middle-Level Medical Personnel.

The third body responsible to the Ministry of Health and Social Welfare is the Central Office for Pharmaceutical Products (CEFARM), which collects and distributes medicines. The central office of CEFARM coordinates the distribution and tries to secure the availability of sufficient medicines (However, in practice there are often shortages of many basic medicines). On a lower level, 17 companies, serving one or more provinces, are distributing the medicines to various kinds of pharmacies.

The most important producer of medicines in Poland is the pharmaceutical cooperation Polfa, which produced 52 per cent of all medicines in 1985. Polfa is subordinated to the Ministry of Chemistry. The next important producer is Herbapol, a cooperation of firms producing medicines on a natural basis. Herbs for curing illnesses are very popular in Poland. Private cooperations, pharmacies, small producers and imports provide the remaining medicines. In 1985, out of the production of pharmaceutical means amounting to 63,627 million zlotys, Polfa, Herbapol, and the cooperatives produced at respectively 26,818, 4,711 and 3,391 million zlotys.

It may be recalled from chapter one that the provision of essential drugs is included in primary health care. Although there are often shortages of basic drugs, it is doubtful whether another organization could improve the situation. We will return to this topic in further chapters.

The fourth organization, which is more independent than the other three, is the Sanitary Epidemiological Service in Poland (Sanepid). This body is concerned with the quality of water, environmental pollutions, hygienic conditions in schools, houses, industry and public facilities. The hygiene in all places handling food is controlled as well. Sanepid has been organized in a separate system (see figure 2.2) to avoid disease hazards to be covered up by local authorities. At

each level, national, provincial and local, the service has its specialists headed by a sanitary inspector, who is usually a physician trained in hygiene. On the national level the inspector occupies the post of Vice-Minister of Health.

It is obvious that Sanepid is directly concerned with the environment and thus the health status of the population. It constitutes an important element of primary health care. The role of Sanepid may become more important when the new approach to phc (described in chapter one) will be accepted.

2.3 The organization of provincial health care

In 1975, the political administrative structure of the country was changed. As mentioned before, the number of provinces increased. Bureaucratic problems were the main reason given for the reform, but the strong power of some of the provinces could have been an additional reason. Some of the provinces had considerably influenced the national policy on account of their large sizy (2. After the reform, this provincial influence was no longer a political problem, although the differences between provinces are still considerable in some fields of society including health care.

Just as on the national level, also a distinction can be made between legislative and executive bodies on the provincial level. The Peoples' Council (Rada Naradowa) is a representative body, whose decisions concerning health care are executed by the Provincial Health Department (PHD). Officially, this PHD is horizontal-administratively responsible to the Peoples' Council and vertical-technically to the Ministry of Health and Social Welfare. However, no exact line can be drawn between the two responsibilities. The system of double responsibilities was introduced for political reasons, as it gave the possibility to exercise control on the provinces to the central level. In practice, this system often led to confusion for the PHD when faced with contradictory orders. At present, contrary to the seventies and in the light of the newest reforms in Poland, more importance is attached to decentralization and thus to the subordination to the Peoples' Council.

The PHD supervises the locally integrated health services, the provincial hospital, the blood stations, the sanitary transport and the medical cooperatives. In general, the

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2) For instance, Edward Gierek, the political leader of Poland in the seventies, was the first secretary of the heavily industrialized and powerful province of Katowice in the sixties.

staffing of the PHD is relatively small and consists of physicians and some non-medical personnel. The head of the PHD is the so-called provincial physician. He or she is first of all responsible for provincial health care, assisted by departments of health care, social welfare and of economic-investment matters.

Except for supervising, the PHD has to identify the health situation and needs of the population, control medicines and registrate health personnel (also for phc). Further, the PHD has the important task to lead investment projects. Especially in a socialistic country and in a weak sector such as health care this gives rise to many difficulties. Shortages of building materials are substantial and the health sector has no power in the bargaining process with the construction enterprises.

Specialists working in the provincial hospitals are supervised and assisted by specialists from the National Research Institutes. On the other hand, they control the specialists working in ZOZ hospitals. This system of professional subordination, which to a certain degree can be compared with the American concept of Peer Review Groups, was intended to spread medical knowledge and to control the quality of work. The system indeed works in practice, though in different forms and not everywhere.

2.4 Locally integrated health service

The key factor of the concept of locally integrated health service (ZOZ) is the technical integration of each speciality of health service, for hospital care as well as for ambulatory care. The old structure of health care with intramural and extramural sectors, was considered to be inefficient. With the introduction of the new organization in 1973, the expected benefits were as follows:

a) Increasing cooperation between physicians and a more unified documentation system would avoid double diagnostic tests at different levels of the health system.
b) More efficient exploitation of diagnostic services in hospitals. The waiting time for patients in hospital would be reduced and thus the average length of stay in patient days.
c) Higher flexibility in the use of health personnel in hospitals and ambulatory care centers would lead to increasing access of the health services for the population.
d) More preventive care.

Many of the expected benefits concern phc. This is an indication that the policy makers realized that the problems in phc had to be attacked. Whether the answer of ZOZ was suffficient to solve the problems is doubtful. We will

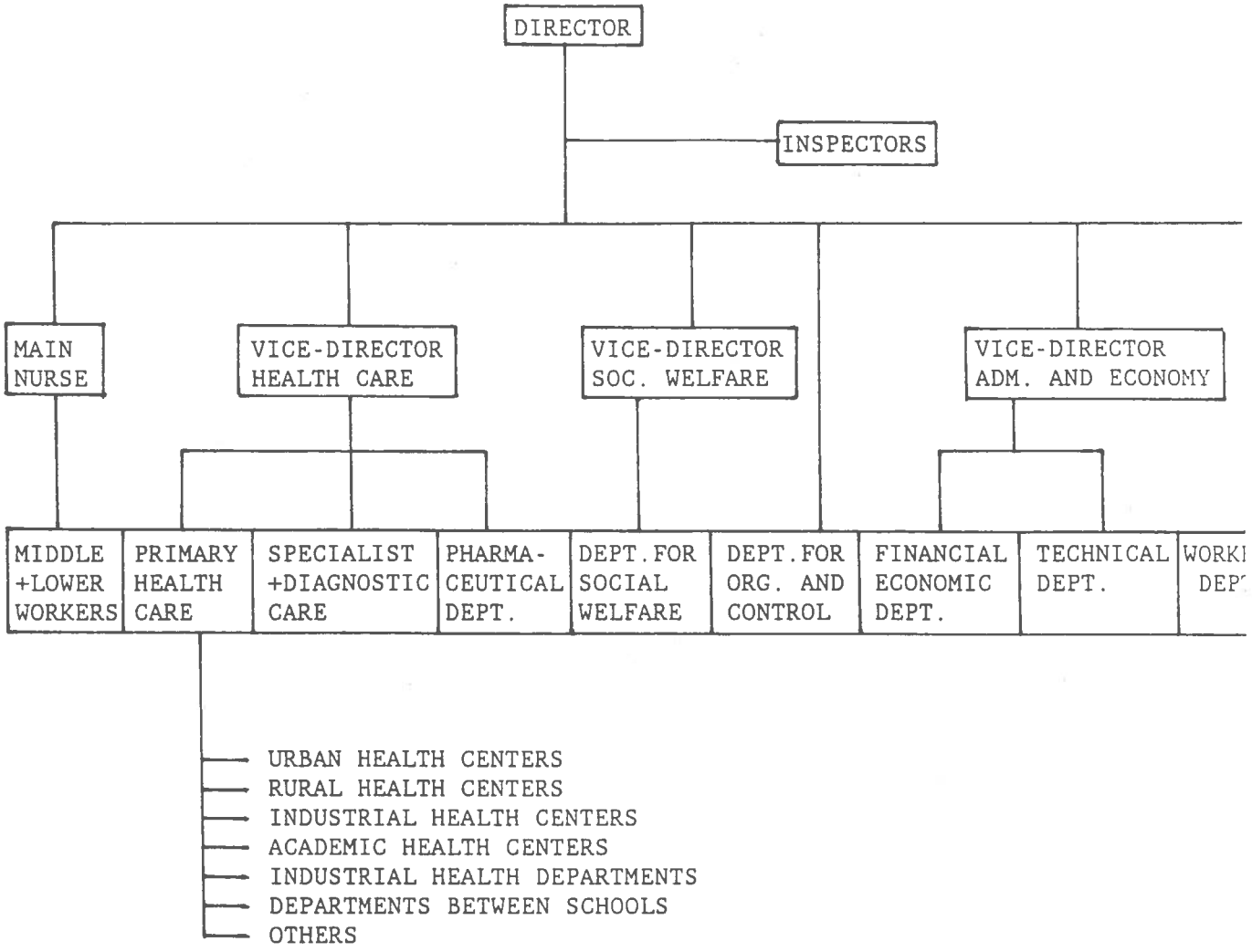

Figure 2.3: Organization structure of a large ZOZ

continue this evaluation in chapter six.

In figure 2.3 the organization of a large general ZOZ is represented. Not all departments represented in the figure are included in every ZOZ, but departments for health care, social welfare, economic and investment matters, pharmacies as well as different inspectors should always be present.

The tasks of ZOZ lie in the fields of preventive and treatment care. Preventive tasks are , among others, to vaccinate, to carry out health education and preventive examinations, and to control and evaluate the conditions of living, studying and working. Tasks concerning treatment include the provision of primary and specialist health services, in the form of ambulatory, home, emergency and department care. The delivery of rehabilitative, social welfare and nursery school services is included as well.

As shown in figure 2.2, there are ZOZs for industry, general population and higher schools. It usually depends on the concentration of industry and higher schools, whether a separate ZOZ is created. In other cases, industrial and academic health centers are subordinated to the general ZOZ.

The ZOZ itself is a highly administrative organization. Two opinions exist concerning its size. From the organizational point of view, ZOZ is too large a unit to be managed comprehensively. A population group of 40,000-50,000 people would be manageable, but at present many ZOZs are larger. From another point of view, too many resources are spent on this administrative institution. According to this view, less ZOZs and more autonomy for health centers would lead to increasing allocative efficiency.

2.5 Conclusion

In this chapter we have discussed the Polish health care system in general as a background for the evaluation of phc. In the historical introduction we found that the present organization of the health care system took shape after the 1973 reforms. However, many problems continued to exist.

Figure 2.2 presented the general organization structure of the Polish health care system. On the national level, the Ministry of Health and Social Welfare is the most important body. The sanitary system, the pharmaceutical organization Cefarm and the Research organizations contribute to different fields of phc on the national level. On the provincial level, the provincial health department has some important supervising and registrating tasks, among others for phc.

Finally, on the local level, we have seen that ZOZ is the main administrative body. The tasks of ZOZ were in the field of organizing preventive and treatment care. Many expected advantages at the time of its introduction concerned phc.

However, in the light of its bureaucratic character, it is doubtful whether the organization ZOZ is efficient.

CHAPTER 3: THE ORGANIZATION OF PRIMARY HEALTH CARE IN POLAND

3.1 Historical outline of the role and importance of phc in Poland

After having given an outline of the Polish health care system, we now turn to the place of phc in this system. In most cases, the bodies providing phc are directly subordinated to the local authorities. However, the structure and performance of these bodies are often determined by policy decisions on the national level. After World War II the most important decisions concerning phc were:

1) The regulation of 1958 that the physician in phc would be responsible for the health of the population in his or her district. This is of course a rather abstract regulation which is difficult to implement in reality.
2) The inclusion of social welfare in the health care system in 1960. In theory, this would enable the integration of medical and social care.
3) The decision in the 1960s to include (in 1973) private farmers in the free health care system. To enable this extension 3300 new rural health centers were planned. Indeed, in 1970 2000 and in 1980 3200 centers had been built.

Despite these decisions, on the whole little attention was paid to phc till the end of the sixties. So, the sector was in a bad state at the beginning of the reforms in 1973. Although the expected advantages of these reforms concerned phc as well (see par. 2.4), no clear improvements were observed.

The official position of the seventies was that phc should provide people with medical treatment at their place of living, working and studying. In the 1980s it was added that the sector should be a filter for specialist care. In both periods lip service was paid to phc by the authorities, but in reality the system remained hospital-oriented. At present, a tendency exists, stimulated by the Health for All Strategy, to replace this lip service by real support for phc.

3.2 Regionalization principles

Regionalization of health activities in a country establishes the spatial responsibilities of health care organizations. This spatial distribution has several advantages. First, regionalization is useful for the planning and staffing of primary health care institutions. Second, it enables the local physician to recognize the environmental factors having an

impact on the health status of the population.

The whole of Poland is divided in curative preventive regions. By means of the health centers in these regions, the population is provided with phc. This should consist of general, dental, gynecological and pediatric care. However, these services are not always provided, because of the scarcity of resources and the difficulties to attract physicians to rural areas.

A region is established on the base of the number of inhabitants. When the population density or the geographical circumstances make another division necessary, the Provincial Health Department has to approve this. Rural regions consist of 6000- 24000 people, further subdivided into subregions of 3000-4000 people. The rural area usually coincides with the administrative Gminna. In rural regions, general and dental care should always be provided.

In the cities the regions consist of 6000-24000 people and are subdivided into subregions of 3000-4000 people as well. The health centers in the main cities almost always provide care in the four basic specialties (general, dental, gynecological and pediatric care), while in smaller towns this might be less often prevalent. In these towns, 12 general physicians, 12 dentists, four gynecologists and six pediatricians should be employed per 12 health centers.

3.3 Structure of primary health care in Poland

3.31 Urban and rural health centers

The most important institutions in the organization structure of ZOZ concerning phc are the urban health centers (Przychodnia Rejonowy) and the rural health centers (Gminny i Wiejski Osrodek Zdrowia). These centers should provide curative and preventive care in the basic specialties mentioned above through ambulatory care and home visits. Additionally, they should participate in the work concerning sanitary conditions. Regularly, inspectors of the sanitary service visit the health centers, not only to inspect them, but also to discuss sanitary problems.

The urban health center consists of four basic medical departments according to the basic specialties. So, there are departments (Poradnia) for general medicine, stomatology, women, and children. Some urban health centers have additional departments for physiology, diagnosis and vaccination. Each department has its own registration office.

In figure 3.1, the organization structure of the urban health center and the main lines of communication are represented. The management of the departments is done by the main physician and the main nurse. This includes first of all the coordination of physicians and nurses. Other, more

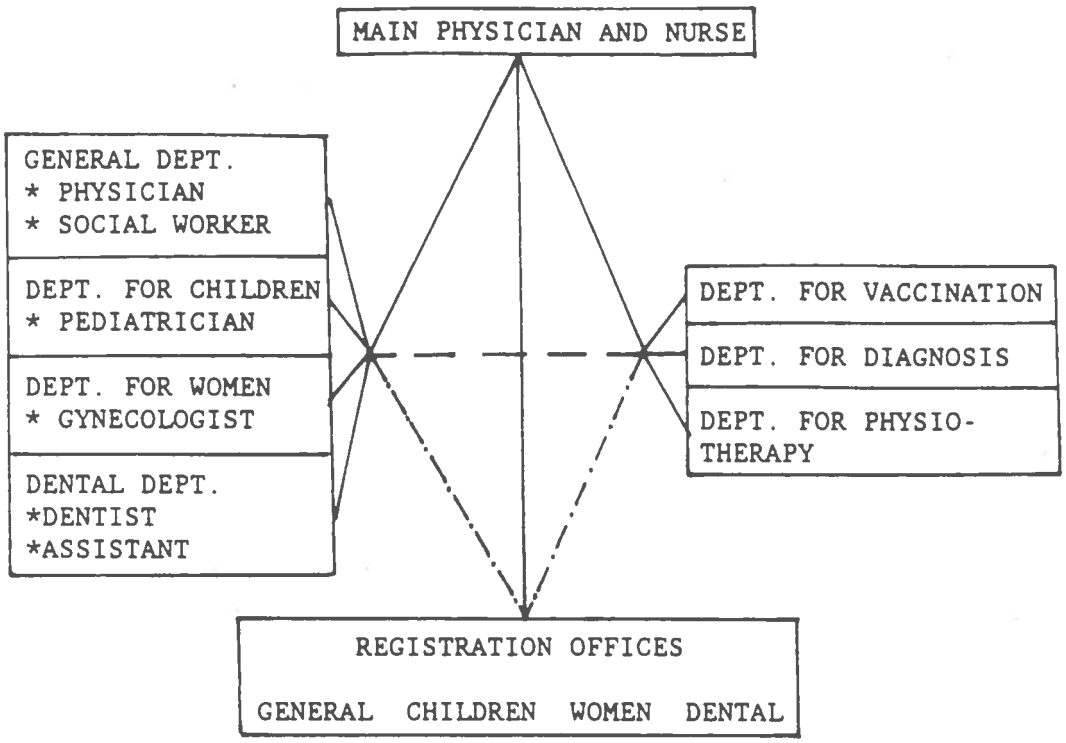

Figure 3.1: The organization structure of the urban health center

administrative tasks, are performed by the registration offices or departments of ZOZ.

As shown in the figure, three lines of communication exist. Apart from the supervising tasks of the main physician and nurse, functional relations exist between the departments. Finally, the registration offices are technically or administratively related to the medical departments.

In the department of general medicine, health care is provided by a general physician or an internal medicine specialist. To this so-called local physician (Lekarz Rejonowy) two environmental nurses (who are visiting people at home) and one social worker should be connected. They are supposed to cooperate and to form a team. However, in most cases the decisions concerning the number of contacts with the patient and the referral to specialist care are still taken by the local physician only.

The local physician is officially related to the director of ZOZ, to the head of the department for phc in ZOZ and to the head of the health center. Indirect relations should exist between the local physician and his/her colleagues in industrial health centers, emergency care centers and health departments in schools. All the given relations are represented in figure 3.2 with in the center of the figure the local physician.

The department of general medicine should have full information about the health status of its patients. Good lines of communication are therefore required between this department and other general and specialist health centers as well as with hospital departments.

The next department in the health center is the department for women. Obviously, this department is concerned with the prevention and control of specific illnesses of women. Further, it should deliver care and advice to women during the time of pregnancy and childbirth. The last task of this department is to provide health education to women, especially concerning family planning and contraception.

The department for children has to cooperate strictly with the department for women. It is divided in prophylactic and curative departments, which may be in the same building, but should have a separate entrance. The coordination of both departments is done by the oldest pediatrician. The norm of children per pediatrician is 1500.

The number of patients per dentist in the stomatological department should not exceed 4000. The tasks of the dentist are to prevent and to cure dental defects at the earliest possible stage. Of course, this department has to cooperate with the other departments in the urban health center as well.

In rural areas a network of rural health centers has been established. Their staffing usually consists of a general physician, a dentist, a nurse, a midwife and a dental assistent. Similar principles as for the urban health center are valid concerning the tasks of health care workers. When the population density of the area is such that the distance of certain farms, houses and schools to the health center becomes too far, health points can be established, staffed by part-time budding physicians. Delivery rooms and pharmacy points can also be found in rural areas.

3.32 Occupational and academic medicine

Occupational medicine is a highly developed part of health care in Poland. Roemer estimated that over ten per cent of physicians were working in industrial health care, a much higher percentage than can be found in other countries (1.

The organization structure of industrial medicine is very complicated. Health care is delivered within one factory or

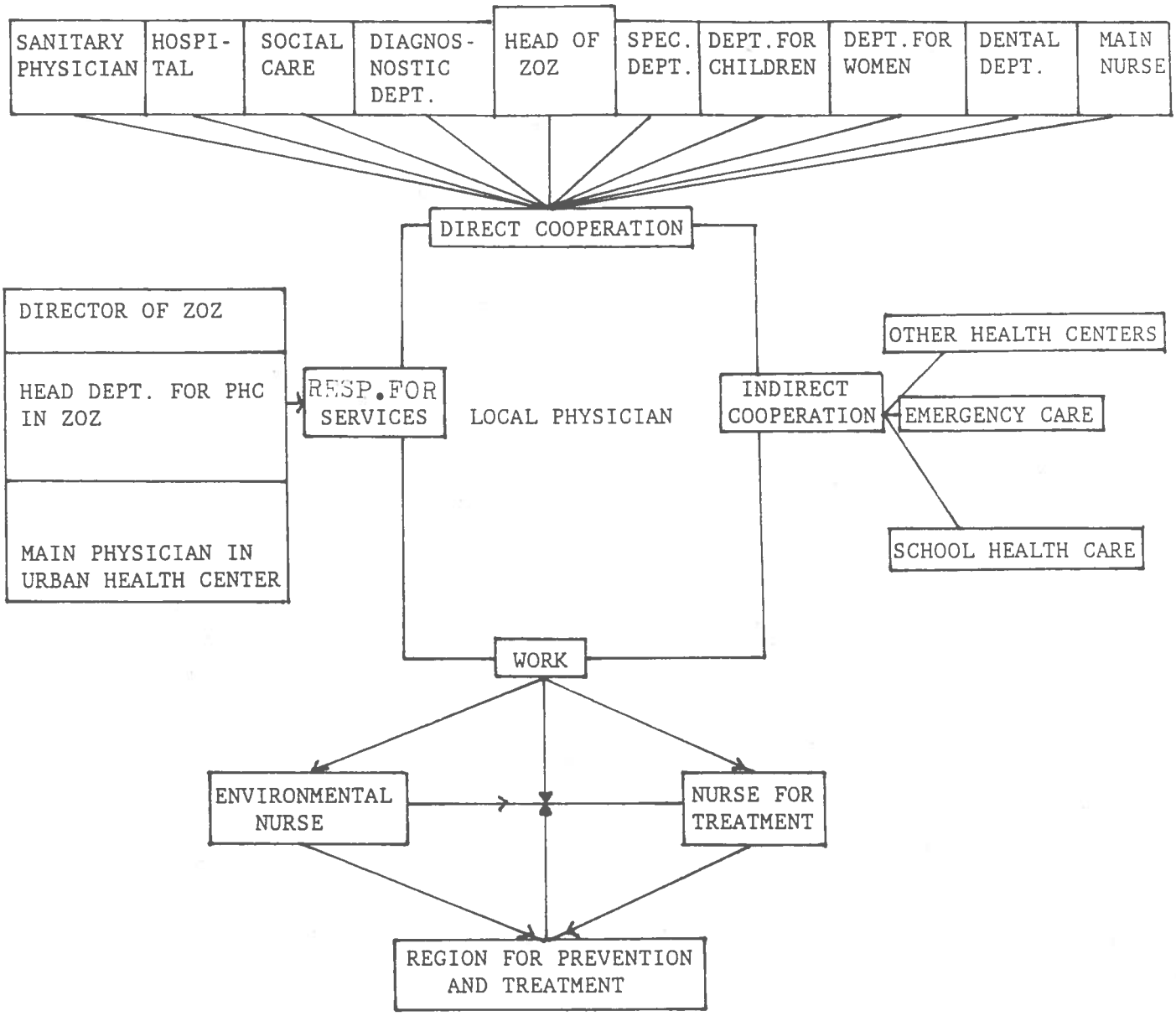
SANITARY PHYSICIAN
HOSPI-TAL
SOCIAL CARE
DIAGNOS-NOSTIC DEPT.
HEAD OF ZOZ
SPEC. DEPT.
DEPT.FOR CHILDREN
DEPT.FOR WOMEN
DENTAL DEPT.
MAIN NURSE
DIRECT COOPERATION
DIRECTOR OF ZOZ
HEAD DEPT. FOR PHC IN ZOZ
MAIN PHYSICIAN IN URBAN HEALTH CENTER
RESP.FOR SERVICES
LOCAL PHYSICIAN
INDIRECT COOPERATION
OTHER HEALTH CENTERS
EMERGENCY CARE
SCHOOL HEALTH CARE
WORK
ENVIRONMENTAL NURSE
NURSE FOR TREATMENT
REGION FOR PREVENTION AND TREATMENT

Figure 3.2

between more factories. The health centers or health departments are subordinated to the normal, industrial and specialized industrial ZOZ (ZOZ, PZOZ and SPZOZ). Every firm can decide independently whether it wants to provide health services for its employees.

Industrial ZOZs are first of all located in areas with a high concentration of a certain kind of occupation which demands extra attention. This can be necessary, for difficult or dangerous conditions of work. Mining, transport, shipping and building are examples of industries in which industrial ZOZs can be found. At present, there are 42 industrial ZOZs in 13 provinces.

The tasks of industrial health centers vary from the provision of ambulatory care to the cooperation in job choice for the disabled. All medical and administrative activities connected with a period of illness of a worker are performed by the industrial health center. Further, they should provide prophylactic examinations, provide health education and take care of sanitary conditions in the plant.

Just as in the urban health centers, the industrial local physician is playing an important role in the execution of these tasks. The industrial health centers can have departments for stomatology and gynecology. The tasks of the industrial dentist and gynecologist are the same as in the urban health centers. As an additional task, they must control the conditions in the working place.

In Poland, there are more examples than industry only, where health care is connected with the place of occupation. Examples are the Trade Union Central Committee and the Union of Authors. The former has its own health center and the latter employs its own physicians.

Students and scientists are provided with preventive and curative care through different health care institutions, often subordinated to a special ZOZ. These ZOZs for higher schools are organized in cities with a high concentration of academies, universities etc.. A ZOZ for higher schools often consists of academic health centers with the four basic specialties, departments of hospitals and specialistic and diagnostic services.

3.33 The non-public sector

In Poland, there are two main forms of non-public health care; private practices and cooperatives. In this paragraph, we will

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1) Milton I. Roemer, Comparative national policies in health care. New York, Marcel Dekker, 1977, p. 245.

only discuss the history and organization of these non-public institutions. Later, in the fourth and fifth chapters, the resources and methods of finance of, among others, this sector will be examined.

After 1950, despite steady improvements in the public sector, medical specialists in the larger cities formed groups to provide private services after their public job. In 1960, the government decided to control these groups and designated them into medical cooperatives. These cooperatives were required to register with the Ministry of Health and Social Welfare and they were controlled in various ways by the Provincial Health Department and the sanitary station. The cooperative usually has an executive council headed by a director. The PHD appoints a manager, who handles the accounts and assures that regulations are observed.

Many physicians want to work in cooperatives, for the salaries in the public sector are low and earnings in a cooperative high. If a physician works two or three days per week for the maximum allowed two hours per day, he or she can earn a second salary. Although the number of cooperatives amounted to 377 in 1985 (see chapter 4), not all physicians are accepted. The requirements a physician must meet to work in a cooperative are as follows: a) A first or second degree of specialization, b) the approval by a special council of the cooperative, and c) a permission from his/her superiors. This permission is sometimes refused if the specialist is very much needed in the public sector.

An appointment in a cooperative with a specialist can be obtained by buying a number at the central cashdesk of the department. Some dentists use the system of making appointments.

Another form of non-public health care are private practices. In Poland, private practices are additional to the public health care system and most of them are legal. After having worked seven hours a day in the public sector, the Polish doctor is allowed to engage in private practice with the exception of medical school professors and chiefs of hospital wards. As may be expected, these double jobs sometimes give rise to a minimalization of public working time.

The only requirement for private physicians is that they must register with the fiscal department of the province. Private treatment takes place at the home of the patient, the physician's home or in a private office.

In most Comecon members there are private practices. Only in Bulgaria and Roumania they are officially forbidden. In Russia private practices are often illegal, for taxes are high and according to legislation the consultation room must be well equipped. As Russian people like golden teeth, there are many dental practices. Also in Czechoslovakia and Hungary many

private dentists can be found. In the GDR, except for private practices, private hospitals exist, which are cooperating with the public system. Fees are reimbursed to the patients by means of a social insurance system.

3.4 Public and professional support

In chapter one, the second criterion concerning organization was the organization of public and professional support. Both medical personnel and public have their own responsibilities concerning phc and are in this way related to the health care system.

In order to assure the support of the public, health education plays an important role. Health education should lead to greater responsibility of the people for their own health and welfare. In Poland, health education for pregnant women is performed rather well. However, other forms of health education are often too superficial or even absent.

The problem of attracting physicians to work in phc has a long history in contemporary Poland. In 1987, there was a shortage of 5,000 physicians in this sector. The main cause of the problem has always been that there are too many specialists in the medical academies to stimulate students to pay attention to their general training side. After their study, students prefer an urban hospital-centered job. Some physicians think that the work in phc is boring and tiresome and others point at the bad infrastructural situation and the instable cadre as the reason of the unpopularity.

Periodically, salary incentives for physicians in phc have been created. However, these stimuli often quickly vanished under the pressure of specialists. In general, it is very difficult in the health sector of Poland to allocate physicians on the base of salary incentives, for the health sector as a whole has traditionally been the lowest paid branche of the economy. In the early seventies a new salary structure for health care workers was introduced with a higher wage level. However, already in the second half of the decade the health service lost its brief advantage over the other sectors of the economy.

Table 3.1 shows that the health service is still in an unfavorable position in the national economy concerning the level of wages. The severity of the 1981-1982 economic crisis is clearly illustrated. The real wages in 1985 are, with the exception of low-qualified personnel, lower than the level of 1975. The decrease of the real salaries made it possible that in the period 1975-1985 the number of health care workers as a percentage of all workers in the national economy increased gradually from 3.2 to 4.2 per cent without a change in real terms of salaries paid by the government (2. This sum, 84

thousand million zlotys in 1985, is counted in prices of 1975 about 20 thousand million zlotys, which was also the level of 1975.

Table 3.1: Average salary per month in zlotys (current prices, fixed prices of 1975 between brackets).

	1975	1980	1985
Wages in health care as a % of wages in nat. econ.	80	78	78
Wages in:			
- National economy	3913	7689 (5457)	20005 (3585)
- Health care	3142	4748 (3391)	15579 (2791)
- Physicians	6443	8774 (6227)	26282 (4708)
- Dentists	4757	6356 (4511)	20791 (3724)
- Middle personnel	2904	4260 (3023)	14828 (2656)
- Lower personnel	2009	3702 (2627)	11880 (2128)

Sources: Health Statistics 1981 p. 190, 1985 p. 162
Statistical Yearbook 1986 p. 127

The table shows that the proportion of wages in health care to the average in the national economy seems to be constant. However, in 1982, this proportion was 81, while one year later, in 1983, this suddenly decreased to 70. Another remark must be made concerning the salary of the physicians. A young starting physician working in a health center earns less than the average salary in the national economy. It is clear that this situation is a source of irritation and does not stimulate professional support for health care in general and phc in particular.

3.5 Accessibility

The accessibility of the organization of phc depends on several factors such as the price of services, the waiting time for services, and the geographical distribution of resources. The last factor will be discussed in chapter four. Here we will concentrate on prices and waiting time.

As the Polish health care system is basically free, prices only exist in the non-public sector. This could affect accessibility if a) specific services are only available in

2) Calculated from The Statistical Yearbook

the non-public sector and b) certain income groups cannot afford these services. In Poland, most services are available in the public sector, although it is often stated that in order to obtain better quality of care one should go to a cooperative. This would have adverse effects on equity, for there are certainly some lower income groups who are not able to pay the fees in the non-public sector.

Table 3.2: Opinions of patients about the waiting time in minutes for registration, treatment and ambulance care in percentages

MINUTES	REGISTRATION	TREATMENT	AMBULANCE
15-	46.2	6.8	15
15-30	18.1	13.7	31
31-60	10	20.5	15
60+	9.4	42.5	16.6
NO OPINION	16.3	16.5	22.4
	100	100	100

Source: Tadeusz Gdulewicz e.a., 'Ocena stana zdrowia mieszkanie duzej aglomeracji miejskiej na przykladzie Lodzki'. Zdrowie Publiczna, 98, (1987) 6, p. 260.

In table 3.2, the results of a study in 1984, which estimated the opinions about the waiting time of patients after their visit to the health center, are represented. A distinction was made between waiting time for registration and for treatment. Additionally, the waiting time for ambulance care was included in the study.

Every tenth patient had to wait for more than one hour for registration and over 40 per cent had to wait for one hour for treatment. Only every sixth patient calling an ambulance in the city was visited within 15 minutes. A few remarks are necessary, while discussing these figures. Especially for eldery people, queuing became a kind of social contact, which could affect the estimated waiting time for registration. Also, ambulance personnel does not give priority to patients which are calling in case of influenza.

However, the main result of the study is that waiting time is substantial. This can affect accessibility. It also causes that people more often visit the non-public sector. We will discuss this topic again in chapter four.

3.6 Conclusion

After a historical introduction and a description of the regionalization patterns of phc in Poland, the three criteria concerning organization (structure, support and accessibility) have been discussed in separate paragraphs. The structure of phc consists of urban and rural health centers, occupational medicine and the non-public sector. We have described the organization within these sectors. In chapter six, we will evaluate the organization structure and relate it to the concept of managerial efficiency.

The organization of public support for phc is still in a introductory stage. Especially in the field of health education many improvements are necessary. Professional support is obstructed by the low and irregular salaries and the specialist-orientedness of medical academies.

The accessibility of care is endangered by high waiting times in public health centers. We have also mentioned the danger that people who are not able to pay the fees in the non-public sector might be excluded from better quality care. We will examine this last hypothesis more carefully in par. 4.2, when dealing with the utilization patterns in the non-public sector.

CHAPTER 4: RESOURCES AND USE OF RESOURCES IN PRIMARY HEALTH CARE IN POLAND

4.1Resources

In chapter one, we have given the criteria concerning resources. These were the quantity, quality and distribution of resources. In this chapter, we will start with a representation of the quantity of resources in phc and make remarks about quality and distribution wherever possible. In the second part of this chapter we will discuss the use of resources.

4.11 Health care facilities and equipment

The infrastructure in phc consists first of all of health care facilities and equipment. Health care facilities are essentially only shelters in which health care functions are performed. If the broad definition of phc provided by the

Table 4.1: Ambulatory care institutions in Poland

	1975	1980	1985	
All health centers	8232	9037	9688	
* Urban facilities	5724	5819	6405	
** Urban health centers	..	..	2322	
** Industrial health centers	2656	2481	2469	
** Cooperatives	376	418	377	
** Academic health centers	67	71	71	(1
** Invalid health centers	390	389	396	(1
* Rural health centers	2508	3218	3283	
-- Of which Gminna	1564	1458	1487	
-- With dept. for women	..	557	670	(1
-- With dept. for children	..	463	600	(1
Other rural facilities:				
- Health points	816	481	439	
- Delivery points	2144	2499	3139	(2
- Dental points	530	549	574	(1

Sources: Health Statistics 1979 p. 102, 1981 p. 68, 1985 p. 78, 79, 90
Statistical Yearbook 1986 p. 186

1) 1983
2) 1984

Declaration of Alma-Ata is taken into account, many different institutions exist. Buildings and equipment will be more than only the place of working and the instruments of the primary care physician. Promotion of food supply, adequate supply of water and immunization programs are often organized in different places. Unfortunately, not enough data are available to use this broad definition. In this paragraph, we will restrict ourselves to the number of ambulatory care centers and the number of other organizations directly connected with phc for which data are available. Short remarks will be made about supply and equipment.

In table 4.1 the number of ambulatory care institutions in Poland is represented. The total number increased with 17 per cent from 8,732 in 1975 to 9,688 in 1985. Till 1980, the increase was strongest for rural facilities, because of the fulfilment of the plan till 1980 to build more rural health centers to compensate for the inclusion of private farmers. As a result, the importance of rural health points decreased. After 1980, more urban facilities were built. However, due to some missing statistics, it is not clear whether the largest part of this increase concerned the urban health centers.

It is difficult to evaluate the relative importance and developmemts in size of the different urban ambulatory care institutions represented in the table. First, not all of them are given in the Polish Statistical Yearbook. For instance, the number of health centers under the Ministry of Transport is unknown. Second, the average size of urban and industrial health centers is not specified, for instance, in the average number of physicians per urban health center as a first proxy. Third, mergers occur sometimes. Fourth, in the case of cooperatives, the number of departments often increases. This causes that the cooperative sector is growing without a change in the statistics.

As to the differences between provinces, some conclusions can be derived from the Statistical Yearbook. In 1983, the number of urban inhabitants per urban health center under the Ministry of Health and Social Welfare averaged 21,563. This number varied from 15,113 in Katowice to 69,000 in Zamojskie. Thus, the differences between provinces are substantial. Concerning rural health centers, Koninskie was the least favored province, while 6,364 inhabitants had to share one rural health center (the norm amounts to 3000-4000).

Returning to the table, the share of industrial health centers slightly declined. Industrial health centers can be organized in one large factory or between more, smaller ones. In 1978, out of 2,662 industrial health centers, 1,368 were located in single-factory units, while 1,128 centers were organized in multi-factory units. The remaining 147 health centers probably belonged to the railway company.

The number of cooperatives rose from 191 in 1960, the

Table 4.2: Other institutions connected with primary health care

	1975	1980	1985
Sanitary stations	412	324	324
Pharmacies	2567	3245	3446
Pharmacy points	2987	2430	1894
First aid stations	..	49	53
Emergency care	..	393	404
Blood stations	24	24	24
Nursery schools	1033	1474	1522

Sources: Small Statistical Yearbook 1987, p. 310, 311
Maciej Murkowski and Jan Suchowiak, 'Wybrane problemy dzialalnosc sluzby zdrowia w 40 leciu PRL, Zdrowia Publiczne, 95, (1984) 12, p.650.

first year of its existence, to 376 in 1975. From 1975 till 1985, the number first increased and later dropped. At present, an increasing tendency is observed, for cooperatives are being established in smaller towns as well. Cooperatives (and indeed also public facilities) are often located in old buildings with small rooms. Although they have the money to build new departments, this often is not allowed, for their popularity in the Party is still low. Maybe this will change with the next economic reforms.

Another kind of cooperative is the cooperative for the disabled. These cooperatives, producing simple products, are very popular in Poland. Most of the health centers for disabled people are located in this organization.

In table 4.2, the number of other institutions connected with phc is represented. Interesting is the replacement of pharmacy points by pharmacies. However, it is not the number of pharmacies, but the availability of sufficient medicines, which causes the current problems with medicines. A real improvement is the increase of the number of nursery schools. As most women work in Poland, this is a necessity.

Concerning equipment, hardly any statistical data are available. At present, there are many shortages of all kinds of products caused by the difficult economic situation of the country. There are indications that in this situation cooperatives are better supplied than public facilities. This would have adverse effects on equity.

4.12 Health personnel

In table 4.3 the total number and the number per 10,000 inhabitants of different kinds of health personnel are

represented. The figures for 1990 are norms set by the development program till 1990. Considering the situation in 1985, the norms for dentists and pharmacists will be hard to achieve. Nevertheless, all indicators are rather high, which is a result of the extension of medical education after World War II to compensate for the loss of health care workers.

In the period 1975-1985 the number of physicians per 10,000 inhabitants increased by 13 per cent, the number of dentists by seven per cent, the number of pharmacists by five per cent, the number of midwives by 36 per cent and the number of nurses by 34 per cent. Only the absolute number of felczers, a kind of rural nurse who performed the tasks of the rural physician, decreased. Especially the number of nurses, which was too small in 1975, improved considerably. However, there still is a shortage of non-qualified nurses. In an economy with a shortage of labor it is difficult to attract people to a dirty low paid job. Besides, as mentioned before, most women in Poland do have a job, so there is no pool of cheap labor such as in many western countries.

No statistical data are available concerning the proportion of physicians, nurses and dentists employed in phc. A case study of 1982 estimated the demographic situation and the workload of 2,955 physicians in Poland (1. Among others,

Table 4.3: Licensed health personnel

	1975	1980	1985	1990 (norm)
Physicians	54,461	63,577	73,199	
Per 10,000 inhabitants	17	17.8	19.6	20
Dentists	15,114	16,834	17,440	
Per 10,000 inhabitants	4.4	4.7	4.7	5.6
Pharmacists	13,867	15,400	16,064	
Per 10,000 inhabitants	4.1	4.3	4.3	5.6
Midwives	13,369	16,092	19,850	
Per 10,000 inhabitants	3.9	4.5	5.3	
Fully qualified nurses	105,946	146,050	171,304	59
Per 10,000 inhabitants	35.9	43.9	48.1	
Felczers	4,664	3,747	3,244	

Sources: Health Statistics 1979 p. 152, 1981 p. 181, 1985 p. 488
Statistical Yearbook 1986 p. 488

1) Krystyna Kaczmarczyk-Chalas, 'Situacje demograficzna i obciazenie praca zawadowa lekarzy w Polsce', Polski Tygodnik Lekarski, 39, (1984) 42, p. 1373-1378

Table 4.4: Distribution of health personnel over different institutions in health care (in thousands of workers)

	1975	1980	1985
Total	522	599	716
* Health care	494	568	677
* Social welfare	28	31	39
In basic activities	353	413	494
* Physicians	45	51	60
* Dentists	14	15	15
* Middle personnel	202	246	297
* Lower personnel	81	84	99
* Adm. & technical personnel	38	42	..

Sources: Health Statistics 1981 p. 190, 1985 p. 162
Statistical Yearbook 1986 p. 500

the results were that only 25 per cent of physicians were employed in phc. This low percentage explains why there is, despite the high indicator of physicians per 10,000 inhabitants, a shortage of physicians working in phc. Another indication for this shortage is found when we compare table 4.4 with table 4.3. In this way, the number of physicians who are not working in basic activities can be calculated (licensed personnel - personnel employed in basic activities). In 1985, This amounted to 13,000 physicians or about 18 per cent. Many physicians have administrative jobs and are not engaged in their original profession.

The same study showed another striking fact. 80 per cent of the physicians undertook additional work. This could consist in taking night duties in health care institutions or taking additional jobs in management, cooperatives or private practices. 35 per cent of the physicians undertook more than seven hours additional work per week and 40 per cent performed more than five night duties per month. Additional work is necessary, because, as we saw in previous chapter, the salaries in the public sector are low.

The quality of medical education in Poland is high. In general, Polish doctors are better educated than, for instance, their colleagues in Russia. On the whole, education in Poland is on a high level. However, and unfortunately, there are not enough good jobs for highly-qualified workers in Poland.

4.2 The use of resources

The ultimate effectiveness of the resources and the input

combinations chosen, should be measured in terms of improvements in the health status of the population. Thus, this health status will be discussed in chapter six where we evaluate the phc system of Poland. However, as there are many other inputs having an impact on the health status, like life style and socio-economic development, a direct relation between resources and health status is hard to establish.

In this paragraph, we will attempt to gather additional information about the effectiveness of the resources and equity of health care by evaluating the utilization patterns of primary health services in Poland. The utilization patterns are usually expressed in the number of visits to health care organizations. How often, where and for what kind of services are patients visiting ambulatory care institutions?

In table 4.5 the number of visits per capita to ambulatory care institutions are represented. The large disparity between urban and rural areas concerning the use of health care services is striking. This may be caused, although partially, by better health conditions in rural areas, and by the inclusion in these figures of specialist care outside hospitals (which is mainly situated in urban areas). However, the accessibility and availability of health services in the country may also have played a role.

Considering the first row, the use of ambulatory services per capita remained stable till 1980. After 1980 and especially in the 1981-1982 crisis (not shown in the table), the use of services decreased, but was still on a rather high level in 1985.

At first glance, the increase of the total number of visits per capita from 7.8 in 1975 to 8.1 in 1980 may seem strange, because the number of urban visits per capita even decreases by 0.1 per cent. However, the increase of the total number can easily be explained by the population increase in Poland and migration to the city.

If we compare the number of health centers in table 4.1

Table 4.5: The number of visits per capita to ambulatory care centers

	1975	1980	1985
Total	7.8	8.1	7.8
Urban	11.9	11.8	11.1
Rural	2.7	2.8	2.8

Sources: Statistical Yearbook 1986 p. 483
Health Statistics 1979 p. 70, 72

with the number of visits in table 4.6, it is striking that industrial health centers represent about 40 per cent of all ambulatory facilities, but deliver only 20 per cent of all urban visits. This is probably the result of the difference in size between industrial health centers and , for instance, urban health centers. A better comparison would be the number of visits with the number of physicians per kind of health

Table 4.6: Number of visits to ambulatory health care by institution (including dental care, in million visits)

	1975	1980	1985
Total	264	285	290
* Urban ambulatory care	224	244	249
** Urban health centers	170	182	188
** Industrial health centers	46	52	49
** Academic health centers	2	3	2 (1
** Cooperatives	6	8	8 (1
* Rural health centers	40	41	41

Sources: Statistical Yearbook 1981 p. 560, 1986 p. 489
Health Statistics 1979 p. 70, 72, 79, 1981 p. 104, 106, 111, 1985 p. 82, 83, 88

1) 1983

center. However, as mentioned before, these data are not available, so it is difficult to evaluate the efficiency of manpower in different organizational settings with the help of statistics.

Many visits to cooperatives concern dental care (38 per cent according to the Statistical Yearbook) and gynecological care. (Legal) abortions are sometimes performed in a cooperative, as women often prefer the cooperative to the public hospital for reasons of privacy. Some physicians in the cooperative are very popular, not only because they are good doctors, but also because they can provide a patient with a hospital bed. Frequently, people are queuing during the night to acquire one of the few places for this doctor in the morning. Sometimes, older people earn some extra money to their pension by standing in line during the night and selling the ticket in the morning at double prices.

All these phenomena are caused by shortages. They are not only an indication that particular specialties in cooperatives are scarce, but they might also be an indication of ineffectiveness and shortages in the public sector. However, this should be examined carefully for each specialty.

No official data are available concerning the number of private practices and their use. A study of 1981 showed that every fourth inhabitant and every second worker used the private sector at least once a year (2. Only general and industrial health care would provide more services, while specialized care and cooperatives would provide less. The private practices are visited more often by women, by the age group 25-39, by higher educated people and in small and medium sized towns (3. In these towns, the public health service is often not adequate, which makes that people are looking for private services.

The motives behind the use of private services were examined more carefully in the study. The arguments of the people who used the private sector were among others that: 1) They would be provided with more effective care (25.3%); 2) they could obtain this care fast (21.1%); 3) the social health system was of low quality (11.5%); and 4) they would receive more attention from the private physician than in the public sector (11.5%). Point 1, 3 and 4 are all connected with the effectiveness of care, while point two concerns the accessibility of care. This indicates that the effectiveness and accessibility in the public sector is not always sufficient.

People who did not use the private sector answered in 80 per cent of the cases in the study that it was too expensive for them too visit a private doctor. 15 per cent answered that the public health care system was good enough.

The results of this study are useful for our analysis of phc, because about 60 per cent of the private health services is provided by the basic specialists internist, dentist and pediatrician and can roughly be classified as phc. Many other specialists work privately, but among them gynecologists, laryngologists and cardiologists are most often prevalent.

As this paper is mainly concerned with primary health care, it would be interesting to know the share of the visits to the different organizational settings concerning primary care. In private practice, as we have seen, this was approximately 60 per cent. Probably, the figure for cooperatives is also more than half. For industrial health centers this percentage is difficult to estimate. Only the

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2) Janusz A. Indulski and G. Rzepeczka-Koniarek, 'Korzystanie i motywacje korzystanie z porad lekarzy prywatnie praktykujacych'. Zdrowia Publiczna 96, (1985) 4 and 7, p. 149-155, 293-299.

3) 20,000-50,000 inhabitants. At present, many cooperatives appear in these towns, which could mean a kind of competition or replacement for the private practices.

share of preventive visits is known. This was decreasing from 21 per cent in 1975 to 19 per cent in 1985.

The only subdivision for phc provided in the Statistical Yearbook concerns urban health centers. Most specialized care is delivered in specialized urban health centers, while phc usually is provided in the urban health center as we discussed in par. 3.21. In table 4.7 the same structure as in par 3.21 is found again. In the Statistical Yearbook dental care is neither included in phc, nor in specialized care. In this paper we consider dental care to be phc as well.

From 1975 till 1980, the number of visits in the departments for children and women increased. The former increased again from 1980 till 1985. Especially in the cities, pediatrics is well developed in Poland. Visits to the other departments remained more or less on the same level.

The number of visits for primary health care as a percentage of all visits remained stable at about 70 per cent during the period considered. As mentioned before, the percentage of physicians working in phc was estimated to be 25

Table 4.7: The number of visits in urban health centers for phc in the four basic departments and the number of visits concerning specialist care (In million visits)

visits in:	1975	1980	1985
Urban health centers	170	182	188
* Primary health care	117	124	129
** General dept.	45	45	46
** Children dept.	35	40	44
** Women dept.	8	8	8
** Dental dept.	30	31	31
* Specialist care	53	57	58

Sources: Statistical Yearbook 1981 p. 560, 1986 p. 489

per cent. This means that 70 per cent of care is delivered by 25 per cent of the physicians.

4.3 Conclusion

In this chapter, we have evaluated the quantity, quality and distribution of resources. Concerning quantity, we have found that the number of ambulatory care centers, nursery schools, pharmacies, physicians and nurses increased in the considered period. The number of sanitary stations and industrial health centers declined (although the number of visits increased in the latter). Other quantity indicators of organizational

settings and health personnel remained stable. Shortages of supply and equipment increased substantially, because of the economic crisis.

Concerning quality, we have mentioned that health personnel are well-educated, but often working in old buildings. However, this is not restricted to health care.

The distribution of resources could be more equal in some respects. Inequities exist between provinces, rural and urban areas (concerning the number of visits) and in the distribution of physicians over primary and specialist care. 25 per cent of physicians deliver 70 per cent of care.

From our discussion of a study dealing with the utilization patterns of people using the non-public sector, we have concluded that the effectiveness and accessibility in the public sector is not always sufficient. We will continue this discussion in chapter six.

CHAPTER 5: FINANCE OF HEALTH CARE IN POLAND

5.1 The position of health care in the national economy

In this chapter we will discuss the level, methods and sources of finance. At the end of this chapter the finance of phc will be considered.

According to a publication of the WHO "effective health development requires concerted action in all sectors of activity, but unfortunately the health sectors' capacity to communicate efficiently with other sectors is very limited" (1. Poland formed no exception. At the beginning of the eighties the Ministry of Health and Social Welfare had to be regarded as one of the weaker ministries (2. It lacked bargaining power in the central struggle for resources. This was not only a remainder from the past, but also a result of the view that health care is part of the non-productive sector. According to this view only improvements in productive capacity will permit a country to spend more on social services.

Table 5.1: Indexes of gnp, expenditures from the total state budget and from the state budgets for health care, culture, education and physical culture for several years (constant prices, 1975=100)

	1975	1980	1981	1982	1983	1984	1985
Gnp	100	100.2	89.5	92.5	94.8	100.4	105
State budget	100	137.5	122.5	99.5	89.4	98.7	104
- Health care	100	129.6	135.5	119.9	121.6	133.4	141.1
- Culture	100	115.6	109.1	100	155.8	161	139
- Education	100	112.9	119	109.7	120	135.1	144
- Phys. cult.	100	120	130	135	135	145	145

Sources: Statistical Yearbooks 1975-1985
I am indebted to dr. M. Smolen from the Institute for Occupational Medicine in Lodz, who provided me with the basic figures for this chapter.

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1) World Health Forum, Geneva, WHO, 1987, 2, p. 180
2) See: Frances L. Millard, 'Health care in Poland, from crisis to crisis'. International Journal of Health Services, 12, 1982,3

It is interesting to examine whether this situation was still prevalent in the beginning of the eighties. In table 5.1, indexes for gnp, the state budget and state budgets for several social services are represented. From the figures in the table it becomes clear that even during the 1981-1982 crisis the expenditures for social policy were relatively high compared to gnp and the expenditures from the total state budget. Before 1980, the opposite situation was prevalent. Then, social services had to sacrify sources of finance in less prosperous economic times.

If we consider the expenditures for health care more precisely in table 5.2 it is first of all striking that the three indicators presented are irregular. The expenditures as a percentage of divided gnp were stable till 1978 at about four per cent. From 1978 till 1981 they increased, mainly because the gnp dropped. From 1981 till 1985 they remained stable between five and six per cent. Finally, the expenditures as a percentage of the state budget show a remarkable increase from 1981, which is the result of the decreasing state budget.

Table 5.2: Health care expenditures per capita (in zlotys), as a percentage of gnp and as a percentage of the total state budget (constant prices of 1975)

	Per capita	% of gnp	% of budget (1
1975	1,706	4	7.3
1976	1,853	4	7.2
1977	1,763	3.9	7.1
1978	1,802	4	6.9
1979	1,968	4.5	7.2
1980	2,069	5	6.9
1981	2,102	5.8	8
1982	1,907	5.2	8.8
1983	1,939	5.2	9.9
1984	2,141	5.4	9.8
1985	2,283	5.6	9.9

Sources: See table 5.1
1) Excluding investments

It is interesting to note that in the 1981-1982 crisis the per capita expenditures for health care decreased, but that in the same time the sector managed to receive an increasing part of the state budget. It seems justified to conclude that the expenditures for health care and social welfare suffered comparatively less from the general economic crisis in the

first half of the eighties than might have been expected from the rather pessimistic views we started this chapter with. Table 5.3 shows that this conclusion cannot be drawn in the case of investments. In 1981, the investments as a percentage of the state budget for health care dropped to 8.7 per cent. However, there was a quick recovery and the percentage was almost twice as much in 1985.

Although the level of finance clearly improved, the initial level of resource allocation is not the only problem faced by the health authorities. Financial resources may be allotted but often fail to materialize. Investments must be performed by construction enterprises, who prefer easier projects. Medicines should be produced by firms under the Ministry of Chemistry, which has other priorities to meet. The same situation exists for basic equipment and spare parts. In

Table 5.3: Investments for health care and social welfare (constant prices of 1975, million zlotys) and as a percentage of the expenditures from the state budget for health care

	Investments	% of state budget
1975	7,236	12.4
1976	8,750	13.7
1977	7,290	11.9
1978	7,444	11.8
1979	8,195	11.8
1980	7,750	10.5
1981	6,619	8.7
1982	8,201	11.8
1983	9,148	12.8
1984	11,225	14.1
1985	13,394	15.7

Sources: See table 5.1

the light of the large shortages of medicines and equipment at the end of 1987, it is doubtful whether the larger amount of financial resources contributed to a better situation in health care.

Part of the explanation why the extra financial resources did not improve the situation might be incorporated in the system of finance itself. In the next two paragraphs the methods and sources of finance will be examined.

5.2 Main principles of finance of health care in Poland from 1975 till 1985

A separate method of finance for health care institutions did not exist in Poland from 1975 till 1985. The same methods as used in health care were also applied in other social services. Finance was performed according to the object principle in which the amount of financial resources provided by the budget was dependent on the kind of institution, the object. This dotation from the budget was independent of the quantity and kind of services delivered.

Contrary to the object principle, the dotations from the budget are calculated in the subject principle on the base of the quantity of provided services. For example, the number of people who visit a health center determines the amount of money this health center is going to receive from the budget. Although there are many proponents of this system in Poland, the subject principle has not yet been accepted as a method of finance in health care.

Health care institutions can be divided into three groups according to the way they are financed. Most often used in health care is the Budget Unit (Jednostka Budzetowa). The Budget Unit is financed in a bruto way. All expenditures are covered by budget and all incomes received are returned to the budget. The bruto financing system is mainly used in institutions where services are free. Hospitals, ZOZs, specialist centers, first aid stations and psychiatric clinics are examples of Budget Units.

The second group form the Budget Firms, which are financed in a netto way. The Budget Firm is allowed to keep its incomes, while the remaining costs are covered by the budget. The incomes consist of other sources than budget, including fees for services. An example of the Budget Firm is the nursery school, where small fees from parents are required.

The last group are self-financed institutions. Only the profit is returned to the budget. Health resorts and pharmacies are such self-financed institutions.

In general, the methods of finance are considered to be rather inflexible and bureaucratic. The role of the budget is too extensive. In chapter six, we will extend the criticism on the methods of finance. However, already now we can state that the methods of finance are probably not efficient.

5.3 Sources of finance

5.31 Classification and main tendencies

In Western democracies, the sources of finance are divided into public and private sources, further subdivided over

institutions. Ministries, public insurance companies and local authorities are public institutions, while private insurance companies, individual employers, dotations and households belong to the group of private institutions.

In Poland, a similar division is made between social and individual sources of finance. The social sources of finance consist of the central and local budgets, the sources coupled to the budget (funds) and the sources outside the budget (expenditures from enterprises). Individual sources are direct payments of the population.

For both divisions, there are many problems concerning the classification of the different sources of finance. This deserves special attention and will not be discussed here.

In table 5.4 the main sources of finance in Poland from 1975 till 1985 are represented according to the last division. Individual sources are excluded for lack of statistical data and will be examined later.

With the help of the table, two main tendencies in the sources of finance can be shown. The first tendency is increasing centralization of the budget. If the current expenditures from the central budget (budget of the Ministry of Health and Social Welfare) are compared with the expenditures from the local budget (budget of the provinces), it is striking that the former increased faster than the

Table 5.4: Main sources of finance from 1975 till 1985 (constant prices of 1975, million zlotys)

YEAR	TOTAL	BUDGET			OUTSIDE BUDGET	
		STATE	CENTRAL (1	LOCAL	FUNDS	INDUSTRY
1975	61,330	58,303	6,588	44,479	1,988	1,039
1976	67,224	63,967	7,667	47,551	2,123	1,134
1977	64,816	61,429	7,663	46,476	2,237	1,149
1978	66,641	63,185	7,598	48,143	2,212	1,244
1979	73,444	69,689	8,511	52,983	2,420	1,335
1980	77,680	73,940	8,955	57,235	2,357	1,384
1981	79,076	75,818	9,460	59,739	1,887	1,371
1982	72,277	69,415	11,020	50,194	1,310	1,552
1983	73,922	71,257	10,884	51,224	1,284	1,381
1984	81,987	79,338	19,667	48,447	1,059	1,590
1985	88,193	85,462	21,095	50,974	979	1,752

Sources: See table 5.1

1) Excluding expenditures for investments, for which the division between central and local budget is not known. So, local budget + central budget + investments (table 5.3) = state budget

latter. The main reason was the transferral of the payments for medicines from the local to the central budget in 1984.

The increasing share of resources in the central budget is opposite to the official policy of decentralization. However, as mentioned before in par. 2.3, at present more importance is attached to decentralization of the decision structure on provincial level. The relevance for phc of this decentralization is still restricted.

The second tendency is the increasing share of budgetary financial support. From 1975 till 1980, the share of outside budget expenditures for health care remained stable at about five per cent. In 1981, the voluntary contributions to the main fund, The NFOZ, declined sharply (see par. 5.33). As a result, the share of outside budget expenditures decreased to only three per cent.

Especially the second tendency shows the increasing concentration of the sources of finance. The budget, which was already the largest source, became even more important. This will not support more flexibility in the system of finance.

In the next paragraphs, the sources of finance will be described more extensively. The basic principles concerning budget, funds, and industrial expenditures will be discussed as well as the direct individual expenditures.

5.32 Budget

The budget is a table expressed in money terms, which presents the public expenditures and revenues over a certain period of time in the future. In Poland, the budget is the base of the financial policy of the state. Among others, it can be conceived from an economic and a legal point of view. In financial economics, the budget is considered as a central fund of money resources, while in economics regarded as a social science the budget is a system of social relations connected with gathering and using the financial resources of the state. From a legal point of view, the budget is the basic financial plan of creating and using the state funds.

If we restrict ourselves to the expenditure side of the budget, which is a source of finance for the health care system, three main divisions are used in Poland that are relevant to health care. First, especially in a socialistic economy, the division is used into productive and non-productive expenditures, based on the creation of national income. Health care expenditures were for a long time included in the last group. However, increasingly it is realized that the health status of the population influences the labour productivity.

The second division is between current expenditures and investments. This division is based on the use of national income for consumption and accumulation. Current expenditures

(consumption) and investments (accumulation) are prevalent in both productive and non-productive sectors of the economy.

The third division concerns the organization of expenditures from the budget in local and central expenditures. Each administrative authority in the country has its own budget. As we have seen, the sum of these budgets forms the state budget.

The three divisions should be considered as additional. In the (productive or non-productive) sector health care, current and investment expenditures are financed from local and central budgets.

As shown in table 5.4, most current expenditures were financed from local budgets. A very specific classification of transfers from the central and local budget is fixed by law. This specific classification is one of the main reasons for the inflexibility of the system of finance in Poland (see also chapter six). The groups in the classification are sometimes financed only by local budgets (for instance sanitary stations), only by central budget (rehabilitation of disabled of certain professions) or by both (general medicine), in which the part of the local budget is usually larger.

Although the division between central and local expenditures for investments is not known, the methods of finance for investments can be analyzed. Three main methods concerning the financing of investments from the central budget were used from 1975 till 1985:

1) Budget credits: These credits expired at the last day of the year. The creators of the budget credit did not take into account that investing is a current process, requiring flexible sources of finance. In fact, this method should be used for current expenditures.

2) Transfers and budget dotations: In this system, resources were given to investors, who could decide about their use. The final calculation took place at the end of the year.

3) Refunds: Investments which were spent from other sources than budget were transformed into budget expenditures. This was more a technical solution than a method of finance.

Concerning the methods of finance from the local budgets, three periods should be distinguished from 1975. Before 1983 local investment funds were created by the provincial authorities. They were destined to finance investments on the local level. In practice, investments were financed from bank credits and paid off by the resources from the local investment funds.

After April 1983, these funds were abolished and a special bank account for the finance of investments was introduced. Every investor could open an account when applying for credits. Every year money was transferred from the budget to this account and served to pay off the bank credit. In 1985, the intermediate role of the bank was abolished. The resources

were transferred straight from the budget to the investment account. However, the whole process is still rather inflexible.

5.33 Funds

In Poland, purpose funds are often used to finance certain parts of health care. Purpose funds are resources given to a certain economic object, separated from its other incomes, with the purpose of financing certain economic, social or cultural tasks for a determined or indetermined period of time.

A special kind of purpose fund is the Semi Budget. The state budget leaves some of its tasks and resources to the Semi Budget, which differs from the state budget because of the restricted sphere of activity, the possibility of voluntary fees, and the transfer of non-used resources to the next year. The Semi Budget functions either throughout the country or in a certain region and is created outside the economic units.

Purpose funds can be found either in firms and cooperatives or they can be connected with the budget. Six criteria for classification are distinguished for the budget-connected purpose funds:

1) The level of creating a fund. In general, funds can be created on the central or the local level to finance tasks concerning the whole country or a specific region respectively. Central funds can also be organized locally.
2) The method of finance from the budget (see par 5.2).
3) The kind of revenues. The revenues of a fund can consist mainly of dotations from the budget or mainly of voluntary gifts by the public or other economic units.
4) The kind of financial task. Many possible divisions exist. One distinction, already mentioned, is the distinction in productive and non-productive tasks.
5) The time period. The purpose fund can exist for an indetermined period, a period fixed in advance or for the period which is needed to fulfil the tasks for which the fund was established.
6) The way of creation. A central fund which is organized in local departments can be imposed on the local authorities or it can be on a voluntary base.

In Poland, six main purpose funds are distinguished in health care. They can be divided into two groups. The first group concerns funds that are functioning inside the health organizations. The Anti-Drug Fund, The Anti-Alcohol Fund and the Fund for Family Health belong to this group, the first two being Semi Budgets. The second group contains groups outside the health units but financing their tasks. To this group belong the National Health Care Fund, the Fund of

Rehabilitation of the Disabled (Semi Budget) and the Fund for Ex-War Soldiers. It is obvious that except for the last fund, all funds are involved in phc.

The largest and most important fund is the National Health Care Fund (Narodowy Fundusz Ochrony Zdrowia, NFOZ). The NFOZ was established in 1973 by Gierek and was organized on central and local levels in special committees. The revenues of the fund were voluntary gifts from enterprises, other organizations and individuals, supplements on alcoholic beverages and interest. The expenditures are mainly used for investment in infrastructure in health care, among others for health centers.

Table 5.5: NFOZ incomes and expenditures and situation on 31th december (million zlotys) and percentage of incomes not spent. (constant prices of 1975).

	31-12	INCOMES	EXPENDITURES	% NOT SPENT
1975	6,912	2,865	1,311	56
1978	10,749	2,940	1,084	63
1980	13,563	2,977	874	71
1981	12,392	2,467	1,283	48
1982	6,895	1,333	496	63
1983	6,512	1,223	394	68
1986	5,112	1,168	764	35

Sources: Health Statistics 1982 p. 172
Small Statistical Yearbook 1987 p. 94

The use and abuse of the NFOZ came in for severe criticism in the early eighties. Table 5.5 shows that the money collected was only partly spent, while the remainder sat in the bank, succumbing to high inflation rates (especially in the beginning of the eighties). The main reason for this inefficient use was that the construction materials and medical equipment was simply not available. This information about not-use and abuse (There were rumours that the fund was used to finance the luxurious hospital for the party elite in Anin) and the economic crisis caused the dotations from the people to decline sharply after 1980.

5.34 Industrial expenditures for health care

In firms, health care units are financed by several sources such as the budget, trade union subsidies, bank credits and the factories' own resources. The firm is obliged to cover the following expenses: Investments connected with the building of

dwellings for industrial health care units; repairs and maintenance of equipment; the costs of keeping the rooms of the units in an appropriate hygienic and technical state; the organization of laboratories; environmental examinations; occupational rehabilitation centers; workrooms for psychology and physiology of work; the salaries of personnel other than medical professionals of industrial health care; and the current supply of materials and spare parts for medical equipment. All remaining expenditures are covered by budget. This includes the costs of basic activities; personnel salaries; dressing materials first aid medicines etc.. Before 1984, firms had to finance their expenditures from separate funds. After 1984, health care expenditures were allowed to be part of the costs and were thus included in the price of the final product.

Because of the tight labor market in some parts of the Polish economy, firms are trying to attract emloyees by offering them fringe benefits like houses, food coupons, transport to work, education, discounts on holidays etc.. Health care too belongs to these benefits. For this reason, it is doubtful whether the increasing expenditures for industrial health care were really necessary. They would endanger equity, for only special groups in society have access to this form of care. This care also subtracts resources from the public sector. As there are still no methods of calculation of costs in industrial health care, it is difficult to provide an answer to this question.

5.35 Individual expenditures for health care

Individual expenditures for health care are direct payments of the population for medicines, cooperative services and services of private physicians. Voluntary dotations of the population to the building of the prestigious "Centrum Zdrowia Matki Polski", a large hospital for gynecology in Lodz, also belong to this group. It is difficult to estimate the amount of individual expenditures. In 1982, it was estimated that the share of individual expenditures for health care in all expenditures amounted to 7.4 per cent in 1974 (3. This probably increased in the last ten years. The share of phc in this percentage was not included in the estimation.

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3) Janusz Indulski and Marian Matulewicz,'Tendencje rozwojowe systemu ochrony zdrowia w Polsce, rodz. 1 finansowanie'. Zdrowie Publiczne, 93, (1982) 1, p. 7.

5.4 Finance and costs of primary health care

A subdivision of the local and central budgets according to phc does exist, but it is not published in any statistical yearbook in Poland. So, we are not able to examine the level of finance of phc in Poland. Neither the exact costs in phc, nor the dotations from ZOZs (which receive money from the budget) to primary health centers are known.

On local level, the present state of financial accounting in phc in Poland makes it impossible to separate the costs of:
1) The individual industrial and urban health centers.
2) The departments in the industrial and urban health centers.
3) Transport, management and other material and non-material objects.

The costs per physician, per treatment and per diagnostic service are not calculated. This makes it very difficult to plan the expenditures for the next years' budget in a rational way. In practice, the budget of the current year is the base of the budget for next year.

The absence of financial accounting makes it very difficult to create flexible methods of finance. Most financial matters in health centers are dealth with in ZOZ (which is a Budget Unit). Other methods and sources of finance are proposed, but not yet introduced (see chapter seven).

Cooperatives and private practices are financed according to the fee for service principle. In 1987, in Lodz, the fees in the cooperative varied from 300 zlotys for a physician of first speciality to 700 zlotys for a professor. The physician received about 50 per cent of the fee. The rest is maintained by the cooperative to finance the costs of associated staff, supplies, investments, taxes etc..

Taxes for cooperatives are determined by law. Private physicians are subject to the willingness and financial situation of the local fiscal authority, for their taxes are determined individually on the base of their estimated hours of work.

5.5 Conclusion

Contrary to our expectations based on past experience, the level of finance in Poland for health care (and other fields of social policy) has increased considerably despite the economic crisis. However, if it is impossible to transfer financial resources into material resources there will be no improvements. Furthermore, we have seen that the methods and sources of finance are inflexible and hence do not stimulate the efficient use of the extra resources.

Two tendencies were observed concerning the sources of finance; the increasing share of resources in the central

budget and the increasing importance of budgetary financial support. The second tendency was, among others, caused by the decline of the contribution to the main fund, the NFOZ. This and other funds were also involved in the field of phc.

The allocation of resources to industrial health care is not justified in all cases, but this is difficult to examine. It is equally difficult to determine the share of individual expenditures for health care. This is probably more than seven per cent.

Financial accounting in phc in Poland is virtually non-existent. This raises serious doubt whether a rational use of resources is possible. Among others, the effects for efficiency will be discussed in the next chapter.

CHAPTER 6: EVALUATION OF THE PRIMARY HEALTH CARE SYSTEM IN POLAND

6.1 Introduction

There are two ways of looking at medical care. The first one is to regard medical care as an input to health. The second one is to view medical care as the final output of the health care "industry". Both ways are useful for different public allocation policies. "To determine whether medical care is being produced efficiently, one must examine it as a final output; to determine the most efficient way to allocate resources to increase health, one must view medical services as one of several inputs for achieving that goal" (1.

In this chapter, we start to regard primary medical care as an input to health. In this way, we can attempt to determine the effectiveness of phc in Poland. So, we start our discussion with the evaluation of the health status of the Polish population. Next, we will examine which other variables (than the phc system) contributed to the health status from 1975 till 1985. Finally, we will evaluate the effectiveness of the phc system and draw some tentative conclusions concerning the most efficient way to allocate resources to increase health.

When regarding medical care as an output of the health care system, we can continue our discussion of chapters two till five. The consequences for efficiency, effectiveness and equity are discussed more extensively, again under the subjects organization, resources and finance.

6.2 Medical care as an input to health

6.21 The health status of the Polish population

It is difficult to assess the level of health. The first problem is that health itself is a multidimensional concept. It can be perceived by physicians, the individual or the social surrounding of the individual and thus has an organic, functional and social dimension.

The second problem is that health is defined positively, but assessed negatively, i.e. by statistical data such as

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1) Paul J. Feldstein, Health care economics. New York, Jhn Wiley and Sons, 1983, p. 16.

mortality rates. However, it is more and more realized that mortality rates, though easily available, have serious drawbacks in the measurement of health. They do not include the severity of diseases, morbid episodes before death and other morbidities not leading to death. Especially the last drawback makes it difficult to include mortality rates in our evaluation. Diseases which are not leading to death occur most often in the field of phc.

Although there are many attempts to measure health positively (2, we cannot apply this approach to Poland for lack of data. Thus, despite the serious drawbacks, we will use the more traditional schedule of mortality, morbidity and other indicators.

Table 6.1 shows that the crude mortality rate increased from 1975 till 1985 in Poland. The claim that the rise was entirely due to the older population is not justified, for the process has not been accompanied by decreasing mortality rates in the younger and middle-aged groups.

Table 6.1: Crude mortality rate, infant mortality rate and main causes of death (per 100,000 inhabitants)

	1975	1980	1985
Crude mortality rate	8.7	9.9	10.2
Infant mortality	25.1	21.3	18.4
Causes of death:			
Infectious and parasitic diseases	18	15	10.8
- Tbc	12	8	5.2
Malignant neoplasms	152	168	180
Diseases of the circulatory system	349	439	492
Accidents, suicides and homicide	70	76	73

Sources: Statistical Yearbook 1976 p. 48, 1981 p. 54, 58, 1986 p. 54, 89.

It is obvious that the crude mortality rate went up first of all as a result of increasing mortality rates for heart diseases and cancer. The former even increased from 1975 till 1985 by 41 per cent. So, the Polish strategy to attain health

2) An overview of the literature concerning health status indices, health profiles, breakdowns of health etc. is provided by Andrew F. Long, 'Effectiveness: Definitions and approaches'. In: Health Services Performance. Edited by Andrew F. Long and Stephen Harrison, London, Croom Helm Ltd., 1985.

for all in the year 2000 is to change, especially for people under 65, the upward tendency of the mortality rates of these diseases (3. Another target is to reduce deaths from accidents by at least 25 per cent. Suicides are not mentioned in the Polish program.

It is interesting that infant mortality decreased in the considered period and is already below the European target. Also maternal deaths are already below the European standards. This confirms our hypothesis that maternity care in Poland is well developed.

To evalute the causes of death more precisely a comparison is made with the Netherlands in table 6.2. Except for

Table 6.2: Main causes of death in Poland and the Netherlands in 1984 (per 100,000 inhabitants)

		Netherlands	Poland
01-07	Infectious and paracitic diseases	4.4	11.4
	Tbc	0.2	5.4
08-14	Malignant neoplasms	223.5	179
181	Diabetus mellitus	9.4	16.2
25-30	Disease of the circulatory system	364.8	492.9
321	Pneunomia	20.9	18
323	Bronchitis, asthma	19.2	30.4
44-45	Congenital anomalies	5.3	11.2
45-46	Birth trauma etc.	3.9	17.6
465	Senility	5.9	44.5
47	Ill-defined symptoms	22.1	22.3
E47-53	Accidents	28.3	49.9
	Motor vehicles	11.8	14.6
	Poisonings	0.6	7.3
E54	Suicide	12	14
E55-56	Homicide and other violence	2	8.5

Source: WHO Statistics 1985 p. 304/310 and 328/334

cancer, all causes are higher in Poland than in the Netherlands. The height of the indicators for homicide and senility is striking. It is also interesting that within the group of cancer, only the rate for cancer of the gastro-intestinal track is higher in Poland (not shown in the table). This

3) The European program aims at a reduction of 15 per cent

could be connected with the lifestyle.

Concerning morbidity, one of the targets in Poland as well as in Europe is to ban indigenous measles, polio myelitis and other infectious diseases. However, at present, the high incidence rates of viral hepatitus type b and hospital infections are maybe an even larger problem in Poland. The former must be associated with a shortage of needles and other instruments for single use. Children are also often infected by poor sanitary conditions in school lunchrooms. Hospital infection is usually caused by different kinds of shortages which directly affect hygienic conditions. For example, the shortage of beds implies overcrowded hospital rooms and the lack of opportunities to close a ward for desinfection.

Another indicator for the health status is the number of disabled people. In 1974, there were 1,374,300 disabled people in Poland of which 740,000 were severe cases. In 1986, if figures for Lodz are representative for the entire country, about 2.5 million people were disabled. This would mean an increase from four to 6.7 per cent of the population. So, one of the targets of the Polish Health for All Strategy is to reduce the number of disabled people over 65 by ten per cent.

Our last indicator for the health status of the Polish population is the health status of special groups in society. Theoretically, industrial workers and children are among the groups which deserve a special priority in the protection of health in Poland. However, the health of industrial workers is often endangered by noice pollution in factories and working with asbestos. A study by a group of experts in 1981 denoted both the situation for children and the working population as alarming (4. Probably, this has not improved considerably in the last five years.

On the base of these indicators we may draw the conclusion that the health status of the Polish population as a whole was deteriorating in the period considered. Obviously, we cannot conclude that this deterioration was caused by a worsening of the phc system. In the next paragraph we discuss which other variables could have contributed to the bad health status of the Polish people.

6.22 Variables having an impact on health

Except for health care, which is indeed an input to health in the production function, there are at least three other variables (or data) having an impact on health. They are

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4) Experience and Future Discussion Group, 'Health and health protection of the Polish population'. International Journal of Health Services, 13, (1983)3, p. 492-493.

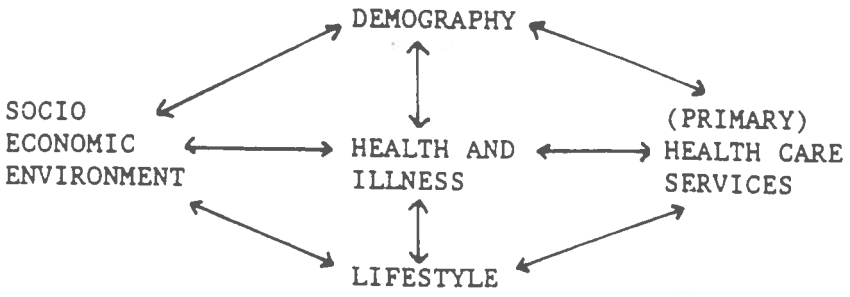

figure 6.1: A Diamond model of health and illness (5

represented in figure 6.1, including arrows indicating their interrelationships. We will discuss the items of the figure separately.

In table 6.3 the demographic structure of Poland is roughly represented by the most important indicators for 1975, 1980 and 1985. In this period, the population and population density increased, while the number of people in the productive age declined from 1980 till 1985. In Poland, as in many other European countries, the ageing of the population led to increasing mortality rates. However, as mentioned

Table 6.3: Basic demographic indicators

	1975	1980	1985
Population 31-12 (1000s)	34,185	35,735	37,341
Pop. density per km	109	114	119
In urban areas (%)	55.7	58.7	60.2
In productive age (%)	58.5	59.3	58.4
Natality rate	18.9	19.5	18.2
Mortality rate	8.7	9.9	10.2
Natural increase	10.2	9.6	8

Source: Statistical Yearbook 1981, p. 54, 1986 p. 89

5) This model is derived from the one used by Andrew F. Long, 'Effectiveness: Definitions and Approaches'. In: Health Services Performance. Edited by Andrew F. Long and Stephen Harrison, London, Croom Helm Ltd., 1985, p. 34. Our model differs as the analysis is on an aggregated level, while Long uses his model for the explanation of health per individual.

before, this does not explain the whole rise. Migration to the city continued, causing worse sanitary conditions in the city, not only because the population density in urban areas increased, but also because rural people sometimes clung to unhygienic customs. Finally, the natality rate first increased in the considered period, but later went down.

The second indicator, the socio-economic environment, includes variables such as buying power, employment and housing conditions. In general, under the pressure of the economic crisis these variables worsened from 1975. Real wages decreased (see par. 3.4), underemployment increased and the present waiting lists for houses are enormous.

Another very important environmental factor, which is often connected with the socio-economic situation, is the lifestyle of the people. In Poland, the consumption of wodka is very high. Especially after working time many drunken people can be noticed. Most ambulance help in the evening concerns drunken people. Poisonings are caused by the consumption of every liquid which contains alcohol. Prices of alcohol are rising, but the only effect is a hoarding tendency in the days before the price increase.

Other lifestyle variables which have a negative influence on health in Poland are the smoking of bad quality cigarettes and the high consumption of sweet cakes. The former causes a special kind of throat cancer, while the latter makes most people too fat. This is further enforced by the Polish cuisine.

It seems justified to conclude that all three indicators which could have influenced health deteriorated. More eldery people, worse economic circumstances and deteriorating lifestyles can only influence health negatively.

6.23 The effectiveness of primary health care in Poland

Let us consider the components of our analysis once again. On the one hand, we have the deteriorating health status of the Polish population, and on the other, the worsening of other variables to health such as more eldery people, and a deteriorating lifestyle and socio-economic environment. Exceptions to these bad indicators are infant mortality and maternal deaths. Thus, maternity care became probably more efective from 1975 till 1985.

The same conclusion cannot be drawn for phc as a whole. Although the high quality of physicians, the increase in the number of health centers and the rising level of finance might have contributed to more effective phc, this is counteracted by many other factors such as: Shortages of medicines and needles, the chaotic organization of phc, and the shortages of physicians in phc. Additionally, we have seen that the health status of the Polish population is bad. Thus, we cannot

conclude that phc as a whole became more effective. Probably, the more shortages there are and the more chaotic the organization of phc , the lower the level of effectiveness will be. In this light, the effectiveness of phc in Poland can still improve considerably.

The next question which arises is how to improve the effectiveness in the most efficient way. Are extra resources in phc contributing to better health or do investments in other sectors of activity have a higher marginal revenue? We have seen that most of the variables having an impact on health deteriorated from 1975 till 1985. Maybe it is more fruitful to devote resources to a better socio-economic situation (for example housing) or to health campaigns on a wider scale than to more health facilities etc.. However, as mentioned in chapter one, this requires a far more comprehensive evaluation and will not be attempted here.

6.3 Medical care as an output of the health care system

In chapter one we have designed criteria to evaluate the phc system of Poland according to organization, resources and finance. In the remainder of this chapter we will summarize our findings from the previous chapters and extend the analysis to the concepts of efficiency and equity. The analysis of the previous paragraphs concerning the effectiveness will be continued when discussing the quality of the resources in phc.

6.31 Evaluation of the organization of phc

The first criterion concerning the organization of phc in Poland was the structure of organization. The questions to be answered concerned the relation of phc to the rest of the health care system and the degree of cooperation and integration within and between health centers.

The main relation between health centers and the rest of the health care system is performed through ZOZ. As we have seen in par. 2.4, the key factor of the ZOZ concept was the technical integration of each specialty of health service. The specialties in hospital were brought under the same administrative authority as the specialties in ambulatory care. The primary care doctor was defined as the linchpin of the system. In this way, the problems of access and referral would be resolved.

However, in practice, the reform did not break down the barriers between primary care, polyclinic and hospital elements. The integration of the health service made the system even more hospital-centered than before, as the hospital often was the administrative center of ZOZ. The

director and deputies of ZOZ were mainly employed in hospital (in first or second jobs). This did not facilitate the relation between primary care and the rest of the health care system.

In chapter three, we have described the organization of phc in Poland. With the help of this description two main forms of desintegration can be distinguished. First, desintegration within health centers, which affects mainly managerial efficiency, and second, desintegration between health centers, which affects first of all allocative efficiency.

In theory, phc should be delivered by a team of health care workers within health centers. A general physician, a pediatrician, a gynecologist and a dentist should cooperate with other health personnel and form a group to treat the patient as a whole. However, the structure of the urban health center, divided in four main departments, makes this integration very difficult. So, the health teams in Poland are within instead of among the specialties. Only in rural areas, for the lack of personnel, the patient and the family is treated by one physician.

We also have seen that the management of the urban health center is performed by the main physician and main nurse. However, this is restricted to some coordinating tasks and certainly does not involve financial accounting. The lack of management must almost certainly affect the managerial efficiency.

Desintegration between health centers occurs when phc is delivered in too many kinds of organizational settings. This hampers coordination of referral patterns and the documentation system of the patients as well as an efficient allocation of resources. In Poland, at least four kinds of organizational settings exist which are an alternative to the delivery of phc through urban and rural health centers.

a) Industrial health care: Industrial health care should provide care for people working in the most difficult circumstances (see par. 3.32). However, the localization and size of industrial health centers are decreasingly connected to the necessity of care and more and more to the ambitions and possibilities of finance of the individual enterprises. The methods of finance are only stimulating this phenomenon (see par. 5.34).

b) The care for special groups in society: In Poland, as in many other East-European countries, the elite has its own privileges. The top administrators and party policy makers are treated in luxurious clinics and their own hospital which are barred to the ordinary citizens. Separate health care systems for the police and the military forces are not under discussion, but it is doubtful whether gynecological and pediatric departments are really necessary.

c) The non-public sector: The existence of private

practices and cooperatives endangers the continuity and permanence of care. The patient must be referred back to the public sector when further specialist care is required. No full documentation of the patient is available. The non-public sector also withdraws resources from the public sector.

Several advantages of the non-public sector must be mentioned as well. The sector reduces some of the tensions in the public sector and in this way improves the accessibility of the public sector. Further. it satisfies the extra needs of the patient which are not always satisfied in the public sector and it guarantees a substantial number of physicians a decent standard of living.

d) Academic medicine: It is doubtful whether special health services for students are necessary. As health care is basically free, there is no economic barrier for this group of society.

Taking into account the two forms of desintegration in phc, we can conclude that the official approach to treat the patient as a whole and as part of a social unit is endangered by the division of phc according to sex (gynecology), age (pediatrics), occupation (industrial, school and party health care), income (non-public sector) and place of living (urban or rural areas). The approach of the Health for All Strategy that the health care system should be based on phc cannot be realized if phc itself is divided into many uncoordinated parts and, thus, is not able to form a fundament.

The second criterion of chapter one concerned the professional and public support for phc. The discussion of par. 3.4 showed that health education and community participation is still in an introductory stage. We also mentioned the difficulties to attract physicians to phc, especially because of the low salaries. If physicians are underpaid and have to take more jobs (see par. 4.2), this will most certainly have certain effects on allocative efficiency, effectiveness and equity. Unfortunately, these effects are hard to quantify. However, the costs of minimization of public working time, traveling between jobs, and a lower satisfaction of demand will probably be substantial and must be taken into account.

The accessibility of phc is endangered by the long waiting times in the public sector. As we have seen in par. 4.2, people who used the non-public sector criticized both the accessibility and the effectiveness of the public sector. The fee for service principle in cooperatives and private practices could be an economic barrier for certain low-income groups of society and thus endangers equity.

6.32 Evaluation of the resources in primary health care

In chapter four, we have already briefly discussed the quality of resources in phc in Poland. In general, health personnel is

well educated, but often working with old facilities. Obviously, it is not possible to draw conclusions for the quality and effectiveness of care on the base of these few quality indicators. This is further handicapped by the recognition that medical care has two components; a technico-scientifical component and a socio-psychological dimension. If we take these components into account, the assessment of the quality of medical care is even more difficult.

In this paragraph, we will attempt to assess the observed or subjective quality by using a study of a research team of the Institute for Social Medicine in Lodz (6. The team gathered all the articles on health care which appeared in the Polish press from 1975 till 1985. Out of the 97,169 gathered articles, 8,573 gave an opinion. From these estimating articles an indicator was calculated, representing the number of positive opinions per negative opinion. So, the higher above one, the better the result. A distinction was made between opinions concerning institutions, personnel, and medical care for certain illnesses. The overall average indicator was 1.07.

The indicator for urban health centers amounted to 0.88. Most criticism mentioned concerned the accessibility of primary care. It was difficult to obtain home visits and to obtain care after eight in the evening. Additionally, the waiting time for registration and treatment was considered to be too long (see also par. 3.5). The indicator for rural health centers was better (1.5), as there are usually less patients and the punctuality of physicians was higher. Doctors often live near the clinic and have no additional jobs.

The indicator of medical care in nursery and primary schools only amounted to 0.4. Typical complaints of the press concerned a lack of preventive activities, irregular examinations and too frequent changes of physicians.

The medical laboratories received the lowest estimating indicator of all organizational levels (0.11). This low figure was the result of the shortages of supply and equipment. shortages of needles was the cause that patients often preferred private or cooperative laboratories. Additionally, the results of the examinations were not always reliable and the examinations were often repeated in hospital.

The average indicator concerning health personnel amounted to 1.59 and consisted of the indicators for physicians (1.80), nurses (2.71), helping staff (0.21) and registration staff (0.25). In table 6.4, the indicators for physicians are represented according to institution. The number between brackets is the indicator of the institution. It is striking

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6) See source mentioned in table 6.4 (next page)

Table 6.4: The number of positive opinions per one negative opinion concerning physicians appearing in the Polish press from 1975 till 1985 (indicator of institution between brackets).

Physicians working in:		
- General hospitals	3.45	(0.74)
- Specialist centers	1.10	(0.58)
- Rural health centers	2.16	(1.50)
- Urban health center	1.19 (average)	(0.88)
-- General department	2.54	..
-- Children department	1.28	..
-- Women department	0.80	..
-- Dental department	0.14	..
- Industrial health care	1.30	(0.88)

Source: Andrzej Mazur and Maria Kozlowska, 'Prasa krajowa o opiece zdrowotnej'. Internal document of the Institute for Social Medicine in Lodz, several pages.

that this last indicator is lower than the opinions about the physicians working in these organizations. This confirms our suggestion that the Polish health care system has a competent medical staff working in badly organized and badly equipped centers.

Some specific fields of primary medical care are criticized as well in the study. The indicator of dentists is low, due to the complaints about painful treatment and the acceptance of urgent cases only. Gynecologists received a low indicator, as they sometimes failed to provide a good diagnosis in the case of pregnancy and because they encouraged women to have an abortion.

In chapter four, we started our discussion concerning quantity with health facilities. As mentioned before, it is difficult to establish whether there are enough health facilities. Probably, in some new neighbourhoods in several cities not enough health centers have been built. However, we also saw that more health centers had been built from 1975 till 1985.

All quantity indicators of health care personnel are high, but there are still many vacant jobs in phc. This paradoxal situation is caused by the unpopularity of phc and the large number of physicians who are not engaged in basic activities. This last phenomenon causes inefficiency of health resources as described in par. 1.22. The costs of training are in this case a partial or total loss for society.

As for the economic crisis, there are shortages in every sphere of economic activity, including phc. Common things such as needles, washing-gloves, and basic medicines are often in

short supply. The effects of these shortages can be examined with the help of figure 6.2, which is identical to figure 1.2. The lack of supply and equipment implicitly assumes a choice between efficiency and effectiveness. If we take the level of health personnel and buildings etc. as fixed, and the maximum amount of variable resources to be Vo, the health system can choose between point c and point o. Point c includes a lower output level than in equilibrium and thus affects effectiveness. Point o is on the same isoquant as in equilibrium, but at a higher isocost line. This affects efficiency.

This discussion is not totally hypothetical. If we take the example of shortages of medicines, the dilemma for Poland is either to import and spend its scarce foreign currency or to accept the shortage with all the consequences for health.

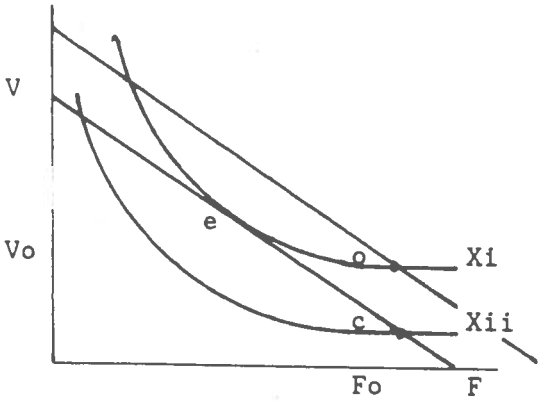

Figure 6.2

Perhaps it is even more difficult to lure physicians to rural areas than to attract them to phc in general. Probably, the absolute number of physicians in rural areas has even declined from 1975. To stimulate rural physicians, salary and non-salary incentives have been created. However, the kind of doctor who prefers rural practice is rare. The access to specialization and study is more difficult when working in the country.

In par. 4.2 we have seen that the number of visits in rural areas is very low. Together with the low proportion of physicians working in the country, we must conclude that there is inequitable access to care in rural areas as compared with the city.

6.33 Evaluation of the system of finance

In chapter one we have appointed the level, structure and methods of financial resources as criteria to evaluate the system of finance. In chapter five we discussed the system of finance and already gave some criticism. In this paragraph,

we summarize these results and extend criticism.

Although more resources were destined for health care from 1980, still voices are raised that health care is an underinvested sector. These complaints are connected with the present severe shortages of all possible products used in health care. However, these shortages are merely caused by the current economic crisis, the many years of underinvestment before 1980 and the inefficient use of resources. Probably, they are caused only to a minor extent by a lack of monetary resources from the budget from 1980.

The methods of finance in Poland are highly inflexible. The object and subject division is similar to process and job costing systems as described by Brooks . Brooks argues that process (object) costing is generally less expensive than job (subject) costing, "but the difference in the quality of the information provided for decision-making purposes is substantially lower at operating management level" (7. He further distinguishes between marginal and total cost accountimg systems and discusses the four possible combinations with job and process costing. However, this discussion is not relevant for Poland, as no real cost accounting system exists in phc at all. With process costing and without an accounting system it is almost impossible to achieve managerial efficiency.

In par. 5.32, we discussed the budget in Poland, being the main source of finance for phc. However, budgets can also serve as the key tool to control operating management. They are intended to inform, control and motivate decision makers towards efficiency. So, budgets are a method of finance as well.

Two forms of budget exist; fixed and flexibible budgets. Flexible budgets are created within health care organizations by making use of an internal charging system reflecting the costs of each activity. Under fixed budgets the total expenditures are determined in advance.

In Poland, as might be clear from the above mentioned, budgets are fixed. Within the so-called Budget Units (see par. 5.2, the money from the budget cannot be transferred from one item to another, budget credits from one year can't be transferred to the next year and no amortization funds exist to finance investments or renovations. The calculation of costs in Budget Units is hardly ever executed. While treating the patient the costs of consultations, blood, transport and using of fixed assets are hardly ever taken into account. It

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7) Ray Brooks 'Efficiency in health care'. In: Health Services Performance. Edited by Andrew F. Long and Stephen Harrison, London, Croom Helm Ltd., 1985, p. 69.

is difficult to separate the costs of phc, industrial health care, diagnostic services etc..

It is obvious that the system of finance of phc in Poland is obstructing the achievement of both allocative and managerial efficiency. The distribution of resources within and over health centers cannot be based on rational grounds without any cost accounting system.

An additional disincentive for the efficient use of resources is the fact that most services are free. The abuse of the emergency service is a good example of moral hazard. It is difficult or expensive to discover ex post which calls were unjustified. The absence of prices creates an excessive demand in other fields of health care as well.

Finally, the concentration of the sources of finance in Poland increased from 1975 till 1985. This might disfavor the financing of extra programs for health care.

6.4 Conclusion

In this chapter, we have first considered medical care to be an input to health in order to evaluate the effectiveness of care. The health status of the Polish population deteriorated in the period considered. This also happened to the other variables having an impact on health. So, it was difficult to establish whether the phc system became more or less effective from 1975 till 1985. However, we concluded that there are too many negative factors to allow for a high effectiveness of phc.

In the remainder of the chapter we looked at medical care as an output of the health care system. Concerning organization, we saw that the hospital-orientedness of ZOZ did not facilitate the relation between phc and the rest of the health care system. We also concluded that the desintegration within and between health centers caused that phc in Poland is divided according to sex, age, occupation, income and place of living.

The lack of professional support for phc must have influenced the effectiveness, efficiency and equity of care. However, these effects are difficult to quantify. The accessibility and equity was endangered by long waiting times in the public sector and the economic barrier in the non-public sector.

As for the resources, we affirmed that the Polish health care system has a highly-qualified medical staff, working in poorly organized and equipped centers. Medical laboratories, dental care and care in nursery schools received severe criticism in the press.

We have also discussed the relation between shortages of supply and equipment and the efficiency and effectiveness of

care. Under certain assumptions we have seen that these shortages require a choice between effectiveness and efficiency. Concerning the distribution of resources, we found unequal access to care between rural and urban areas.

Finally, we concluded that the system of finance in Poland is obstructing the achievement of both allocative and managerial efficiency.

CHAPTER 7: REFORMS AND PROPOSALS FOR REFORMS

7.1 Main programs

There are at least two main programs that have considerably influenced recent health policy in Poland. In par. 7.1 we will discuss these programs. Next, in par. 7.2, we will concentrate on specific reforms and proposals for reforms in the fields of organization, resources and finance in Poland. In par. 7.3, we conclude with our expectations concerning the consequences of the reforms for the efficiency, effectiveness and equity of phc in Poland.

7.11 Contemporary economic reforms in Poland

In October 1987, the program of realization of the second stage of reforms was published (1. In the program, far-reaching economic reforms were proposed, to be introduced within two and three years. Being anxious that prices would increase, the population voted against the fast introduction of the reforms at the referendum of 29th November 1987. Probably, the changes will continue, but at a slower pace.

The reforms are necessary as a result of the stagnating economic growth and the enormous debt of Poland. The pressure of the IMF may have contributed to the reform proposals. They are enabled by the policy of Gorbatsjov in Russia.

The reform proposals included a change in the functions of the state by means of a reshaping and reducing of political institutions. This was started with a reorganization of the ministries. Next, the proposals intended to develop the independency of local authorities and enterprises. Furthermore, every economic object (state, cooperative and private) should be granted the possibility to start and continue activities on the principles of self-governing and self-financing.

General proposals for health care reform are included in the program. It mentions the possibility to introduce partial or total fees for services; the changes in organization and administration of health care institutions; an increase in prophylactic activities; the extension of the free choice of physician principle (see par. 7.21); the strenghtening of the medical control on the quality of services; the simplification

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1) Program Realizacyjny Drugiego Etapu Reformy Gospodarczej, Warsawa, 1987.

of the documentation system; and the broadening without extra investments of the possibilities of extramural health care (nursery at home etc.).

The consequences of the program for the independency of the organizations in health care are not yet clear. However, the program will probably provide a base for future reforms in this field.

7.12 The Polish program for Health for All

Poland, as a participant in the Health for All Strategy by the year 2000 and as one of the countries which signed the Alma-Ata declaration developed a national program to improve the position of phc. The program does not provide a blueprint for a new health care system based on phc, but it first tries to solve the basic problems which form an obstacle to the introduction of this approach. The program contains many proposals for reforms and incentives connected with accessibility to and redistribution of physicians over phc. The proposals are as follows:

1) Introduction of a duty system in the evening in the health centers. This would improve the accessibility of services.
2) Introduction of the fee for service principle. A fee for registration can be used to finance a motivation fund for health workers (see par. 7.23)
3) Extension of the free choice of physician principle (see par. 7.21).
4) Higher salary and non-salary incentives for physicians working in phc.
5) Strenghtening of the participation of society in phc. A local management team should decide about the use of the motivation fund.
6) Development of a program for health education.

It is interesting to note that many of these proposals are dealing with those segments of phc we have criticized in this paper. Health education, support for phc by physicians, other sources of finance, and accessibility are examples of such topics. More proposals are in the pipeline. In the next paragraphs we will discuss more extensively these and other proposals concerning organization, resources and finance of phc.

7.2 Reforms and proposals of reforms of phc in Poland

7.21 Organization

As we have seen in chapter six, there are problems with the structure of the organization of phc in Poland. Within and between health centers the organization is chaotic. We have

concluded that the former problem affects mainly managerial efficiency, while the latter would affect first of all allocative efficiency.

Within (urban) health centers the concept of treating the patient by a group of physicians and as a whole person is not followed. Gradually, it is realized that the specialization of phc into the four basic departments is expensive compared to other forms of care, especially if these forms of care can be provided by alternative and cheaper modes of organization, which are equally effective. So, in Poland, there is a tendency to search for other models than the local physician. In Lodz and Pulawy experiments are being started with the so-called Settlement Physician (Lekarz Osredlowego). This is a kind of family doctor, who lives and works in new housing estates, consisting of several blocks of flats. They are usually working in couples and provide medical care to the people living in the neighbourhood. For night duties they receive extra salary.

Although it is necessary to increase the managerial efficiency of health centers in Poland, it is doubtful whether independent Settlement Physicians and family doctors are the appropriate answer. It seems preferable to improve the coordination and management of the existing health centers and to reduce the number of specialties in phc. The large investments in infrastructure would remain productive and the possibilities for cooperation among physicians would increase.

There are also problems between health centers. Phc is delivered in too many kinds of organizational settings such as occupational and academic health care, cooperatives and private practices. This hampers the coordination of referral patterns and the documentation system of the patient. As mentioned in chapter six, gains in allocative efficiency could be obtained when resources would be reallocated to a more restricted number of organizations delivering phc.

Few reforms and changes are proposed in order to improve this situation. It is extremely difficult to eliminate or restrict some of the institutions where primary care is provided. For example, it is doubtful whether primary care in industry which is not concerned with the conditions of work, is useful from the point of view of efficiency. However, first, the official position states that phc should be provided in the place of working, living and studying. Second, both employees and employers are in favor of extra facilities. Third, the aim of increasing self-government in the new economic reforms would be violated when a reduction of health facilities would be imposed on the enterprises.

In this light, it seems more realistic to coordinate the activities of the different organizational settings. This could be done by, for instance, introducing a good management system on the level of the province or ZOZ. Up till now, the

efforts in this field have been restricted to words.

In 1986, the free choice of physician principle was introduced as a first step to gain public and professional support for phc and to improve the accessibility of the health centers. Before the introduction, an experiment was performed from 1982 till 1983 in 11 health centers in different cities. The experiments consisted of two variants. In the open variant the patient could choose a physician every time (s)he visited the health center. The physician was paid per visit. In the option variant, people were allowed to choose a physician for a whole year. Extra salary was paid to physicians for every patient being registered on their lists. In this way, with 520 visits in the first variant and 2,500 options in the second, a physician could earn 12,000 zloties above the normal salary.

The expected advantages in both variants were as follows: 1) Higher satisfaction of the patients; 2) decrease of the waiting time; 3) better continuity of care; 4) better use of the official working time; 5) less referrals to specialists; 6) better use of assistant staff; and 7) more preventive care. The first three advantages appeared mainly in the option variant, while the fourth advantage appeared only in the open variant. The other advantages appeared in neither of them. So, the option variant was regarded as the most favorable and was introduced in 1986.

At present, the free choice of physician principle is introduced in about 380 health centers and more are following. It is difficult to apply the concept on a larger scale (being the aim of both main programs discussed in par. 7.1) as the minimum requirement is that at least three general physicians should work in the health center.

It is doubtful whether the advantages which appeared in the experiment are still prevalent. The enthousiasm of patients and physicians has decreased. The option for one year is restricting the choice at the same time and the money premiums for physicians are affected by inflation. Besides, the difference in work load, for which the premium was destined, does not exist in practice. In one urban health center in Lodz, roughly 50 per cent of the population did choose a physician in 1987. The other half was distributed over less popular (often younger and less well-known) physicians, who, in this way, had to work just as hard as their better paid colleague.

Another effort concerning public support is the extension of health education. For example, at the end of 1987 a large campaign started against alcoholism with the slogan "to be or to drink". Only recently it has become possible to discuss this problem openly on television.

7.22 Resources

There are few proposals to improve the quantity, quality and distribution of phc facilities, personnel and equipment. The requisite changes in this field are not restricted to health care only. The general economic situation, the socialist way of decision making and the lack of intersectoral cooperation are difficult problems, to be solved on a national level. It is here, that gains in allocative efficiency are most difficult to achieve.

In order to improve the quality of primary care physicians, special departments for phc are being established in medical academies. It is yet too early to predict the results of these new departments.

7.23 Finance

One of the aims of the Health for All Strategy is to apply all feasible ways of financing the strengthening of the phc sector. Since the system of finance in Poland is weak, it would be an additional task to strengthen the financing of phc. Indeed, many proposals concern the system of finance. The basic goals of these changes can be formulated as follows (2:

1) To replace the object by the subject system (see par. 5.2). In this way, the level and structure of the resources will depend on the number and quality of the executing tasks and thus enable a more efficient system of finance.
2) To increase the independency and flexibility of the basic units.
3) The creation of mechanisms to improve the financing, organization and attractiveness of phc.
4) The creation of mechanisms to stimulate the health care worker to use cheaper, but equally effective methods of care.

Yet, no answers are provided by these goals to the basic questions: Is it possible for public health centers to be self-financed in a socialist system and, how is a precise base of prices for health services to be fixed? Probably, these questions must be answered in practice. In the rest of this paragraph, we will discuss several proposals of changes in the system of finance.

The first proposal to be discussed is the introduction of the fee for service principle. This can be applied in two

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2) Katarzyna Tymowska and Cezary Wlodarczyk, 'Reforma w ochronie zdrowia i opiece spolecznej'. In: Polska reforma gospodarcze, uslugi spolecznej. Edited by Alexandra Lukaszewicz. Warsawa, Panstwowe Wydawnictwo Ekonomiczne, 1984, p. 115.

different ways. It may serve to determine the salary of the physician and it can be used to let people participate in the costs of health care. The last form will be discussed in this paragraph.

The advantages connected with the introduction of the fee for service principle are: 1) less abuse of medical services; 2) decreasing consumption of health care; 3) description of the real demand will be possible; 4) better control on the expenditures of the Budget Unit; 5) determination of priorities; and 6) an extra source of finance for phc. Especially the fourth and the sixth item concern the methods and sources of finance as described in chapter five. Thus, the introduction of the fee for service principle in phc would probably improve efficiency.

There are also disadvantages connected with co-payments. A financial barrier could be created for low income groups in society, which would have adverse effects on equity. This can be relaxed by calculating the fee on the base of the income of the patient and not on the base of the kind of medical service only. The use of the fee for service as a measure of avoiding overuse and abuse of medical services in some fields is only possible when the sectors of health care where this is happening can be identified.

It is possible to introduce the fee for service principle without violating the principle of free health care, as fixed by the Polish law. Examples of this kind are the payments required when people want to have a family doctor and the fees required when exceeding a norm of use of a certain health service. At present, fees already exist in the case of special dental services. Experiments are being started to introduce fees in hospital. It is not yet clear whether this will be restricted to the so-called hotel fees or that the Russian pay-clinic will serve as an example (in October 1987, the first self-financed hospital in Russia was opened).

A second reform proposal is concerned with the methods of finance. It contains the replacement of the Budget Unit and the Budget Firm by a modified version of the Budget Unit: The Firm of Public Services. The proposed modifications are as follows:

1) A More flexible budget, transfers between items should be possible.
2) The costs of medical services should be differentiated and established by means of negotiations between the Firm of Public Services and the budget authorities.
3) The difference between real costs in phc and the negotiated costs should not be returned to the budget, but should be destined for a reserve fund for equipment, pay off of debts, a motivation fund etc.. In case of deficits it should be possible to take credits.

Some changes have already been introduced. Expenditures

for medicines in hospitals are no longer restricted and the resources for equipment can be transferred to the next year. Experiments are being started to enable hospitals to divide independently the financial resources they receive from the budget. Of course, this principle can be extended to phc.

Other proposals concern the cost structure of health care. There is a proposal to increase the prices of medicines (which are indeed too cheap) and to adapt the structure of retail prices of pharmaceutical products to the cost price. Another cost-item are salaries, which can be used as an important incentive for health workers. Not only the height, but also the structure of wages can be an important instrument.

A first step towards a new salary reform was the introduction of a motivational bonus in 1984. More money was paid to small units if they performed so-called premium tasks. However, these tasks quickly became too formalized.

Another proposal concerning the structure of the salary of the physician states that 75 per cent of the salary should be constant and dependent on the number of patients, the level of qualification, the duration of work and the position in the medical hierarchy. 25 per cent should depend on quality, while extra money would be provided for additional duties such as school examinations, extra home visits, and replacement of colleagues.

7.3 Conclusion

The current conditions for reforms in Poland are favorable. Two major programs provide a background to initiate changes and glasnost penetrated Polish society more than in most other East-European countries.

In this chapter, we have discussed several proposals for reforms concerning organization, resources and finance. Most proposals concerned the organization and finance of phc, for changes concerning resources are more difficult, as they are often related to performance in other sectors of economic activity.

When reforms in organization and finance will be implemented they probably will (and should) first of all lead to allocative and managerial efficiency. Effectiveness of care is influenced by many other factors than phc only and will almost certainly improve when efficiency improves. Maybe, this is also the case for equity, Improving efficiency will at least counteract some of the tensions which, at present, endanger equity.

8. CONCLUSION

In the previous chapters, we have described and evaluated the phc system of Poland. In this conclusion, we will summarize our findings concerning efficiency, effectiveness and equity of care, and provide some recommendations for future health policy.

The allocative and managerial efficiency of phc are low. The distribution of resources within and over health centers cannot be based on rational grounds without any cost-accounting system. The managerial efficiency is further obstructed by the lack of autonomy of health centers, the specialization of phc, and by poor management. Allocative efficiency is mainly affected by the inflexible methods and concentrated sources of finance as well as by the lack of coordination between the numerous organizational settings where phc is provided.

The effectiveness of primary care is difficult to assess. It is not clear whether this effectiveness increased from 1975 till 1985. However, in the light of the chaotic organization of phc, the state of health educuation, and the severe shortages of supply and equipment, the level of effectiveness can still be improved considerably.

Under certain restrictions, a shortage of supply and equipment can imply a choice between efficiency and effectiveness. The dilemma between higher costs and lower health was illustrated by means of the example of medicines.

Equity of care is high in a free health care system. However, in Poland it is endangered by care of higher quality and economic barriers in the non-public sector, long waiting times, unequal access in rural areas and the care for special groups in society.

The efficiency, effectiveness and equity of primary care are further affected by the lack of professional support. Too few physicians are working for too low salaries. Although there has been some public policy effort in this field, more is necessary.

In chapter seven, we have already concluded that the current conditions for reforms are favorable. We have also suggested that first of all the efficiency of care must be improved. This can be done by the introduction of a good management system in health centers and on the level of ZOZ. Increasing autonomy for health centers should be supported by a rational cost-accounting system. This could also contribute to a more flexible budget.

Except for improving efficiency, Poland should also pay more attention to other inputs having an impact on health. Better conditions of housing, more health education (as a part of phc) and increasing importance for the sanitary service could contribute more to better health than an extension of

the health care system only. In this light, Poland might be a good example of the countries mentioned by Abel-Smith: "First, some countries are overinvesting in the provision of health services compared to other methods of social investment to improve health. Secondly, much of what is currently spent is not spent efficiently...." (1. To make reforms succeed, this should be taken into account.

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1) Brian Abel-Smith, Value or money in health services. London, Heineman Ltd., 1976, p. 221.

Epilogue

It is not an easy task to provide a good evaluation of the health care system of a foreign country such as Poland. Other customs, another level of economic welfare and another political structure do not facilitate the analysis. Next, the literature concerning health care in Poland is either very critical or in the form of official manuels which only provide a description. Another factor which hampers examination is that most Polish people are very sceptical concerning their current conditions of living. They easily extend their criticism to health care without taking into account the level of economic development in Poland and the progress that has been achieved up till now.

In this paper, I tried to describe as well as to evaluate the primary care system of Poland. I still have some doubts whether I succeeded to find the links between the description and the criticism. This is partly caused by the division of the literature I mentioned before and the impossibility to evaluate all criticism with the help of statistical data.

However, I hope that this paper contributes to a better understanding of the criticism on primary care in Poland. Many activities of care and cure are taking place in Poland, but their organization and finance must be improved. With the proper measures also a national health system as exists in Poland can become effective and efficient.

Appendix: General price index for goods and services

Table A.1: General price index for goods and services, 1975=100 (1 (2

1975	100
1976	104.7
1977	116.1
1978	123.9
1979	129.2
1980	140.9
1981	170.5
1982	348.8
1983	423.2
1984	486.1
1985	558.9
1986	647

Source: Statistical Yearbooks, 1975-1986

1) Ogolem wskaznik cen detalicznych towarow i uslug
2) The general price index is only a very rough indicator to calculate constant prices in health care. In theory, medical price indexes should be used. However, they are not available for Poland. Besides, most of the data used in this paper are on an aggregated level, so it seems justified to use the general price index.

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