

Health Status of the Romany Population

Social, Economic and Welfare Situation in in Borsod-Abaúj-Zemplén County, Hungary

by

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This study¹ of the health status of the county's Romany residents was triggered by a combination of several considerations. While differences in the demographic patterns of Romany and non-Romany society tend to be general knowledge, there is virtually no hard data available and consequently, there are no data-based conclusions. The Romany population is in a phase of demographic development that differs from that of the non-Romany majority. Under the theory of primary demographic transition, the Romany population displays the features of a transitional phase. The average age is young, the fertility rate is high, and the mortality rate is comparatively high.² *On average, the life expectancy of the Romany population is ten years lower than that of the non-Roma.*

The life expectancy, age breakdown, and per capita live birth figures (fertility) of the Romany population make up an interconnected system supporting the contention that they are in the phase of demographic transition. The section analyzing the interactions of economy and family includes a discussion of the fact that economic interests cannot explain the higher average number of children than found in majority society. However, the demographic approach offers a valid explanation. If (in accordance with one possible demographic scenario) the life expectancy of the Romany population were to increase, the fertility rate would be expected to decline (in other words, the age breakdown of the Romany subsystem would become closer to the age breakdown of overall society).

The lower average life expectancy of the Romany population (within that, the smaller proportion of older age groups compared to majority society) is a direct outcome of Romany health indices.

At the same time, no comprehensive or detailed research on the health status of the Romany population had been conducted in Hungary up until the time of this research, excepting sporadic studies³ by individual researchers often focused on specific local communities. To date there has not even been an investigation elaborating a methodology for exploring the health status of the Romany population or the tools required to do it. This county-level health research, therefore, qualifies as a breakthrough not only for content but also as regards methodology.

There is no way to interpret the health status and illness rates of the Romany population without exploring the impacts of social and economic status, and place of residence. The first part of this study therefore, focuses on significant socio-economic-environmental interactions, and only afterwards does it review the results of health research. The full research project included an

¹ The research was initiated by the Borsod-Abaúj-Zemplén County Regional Development Council and was conducted in spring 2002, as part of a project designed to set the framework for a program to mainstream the county's Roma residents. The research was conducted by Delphoi Consulting and headed by Ferenc Babusik. The responsible manager of the entire project was the consulting firm of Hitessy, Hollai és Bartucz.

² See: László Hablicsek: Demographic features of the Romany population and an experimental extrapolation to 2050, Central Statistical Office Institute of Demography, 1999.

³ The World Bank's bulletin carried a summary of the findings of the few small-sample partial studies. Lajos Puporka- Zsolt Zádori: Health status of Hungary's Roma. NGO Studies, No. 2. World Bank Hungarian Regional Mission. 1999.

opinion poll taken among a representative sample of the county's family practitioners (primary care physicians), not included here primarily because of its length.⁴

Considering our targets and the limited finances available, we chose to focus on an age cohort that still retained clear memories of the education system and, by virtue of age, could become the core of the Romany segment of the labor market within the next five to ten years. We therefore, chose young adults, aged 19 to 34.

To best cover all considerations, we decided on household surveys, asking our respondents to report on themselves and on the more important persons in their households.

The sample consisted of 1,500 households. Considering the average number of persons in a household, we determined that this covered nearly 6% of the county's Romany households. We used county estimates⁵ of the Romany populations in the various communities as the basis for choosing our sample.

We chose a two-stage disproportionate method to select the sample. The first step was to select the communities from which our sample was taken. Next, we devised the overall numbers, turning the sample into one that disproportionately represented the Romany population in the various sub-regions. In other words, we weighted them more heavily than their true rates in the sub-regions with lower populations and less heavily than true rates in the ones with larger populations. After our interviewers collected the data, we adjusted the disproportionate nature of the sample and various larger or smaller deviations with mathematical weighting. The data reported, therefore, is representative of the 19-34-year-old Romany population of Borsod-Abaúj-Zemplén County at the end of 2001 regarding age breakdown, gender ratio, and rate of Roma in the population of the various sub-regions.

We used interviewers to collect the empirical data but did not have name and address data for the Romany residents. Therefore, we chose the following method. With assistance from persons affiliated with the local Gypsy authorities of the sub-regions or of the specific locations included in the survey, our interviewers determined the areas⁶ of the various communities that were typically populated by Roma. The survey was then conducted by "snowballing" while taking extreme care to retain age and gender rates within the sample thus selected.

The statistically processed data has a +/- 5% margin of error.

⁴ The complete research report may be downloaded from Delphoi Consulting's website: <http://delphoi.hu>

⁵ We took a 2001 extrapolation (László Hablicsek: Experimental extrapolation to 2050 of demographic specifics of the Romany population, Central Statistical Office Institute of Demography, 1999) of estimates on the Gypsy population done in 1993 by Kertesi-Kézdi (Gábor Kertesi-Gábor Kézdi: The Gypsy population of Hungary {documentation and data archives}, Socio-typo, Budapest, 1998), and compared it with the data of minority authorities, as well as with that of the local governments and education departments of the various communities. (The data was collected as part of the project coordination done by the body commissioning the study and by representatives of the various sub-regions. Using the three sets of data, we chose the samples in the communities with mathematical methods.

⁶ In the villages, this was narrowed down to specific streets and addresses, while in cities like Miskolc or Ózd and other larger communities it meant neighborhoods or quarters.

Residential Conditions

Research on the Romany population has verified that the size and urbanization level of their place of residence, as well as whether or not they live in segregation fundamentally influences their education opportunities and major indices of economic activity. So, before analyzing the latter, it seems expedient to first take a look at residence-related data.

Slightly over one-third of the county's Roma live in cities. The remaining two-thirds are more or less evenly divided between medium-sized and small towns, and tiny villages.⁷

Over 70% of the group live in single-family homes, 10% live in traditional urban residences, and 13.1% live under conditions of deprivation that qualify as significant. The size and urbanization level of the community clearly exerts a major influence.

Among the Roma who are urban residents, 23.8% live in traditional urban buildings. At the same time, the urban residents make up the highest rate of Roma relegated to emergency housing (14.1% of the urban residents). In contrast, the Roma in small and medium-sized towns who live in emergency housing is negligibly small.

The largest number of Roma living in buildings not originally intended to be residences was in the villages (although the overall number is low, slightly less than 1%).

Emergency housing or 'huts' are more typical of urban conditions (where they tend to make up certain streets of a city) than of rural ones. The rate of Roma living under these conditions is twice as high in the cities as in the villages (6.9% compared to 3.3%).

In summing up, the urban resident Roma live under relatively worse conditions than the rural residents. At the same time, a higher proportion of small-village residents have traditional single-family village homes than do residents of larger villages.

A significant question in all Romany research involves their rate of segregation, or put the other way around, to what proportion do they live in integrated communities, that is, in assimilation.

Nearly 20% of the county's Romany population live in areas where only Roma reside and over 10% live in blocks that often can qualify as 'ghettos'. At the same time, less than 3% live in areas where there are no other Romany families (they are the most assimilated from the point of view of residence.)

It proved worthwhile establishing two main categories regarding segregation of place of residence. One category included groups that are segregated (one-third) and the other was made up those that were not segregated (two-thirds).

Before analyzing the combined categories it is worth mentioning that 'ghettoization' was slightly more typical of medium-sized communities than cities, and small communities. Compared to other communities, urban Roma live under the least segregated circumstances (26.2%). At the same time, residents of medium sized communities are somewhat more segregated than the average (which in absolute values was quite high), for nearly forty percent live under segregated conditions.

'Naturally', a much higher proportion of Roma who live in segregation also live under deprived conditions (emergency housing, or some building not originally intended to be a residence). Fully 21.6% of the people living under segregated conditions live in deprivation, while among the group not living in segregation, only 8.9% are deprived.

⁷ We grouped the rural residents into two sections almost identical in size to improve the reliability of the analysis, setting the boundary between tiny and small village at 1,800 residents.

Although this varies by the urbanization level of the community, a substantial rate of the Romany population of the county - over one-third - does live in segregation. At the same time, 12.9% live in deprivation (emergency housing, huts, or buildings not intended for residential purposes). Only 39% of the Romany population live under non-deprived conditions *and are not segregated*.

Therefore, we will treat place of residence as a main factor influencing other issues when analyzing educational level and economic activity.⁸

Education

Education is the most important indicator of the chances one has to compete on the labor market. The people with the best chances of finding work are college graduates, high school graduates, and people with trades linked to a secondary education. People with only vocational training generally have lower chances of finding work (particularly in the regions where the unemployed rate is higher than the national average. Borsod-Abauj-Zemplén County is one of these regions.) People with just eight grades of primary education or less have very dubious chances of finding work and this is particularly true for the Romany population.

Although we will focus on the interactions between economic activity and educational level later on, the education structure of the Roma population of the county is quite a significant issue on its own. We need to consider that the 19-34-year-olds are the ones whose children will be finishing (or starting) primary school over the next few years. We know that the lower the educational level of the Romany parent, the fewer the chances their children have for finishing primary school or entering high school. From this point of view, the educational level indices of the Romany population yield a shocking picture.

Educational level by age group and gender (%)

	19-24- year-olds	25-34- year-olds	Males	Females	Total
Less than 8 grades	21.8	25.6	21.3	27.5	24.1
Finished 8 th grade	57.5	55.2	55.7	56.2	56.1
Finished high school	1.2	0.9	0.3	1.7	1.0
Finished trade training school	17.5	17.3	21.5	13.1	17.4
Finished vocational school + high school	2.0	0.9	1.2	1.5	1.4
Finished college	0.0	0.0	0.0	0.0	0.0
	100	100	100	100	100
<i>Distribution</i>	38.8	61.2	50.0	50.0	

Nearly one quarter of the Romany population between the ages of 19 and 34 have not completed primary school (and will not finish it later on either, as we shall see.)

⁸ When analyzing the health indicators, despite the data it appeared expedient to treat the issues of segregation and housing conditions in combination, since the various indices of health/illness are influenced by the unhealthy conditions of segregation and emergency housing in the same way. (In the combined category, 39% of the population live under better conditions.)

Only 2.4% have the high school degree (or a trade which requires a high-school degree) offering more serious chances of labor market success, while none of the sample had a college education.

Educational level by type of community and segregation (%)

	Cities	Communities with more than 1,800 residents	Communities with fewer than 1,800 residents	Segregated	Not segregated
Less than 8 grades	17.4	28.8	30.0	32.7	20.8
Finished 8th grade	53.9	52.1	59.9	54.1	57.0
Finished high school	1.7	0.7	0.6	0.5	1.2
Finished trade training school	25.0	17.0	9.0	11.7	19.4
Finished vocational school + high school	2.0	1.5	0.4	1.0	1.6

The size and urbanization level of the community, and segregation are major factors in determining whether or not Romany residents finish primary school. There was a nearly ten percent difference between cities and villages in incomplete primary educations, in favor of the cities. At the same time, the type of community is not a decisive factor as far as *completion* of primary school is concerned. In addition to non-completion of primary school, there were also significant differences in whether people completed some form of secondary school, and if so, what form.

While one-fourth of the Roma living in urban settings had a trade training certificate, the figure for residents of tiny communities is only 9%. The rate of urban Roma who graduated high school (or have a trade requiring high school graduation) is 3.7%, while the figure for the tiny villages is 1% (so, while the difference is nearly fourfold, both figures are appallingly low).

Segregated residence decisively influences non-completion of primary school and completion of secondary school (to a greater extent than the level of urbanization). Over 30% of people living in segregation have not completed primary school (and vice-versa, hardly any of them completed secondary school).

In summing up, we can conclude that Roma living in urban areas under non-segregated conditions have the greatest chance of completing primary school and/or some type of secondary school. Segregation and residence in tiny villages are serious obstacles to education.

(In the next section we will list the various types of education in three major categories. Even though people finishing high school or a vocational school requiring a high school education are in the same category as far as their chances on the labor market are concerned, both groups are so low in rate that we decided to group them together with the group that only completed a trade training school.)

Economic Activity

Economic activity - by gender and age (%)

	Total	Male	Female	19-24-year-olds	25-34-year-olds
Employed	15.6	22.5	8.4	13.7	16.3
Entrepreneur, self-employed	0.5	0.9	0.0	0.0	0.7
Total active	16.1	23.4	8.4	13.7	17.0
Registered unemployed	36.0	53.1	18.7	39.2	33.7
Non-registered unemployed	8.7	12.8	4.6	8.9	8.6
Otherwise unemployed (childcare allowance, childcare fee, homemaker)	39.2	10.7	68.3	38.2	40.7
Total inactive	83.9	76.6	91.6	86.3	83.0

Most of the county's 19-34-year-old Romany population are economically inactive. The majority of the economically active are employed and very few are entrepreneurs or self-employed.

Most of the inactive are registered unemployed or have found work on the 'internal labor market' of the household, so the number of non-registered unemployed is comparatively low. There are quite a few people among the registered unemployed who registered immediately after finishing school, which makes it likely that the combined rate of Roma aged 19-34 who have finished primary or secondary school is 79.9%.

However, the global rates of economic activity tell us more if we look at gender and age differences.

Males are nearly three times as active as females. The inactive rate among females is 91.6%! Most of the inactive males are unemployed while most of the inactive females work in the household.

Belonging to an age cohort exerts less of an influence, for the older age group is only 3.3% more active than the younger one.

The type and size of the community in which they live and whether or not they live under segregated conditions have less of an influence on certain rates of economic activity than expected.

The total rate of economically active persons in the urban areas is only 5-6.5% higher than in the small communities (among the inactive, the difference is reversed). Living under segregated conditions influences activity to a similar extent.

We will continue by using conveniently combined categories of economic activity. We have combined all the unemployed into a single category, but kept a separate category for people 'working on the internal household labor market' (various forms of childcare allowance, childcare fee, homemaking). This was deemed necessary by significant gender differences and the ensuing activity strategies. (We will discuss this later.)

	Total	Male	Female
Economically active	16.0	23.4	8.4
Unemployed	44.8	65.9	23.4
Childcare allowance, childcare fee, other	39.2	10.7	68.3

Economic activity and educational level

Main categories of economic activity by educational level (%)

	Economically active	Unemployed	Childcare allowance, childcare fee, otherwise inactive
Less than 8 grades	11.2	24.3	29.8
Finished 8th grade	51.8	57.0	56.7
Finished some type of secondary school	37.0	18.7	13.5

The rates of people among the economically active, the unemployed, and people in the household who have completed primary school are about the same (51.8%-56.7%)

There are significant differences in the active/inactive rates of people who did not finish 8th grade and who have some type of secondary education. It appears obvious that the people who have not completed primary school have the lowest rate of economically active persons (and those with secondary educations have the highest). These differences in rates are not really significant regarding the unemployed and the people working in their households. For that reason, it is worth looking to see the activity /inactivity rates of each education-level group.

Main categories of educational level by economic activity category (%)

	Economically active	Unemployed	Childcare allowance, childcare fee, otherwise inactive
Less than 8 grades	7.4	44.7	47.9
Finished 8 th grade	14.8	45.5	39.7
Finished some type of secondary school	30.2	42.7	27.1

The really significant difference between groups that did not finish primary school, those that did, and those that finished secondary school is in the rates of economically active people among them (the rate of persons who are not active are inactive, unemployed, or work in their households). The activity rate of persons who did not complete primary school is low (while we know that they make up three-quarters of the 19-34-year-old Romany population), but even among the people who completed primary school, the economically active rate is only 15% (and they make up over half of the population).

The group that completed secondary school has a significantly higher rate of activity (but their overall rate within this population is low.)

Since there is a clear gender difference between the two main groups of inactive persons the relationship between activity and educational level also has to be approached from this point of view.

Gender Differences

Activity of persons with different education levels by gender (%)

	Males	Economically active	Unemployed	Childcare allowance, childcare fee, otherwise inactive
Less than 8 grades		13.4	76.3	10.4
Finished 8 th grade		22.2	66.7	11.1
Finished some type of secondary school		35.7	54.6	9.7
Females				
Less than 8 grades		2.7	20.0	77.3
Finished 8 th grade		7.4	24.3	68.3
Finished some type of secondary school		21.7	25.9	52.5

The differences in the economic activity between the two genders when studied by educational level are not only spectacular but also throw light on differences in work opportunities for the males and females within the Romany population.

- The higher the educational level of males, the larger their rate of economic activity (the rate of economic activity among males with secondary education is 35.7%), and the lower the rate of unemployment. (At the same time, we have to realize that more than half of the males are unemployed - 54.6% - even with a secondary education!)
- The presence of males on the “internal market” of the household is unrelated to their education levels, for it is a low 10% in all groups.
- Similarly to the males, the higher the educational level of females, the larger their rate among the economically active, but that rate of extremely low compared to the males (the rate of economically active females with secondary education - 20% - is about the same as that of males with a primary education.) The rate of activity among females with only a primary education is extremely low at 7.4%.
- As we have already learned, the vast majority of inactive females work in the household. Within this, rates depend on education level. The lower the educational level the more likely it is that the alternative to economic activity will not be unemployment but ‘employment’ in the household.

As we learned from research⁹ in the region around the city of Ózd four years ago, the ‘retreat’ of females from the labor market into the household was closely related to whether they had children, and if so, how many. Therefore, the next issue we will consider when analyzing economic activity is the family.

⁹ Babusik, Ferenc: The Gypsy population around the city of Ózd. In: A romák esélyei Magyarországon [In Hungarian] (Chances for Roma in Hungary) Kávé Publishers-Delphoi Consulting. Budapest, 2002.

Economic Activity and the Family

Among the 19-34-year-old Romany population of the county, 83.3% are married (cohabiting). Within this, of course, the figure is higher among the older - 25-34-year-old - segment (86.5%), and the rate of married females is about 10% higher than that of married males - 83.4% compared to 74.6%.

Economic activity among singles and married males and females (%)

	Single		Married, cohabiting	
	Male	Female	Male	Female
Economically active	16.8	20.0	25.4	6.5
Unemployed	68.9	51.3	64.8	18.3
Childcare allowance, childcare fee, otherwise inactive	14.2	28.6	9.8	75.2

Family status and gender together play a major role in determining economic activity.

- Among unmarried males, 16.8% are economically active. The rate for married males is higher - 25.4%.
- The rate of unmarried females who are economically active is also comparatively high (or at least it is above the average for the Romany population) at 20%. However, *as they marry, the rate of activity declines radically* (6.5%).
- There is also a major difference in the internal rates of female inactivity as a function of family status. Nearly one-third of single females are in the internal market of the household, while the rate among married females is 75.2%.

There are children in 83.4% of Romany households. This figure suggests that we need to go beyond family status in looking at the difference in activity rates.

Economic activity as a function of children (%)

Activity and children	Without children		With children	
	Male	Female	Male	Female
Economically active	22.5	21.2	25.1	7.0
Unemployed	67.6	64.9	64.4	17.5
Childcare allowance, childcare fee, otherwise inactive	9.9	14.0	10.5	75.5

The interactions of the presence of children and economic activity are similar to those of family status and economic activity. Males with children (similarly to married males) show a somewhat higher rate of economic activity. The rate of working females with children is low, and the existence of children makes it probable that the females will be working in the household (and will not be unemployed).

Knowing the internal economy of households (and the probable amount of supports per child) we expect the number of children to influence activity rates. Therefore, we have added the number of children to the analysis of family interactions.

There were (as yet) no children in 17.2% of families. We found one or two children in 38.2%, while there were three or more children in 44.4%. This suggests that most of the 19-34-year-old Romany population will face a medium to major burden in raising children.

Since children were almost exclusively in households where there were married (cohabiting) couples raising them together, it appears expedient to analyze the relationship between economic activity and the number of children by gender.

Economic activity by gender and number of children by category (%)

	Males			Females		
	No children	1-2 children	3 or more children	No children	1-2 children	3 or more children
Economically active	22.5	28.0	22.6	21.2	10.5	3.9
Unemployed	67.6	63.0	66.9	64.9	28.6	8.2
Childcare allowance, childcare fee, otherwise inactive	9.9	9.0	10.5	14.0	60.9	87.9

The labor market strategies of males and females are exactly the opposite of one another as the number of children in the family changes.

- As long as a couple has no children, an equally low rate of males and females work (20%). This is the group in which the rate of unemployed females is highest, and the rate of working in the household is lowest.
- In households where there are few children (*on average* one or two), the change is dramatic. This is where the rate of economically active males is highest (28%). In contrast, the rate of economically active females drops radically, and there is an equally sharp increase in the rate of females who “retreat” to the internal labor market of the household.
- If the number of children in the household increases, the rate of economically active males drops (and that of unemployed males increases) while that of males in the household remains unchanged. These are the families where female household “work” is highest and where female unemployment and economic activity are lowest.

Therefore, when children are born we first see an increase in the rate of economically active males, as females clearly retreat from the labor market and retire to the household.

As the number of children increases, this trend becomes stronger among females while a rising proportion of males leave the public labor market.

Since the financial needs of a family are directly related to the number of dependants, we would expect to see the largest rate of economically active males in families where the need to support them is greatest, though this is not the case.

The high rate of females in the household in families with the largest number of children is less contradictory. On the one hand there is the direct demand for work in raising children (which qualifies the females who remain at home as working within the household), while on the other, the females are the ones who receive financial support (childcare allowance, childcare fee) for the children.

If we approach economic activity, unemployment, and working within the household from the aspect of the internal economy of the household and its needs for resources (which appears to be quite justified), the contradiction is resolved. The foregoing is confirmed if we check the activity categories of the males and females that make up the couples.

Activity of couples by gender (%)

Activity of the husband	Activity of the <i>wife</i>		
	Economically active	Unemployed	Childcare allowance, childcare fee, otherwise inactive
Economically active	8.3	30.5	61.2
Unemployed	3.6	21.5	74.9
Childcare allowance, childcare fee, other inactive	4.0	13.0	82.9

Activity of the <i>wife</i>	Activity of the husband		
	Economically active	Unemployed	Childcare allowance, childcare fee, otherwise inactive
Economically active	35.6	42.1	22.4
Unemployed	22.4	71.0	6.6
Childcare allowance, childcare fee, otherwise inactive	23.5	62.8	13.7

The activity of the male member of the couple has little influence on the activity of the female members: most of the females are in the household.

In contrast, the activity of the females does influence that of the male member of the couple. The highest rate of economically active males (35.6%, which far exceeds the activity rate for the males among the Romany population) occurs when female member of the couple is economically active.

Interactions of the data we have seen so far support the contention that in addition to education level, family and family size, that is, number of children, is one of the chief factors determining economic activity.

The number of children in a family clearly determines the amount of support receivable per child (the cohort investigated is rather young so it can be assumed that children are still at an age when they are eligible for some form of support). So, it is logical to ask about the extent to which the amount of welfare assistance proportionate to the number of children influences the labor market status of the males and females in the family. In other words, we decided to *check out the widespread assumption* that the Roma leave the labor market *because* the amount of money received in supports not only substitutes for the lost income from work but under some circumstances it actually exceeds it, making it financially worth choosing the internal labor market of the household.

We checked this assumption by analyzing the types of household income.

Household Finances and Their Characteristics

Household income patterns as function of educational level (mean values in HUF/mth)

Male	Less than 8 grades	Finished 8th grade	Finished some type of secondary school
Household income from work/capita	17,739	19,627	27,089
Welfare support for all children/capita	4,481	4,254	3,807
Total support/capita	9,471	10,055	10,347
Total INCOME/capita	27,701	30,159	37,519
Female			
Household income from work/capita	13,067	16,103	23,681
Welfare support for all children/capita	6,043	5,098	4,218
Total support/capita	10,156	8,965	9,324
Total INCOME/capita	23,158	25,451	33,589

Total support: welfare supports for children + labor market supports + other supports.

Total INCOME: total of income from work + total support

Since the amount of income actually available to households is determined by how many inactive (non-income-generating) members use the income, it is most expedient to work with the per capita income of the members of a household.¹⁰

Educational level clearly influences the amount of income generated by work. (This is proven by data on supports that are independent of education level.)

The amount of income generated by work increases in rate with education level, and although we see an average discrepancy of HUF 3,000-5,000 between males and females, the average difference between the group that has not completed 8th grade and the one with a secondary education is only HUF 10,000. Although we know that chances of finding work are strongly determined by education level, we have also seen that the number of children is at least as strong an influence on the economic activity of this population group.

It is therefore worth looking at income in a breakdown by economic activity.

Household income patterns as a function of economic activity (mean values in HUF/mth)

Gender of interviewee			
Male	Economically active	Unemployed	Childcare allowance, childcare fee, otherwise inactive
Family income from work/capita	27,313	19,038	17,474
Supports for all children/capita	3,786	4,285	4,800
Total supports/capita	6,441	11,456	9,764
Total INCOME/capita	33,955	31,020	28,241

¹⁰ This value is obviously in inverse proportion to the rise in the number of inactive children.

(Table ctd.)

Gender of interviewee			
Female	Economically active	Unemployed	Childcare allowance, childcare fee, otherwise inactive
Family income from work/capita	26,576	21,517	13,538
Supports for all children/capita	1,974	1,910	6,810
Total supports/capita	5,431	8,579	10,113
Total INCOME/capita	32,403	30,883	23,741

For both genders, economic activity increases the per capita income from work *for the entire household* (here, we must keep in mind that the various households differ from one another regarding the inactive members).

The economic activity of males hardly influences the amount of support received for children (while the overall level of support is increased if the male is unemployed, since in this case there is a chance of receiving labor market support).

The economic activity of females is a significant factor because of the supports for children: if a female works in the household the amount of total supports increases.

At the same time, if we look at the amount of *total income* (and in the final analysis *this is definitive for families*) we see that it only increases if some person who supports the family is economically active. We receive a more refined analytic tool if instead of approaching the issue in a simple breakdown by gender we also look to see *how the activity of husbands and wives compared to one another influences the amount of the various incomes*.

Average income from work (HUF/mth) based on activity of couples compared to one another

	Wife is economically active	Wife is unemployed	Wife receiving childcare allowance, childcare fee, or is otherwise inactive
Husband is economically active	29,015	21,447	16,933
Husband is unemployed	14,986	11,604	11,657
Husband receiving childcare allowance, childcare fee, or is otherwise inactive	16,869	13,638	11,706

It is self-evident that economic activity increases the total income from work in a household. Within this, male activity is the dominant factor. From this point of view, remaining on the internal market of the household does not have a strong influence (the amount of income from work is about the same whether the husband or the wife is other inactive).

The amount of income from work males and females can generate is not identical. Males can offer the family a larger income from work, while the amount of incomes wives can generate is about 20-25% lower. The reasons are a depressed labor market as well as the covert (or overt) discrimination of employers.

Average supports (HUF/mth) on behalf of children based on activity of couples compared to one another

	Husband is economically active	Husband is unemployed	Husband receiving childcare allowance, childcare fee, or is otherwise inactive
Wife is economically active	1,672	2,056	3,711
Wife is unemployed	2,077	2,086	4,223
Wife receiving childcare allowance, childcare fee, or is otherwise inactive	6,446	6,821	6,825

The amount of per capita support in households based on the number of children is clearly determined by the inactivity of females. Support reaches its highest mean value if wives are on the internal labor market of the household. At the same time, the activity category of the husband has no major influence on the amount of support.

The following table shows the mean value in HUF of *total per capita household income* among the 19-34-year-old Romany population in a combined function of the economic activity of both members of the couple.

Total family income: mean HUF/capita/mth

	Wife is economically active	Wife is unemployed	Wife receiving childcare allowance, childcare fee, or is otherwise inactive
Male is economically active	35,456	26,111	25,242
Male is unemployed	19,352	19,854	22,064
Male receiving childcare allowance, childcare fee, or is otherwise inactive	23,624	22,553	21,724

The total per capita household income is an index that includes all income from work and all supports taken together. It becomes clear from the data that *supports for children do not replace income from work*. Total income is highest when at least one member of the couple is economically active. (Of course, the total income is maximized when both members of the couple are active. At the same time, we must remember that as the number of children increases, females objectively leave the public labor market.)

- If the husband is unemployed, the wife's activity does not significantly influence the amount of the per capita total income. The same is true if the husband works in the household.
- If the wife is unemployed, the per capita total income is lowest if the husband is also unemployed. If the wife works in the household, the total income attainable is influenced slightly by whether the husband is active or not (the total difference is only HUF 3,500).

In summing up the above, we can clearly conclude that *Roma families have a stronger interest in increasing the amount of income generated by work than in attaining the various supports (including supports for children), although they clearly cannot do without these latter*.

The widespread prejudice that Romany families are interested in increasing the number of children they have *because* they receive additional income for them, is shown to be completely false in the light of the data. *Income from work would assure them of a significantly higher income, even if receiving the supports*. This is particularly true if we remember that the increase

in the number of children first drives the females off the labor market, and then it drives off the males. With that, their overall income declines even if the volume of supports for their children increases.

The Health Status of the Romany Population of the County

We asked our interviewees in the Romany households visited about their own known, diagnosed, disorders as well as the illnesses of their parents and spouses, questioning the sample about the illnesses comparable to Central Statistical Office¹¹ data (hereinafter: admitted illnesses).

The research focused exclusively on *the major categories of internal medical diseases*. We did not include accidents or on-the-job accidents. The main reason for this was the effort to maintain comparability with the Central Statistical Office data mentioned. As far as on-the-job accidents were concerned, overall population data presumes that all persons who suffer such accidents are economically active, so the fundamental economic inactivity of the Romany population under investigation meant that there was no rationale for collecting such data. Another factor was that the leading causes of mortality for this population group are listed among the major medical diseases.

Diseases inferred from symptoms

When preparing to conduct the research, we wrote up a list of symptoms. When combinations of symptoms appear together (qualifying as syndromes) they suggest the presence of illnesses among the population that are comparable to the Central Statistical Office data or the illnesses included in the questionnaire. (A team of family practitioners checked and validated the syndromes established on the basis of symptoms.)

In other words, when analyzing the data, we compared the data collected by the physicians when taking histories¹², (establishing syndromes from the symptoms) with the disorder groups defined by the ICD codes set alongside the Central Statistical Office data. We put together a list of general and disorder-specific questions. Using these questions it was possible to suspect the existence of certain more or less well-definable illnesses and groups of disorders. The high level of coincidence between the complaints and symptoms confirmed the suspicions. The questions were targeted and adjusted to the disorder groups corresponding to the Central Statistical Office data. The ICD groups describe both more, and less specific illnesses, and therefore sometimes contain more, and sometimes less symptoms. We fit the questions on the questionnaire to the given illness groups that they typified.

Based on medical thinking and the method of symptom-oriented diagnosis, we used a matrix to set up the numbers of symptoms. It reflected the differing rates of all symptoms, according to how many symptoms had to be present to consider suspicion of a given disorder sufficient for an examination to have a high chance of confirming it.

Using the symptoms received in the responses, we calculated both the disorders and the frequency with which they appeared to occur.

¹¹ Morbidity records, Central Statistical Office 1999 for Borsod-Abaúj-Zemplén County, 19-34-year-old age cohort.

¹² The first step in an extensive examination is for the physician to collect a history in which a suspicion of the illness arises. This is followed by further examinations that verify the illness.

Admitted illnesses

In addition, the questionnaire contained direct questions about whether the interviewee (or a family member) had any of the illnesses listed by the Central Statistical Office by ICD category. Patients can and do learn this from their family physicians or other doctors who treat them. Therefore, *we have no doubts about these responses.*

We compared the rate of illnesses¹³ calculated using Central Statistical Office data within the age group, and the rates and other specifics of the illnesses calculated using the admitted illnesses and symptoms reported by the 19-34-year-old Romany population.

We now had three different levels of frequency with which the illnesses occurred. One was collected by the Central Statistical Office using the ICD codes and served as a control. One came from admitted illnesses, known to patients because they had been told about them by the physicians who treat them. We determined the third on the basis of responses to our questions on symptoms. We calculated the frequency with which the disorders occurred compared to the control group.

We might ask whether illness frequency calculated from symptoms can be treated as objective data. The answer is no. However, the disorders that doctors told their patients about can be taken as certain. Therefore, we compared Central Statistical Office data with admitted illnesses.

We used the disorders calculated *on the basis of symptoms* to control the validity of the rate of illnesses admitted by the interviewee. We were curious to see if there wasn't a higher rate of illnesses being admitted by interviewees than could be assumed to exist in reality.

The interviewees could not be aware of the connection between symptoms and disorders, so if the rate and breakdown of disorders reported on the basis of symptoms and that of admitted illnesses was the same, it would be unlikely that they were reporting more disorders than existed in reality.

Using the rates we set for syndromes, the frequency of disorders based on symptoms reported by interviewees was slightly lower than admitted illness for most of the disorders in question, but the correlation between the two was nevertheless high ($r=0.82$), so we feel safe in saying that the interviewees did not admit more illnesses than the true rate. The data for disorders among the total 19-34-year-old population of Borsod-Abaúj-Zemplén County showed a high correlation ($r=0.84$) with the admitted illnesses of the Roma in the given age cohort, so we also feel safe in saying that the breakdown of the frequency of admitted illnesses was realistic.

The lower rate of illnesses calculated on the basis of symptoms and the high correlation between admitted illnesses and Central Statistical Office data ($r=0.57$) confirms data from family practitioners indicating that the Roma *are timely in seeking medical attention for illnesses.* (With respect to the Roma in the study, 98.4% had social insurance cards, meaning that they had the opportunity to seek medical attention when needed.)

In the questionnaire, we attempted to collect data from the Romany population on their cigarette smoking and alcohol consumption habits, which would have given us a sense of the relationship between these drugs and the disorders. When analyzing the data it became clear that on these two questions, which form a link between health and personal habits, respondents distorted their replies to the extent that the alcohol and cigarette consumption habits could not be

¹³ *The only group of illnesses for which there are no Central Statistical Office data in a breakdown by county and age group are mental disorders that are not organic in origin. However, we considered it important to record them among the major illnesses as defined by internal medicine, based on both symptoms and admitted illnesses.*

evaluated.¹⁴ In contrast, we were able to evaluate data on mental and behavioral disorders caused by psychoactive agents ('drugs') based on both admitted illness and syndromes.

Rates of illness and interactions with various social factors

Analysis of the data showed us that 41.6% of the 19-34-year-old Romany population has *some* kind of medical disorder and 17.1% of this segment of the population has more than one. In other words, even from the aspect of illness, 40.9% of the Romany population has multiple disadvantages.

Rates of various illnesses (%) and the overrepresentation (multiplier) of Roma among the different patient groups

	Total CSO %	Admitted by Roma %	Multiplier
Ischemic heart disease	0.45	6.77	15.0
Osteoporosis	0.10	1.14	11.5
Tuberculosis, apicitis	0.14	1.48	10.9
Diseases of the blood-forming organs, iron deficiency anemia	0.80	8.32	10.3
Blindness, impaired vision	0.33	3.35	10.3
Gastric, duodenal, gastrojejunal ulcers	0.90	6.64	7.4
Transient ischemic attacks	0.09	0.54	6.2
Spondylopathies	0.96	4.96	5.2
Asthma	0.76	3.62	4.8
Mental and behavioral disorders caused by psychoactive agents (drugs)	0.27	1.27	4.7
Tumors	0.23	1.01	4.3
Spinal deformities	1.23	5.10	4.1
Disorders of thyroid gland	0.47	1.88	4.0
Chronic diseases of the lower respiratory tract	0.95	3.76	4.0
Hypertension	3.40	12.21	3.6
Liver diseases	0.36	1.01	2.8
Diabetes mellitus	0.61	1.21	2.0
Cerebrovascular diseases	0.10	0.20	1.9
Mental and behavioral disorders (non-organic)	7.78		

To facilitate interpretation, the prevalence of various disorders has been listed in accordance with the 'multiplier' and not in the official order as published by the Central Statistical Office (CSO).

We, therefore, believe it verified that for many types of disorder the 19-34-year-old Romany population shows a high rate compared to the overall population. The combination of illnesses and the high rates with which they occur can explain the shorter average life span of this population group from the medical point of view.

Now we will cover essential information on the etiology of the illnesses by type of disorder. We will be using the rate of admitted illnesses when commenting on disorders among the Romany population.

¹⁴ As we shall see, the same is true for hepatic disorders which are closely related to alcohol. Day-to-day thinking is quick to see an association between liver problems and alcohol.

Following a brief etiological review of the illness groups, we will give a detailed analysis of the various disorders and the interactions of the main indices of these disorders that are relevant¹⁵ to the Roma.

I. *Tuberculosis* is a clearly definable disorder with a well defined etiology and potentiation factor. The underlying cause of the illness is a bacterial infection that triggers the disease under certain conditions.

A weakened immune system increases susceptibility to the disorder. Factors involved include malnutrition, alcoholism, and chronic (primarily pulmonary) disorders.

The rate of the Romany population with tuberculosis is 1.48%, which is slightly more than ten times the average for the county - in other words, excessively high.

The data investigated, including deviations from the *mean*, showed that the most dominant roles in contracting this disorder are played by gender, economic activity, and housing conditions. The rate of women who work in the household suffering from it is higher than that of the economically active, and the rate of people living under better housing conditions is lower than average.

Looking at gender and housing conditions together, females who live in poor housing conditions are the most susceptible (about four times higher than average). People living in segregation *under poor* housing conditions are similarly susceptible (nearly three times the average).

The combined potentiation of economic activity status and housing conditions shows that people working in the household are at greatest risk. Therefore, females are highly represented (the rate of males living under good conditions is 1.1% while the rate of females living under poor housing conditions is 5.5%).

II. *Tumors*. This is an extremely diverse category of disease, which only can be grouped together by limiting ourselves to certain strict considerations. As far as etiology is concerned, tumors can be genetically triggered, related to environmental hazards, mixed or unknown in origin. However, as far as environmental influences are concerned, the frequency of tumors is increased by poor living conditions, nutritional shortcomings, and tobacco and alcohol consumption.

The data shows that tumors occur among the Romany population nearly four times more often than the average for the county.

After evaluating gender, living conditions and economic activity together, we found that the effects of gender can be demonstrated. Females have a nearly 1.5-times higher risk than males, irrespectively of housing conditions or economic activity.

$R^2 = 0.07$, β (male) = 0.015, β (female) = 0.085. In a linear regression, only the effects of gender were found to be significant. The combined demonstrable effect of gender is 7%, and the values of the standardized coefficient verify the higher risk for females.

Therefore, on the whole, we can say that *reducing tumors cannot be connected to any specific strategic point. The multi-causality of this disorder 'neutralizes' the effects of the social factor.* (One part of the reason we are unable to say more is that we were unable to collect relevant data on cigarette smoking and unhealthy environments, which are risk factors for these disorders.)

¹⁵ We will not analyze the effects of age as an evident factor and will not analyze education level since it has proved to be a factor with an intermediary effect (defining economic activity along with gender).

Nevertheless, the fact that Roma become ill with tumors four times more often than the average for the county population is a serious argument in favor of concentrating screenings.

III. *Diseases of the blood-forming organs* and within this the particularly high rate of *iron deficiency anemia* is a typical disorder of developing countries according to international indices. On the whole, males have larger 'stores' of inherited iron, which continues to be sufficient to provide the body with iron even under poor nutritional conditions.

As far as the entire population is concerned, one reason for iron deficiency anemia can be insufficient intake of nutrients that contain iron. This disorder is typical of females of childbearing age, and particularly apparent during pregnancy when hematopoiesis is increased. The female menstrual cycle results in a regular loss of blood, and pregnancy requires higher level metabolic activity, so female dominance was not surprising.

On the whole, disease of the blood-forming organs and iron deficiency anemia occur ten times more frequently among the Romany population than the average for the county, with the very high rate of females underlying this.

The two causes are manifest with highly robust indices. The rate of economically active males is 1.5%, of unemployed females is 10%, and of females working in the internal market of the household is 17%. Similar differences can be seen in the combined effects of housing conditions and gender. Among males living under good housing conditions the rate of anemia is 1.5%, while among females living under poor conditions it is an extremely high 18.5%.

The measures that need to be taken are clear. Young and pregnant females require direct iron replacement or regular screening for iron deficiency, as well as an improvement in the level of economic activity and housing conditions.

IV. *Disorders of thyroid gland.* There are various types of thyroid disorders as regards both etiology, and pathogenesis, and clinical manifestations. Disorder of thyroid gland may take the form of hypothyroidism, hyperthyroidism, but it may occur even when the thyroid gland functions normally. Therefore, it is impossible to pinpoint any single or small number of factors triggering the disorder. It is known that high calcium and fluoride in water increases the occurrence of certain types of this disorder. Exclusive consumption of certain vegetables and increased intake of medications and drugs are also known to generate goiters. Use of iodized salt is widespread in Hungary since the need for iodine replacement is well known, but despite this, the rate of disorders in the given population is high, since there can be other causes in addition to nutrition. Sporadic (not endemic) diffuse goiter is extremely common among young females according to health studies, since at this age the body has a higher demand for thyroid secretions.

The investigation data concurred with this, finding that the highest risk factor for disorders of thyroid gland is the female gender.

$R^2 = 0.09$, β (male) = 0.023, β (female) = 0.113. Employing linear regression, only the data on effects of gender were found to be significant. The combined demonstrable effect of gender is 9%, and the values of the standardized coefficient verify the significantly higher risk for females.

On the whole, disorders of thyroid gland are three to four times higher among the Romany population than the countywide average.

In addition to gender, the direct effects of poor housing conditions can also be demonstrated. There is a tenfold difference between occurrences of this disorder between males living under good housing conditions and females living under poor ones.

V. *Diabetes mellitus*. In Hungary this qualifies as a disease of public health importance. It is a complication of numerous diseases and a cause of many comorbidities. It typically occurs in cultures and environments where living standards are somewhat higher, nutrition is more sufficient, but where modern health considerations and nutrition are not known, not accepted, or simply not affordable. The effect of the latter can be demonstrated among the Romany population.

The influence of economic activity. $R^2 = 0.08$, β (active) = 0.0004, β (unemployed) = -0.01, β (other inactive) = -0.093. The combined demonstrable effect of activity is 8%. Standardized coefficient values demonstrate that unemployed persons are at lower risk, and persons working in the internal labor market of the household are at *significantly* lower risk (this latter case is also independent of gender).

So, it *would appear* that diabetes occurs among the less poor within the Romany population. The mean rate of the 19-34-year-old population with this disorder is 1.21%, but the rate among economically active persons who do not live in segregation is 4.1%, and that for economically active persons living under better housing conditions is 3.5%.

Here the effects of income are significant. (The income data given here refer to per capita household income from work/month.) $R^2 = 0.06$, β (below HUF 19,000) = 0.051, β (HUF 19,000-HUF 25,000) = -0.012, β (+25,000) = -0.019. The combined demonstrable affect of income is 6%, and the values of the standardized coefficient demonstrate that the effect is stronger on low incomes.

In other words, among the Romany population investigated, diabetes affects people living under better conditions *who are also* comparatively poorer. Comparatively low quality nutrition (high levels of carbohydrates and fats, in other words, cheaper foods) combined with a relatively higher standard of living is the main factor in triggering this disorder.

Since diabetes 'only' is twice as frequent among the Romany population as it is for the county's average, the paradox in the frequency of this disorder is understandable. Comparatively few Roma have access to the extra nutrition although their nutritional pattern is less healthy than the average. The effects of relative poverty are clear.

VI. The existence of mental disorders associated with use of psychoactive agents (drugs) assumes certain socioeconomic conditions. The rate of responses to the questionnaire reflected these. Drug-use was more frequent among males living under better circumstances, and perhaps-surprisingly, among the more highly qualified ones. We do not necessarily have to assume that there are separate cause and effect interactions behind this. Instead, the only members of the Romany population who can afford to use drugs are the ones whose financial circumstances allow it (*at the same time*, their perspective on life needs to be sufficiently hopeless to trigger the need for drugs).

The prevalence rate in the population under investigation was 1.27%, nearly four-and-a-half-times the countywide average. The figure was significantly higher for males who were economically active or who had finished secondary school and who did not live in segregation, or whose living conditions were among the better (the average figures for females were significantly lower in all cases).

Considering this, appropriate information and health education programs are necessary, but it is also important to consider that drug use in itself is related to the subjective and real appraisal of a hopeless situation in life. Unless that life situation improves, no decline in drug use can be expected (as certified by international experience).

VII. *Non-organic mental disorders* are more typical of groups that do not have appropriate strategies to cope with problems. Significant factors in the evolvement of these disorders (above and beyond deficits in coping strategies coming from shortcomings early socialization) are stress, hopeless living conditions, and related weaknesses in group cohesion. Each of the factors listed is significantly more typical of the Roma investigated than the society that surrounds them so the only solution to reduce the frequency of these disorders lies in improving economic and social conditions. (*Although we cannot make any comparisons, since there is no data available, the very high rate of these disorders {7.78%} among the Roma is quite obvious.*)

Our data shows that the group at highest risk for non-organic mental disorders are females, and within this females living under poor housing conditions or in segregation (14.4%), and unemployed females (11.5%, in contrast with unemployed males where the figure is 5%). However, males who have retreated to the household may be subjected to far more factors than average that triggering such disorders, for the rate within this group is a high 9%.

Another significant risk factor is low income (there is a threefold difference between the lowest and highest-income thirds of this population). The data (which coincides with psychiatric literature) verifies that deprivation, that is, the combination of poverty and the hopelessness of advancing beyond poverty, are a major factor in the high rate of these disorders.

VIII. *Transient ischemic attacks* (strokes) occur very frequently among people with hypertension, diabetes, or high cholesterol levels, and constricted or clogged blood vessels are the pathogenic basis, say health statistics.

Environmental factors are not typically behind TIAs since the disorders listed above are primary in their etiology. No single environmental factor seems to be closely correlated with TIAs. However, the illnesses that trigger them can have significant links to environmental and social factors. This is an indirect explanation for the greater frequency with which TIAs occur.

On the whole, TIAs occur among the Romany population about six times more often than is average for the county. (Since the effects of certain significant factors cannot be demonstrated, screenings for the disorders that trigger strokes can, on the long term, reduce the frequency with which they occur.)

IX. *Impaired vision and blindness* occur much more often within the Romany community (*about twelve times more frequently than the average for the county*) and the causes are well known. Premature birth, low birth weight, and risk factors occurring during the perinatal period are also factors of ab ovo blindness or impaired vision, which is a result of underdevelopment. However, there is also a relationship between blindness and education, since more highly educated people pay closer attention to deteriorating vision and to illnesses in general.

Here, prenatal care, and closer attention to delivery and the perinatal period can help in early recognition of impaired vision or blindness, as can optometry screening, particularly for children.

X. *Hypertension.* We distinguish between two basic forms of hypertension. One is secondary and its origins are known; for it is generally secondary to some form of renal disorder. The other 90% of cases are primary and idiopathic. Idiopathic hypertension is triggered by constricted blood vessels, most often the result of atherosclerosis, and is endemic to advanced nations. International standards see a significant causal relationship between hypertension and ischemic heart disease, cerebrovascular disorders, TIAs, and renal insufficiency.

The etiology of hypertension suggests multiple causes. It may be generated by genetic factors such as high cholesterol levels caused by an insufficiency of hepatic enzymes, but it may also be related to shortcomings in lifestyle such as cigarette smoking, stress, obesity, or lack of exercise.

Risk factors increase with age, and it occurs with increasing frequency among the Romany population as it ages. Considering its multiple etiology *and relationship to low-quality environmental factors, the higher occurrence among this population is not surprising. Hypertension is 3.35-times more frequent among the Roma than the average for the county.*

Economic activity (more specifically, the closely correlated total per capita family income) is the factor that most significantly influences the frequency of occurrence.

Economically active and higher income males have an occurrence rate well below the 12.2% average, while the rate with which it occurs among unemployed or low-income females is much higher than average. When activity, gender, and income are analyzed in combination, we see that of itself gender is definitely not a risk factor - the decisive issue here is the difference between the two genders in economic activity: inactive females are twice as likely to be hypertensive as economically active males.

XI. *Ischemic heart disease* is a term used for conditions caused when the oxygen supply to the heart is insufficient. There can be numerous causes, but most often the culprit is plaque in the coronary vessels. Ischemic heart diseases are a leading cause of death in advanced countries, so reducing incidence is a major concern. Incidence rises in parallel with age and the disease is more common in males. It is closely associated with hypertension, diabetes mellitus, high cholesterol levels, cigarette smoking, alcohol consumption, a sedentary lifestyle, and personality traits.

Among the Roma, ischemic heart disease is the most common of all diseases, occurring fifteen times more often than the countywide average. As expected, incidence of the disease increased with age among the Roma in the sample. This disease is not or is only slightly related to income, neighborhood, and housing conditions, so other factors need to be sought to explain the huge incidence rate of the disease. Another factor to consider is that it is more common among females in this community as opposed to the 'male dominance' found in other populations.

The key here is that the risk factors and environmental hazards are higher among females. In the age cohort studied, Roma females tended to be working in the home, to have a low level of physical exercise, and we assume, are more often fighting obesity. The high rate with which this disease occurs among males who work in the household (nearly double the average rate of 6.7% for the community as a whole) despite their low ab ovo presence in the household, suggests that living conditions within the household enhance the risk.

We have also seen that diabetes and hypertension are more common among the females, and both of these are risk factors. We have already discussed causality under the appropriate headings. Although we, sadly, do not have reliable data, we believe that cigarette smoking is also more common among this group. Oral contraceptives also increase the frequency of heart disease though we did not investigate this. But, the combination of these factors may be behind the fact that the frequency of ischemic heart disease is much higher among the Roma than Central Statistical Office statistics would suggest, and also differs in breakdown.

To help prevent ischemic heart disease among the Roma, we recommend screening for and treating diabetes and hypertension, and education programs pointing out the risks of cigarette smoking and advocating a healthy lifestyle.

XII. *Cerebrovascular disorders* evolve over the long term and are adjunct to vascular disorders. They are not typical among younger people. Occurrence was not significant in either

Central Statistical Office data or in the Romany sample, so it was not possible to determine significance.

XIII. *Chronic diseases of the lower respiratory tract.* This is essentially a clinical diagnosis which involves a persistent productive cough occurring in at least three successive months over a two-year period. Cigarette smoking is clearly behind this category, which simplifies the issue.

Although we did not receive comprehensive and valid values from the sample on cigarette smoking habits, the association between this disorder and smoking is quite strong, and one gives a good approximation of the other. In other words, the frequency of this disease in various groups points to its smoking habits. So, we can hypothesize with a high level of probability that cigarette smoking occurs most often among poorer people living under worse financial conditions, and is particularly high among females working in the household.

On the whole, the rate with which chronic diseases of the lower respiratory tract occur among the Romany population is nearly four times higher than the countywide average.

XIV. *Bronchial asthma (or simply asthma)* is a highly heterogeneous group of diseases, based essentially on recurring spasms of the smooth muscles of the bronchiole.

The rate of people in the sample reporting asthma was 3.62%, nearly three times the countywide average. Our data found associations between asthma and economic activity, neighborhood, and housing quality. While only 0.6% of males have this disorder, the rate for unemployed males was 3.6%. Among inactive females the rate was double (3.5%) that of active females. We found similar differences when looking at neighborhood quality and segregation.

Central Statistical Office statistics indicate that the frequency of asthma declines with age, that a significant portion of adults 'outgrow' the disorder, but we found no such trend in our own data. This might be because asthmatic patients whose disorder is triggered by cigarette smoking do not give up the habit and thus remain asthmatic as they age. The association between cigarette smoking and chronic respiratory disorders has been verified by health statistics. Among the Roma living under worse circumstances it is assumed that there is a higher rate of cigarette smoking, since there definitely is a higher rate of chronic respiratory disease. The rate of asthmatic patients is also higher among the people living under worse conditions, but there is no gender difference here. The evolution of asthma is not more typical of either gender, so when it is retained there is no gender difference either.

XV. *Gastric and duodenal disorders* can be quite varied. Ulcers and pre-ulcerous erosions occur most often. When analyzing causes, we find that in most of them a bacterial infection, *Helicobacter pylori*, triggers the manifestation of the disorder when certain environmental factors are present. These factors include cigarette smoking, alcohol consumption, gastric reflux, and high-level consumption of certain anti-inflammatory agents.

The frequency of these factors, data suggest, is linked basically to poverty and deprivation (it occurs in higher rates among females who are inactive and live in segregation). *Overall, the rate with which gastric and duodenal disorders occur among the Romany population is six-and-one-half-times higher than the countywide average.* No data was found other than already mentioned to support this high rate. It is believed to be linked to cigarette smoking and alcohol consumption, which our study was unable to reliably confirm. Family practitioners confirm the infection rate, which is believed to be much higher than average.

Prevention is possible by improving general welfare conditions, and the frequency of the disorder can be reduced by using endoscopy to verify complaints and offer treatment.

XVI. *Liver diseases* in Hungary are most often triggered by alcohol, although there are of course other pathogens as well. Alcoholic liver diseases depend on the amount of alcohol consumed, period of exposure, and individual factors.

Liver diseases were typically higher in the more qualified stratum of our sample, and occurred less frequently among the economically active, but differences from one group to the next were not really significant. The data suggest that respondents distorted their answers because the close correlation with alcohol consumption is widely known. Thus, we cannot consider data on liver diseases to be fully valid.

XVII. *Spinal deformities* are typically pathologies that occur among young people, and under appropriate circumstances the rate declines among adults.

This declining rate appears in Central Statistical Office reports, but among the Roma the rate does not decline with age. We can evaluate this in light of the other factors discussed. It occurs less often among Roma with low qualifications who are economically active (we assume that they are involved with blue-collar work, which significantly improves spinal disorders that may have evolved because of faulty development). Compared to the overall average (5.1%) the 10.5% rate - double - among inactive males working in the household seems to verify our assumption.

In addition to treating spinal disorders with direct therapy, it is clear that the physical movement related to economic activity reduces the incidence rate.

XVIII. *Spondylopathy* includes the disorders triggered by inappropriate and increased physical effort. These disorders are less common among people who regularly perform blue-collar work, and tend to occur among persons in poor physical condition, with less developed muscles.

This hypothesis coincides with the information collected in the questionnaire. The disease can be discussed together with the previous one and the solution is also the same.

On the whole, these two disorders occur four times more often among the Romany population than is average for the county.

XIX. *Osteoporosis* is basically a disease of old age. Therefore, it was relatively rare among the sample, but was still over tenfold the average for the county. Since osteoporosis is essentially triggered by hormonal factors and as far as we know is not influenced by lifestyle, we cannot explain the high occurrence rate. Further investigation is necessary.

The rates with which disorders occurred were linked exclusively to the age, gender, economic activity and housing conditions of the Roma. In other words, with the exception of age and gender, *the poverty of the Roma is the factor underlying the higher incidence rate of the various diseases. We have demonstrated that the primary cause of the higher rate of illness is deprivation in the absolute sense of the term. In other words 'community therapy' to reduce the prevalence of illness is primarily an economic and welfare task. However, the health status of this population group is so poor that immediate intervention by the healthcare system is imperative.*