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THE PROBLEMS OF THE RATIONAL USE OF THE MEDICAL STAFF IN INDUSTRIAL HEALTH CARE COMPLEXES

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Abstract. The awareness of resources scarcity in the occupational health care makes one analyze allocation in the selected institutions of occupational health service in Poland. The principal issue was to find out the differentiation in medical staff use and the costs involved. Such conclusions resulting from inputs and outputs evaluation are expected to be a basis for economic rationalization of resources allocation. An attempt to make such analysis has been made in Industrial Health Care Complexes (IHCCs) in Poland. Mainly, the costs of work of medical staff have been considered as an element of wider empirical study and comprehensive analysis of resources usage.

INDUSTRIAL HEALTH CARE COMPLEXES – THE PROBLEMS OF RESOURCES ALLOCATION

One of the basic elements of the Polish Occupational Health Service (OHS) are Industrial Health Care Complexes (IHCCs). As calculated for the year 1988, about 1.5 mln workers were provided with the services of IHCCs in 13 voivodeships (provinces) in Poland. The number constituted 1/4 of the total population entitled to OHS. These units, are autonomous as regards the structure and financing and constitute the integral part of the whole OHS system.

The activities of the IHCCs are based mainly on the functions of large in-plant and inter-plant clinics for outpatients*. Their tasks among others are:

* Presently, there are 43 IHCCs, including 33 which provide services for workers in industry, 6 – in mining, and 4 – in ports and shipyards.

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the organizing of preventive-curative activities in industrial plants, current control of work hygiene and services quality, periodical analysis of health status, accidents and sickness absenteeism in plants and in in-plant schools. The most important element of the functioning of the OHS is a properly trained general practitioner. Essential activities include the preventive examinations. Moreover, a physician in IHCCs units is responsible for providing first-aid in emergencies and counselling service in case of the so-called 'spontaneous reporting'. Apart from such physicians, IHCCs employ dentists, gynaecologists and various specialists depending on the needs.

Recently, some criticism with regard to the activities of IHCCs has been observed. In the everyday practice of the OHS it is still a common policy to neglect preventive activities which should be its primary function (2). As evidenced by the statistical data, 4/5 of all the services rendered by IHCCs are a response to 'spontaneous reporting', whereas as little as 1/5 refer to prevention. This may be due to the fact that the role of primary health care (PHC) in the functioning of IHCCs is not adequately appreciated. The conclusion seems to be confirmed by some data concerning specialists and general practitioners. The findings revealed higher rate of services provided by the former group. At the same time, the increasing rate of the paid worktime of specialist pysicians has been observed (in terms of worktime per 1000 workers under health care).

It may thus be concluded that both the service structure and the proportion between the two types of the out-patient services indicate some deficiencies of the present acivity of IHCCs, especially when considering general principles of the OHS. It should be stressed that the increased scope of services in IHCCs has been the effect of extensive increase of resources. Assuming that the quality of services has not changed, the present situation may point to the ineffective use of medical staff worktime, especially as regards the physicians. In view of the scarce resources in the OHS a necessity for their rational management has been emphasized. It has become one of the objectives of the study on a reform of the health care system in Poland (3).

According to preliminary results, a major factor conditioning the effectiveness of the OHS is the rational use of medical staff resources and sensible financing of their activities. The paid worktime of medical staff and quantitative results of their activity were taken into account related to a number of variables including wage fund involving two types of financial resources, i.e. the budget and the particular enterprises.

In accordance with legal regulations * the enterprises which participate in financing of OHS units are liable to covering the costs connected with maintenance of OHS units, analytical laboratories, rehabilitation centers, work physiology and psychology laboratories, minor technical services as well as personnel wages, except for the wages of the professional medical staff. The

* At present, the financing of OHS units is regulated by the legal acts of 1962 and 1963.

wage fund is covered from financial resources transferred from a relevant sector's budget to OHS units **.

As has been stated earlier, the funds for the financing of OHS units activity should derive from national budget and financial resources of industrial plants. However, in practice, the regulations concerning participation in the costs of the OHS are not observed by enterprises. The latter statement refers especially to the costs related to payment of wages for medical staff. It is not infrequent that these wages are covered by an enterprise. The practice, however, concerns mostly the part-time workers of OHS units (4).

METHOD OF THE ANALYSIS

In order to investigate the problem, a study was undertaken with a view to determining the cost of IHCCs ambulatory care, financed from the budget and the enterprises. One of the subjects of the analysis was the wage fund for medical resources in IHCCs. Cost analysis is accompanied by some questions open for discussion. It can be stressed that in some of IHCCs, apart from outpatient units considered in our study, there were also hospital wards. In order to determine costs of ambulatory care from overall costs, a special questionnaire has been used. But, in some cases, it was not possible to separate costs of the two forms of medical care. On the one hand, 42 variables were concerned reflecting personnel's worktime and quantitative results of work performed by medical staff. On the other hand, the costs of maintaining medical staff were investigated (45 economic variables). For a thorough evaluation of the personnel's work's results in IHCCs, a number of variables was considered such as number of visits, number of patients admitted, number of preventive examinations, number of referrals to the posts of sheltered work and to the posts of professional rehabilitation. These variables served as a basis of undertaking econometric procedure leading to grouping particular IHCCs into homogeneous categories. Thus, three groups of IHCCs were created.

The results of the analysis made it possible to find out that enterprises act against the rules by covering the medical staff's wages. The amount of the wages is considerably high, which provides conditions for a financial dependence upon the enterprise. Moreover, the situation is often based on the so-called black agreement, thus being practically out of the control of people responsible for surveying activities of medical personnel. In this respect the enterprise management is a decision-making body not always acting in an effective way.

RESULTS

The study results revealed considerable differentiation with regard to the state and distribution of personnel resources in IHCCs in Poland. This may be one of the reasons for significant differences between the amount of current costs and wage funds in particular IHCCs (Table 1).

** The local budgets and the central budget are the integral parts of the national budget. In other words the national budget is the sum of the local and central budgets.

TABLE 1. Differentiation of current costs in particular IHCCs in Poland.

Variables	Max. value (%)	Min. value (%)	Arith. mean (%)
Total current cost	100	26.1	×
Cost of personnel's work (e.g. wage funds)	100	28.3	×
Cost of personnel as a percentage of total current costs	74.5	47.5	57.8

Source: Author's calculations according to IHCCs data

Considering current costs the difference could come up to 73.9% in extreme cases. Similarly, the differentiation of personnel's work's cost came up to 71.7%. The wage fund as the percentage of current costs ranged from 47.5% to 74.5% in all the IHCCs under the study.

The current costs were related to the variables reflecting personnel resources and results of their work. As has been stated earlier, in the study IHCCs were classified into 3 groups. In the group of "average" IHCCs there were some units where the wage fund as the percentage of total current costs did not reach the level of 73%. As for the "best" IHCCs a high percentage of wage fund in the current cost could be noted (over 75%). Accordingly, in the "worst" IHCCs the wage fund was found to be constituted by the lowest percentage of the current costs. (Table 2).

Considering the present discussion on the problems of OHS financing the data were related to financial sources for IHCCs and their participation in current costs covering. In the group of "average" IHCCs significant differentiation was found as regards the budget percentage in current costs financing. It fell within the range of 46–94%. Slightly lower differentiation could be observed with respect to wage fund: from 71.5% to 100%. More homogeneous situation was observed for a group of "best" IHCCs; the percentage ranged from 54% to 72% for current costs and from 79% to 100% for wage fund. In the remaining group of IHCCs a law percentage of budgetary resources in current cost financing was detected: it did not reach 56%, whereas for the wage fund the percentage was found to be very high – about 80%.

TABLE 2. Budget percentage in financing current costs of IHCCs.

Variables	Min. value	Max. value
Current costs	45.0	94.3
Costs of personnel's work (e.g. wage funds)	64.7	100.0

Source: Author's calculations according to IHCCs data

DISCUSSION AND CONCLUSIONS

As indicated by the study results the level of IHCCs activity was not always in a direct proportion to the amount of current costs and wage funds. However, such a correlation was found with regard to the percentage of wage fund in the current cost. This findings referred to the "best" IHCCs. As regards the interesting problem of the financial support of enterprises of IHCCs the issue is somewhat complicated. It seems surprising that the lowest percentage of budgetary means was found in the "worst" IHCCs. Similar percentage of wage fund could be observed in all the three groups of IHCCs. The situation cannot be definitely interpreted until a detailed analysis of expenditure in those IHCCs is made. However, one may presume that it is not a rational allocation of resources that accounts for the present state. Thus, it would be necessary to develop a system for surveying this expenditure. It seems justified to postulate that the right to approve of the decision-making by the enterprises, or at least to issue opinions on the matter, should lie exclusively in the domain of IHCCs activity. Otherwise the capacity for providing health care might be dependent on the financial situation of particular enterprises, thus contributing to disproportions in the scope and quality of medical care.

A necessity should also be emphasized for updating current legal regulations with respect to OHS financing. New regulations should facilitate specialist surveillance of OHS activities with particular regard to financial resources allocation by specialist decision-making bodies (5).

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