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Critical Issues in the Development of Hungarian Public Health with Special Regard to Spatial Differences

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INTRODUCTION

This study examines some important problems facing the Hungarian health system, particularly with regard to identifying spatial differences in the provision of health care. The study consists of two parts: the first presents a summary of the relevant literature; while the second discusses the research findings. The remainder of the introduction provides an overview of the post-WWII Hungarian health system to help better acquaint readers who may not be familiar with the situation here.

At the close of World War II, Hungary inherited a disproportioned health care facility network resulting both from former development patterns and from cosiderable war damage. Large areas and wide social strata had to do without medical care.

In the course of the post-war decades, however outstanding results have been reached: mass diseases have been liquidated; and objective, subjective and organizational preconditions for public health care covering the whole area of the country, along with the expansion of social insurance have been established. /14/

A major achievement of socialist public health has been rapid success in the prevention and cure of "morbus hungaricus", i.e. tuberculosis. For example, out of 10 thousand inhabi-

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tants, there were 9.61 deaths due to tubercolosis in 1949, but only 2.51 in 1965.

Infant mortality has also decreased remarkably. Out of one thousand new-born children /under the age of one year/ 156. died in 193o-31. However, this rate averaged 98.3 between 1945 and 195o, while data for 1961-65, 1969-7o and 1983 wer respectively 42.7; 35.8; and 19. This latest figure though is admittedly rather unfavourable by international comparis

In 1938, 1o,59o - or 11.7 per 1o,ooo - practicing doctors were in Hungary, whereas today 2o,358 - or 26.6 per 1o,ooo provide medical care, a rise of 2.3 times. This increas in the doctor-population ratio is outstanding even with respect to international standards; with Hungary holding fourth or fifth place in Europe during the late seventies. Furthermore the number of hospital beds amounted to only 48,898 in 1938 /a rate of 54.o per ten thousand inhabitants, while in 1983 96,398 beds were serving the recovery of the sick population, yeilding a bed-population rate of 9o.3.

Three features of the Hungarian public health system are notable:

/a/ medical care /treatment/ is offered to every Hungarian citizen free of charge /as a social right/;

/b/ financing this system relies both on State budget and the budgets of councils;

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/c/ the system has a unified organizational structure operated by the state.

/a/ Universal Provision of Medical Care

Health insurance covered hardly more than one third of the Hungarian population before 1945. Peasant and agricultural workers, who represented the majority of the population almost stood completely outside the social insurance system. The organizational system of health insurance was extraordinarily scattered, with more than 3o health insurance institutions operating in the country.

Unification of the organizational system was carried out at the end of the forties. Nevertheless, a decisive turn in the expansion of health insurance took place in the early sixties. It was motivated by the socialist reorganization of agriculture; that is, the free medical care /treatment/ was also extended to the co-operative peasantry. While social insurance covered only 62 per cent of the Hungarian population in 1957, this figure rose to 97 per cent by 1965.

The Public Health Act passed in 1972 is regarded as a new stage of development, inasmuch as it was declared that every citizen has the right to free medical treatment. However, each person must pay a modest fee for medicines.

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/b/ Some Characteristics of Financing Public Health

On the one hand the system of financing public health institutions is separate from the institutional system of social insurance. However, on the other hand, both systems of financing are closely connected with the State budget. Employees pay old-age pension-contribution on the basis of their wages and salaries, while employers pay social insurance contribution on the basis of wage costs. These sums represent a part of the State budget incomes. Social insurance expenditures /for pensions, sickness benefit, etc./, in turn, represent an element of the State budget expenditures. Nevertheless, there is not a direct relation between the two money funds /i.e. between the incomes and expenditures of the social insurance/. An overwhelming majority of public health institutions is under the management of local /city or village/ or county councils. Accordingly, these institutions are financed from the budget of the councils. /A considerable part of the budgetary funds of councils derives from State subsidies./

The management and financing of medical universities and other national medical institutions are performed directly by the Ministry of Health.

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/c/ Unified Organizational Structure

The public health system, established in the last third of the past century, represented historical precedents of the present public health organizational system. Act 1876/XIV concerning the organization of public health in Hungary was a remarkable composition even on the international scene. In addition to hygienic and epidemic directions, this law also provided for a comprehensive regulation of the institutional system of public health. For example, the law stipulated that every town as well as every village with a population over six thousand people, had to have a public practitioner. Minor settlements jointly employed a rural district doctor. The law also declared that the management of public health was the task of the State, and that the management system of public health was formed on the basis of public administration. However, due to the social-economic backwardness of the country, only a fraction of the progressive spirit and aims of the law on public health were realized by 1945.

Before 1945, in addition to public health services operated by local authorities, medical care /treatment/ was also provided by different social insurance institutions, as well as charitable and private institutes. This scattered organizational system of public health was unified in the early fifties. At the same time, the system was put under the twofold management and control of the Ministry of Health

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and the councils. The operation of the unified public heal organization became based on the principle of regional res ponsibility. The essence of this principle manifests itsel in the fact, that every public health service unit /distri doctor, welfare centre, hospital etc./ looks after the po- pulation of a pre-determined /prescribed/ area /district/.

As in other countries, public health is an extraordinarly complex system also in Hungary. Within the framework of th study only the major branches can be outlined.

Today, primary health care is performed by district gene- ral practitioner's service, plant /factory/ practitioners, district pediatricians, dental surgeons, as well as the ch mist network. In 1983, one district general practitioner t care of 2526 inhabitants. Out of the 3121 settlements of t country 1589 /5o.9 per cent/, were served locally by a d rict general practitioner.

Out-patient care is performed by ambulatory clinics and chronic care facilities. In-patient care is offered - on the basis of the progressive care /regionalized health sys tem/ principle - by city and county hospitals, four univer sity clinics, and national special institutions. Universit clinics and three county hospitals also perform regional level tasks. /In cities with hospitals the ambulatory clin and the hospital constitute one organizational unit./ In

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1980 there were 196 hospitalizations per one thousand inhabitants. One of the main tasks of preventive-therapeutic care is the protection of women, children, family and youth.

The main forms of social care are: social nursing homes /for the aged, as well as physically and mentally handicapped people/ day-home for the elderly, visiting social workers, social allowances.

Sanitation and epidemic services are separated from preventive-therapeutic ones in both organization and implementation. The tasks of the former services cover among others: moderation of detrimental environmental conditions, occupational and nutritional health inquiries, prevention and overcoming of infectious diseases etc. Their organizational units are the so called KÖJÁL-s /sanitation and epidemic stations/ on the county-level, as well as epidemic services operating in cities and the districts of the capital.

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PART ONE

MAJOR TENSIONS IN EXTERNAL /SOCIO-ECONOMIC/ AND INTERNAL CONDITIONS OF HUNGARIAN PUBLIC HEALTH

Disadvantageous processes have emerged in the population's health conditions during the past 1o-15 years. Accordingly, the role played by the population's demographic state and level of health in Hungarian socio-economic development has changed dramatically. This limiting impact on economic development will increase in future decades.

Public health infrastructure today represents one of the critical issues concerning living conditions. Its development lagged behind both the level of economic progress and the requirements of society. This backwardness can be attributed to the limited resources available for development, the inner disproportions in the development of public health, and the incompletely built-up institutional system of social 'welfare' policy.

At this developmental stage of public health, the problems associated with regional differences become manifest in ways different from those of more dynamically developing high level public health infrastructures. The position of more backward areas is generally more critical, the differences were established long ago, the material conditions

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for their moderation are more limited, etc./

Unfavourable Trends in the Population's State of Health

Hungary is among the worst European countries in terms of its general health and mortality characteristics. The extent and the steadiness of deterioration of the mortality rate differ from the trends in countries with a similar level of development, as well as in the more advanced ones. /15/

Mortality trends are fundamentally influenced by cardiovascular and tumourous diseases. In Hungary, these two groups of illnesses caused 72.7 per cent of total mortality in 1983 /or, to put it more precisely, 53.3 per cent was represented by cardiovascular diseases, while 19.4 per cent by tumours/.x/

Mortality per ten thousand Hungarian male population due to cardiovascular diseases is the highest among the countries of Europe. In 1982, out of ten thousand Hungarian men twice as many /72.3/ died of cardiovascular diseases as in France.

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x/
Mortality investigations indicate, thate the aging of the population has been only one factor in the deteriorating mortality rate. Since 1965, the mortality indices-by age and sex-of age groups over 30 years have been increasing steadily. /3/

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Greece, Spain or Japan. Our position is even worse in comparison with other countries, if we regard only mortality data of age groups between 45 and 65 years.x/

Life expectancy at birth has increased or at least stagnated in most European countries in the seventies. Hungary, however, belongs to those few countries where life expectancy has decreased. Life expectancy of the male population is lower today than in 1960. The improvement of life expectancy at birth of the male population stopped in the mid-sixties. Since then it has stagnated or declined. Life expectancy at birth of our male population is one of the lowest in Europe.

Inadequacy of Developmental Resources; the Steadily Subordinated Role of Public Health in the Distribution of Resources

The functioning of the public health sphere is characterized by shortages.

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x/ Investigations of causes of death suggest that "Higher domestic mortality is not a consequence of the larger weight of a particular cause, but there is a proportionally higher mortality in every group of diseases in our country, than in the majority of the European countries /only the share of suicides differs remarkably from that in the countries in Europe/." /2/

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The basic cause of this shortage is that the extention of social insurance rights to the whole population during the sixties was not followed by the creation of the material /financial/ conditions necessary for the realization of these rights. /17/

The trend in development resources of Hungarian public health differs remarkably from those in the western European states. Public health expenditures in these countries expanded considerably between 1960 and 1975, gaining increased shares in their gross domestic product as well. However, an abrupt halt to these increased expenditures has occured since the mid-seventies. /19/ The share of expenditures for Hungarian public health as a percentage of the national income did not change remarkably between 1960 and 1980. /Expenditures on maintainance and operation of public health and social institutions represented 3.52 per cent of the national income in 1965. This figure was 3.2 per cent in 1970, then 3.52 per cent in 1975 and finally 3.87 per cent in 1980./ This means that the development of public health had been overshadowed in the sixties and the seventies, lagging behind both the economic development of the country and the requirements of public health.

Development of public health has priority among the infrastructural goals of national economic plans in the first half of the eighties. Nevertheless, economic difficulties

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in Hungary led to the narrowing of the developmental sources for the national economy as a whole. The restriction in domestic consumption also affects the development of the so-called public services. However, limitations influenced public health to a lesser extent than for other fields. This is shown by the fact that the share of public health from the national income has slightly increased after 1980. Despite this, developmental resources are hardly sufficient even to maintain the present level of public health care.

Inner Disproportions in the Development of Public Health

The developmental path of Hungarian public health in the post 1945 period can be described by successive disproportions. An initial stage which accentuated manpower and neglected the development of hospitals, was followed by a trend of "concentráting" on hospitals in the seventies.

The former developmental direction, "concentrating" on manpower between 1945 and 1970, means - to put it simply - that the public health government tried to satisfy the increasing needs of the population first of all through increase in the number of physicians and the development of out-patient care. This was a less capital intensive way of public health development than a policy, aimed at proportional development of care offered by hospitals and physicians.

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Developmental goals in the seventies meant not only that the development of hospital care - overshadowed for decades - obtained an proper position in the organization of public health, but in a certain interpretation it also meant the replacement of the "manpower-centered" developmental direction by a new disproportion of development, namely a "hospital-centered" trend. However, this latter event did not entail that sufficient resources for hospital development were at disposal. In essence, during the distribution of insufficient overall resources, the developmental needs of primary and social care were overshadowed.

In fact, primary health care does not manifest itself as a "basis" of the organization of public health. Prevention, rehabilitation, and "health education" continue to play a subordinated role to therapeutic activity. 12 The development of an institutional network and activities of social care /for handicapped and aged people/ also lagged behind.

Internal disproportions in development also appear in the fact that the transformation and re-adjustment of the activity structure of public health are rather slow as compared with changes in the structure of needs. New activities and organizational elements emerge with a delay and

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are spred slowly. This is especially the case in the field of mental health care.

Disproportions in the development of public health can be attributed first of all to the insufficiency of resources, the inadequate distribution mechanisms of resources, problems in the management of public health and the problems concerning the inner hierarchy and traditional value syster of doctors.

The Retardation of Hungarian Medical Technology

Diagnose, prevention, and treatment of different diseases lag remarkably behind the world-wide possibilities offered by the general level of technology. The scarcity of resour has been only a partial reason for this. An exaggerate quantitative view and methodological deficiencies of publi health planning also contributed to the backwardness. "Our hospital-building normatives are catastrophical from the point of view of instrument-requirements of the up-to-date public health and admission capacities. Until recently the hospital-building policy was characterized by one-side rush to increase the number of beds on every level." /5; p.49/

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The Financing Mechanism for Public Health in the Framework of Budgetary Accounts

In the present system of State budget and the financing activities of councils public health may constantly be overshadowed against the other sectors in the council budget. Moreover, some subsectors may lastingly be in a dispreferred position within public health as a whole. The present mechanism has greatly influenced the conservation of the regional differences.

There is no adequate relation either between the doctors' activities and their earnings, or between the hospitals' activities and their receipts.

"In Hungary there is practically no relation between the performance and the receipts of the hospital at all. Council /or Ministry/ financing the hospitals allots for the hospital considerable sums even if the hospital's performance is not adequate. /To put it more precisely, as there is no measure to qualify, which institution has a better /or worse/ performance, hence the inter-personal ties come necessarily to the fore." /8; p. 43/

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State Inclusion of "Bribes" /Gratitude-Money/ in Doctor's Earnings

"Official" earnings of doctors are extraordinarily low, if we regard the social utility of their work and the "capital" spent on their training, etc. In the course of the past decades, the so-called "gratitude-money" given by patients-tacitly tolerated by the State and regulated only by the "actual habits"- has become a main element in the income /earnings/ of a considerable strata of doctors. This condition provided to the State an opportunity to postpone doctor's salary-increases. However, "corrigation" of doctor's earnings by gratitude-money represents waste both on the part of the State and on the part of the patients. This situation also leads to tensions within the doctors' society. /1/ In addition, gratitude-money-through the interests of the doctors-hinders the transformation of the activity-structure of public health.

Differences Between Public Health Needs and the Traditional System of Doctor's Values

The prestige of district or workshop practitioners' activities and that of prevention and chronic care is low within the doctor's society. The present "popular diseases" would require psychosomatical or social therapeutic care. Nevertheless, the prevailing view and education both prefer the

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ideal of medical science and the natural scientific character of medical activities. /6, 11/

The Low Level of Social Integration of Public Health

The Hungarian government liquidated the Social Welfare Ministry /responsible both for social policy and public health care/ at the end of the forties. At the same time the Ministry of Health /with decreased authority/ was set up. The political ideas of the period in question stood in the background of the transformation. It was thought that the social political problems would be solved parallel to economic development under socialism.

Accordingly, the solution of numerous social problems /e.g. alcoholism, suicide etc./ has remained without an adequate system of institutions in the last decades, although they have their own public health aspects. Finally, the solution was left to public health; that is, the unsolved problems were fed back to public health in a "medicinized" form increasing the tensions in this sphere. In the lack of financial resources, public health was stimulated to decline /set aside/ the social political problems. /13/

The political view of social and social political problems were radically transformed in the seventies. However, the effect of this turn on actual social processes still manifests itself only in a rather limited manner.

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PART TWO

MAJOR PROCESSES OF REGIONAL INEQUALITIES IN PUBLIC HEALTH INFRASTRUCTURE

So far we have reviewed - in outlines - the main problems characterizing the development of Hungarian public health. The problems treated on the one hand, reflect considerable regional differences /e.g. remarkable regional differences in the health of the population, the technical state and equipment of hospitals, etc./ and, on the other, they provide wider frames - in part - for the trend of regional differences in public health intrastructuro. The major issues concerning these regional differences are discussed below.

Uneven Moderation of Regional Differences in Practitioner and Hospital Provisions

In the past few decades the number of practitioners has increased at a faster rate, than that of hospital beds. Between 196o and 1982 the number of doctors per ten thousand inhabitants increased by 72 per cent, while the number of hospital beds per ten thousand inhabitants grew by 28 per cent.

This trend, however, did not result in the best possible, or even necessary, moderation of the regional differences in the supply of physicians.

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Moreover, the trend of regional differentiation, as opposed to simple growth, has been in an adverse direction. Regional differences in the supply of physicians decrease to a lesser extent than the supply of hospital beds.

The relative position of most counties changed only to a small extent. The moderation of the immense inequalities : the provision of physicians between Budapest and the coun side slowed down after 197o, and regional differences in t supply of physicians in villages increased during the same period. Regional differences in the supply of physicians b between Budapest and the countryside and among the individ al counties - first of all in the fields of special care - were remarkable in the early eighties. Differences within individual public health branches were even more critical and pronounced. The above characterized processes are illu rated by Tables 1 and 2. /The former illustrates the trend in differences among the counties, while the latter shows the differences between Budapest and the countryside./

While investigating the differences in the supply of hospital bed, we notice a considerably greater moderation than in the supply of physicians. Out of the lowland counties,[x/]

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x/ Their number amounts to 7, including the largest county /Pest/. The counties in question are located /from the Danul in the eastern part of Hungary, while the western part is called Transdanubia.

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Table 1

Relative Values of Major Indicators of Regional Differences in Public Health Infrastructure

/the value for the county with the best position equals 100/

Counties	Number of Physicians per 10,000 Inhabitants			Number of Specialist per 10,000 Inhabitan		
	1960	1970	1982	1960	1970	1982
County in the best position	100	100	100	100	100	100
Average of the counties	56	58	61	40	52	56
County in the worst position	35	37	43	22	26	31
Standard deviation /per cent/	24.8	22.5	20.8	37.9	34.0	30.5

Number of Hospital Beds per 10,000 Inhabitants x/

	1961	1971	1982
County in the best position	100	100	100
Average of the counties	70	68	72
County in the worst position	34	50	61
Standard deviation /per cent/	35.1	23.7	17.1

x/ without beds in central sanatoria

Source: the author's own computations on the basis of data issued by the Ministry of Health and the Central Statistical Office

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Table 2

Trend in Inequality of Public Health Provision Between Budapest and the Country side

/Budapest = 1oo/

	196o	197o	1982
County average number of physicians per 1o,ooo inhabitants	3o.o	39.9	45.4
County average number of specialists per 1o,ooo inhabitants	2o.7	3o.3	34.9
County average number of hospital beds per 1o,ooo inhabitants	35.3[x/]	48.5[x/]	54.8

x/ Data of 1961 and 1971

Source: see Table 1

those not possessing a medical university are still in a disadvantageous position, so we cannot speak of a complete equalization of regional differences.

Nevertheless, a critical point of hospital infrastructure is represented first of all not by the differences in numbers of beds, but by the regional differences in the professional /public health branch/ distribution of beds, as well as in technical conditions and equipment of the hospitals. The latter differences, for instance, became wider between 1965 and 198o.

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Furthermore, considerable differences can be found in the spatial structure of hospital provision, i.e. the regional location of hospitals.

The regional location of hospitals - considering the main regions of the country - shows remarkable differences. Th differences - deriving mostly from inadequate transpor and communication facilities - greatly affect access to hospitals. A dense network of medium and small hospitals - besides the large ones - was established in Transdanubia, especially in its nothern part. For instance, there are 1! settlements with hospitals in three Transdanubian counties /of 9600 square kilometres/.

Quite another hospital structure can be found on the lowland areas of Hungary. Here, small hospitals are rarely found. Moreover, there are only five settlements that poss a hospital in two lowland counties /of 11,844 square kilometres/. In the lowland region the average area per one hospi is 80 per cent larger, than in Transdanubia, while the ave population per hospital is 60 per cent greater than in Tra danubia.

Adverse Development Paths in Regions with Unfavourable Facilities

In 1960, there were two regions in unfavourable position c sidering supply of physicians, hospital beds and per capit

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public health expenditures of the individual counties. They were: /a/ three south-western counties /Zala, Somogy and Tolna/; /b/ five counties in the middle and eastern region of the country /Bács-Kiskun, Békés, Pest, Szabolcs-Szatmár and Szolnok/.

The counties of the former region closed the gap by 1980, thereby ameliorating their unfavourable position. Nevertheless, the relative position of counties in unfavourable conditions in the eastern region improved only to a smaller extent. This has remained the region with the worst provision of the country. Stabilization of the detrimental position can be observed here. We have to emphasize, however, that the extent of lagging behind both the country average and the counties in the best position decreased between 1960 and 1980 /especially as to the number of hospital beds per ten thousand inhabitants/.

The "leveling" in question, however, is largely of a quantitative character. Namely, the structure of social needs for public health care has considerably altered in the past decades. The counties with lower provision were in a worse position to adjust the structure of their public health infrastructure to changing needs than counties with above average provision. Or put another way: "close-up-processes" of the past decades moderating the backwardness of the preceding period have not promoted - to a sufficient extent - a parallel "adjustment" to the newly emerging needs.

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In three of the counties with most unfavourable public health care /Bács-Kiskun, Pest and Szabolcs-Szatmár/ life expectancy was lower than the country's average in the early eighties. Male life expectancy at birth was the lowest here in Hungary in 1981. As far as female life expectancy is concerned the values for counties Szabolcs-Szatmár and Pest were the lowest.

Mortality is also affected by numerous /non public health/ socio-economic factors. Hence, we do not presuppose a direct cause-effect relations between the provision of public health institutions and mortality. However, we have to mention as a "neuralgic point" of public health care that in counties with the worst mortality and life expectancy the conditions for health care are also the most unfavourable.

Effects of Regional Development Policy

Regional inequalities in public health infrastructure have also been influenced by numerous processes outside of public health, among others by regional development policy and the distribution mechanisms of council's financing activities.

The past decade, i.e. the seventies brought new developments both in regional policy and public health. The exaggerated attention paid to hospitals in public health development has already been discussed. Settlement development in a

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seventies was characterized by strong concentration of both population and development capital in towns. "One of the causes of the intensifying population concentration has been the increasing concentration in towns of the so-called communal developments meant to improve the settlement environment and the living conditions. Towns utilized 88 per cent of the total communal developmental fund of the country in 1979, while this figure was only 78 per cent in 197o. /In 1979 the capital's share alone was 42 per cent./" /7; p.729/

The effects of these processes - i.e. emphasis on towns in settlement development and on hospitals in public health policy - were mutually reinforcing. Developmental resources of public health were concentrated in towns to a greater extent than those for the development of infrastructure as a whole. The other side of the process is that regional differences became even larger in numerous components of health care in villages.

Along with the "synchronic trends" of on the town-centere regional development and hospital-centered public health development was an "asynchronic" relation of regional processes concerning primary health care. Rapid population growth - mainly in the Transdanubian and northern towns - was not followed by the development of primary health car

For instance, population growth rate of over 1o per cent was accompanied by the deterioration in the district practitioner's care in 54 per cent of towns of Transdanubian and northern counties, as well as in the agglomeration around Budapest between 197o and 198o.

A further essential feature of regional development is the steadily worsening position of public health in the financing activities of councils.

A minor part of the developmental funds for public health is controlled by the Ministry of Health. These resources are distributed among the institutions /universities of medicine, national institutes, etc./ under the supervision of this ministry. During the Fifth Five-Year Plan period /1976-8o/, centralized public health investments had a share of 25.2 per cent of total public health investments, or, in another words, the central budgetary expenditures on public health represented 23.6 per cent of total public health and social expenditures in 198o. /The former figure was 2o.5 per cent for the period 1981-83 and the latter one was 23.6 per cent in 1983./

The larger proportion of funds for public health comes from the resources available for the financing activities of councils. In the past decades, one of the main features of the distribution mechanism of councils was the fact that

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some activities or some regions of the country were constantly overshadowed. /2o/

The continued low position of public health in the distribution is also illustrated - among others - by the fact that - according to our own calculations - its share of budgetary expenditures in every county council has decreased.

Public Health Policy and Regional Differences

Here we emphasize the most important and general features of public health policy in the past decades, i.e. those ones that we regard as being of basic importance from the point of view of regional differences.

Adjustment of public health policy to changes in social needs was characterized not by continuous, organic alteration /in planning, management, financial regulation, operation of institutions, etc./, but rather by lags, considerable delays, i.e. long years between "recognition" and "decision". Ultimately, decisions aiming at the acceleration of adjustment were "coaxed out" mainly by the speedy increase in the number of heart diseases and the alarming deterioration of the mortality rate.

One of the essential issues of this investigation has been the relation between adjustment to social needs and regio-

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nal differences. According to the analyses a hypothesis on the relation of "adjustment" and regional differences can be formulated in the following way: in the case of several components - which are of great importance from the point of view of adjustment - the process of adjustment is accompanied by stabilizing and deepening regional differences not only among the counties and between the towns and the villages, but also within the group of villages.

In the field of hospital care, certain treatments, for instance casualty surgery and intensive therapeutic care were established with great regional discrepancies. /9,18/ Similarly, manifold differences can be observed in psychiatric care, too.

Villages were not only "avoided" by the aspirations aiming at the modernization of the organization and functioning of public health care, but they had a smaller share in opportunities offered by the rapid development of medical technology. One case study reveals the extreme differences in the equipment of village consultation-rooms. A considerable part of districts lacks material conditions for meeting increased primary care need. /16/ Nevertheless, public health management tries to solve this problem first of all by organizational means, rather than through stronger increase of the resources for primary care.

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Components of public health policy are primarily represented by professional targets, such as development of prevention and treatment of cardiovascular diseases, as well as strengthening the role of chronic care, etc. Targets concerning the development of some elements of the institutional network /medical districts, hospital beds, places in homes for the aged, etc./ represent a similarly important public health policy conception. These latter targets serve as a basis for the distribution of resources within the individual five-year plan periods. There is no synchronism between these two spheres of public health policy. The established methods and mechanisms of planning are not able to serve efficiently enough the targets promoting the adjustment of public health policy to needs. Or, to put it in another way: at present adequate means for adjustment do not exist in planning, the operation of institutions /financial regulation/, the information system of public health, etc.

"Plans for the development of public health were restricted only to the money outlays of the development and the maintainance of public health institutions and equipment almost until now. Accordingly, ideas of planners began and ended in terms of means, establishments, money ... Methodological ordering principles to measure the needs for care

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on the basis of the state of health of the population were almost completely absent from the practice of planning..." /lo; p.213/

Naturally, central efforts aiming at reducing regional differences are - primarily - directed to the "planned" processes. Consequently, the formation of new regional differences in numerous essential /not planned/ components of public health care took place as a spontaneous process, reaching immense extents in several cases also at present. For instance, in psychiatric care there were 6.9 times more inhabitants per one specialist working in a dispensary in Somogy county in 1982 than in Baranya county. /At the same time, this value was 3.6 times greater than the country-side average./ Or, considering the number of casualty surgery beds per ten thousand inhabitants, there was a 4.5-fold difference between Fejér county /in the best position/ and Békés county /in the worst/ in 198o.

Peculiar Social Relations Within the Practitioner's Stratum

Social conditions of doctors represent one of the most important factors affecting the supply of physicians to individual settlements and counties. One of the essential components in this respect has been the place of individual institutions, fields of specialization, and the settlements in the system of doctor's values. A particularly unfavourable

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place in this system of values is to be engaged by a village or as a district practitioner. This situation has deep historical roots. Its economic basis was manifested in the bad living conditions for village doctors in the past /i.e.before 1945/. At present, this basis can be characterized by the lower level of the urbanization of the settlements in question and the essentially harder working conditions for the rural practitioners than for doctors working in towns.

One of the major problems embodied in the moderation of regional differences in public health is the fact that in the past decades there were no efficient central incentives operating against the spontaneous processes increasing inequalities in the supply of settlements with physicians. A survey on the social conditions of doctors made by a group of sociologists suggests that the physician's professional career and their choice of settlement is basically influenced by social stratum and settlement they originally come from. "According to our data we can conclude: the higher the proportion of those in a settlement-type attending the university of medicine, then working in public health, the more probable is the supply of physicians to the given settlement." /4; p.71/

Accordingly, processes outside the sphere of public health - among others the prospect of equality in the choice of future profession, the quicker urbanization of rural settlements, etc. - also play a basic role in the moderation of regional differences in the supply of physicians.

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SUMMARY

In Part One we outlined those tensions and contradictions whose solution is today in progress in Hungarian public health.

The study basically aimed at describing the main tendencies in regional differences of public health infrastructure and of the underlying factors.

The joint effect of the following major processes were primarily responsible for the regional differences in public health infrastructure: /a/ changes in the state of health of the population; /b/ demographic processes and their regional characteristics; /c/ goals in regional development policy and the exaggerated emphasis on towns in the real processes in the seventies; /d/ regional characteristics of the development of infrastructural branches /e.g. transport, communication, etc./ representing the conditions for the functioning of public health; /e/ targets of public health policy; /f/ intended or spontaneous regional effects of the main targets of this policy; /g/ volume and distribution mechanism of resources devoted to the development of public health; /h/ changing organization of public health influenced by the compromises between the State administration and public health; /i/ peculiar social relations within the stratum of physicians.

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Among the processes in the regional differences were emphasized: /a/ moderation of regional differences in the supply of physicians and the supply of hospital beds at different rates; /b/ cumulative and stabilizing disadvantageous provision in a group of counties and - partially - a parallel, unfavourable change in mortality; /c/ peculiar relation between the regional differences and adjustment to the social needs.

Our study also illustrates - among others - that numerous problems in the development of public health are summarized in the trend of regional differences. Therefore, only the establishment of central programs is not sufficient to moderate the differences in question /though such programs also would be desirable/.

Changes of vital importance could be realized through the increase of resources devoted to public health, the emphasized development of primary care and reform of planning, management and financing of public health.

Finally, we stress again, that our study - in a one-sided way - is concerned with the problems and conflicts of Hungarian public health and their regional differences. We are convinced that this approach is more adequate in the present "path-searching" stage of the development of Hungarian public health than the summarization of results.

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Moreover, scientific research can primarily contribute to the improvement of public health care also by adopting such an approach.

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APPENDIX

Counties with poor health facilities in 1960 and 1980 (Based on the number of physicians and hospital beds as well as health expenditures related to the number of population)

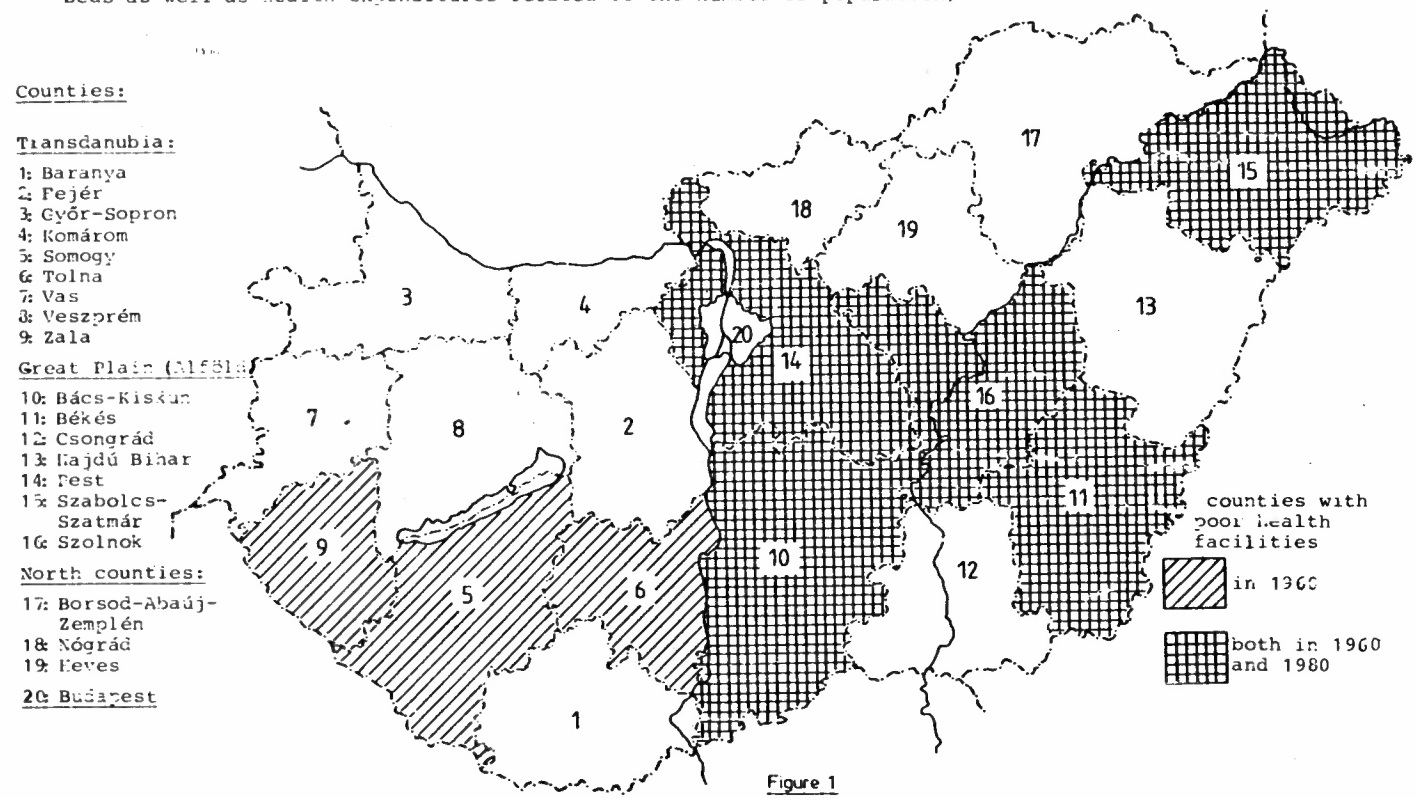

Figure 1

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Table 1

Mortality

Counties	Infant mortality rates/per looo live births/ 198o-1983	Age-standardized mortality rates / °/oo / 1983
1. Baranya	19.8	14.8
2. Fejér	18.8	14.6
3. Győr-Sopron	18.2	13.7
4. Komárom	18.o	15.7
5. Somogy	21.6	15.o
6. Tolna	21.6	14.3
7. Vas	17.3	13.4
8. Veszprém	2o.1	14.o
9. Zala	22.1	13.6
1o. Bács-Kiskun	19.5	14.6
11. Békés	2o.2	13.2
12. Csongrád	16.6	13.2
13. Hajdu-Bihar	17.6	13.6
14. Pest	25.9	14.6
15. Szabolcs-Szatmár	21.5	14.7
16. Szolnok	2o.1	14.2
17. Borsod-A.-Z.	18.6	14.2
18. Heves	23.6	13.9
19. Nógrád	21.9	13.5
2o. Budapest	22.9	12.9
National average	2o.8	13.9

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Table 2

Physicians - per 10,000 population

Counties	1960		1970		1980		1984	
	M^x=100		M=100		M=100		M=100	
Baranya	18.2	95	27.1	100	33.1	99	35.6	99
Fejér	9.9	52	14.5	54	18.6	56	19.8	55
Győr-Sopron	11.2	58	14.5	54	19.8	59	22.3	62
Komárom	12.4	65	15.9	59	19.7	59	23.2	65
Somogy	9.1	47	14.2	52	19.3	58	21.0	58
Tolna	8.9	46	16.6	61	20.9	63	22.3	62
Vas	11.7	61	16.5	61	20.2	61	22.6	63
Veszprém	11.0	57	14.9	55	20.0	60	22.3	62
Zala	8.7	45	14.5	54	21.8	65	23.7	66
Bács-Kiskun	8.9	46	13.3	49	18.5	56	20.6	57
Békés	8.5	44	12.8	47	16.2	49	18.4	51
Csongrád	19.2	100	25.5	94	33.3	100	35.9	100
Hajdu-Bihar	14.8	77	20.5	76	26.3	79	28.9	81
Pest	7.4	39	11.6	43	15.5	47	17.2	48
Szabolcs-Sz.	6.8	35	10.0	37	13.8	41	15.9	44
Szolnok	9.0	47	14.0	52	17.5	53	20.2	56
Borsod-A.-Z.	10.4	54	15.1	56	18.1	54	19.9	55
Heves	10.3	54	15.8	58	20.3	61	21.8	61
Nógrád	10.4	54	15.0	55	18.5	56	21.3	59
County average	10.7	56	15.6	58	20.2	61	22.3	62
Budapest	35.7	186	39.1	144	45.8	138	47.5	132
National average	15.3	80	20.2	75	25.1	75	27.2	76

[x] the value of the county with the best position equals 100

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Table 3

Specialists - per 1o,ooo population

Counties	196o M^x=1oo		197o M=1oo		198o M=1oo		1984 M=1oo	
1. Baranya	1o.5	9o	17.4	1oo	24.3	1oo	27.1	99
2. Fejér	5.6	48	8.7	5o	12.7	52	14.1	52
3. Győr-Sopron	8.1	69	8.8	51	13.9	57	16.6	61
4. Komárom	6.5	56	9.7	56	12.o	49	14.6	53
5. Somogy	4.6	39	8.3	48	13.1	54	15.7	58
6. Tolna	4.7	4o	9.2	53	13.7	56	16.4	6o
7. Vas	6.2	53	9.1	52	14.1	58	16.3	6o
8. Veszprém	6.5	56	1o.1	58	14.1	58	16.o	59
9. Zala	3.7	32	6.9	4o	14.4	59	17.6	64
1o. Bács-Kiskun	4.8	41	7.6	44	11.9	49	14.7	54
11. Békés	4.5	38	7.o	4o	1o.4	43	11.8	43
12. Csongrád	11.7	1oo	16.5	95	23.6	97	27.3	1oo
13. Hajdu-Bihar	8.5	73	12.8	74	17.o	7o	2o.1	74
14. Pest	4.4	38	6.4	37	1o.9	45	12.6	46
15. Szabolcs-Sz.	2.8	22	4.5	26	7.o	29	9.5	35
16. Szolnok	4.9	42	7.8	45	11.1	46	13.3	49
17. Borsod-A.-Z.	5.4	46	8.4	48	11.6	48	13.3	49
18. Heves	5.3	45	8.6	49	13.o	53	15.5	57
19. Nógrád	5.5	47	8.3	48	11.o	45	13.6	5o
County average	5.8	5o	9.1	52	13.4	55	15.8	58
2o. Budapest	28.o	239	3o.o	172	37.1	153	39.1	143
National average	9.8	84	13.1	75	18.o	74	2o.3	74

^{x}the value of the county with the best position equals 1oo

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Table 4

Regional differences of the supply of specialist[x]

Specialities	Standard deviation /%/		Relative value[xx] of the county with the worst position	
	197o	1981	197o	1981
Internal medicine	44.2	31.3	15	3o
Surgery	3o.6	33.2	28	29
Obstetrics and gynaecology	31.1	26.6	32	37
Neonatology and paediatrics	32.8	31.4	28	31
Psychiatry and neurology	5o.1	35.7	16	25
Radiology	46.7	43.2	22	25
Urology	68.8	43.2	9	23
All the specialities	34.o	3o.5	26	29

[x] Number of specialists per 1o,ooo population - data of the counties without the capital /Budapest/

[xx] the value of the county with the best position equals 1o

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Table 5

Hospital beds[x] - per 10,000 population

Counties	1961		1971		1980		1984	
	M[xx]=100		M=100		M=100		M=100	
1. Baranya	62.7	61	74.2	81	89.2	94	94.0	89
2. Fejér	44.8	44	54.4	59	59.5	63	68.8	65
3. Győr-Sopron	63.6	62	68.5	74	78.4	82	82.2	78
4. Komárom	62.2	60	70.1	76	77.5	81	83.8	79
5. Somogy	46.4	45	63.8	69	78.9	83	80.1	76
6. Tolna	45.5	44	74.8	81	78.9	83	81.2	77
7. Vas	102.9	100	90.8	99	94.3	99	97.4	92
8. Veszprém	52.4	51	55.7	61	73.5	77	79.3	75
9. Zala	35.1	34	62.7	68	76.4	80	79.3	75
10. Bács-K.	39.9	39	54.3	59	73.7	77	74.0	70
11. Békés	49.6	48	55.7	61	63.4	67	70.6	67
12. Csongrád	86.5	84	87.6	95	89.8	94	91.9	87
13. Hajdu-B.	55.5	54	62.9	68	64.7	68	70.5	67
14. Pest	20.8	20	26.8	29	42.1	44	46.4	44
15. Szabolcs-Sz.	35.3	34	55.9	61	69.0	72	70.4	67
16. Szolnok	40.2	39	57.6	63	69.8	73	80.5	76
17. Borsod-A.Z.	52.7	51	73.7	80	77.4	81	80.1	76
18. Heves	71.1	69	92.0	100	95.2	100	105.5	100
19. Nógrád	66.6	65	82.8	90	87.5	92	89.6	85
County average	50.7	49	62.8	68	75.7	80	76.9	73
20. Budapest	143.5	139	129.5	141	137.2	144	136.6	129
National average	67.8	66	75.8	82	87.5	92	88.6	84

[x] actual beds, without beds in national sanatoria

[xx] the value of the county with the best position equals 100

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Table 6

Relative scores[x] of health expenditures /per person/

Counties	Total expenditures		Hospital expenditures	
	1972	198o	1972	198o
1. Baranya	1oo	1oo	95	97
2. Fejér	65	63	54	57
3. Győr-Sopron	73	71	67	67
4. Komárom	83	78	72	68
5. Somogy	77	8o	68	76
6. Tolna	9o	81	9o	74
7. Vas	94	87	93	83
8. Veszprém	7o	73	62	64
9. Zala	74	71	67	65
1o. Bács-Kiskun	67	7o	54	62
11. Békés	66	67	59	55
12. Csongrád	98	96	1oo	1oo
13. Hajdu-Bihar	85	77	77	7o
14. Pest	74	8o	76	85
15. Szabolcs-Sz.	65	66	57	6o
16. Szolnok	67	66	52	57
17. Borsód-A.Z.	79	77	75	76
18. Heves	82	76	74	73
19. Nógrád	93	91	91	88
County average	75	77	68	73
2o. Budapest	1o9	95	98	89
National average	83	8o	74	76

[x] the score of the county with the best position is 1oo

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