Economics of A Family Practice in Krakow

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Table of Contents

Preface i

1. Primary Health Care System in Poland 1

2. Physician's Private Practice: Revenue 3

3. Costs 5
- 3.1 Medical Fixed Cost 5
- 3.2 Medical Recurrent 5
- 3.3 Non-Medical Fixed Cost 6
- 3.4 Non-Medical Recurrent Cost 6

4. Discussion 9

Preface

At the request of USAID, the Harvard School of Public Health, Harvard University, U. S. A. and the School of Public Health, Jagiellonien University, in Poland have initiated a project to assist regional and local Government officials in Poland strengthen their efforts to provide cost-effective and responsive health care services. The project includes 6 components:

1. PHYSICIAN AND DENTIST PAYMENT/CONTRACTING SYSTEMS.

This component will enable local and regional Governments to cost-effectively contract with physicians and dentists for services provided to consumers in their jurisdiction.

2. HEALTH CARE INSTITUTIONS CONTRACTING SYSTEM.

The second component is linked to the first as it will enable local and regional Governments to cost-effectively contract with hospitals and gmina (municipality) fund-holding arrangements for services provided to consumers in their jurisdiction.

3. COST ANALYSIS.

Closely related to the first two, this component's activities support local and regional Governments capacity to determine the costs of health services provided to consumers in their jurisdiction and to use the results in the contracting process.

4. PLANNING AND CONTROL.

The fourth component will enable local and regional Governments to effectively plan and control health services provided to citizens in their jurisdiction.

5. QUALITY MONITORING.

This component will enable local and regional Governments to effectively monitor the quality of health services provided in their jurisdiction.

6. POLICY DIALOGUE/LOCAL GOVERNMENT.

The final component will support activities to encourage local Governments to advocate effectively for desired changes in national health policy.

This study identifies and describes costs and potential earnings of physician practice.

1. Primary Health Care System in Poland

Poland has developed a publicly funded health system after World War II, and the government is the primary payer and provider of health care. Government funds, either directly through the Ministry of Health and Finance, or indirectly through other institutions are attracted to public facilities that are the principal health producing units. These units hire physicians, paramedical personnel and administrative personnel on a salary basis payment. This health care production and delivery system has generally offered universal access and broad coverage. It has also contributed to rapid declines in mortality and morbidity due to infectious diseases, as a result of which life expectancy rose to almost 72 and infant mortality fell to 13.3 per 1000 live births. However, the system suffers from a number of weaknesses such as lack of incentives in health care production and delivery, little concern for costs, poor quality of care, indifference to patient satisfaction, and limited or no patient choice.

Administratively, Poland is divided into voivodships and gminas (municipalities). Each voivodship is divided into "integrated health care complexes" (zoz), which provide inpatient and outpatient health care, and are managed by the health department of the voivodship. Inpatient care is provided by the voivodship's main hospitals, and each hospital has a minimum of four wards: internal medicine, surgery, gynecology and obstetrics, and pediatrics. The voivod hospitals primarily serve residents of that one voivodship, though residents of other voivods are not turned away.

Primary health care in Poland is typically provided by a multi-specialist team, consisting of an internist, pediatrician, gynecologist, and a dentist. Nurses, community nurses, other ancillary medical staff and social workers comprise the support personnel. Clinics located in the urban areas typically have a larger number of physicians and support staff than rural facilities. Moreover, outpatient clinics in urban areas usually have superior equipment and facilities, such as analytical or diagnostic laboratories, and many have separate dispensaries for children and women. They may also have dental or other specialist dispensaries. In 1991, there were 3,311 outpatient clinics, and 1,903 urban district outpatient clinics. Fourteen percent (approximately 95,000 persons) of all public health service employees work in primary health care. While the overall number may be adequate, their distribution among health facilities is uneven. The number of doctors per 10,000 inhabitants ranges from 11.4 in Siedlce voivodship to 38.4 in the Warsaw area. The ratio of physicians employed in primary health care relative to those in hospitals or in specialized care appears to be insufficient: of all physicians in Poland, only 16% (14,000 doctors) are involved in the primary health care sector.

Most health care workers are paid a fixed salary every month. They also receive an annual bonus. Other benefits include social security, bonus for special posts, social service benefits,
gratuity rewards for every five years exceeding twenty years of service, and remuneration for termination of employment.

Physicians at outpatient clinics are typically required to work 40 hours/week. Both physicians and ancillary staff are employed under permanent work contracts, and are paid a fixed salary. Because wages in the public health system are low, many physicians take up additional employment positions at private surgeries or consulting rooms.

In January, 1990, the government in Poland introduced a package of reforms to change the centrally planned communist system into a free economy. All prices were permitted to move freely, money supply was tightened, the currency devalued, and private entrepreneurship encouraged. The government of Poland has also introduced a number of reforms in the finance, management and organization of the health sector, mostly in keeping with the overall shift from a centrally planned communist system to a

free market economy. The general direction of these reforms has been toward establishment of new health care production units (1991 Act), new provider payment mechanisms (1993 Act), greater autonomy to hospitals, decentralization of public sector in health, introduction of family-oriented general practice, and recognition of patient choice. Also on the anvil is the introduction of health insurance, an issue that has been debated intermittently in the last five years.

2. Physician's Private Practice: Revenue

Krakow is one of the first cities in Poland to introduce family general practice, and to-date some 15 physicians have signed contracts with the city and voivod authorities to promote health care to designated population. The first contract was signed in April 1996 with the voivod's office after which a few other contracts were approved by the city.

Based on this formula, the city has established contract rates for each of three age groups. Rates for 1996 and 1997 are as follows :

Table 1 : City Contract Rates

Enrollee Age	*City Contract Rates 1996*	*City Contract Rates1997*
0 - 6 Years	67.80	93.16
7 - 59 Years	52.16	71.66
60+ Years	93.88	128.99

A typical practice has between 2,000 to 3,000 enrollees on the patient list. Based on data from various practices, it is estimated that the youngest group of enrollees, 0 - 6 years old, constitute about 8% of the total number of enrollees, while the oldest group of enrollees, 60+ years old, constitute about 16% of the total number of enrollees on the practice list.

We consider revenues and costs for three hypothetical practice sizes :

Practice A: 2,000 enrollees
Practice B: 2,500 enrollees
Practice C: 3,000 enrollees

Table 2 : Revenue for Practice A

Enrollee Age	*Number of Enrollees*	*Capitation Revenue*	*Rate*
0 - 6 Years	160	93.16	14,905.60
7 - 59 Years	1520	71.66	108,923.20
60+ Years	320	128.99	41,276.80
Total :	**2000**		**165,105.60**

Table 3. Revenue for Practice B

Enrollee Age	*Number of Enrollees*	*Capitation Rate*	*Revenue*
0 - 6 Years	200	93.16	18,632.00
7 - 59 Years	1900	71.66	136,154.00
60+ Years	400	128.99	51,596.00
Total :	**2500**		**206,382.00**

Table 4 : Revenue for Practice C

Enrollee Age	*Number of Enrollees*	*Capitation Rate*	*Revenue*
0 - 6 Years	240	93.16	22,358.40
7 - 59 Years	2280	71.66	163,384.80
60+ Years	480	128.99	61,915.20
Total:	**3000**		**147,658.40**

3. Costs

We divide practice costs into two categories: medical and non-medical. Each of these include fixed and recurrent costs, and we examine them in turn.

3.1 Medical Fixed Costs

Based on the equipment list of Family Practitioners college of Poland, we estimate the cost of the medical equipment for clinics to be around 16,000 zl.

3.2 Medical Recurrent Cost

A. Personnel

Personnel costs include salaries, social insurance (48 percent of the salary amount), and contributions to social fund (0.2 percent of salary). These are mandatory for the employer. The salary for a medical personnel is around 600 to 1000 zl. per month, equivalent to approximately 14,500 zl. per person per year, inclusive of insurance and other contributions.

B. Specialist Consultations

Specialist consultations are bought outside the practice and paid for by the physician. On an average, a consultation costs anywhere between 10 to 30 zl. Depending on the number of enrollees in the practice, the number of consultations will also vary. An examination of the relevant data available in one practice indicates the number of consultations to be about 18% of the number of enrollees. Thus, a practice with 2,000 enrollees can be expected to have 30 specialist consultations per month, a practice of 2,500 enrollees 40 consultations, and practice with 3,000 enrollees, 50 consultations. Taking the average cost of a specialist consultation to be approximately 20 zl, the total costs of specialist consultations would be 7,200, 9,600 or 12,000 zl. per year respectively for different practice sizes.

C. Infant Care

The cost of one house visit by a nurse or midwife providing infant care is approximately 35 zl. Available data indicates that infant care visits average about 1% to 2% of all patients. Total infant costs are thus computed to be 600, 780 and 960 zl. respectively for the three practices.

D. Laboratory & Diagnostics

Available data indicates that laboratory and diagnostics cost 14,400, 18,000 and 21,600 zl. for the three practices respectively.

E. Rehabilitation Care

Based on the available data, we assume that rehabilitation care, which includes physical examination, massage, ultra-sound would cost 2,400, 3,000 and 3,600 zl. respectively for the three practice sizes.

F. Supplies

Supplies include drugs, needles, bandages etc., and are assumed to cost 1,200, 1,500, and 1,800 zl. respectively for the three practices.

3.3 Non-Medical Fixed Cost

A. Registration

Under the existing laws, the practice needs to be registered with the city or the voivod. The registration fees is 100 zl.

B. Renovation

Based on the experiences of the practice under review, we assume a lumpsum renovation cost of 10,000 zl. per practice.

C. Equipment

Based on the experiences of the practice under review, we assume non-medical equipment include furniture and other items to cost about 8,000 zl.

D. Patient List

Patient lists can be purchased from the statistical office at a cost of 1.1 zl. per patient. Depending on the size of practice, the preparation of patient lists is expected to cost between 2,200 and 3,300 zl.

E. Marketing

Based on the experiences of the practice under review, we assume that a new practice would require some promotion and marketing, estimated to cost approximately 7,000 zl. per annum.

F. Vehicles

Each practice is assumed to require purchase of one car, which is estimated to cost 15,000 zl.

3.4 Non-Medical Recurrent Cost

A. Administration

Administration costs include costs of book-keeping, preparation of financial returns, legal and tax advice etc. It is assumed that this would cost approximately 6,000 zl. every year.

B. Rent

Rents can vary depending upon the location of the practice and where the building is owned by a private person or a public organization. Based on the experiences of the practice under review, we assume building costs to be approximately 14,400 zl. annually.

C. Utilities

Utilities include electricity, water, heating and waste removal. The present charge for electricity is 0.2088 zl. per kilowatt, based on which the annual charge is estimated to be 1,200 zl. Similarly, the water rate is

fixed at 30 zl. per month or 360 zl. a year. Heating is estimated to cost a further 3,000 zl. a year, and waste removal further 180 zl. a year.

D. Repairs and Maintenance

Based on the experiences of the practice under review, we assume that repairs and maintenance would cost approximately 3,600 zl. annually.

E. Insurance

Each practice is required to obtain civil liability insurance. Based on the experiences of the practice under review, we assume that annual insurance premium is 75 zl.

F. Miscellaneous

Miscellaneous costs like telephone, fax, postage, office supplies etc. which are assumed to cost 6,000 zl. per year.

Total medical and non-medical fixed and recurrent costs are summarized in the table below:

Table 5: Medical and Nonmedical Fixed and Recurrent Costs

	Practice A	*Practice B*	*Practice C*
Medical Fixed			
1. Equipment	16,000	16,000	16,000
Medical Recurrent			
1. Personnel	14,500	14,500	14,500
2. Specialist Consultation	7,200	9,600	12,000
3. Infant Care	600	780	960
4. Laboratory and Diagnostics	14,400	18,000	21,600
5. Rehabilitation	2,400	3,000	3,600
6. Medical Supplies	1,200	1,500	1,800
Nonmedical Fixed			
1. Registration	100	100	100
2. Renovation	10,000	10,000	10,000
3. Equipment	8,000	8,000	8,000
4. Patient List	2,200	2,750	3,300
5. Marketing	7,000	7,000	7,000
6. Vehicles	15,000	15,000	15,000
Nonmedical Current			
1. Administration	6,000	6,000	6,000
2. Rent	22,740	22,740	22,740
3. Insurance	75	75	75
4. Miscellaneous	6,000	6,000	6,000

4. Discussion

Based on the above, the net earnings of the three practices can be computed as shown below. In this calculation it is assumed that the amount required for fixed costs can be obtained at an interest rate of 20% per annum. Thus, practice costs are calculated on the basis of annual recurrent costs plus 20% of the fixed costs.

Table 6: Annual Net Earnings (zl)

Practice	*Revenue*	*Costs*	*Income*
A	165,105.60	87,650.00	77,455.60
B	206,382.00	94,840.00	111,542.00
C	247,658.40	102,230.00	145,428.40

We compare the net earnings of physicians in a contract family physician with income from opportunities elsewhere, particularly in a government job, where the physician draws a fixed salary and other benefits. The physician also has additional earning options from private practice as well as from envelope payments. The average salary of a physician in government employment in 1997 is 9112.31 zl. per year. Additionally the physician also receives other benefits like social security payments, taxes, bonus etc. amounting to about 48 percent of the basic salary. Therefore, a physician's gross salary from government employment is approximately 13,500 zl. per year.

Many physicians also have their own private practice in addition to the government job. In the absence of any study, it is difficult to estimate the earnings of a physician from private practice. However, on the assumption that physician sees 20 patients every week in his private practice and charges 20 zl. from each patient, the average annual earnings can be estimated to be approximately 20,000 zl.

It is difficult to make any estimate of the amount of envelope payment that a physician receives. Based on the result of a survey carried out by the Ministry of Health and Social Welfare in 1994, we assume that a physician on an average earns approximately 30,000 zl. every year from envelope payments.

This calculation shows that the expected earnings of a physician in government employment, with possibilities of private practice and envelope payments, are approximately 65,000 zl. It should be noted also that there is a fair degree of uncertainty in earning even this amount. In comparison, a contract family physician with only 2,000 patients can have net earnings of over 77,000 zl. The uncertain element here is the ability of the physician to enroll and retain the required number of patients.

While the difference between earnings in the two settings is not insignificant, individual physicians will probably estimate the associated risk with each setting based on their own assessment and experience. In general, we can expect the more well-settled and probably older physicians who have larger private practices and higher envelope payment earnings to prefer to continue to stay in government job, and the younger physicians to venture to sign contracts instead.