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IS POVERTY YET A PROBLEM IN ROMANIA?

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Abstract. Aim. To analyze the level and trends of poverty indicators in relation with health indicators in Romania during 1996 – 2003, and place of Romania among other EU countries. **Method**. Instead of using one-dimensional poverty indicators, we preferred to analyse composite indexes of wealth, combining the different dimensions of poverty. Composite indexes used by United Nations Development Programme (UNDP) to measure poverty, Human Development Index (HDI) and Human Poverty Index (HPI – 2, for developed countries) were analysed at European Union level (EU-27) for 2004. A trend analysis for the same indicators was done for Romania, covering the period 1996–2003, as well as correlations between HPI-2 and some relevant health indicators. Few comparisons between Urban/Rural areas for Romania are also included. **Results**. All EU-27 member states are included in "High human development" country cluster, having a value of HDI above 0.8 in 2004. The trend analysis of HDI for Romania reveals a constant increasing tendency after 1999. A slight decrease can be also noticed for HPI-2 values in Romania after 1999. Remarkable differences between rural/urban areas are still present after 17 years of transition in Romania, being even more prominent for severe poverty rate. Infant mortality rate revealed a constant decreasing trend after 1996, following a similar pattern for HPI-2. An unexpected reverse correlation was obtained for the correlation analysis of Tuberculosis (TB) incidence (both in general population and in children under 15 years of age) with HPI-2. **Conclusion**. If before 2004 Romania was classified as medium human development countries, after 2004 Romania belongs to the cluster of high human development countries (with a HDI value of over 0.800). Nevertheless, Romania ranks last according to HDI between EU-27 member states. Yet existing poverty in Romania is one of the major factors contributing to the unsatisfactory population health status. Sustained efforts are requested to develop and implement effective poverty reduction policies in Romania.

Key words: poverty, Human Development Index, Human Poverty Index, health status, Romania

Rezumat. Scop. Analiza nivelului şi tendinţelor indicatorilor de sărăcie în relaţie cu indicatorii de sănătate în România în perioada 1996-2003 şi plasarea României printre ţările Uniunii Europene. **Material şi metodă.** Am preferat sa utilizăm indexi compuşi ai bunăstării, combinând diferitele dimensiuni ale sărăciei. Indexii compuşi utilizaţi pentru măsurarea sărăciei de Programul de Dezvoltare a Naţiunilor Unite (PDNU), Indexul de Dezvoltare Umana (IDU) şi Indexul Sărăciei Umane (ISU-2, pentru tarile dezvoltate) au fost analizaţi la nivel European (EU-27) pentru anul 2004. Analiza tendinţei pentru aceiaşi indicatori ca şi corelaţii intre ISU-2 si câţiva indicatori relevanţi ai sănătăţii au fost efectuate pentru România în perioada 1996-2003. Au fost incluse câteva comparaţii între mediile de rezidenţă Rural/Urban. **Rezultate**. Toate statele membre EU-27 au fost incluse în clusterul de ţară "Dezvoltare umana înaltă", având o valoare a IDU peste 0,8 in 2004. Analiza tendinţei IDU pentru România a stabilit o creştere constantă după 1999 şi o uşoară descreştere ce poate fi de

asemenea observată pentru valorile ISU-2 în România după 1999. De remarcat diferenţele notabile între mediile de rezidenţă rural/urban, prezente încă după 17 ani de tranziţie în România, fiind chiar mai proeminente pentru rata de sărăcie severă. Rata mortalităţii infantile a relevat o constanta tendinţă de descreştere după 1996, urmând modelul similar pentru ISU-2. O corelaţie inversă neaşteptată a fost constatată în cazul analizei de corelaţie pentru incidenta tuberculozei (TB) cu IDU-2 (atât in populaţia generală cât şi la copiii sub 15 ani). **Concluzii**. Dacă înainte de 2004 România a fost clasificată ca ţară cu dezvoltare umană medie, după 2004 România aparţine clusterului de ţară de dezvoltare umana înaltă (cu valoarea IDU peste 0,8). Fără îndoială, România se situează pe ultimul loc în cadrul ţărilor membre EU-27 în ceea ce priveşte IDU. Sărăcia care încă există în România este unul din factorii majori care contribuie la starea precară de sănătate a populaţiei. Sunt necesare eforturi susţinute pentru a dezvolta şi implementa politici eficiente de reducere a sărăciei în România.

Cuvinte cheie: sărăcie, Index de Dezvoltare Umana, Indexul Sărăciei Umane, stare de sănătate România

INTRODUCTION

Health is considered a social good in Romania, and that is why a wide accessibility to health care should be secured for its population.

Nevertheless, poverty may affect the accessibility to health care of deprived groups of population, through shortage or even lack of financial resources, poor nutrition, low level of housing conditions, lack of access to improved drinking-water and sanitation. In Romania, deprived groups of population include: families living in severe poverty, large families with more than 3 children, Romma population, rural population in remote areas, long-term unemployed, and homeless.

There are three main factors jeopardising the access to health care in Romania (1):

1. high economic direct costs involved that cannot be sustained by poor financial resources of some population groups. Cost of drugs represents the main source of poor health care.
2. a certain level of confusion and misinterpretation of Health Insurance Law. Deprived population don't know their rights stated by this law.
3. the lack of resources in the health system generates severe inequalities in the coverage with health services, affecting mainly the areas where poverty is prevailing.

Since 2000, Romania has been showing consistent rates of economic growth. However, there are still persisting worrying signs in its overall human development profile, particularly in the area of poverty rates. The current human development profile of Romania, confirms three chain reactions in the economic growth - human development cycle, having an important impact on population health status. Firstly, the dynamic and improved economic performance of the past four years has not yet stimulated faster and equitable human development progress. Secondly, the slow progress in human development has not been sufficient to enlarge economic activity, and consequently, less income. And thirdly, economic

growth has not been uniform across and within regions (2).

Two of the main concerns reflected in the Millennium Development Goals (MDG) Report were growing disparities and inequality in Romanian society, and persistent poverty. When data were available, the analysis shows that Romania disclose similar patterns of inequality with the regional averages and to other neighboring countries (3).

Enclaves of low human development or of poverty are situated, in most cases, in the remote areas of districts, away from major road networks. The poorest villages and those with lower levels of human development are usually the ones isolated away from modernized roads and big urban centers, having as well an outlying status inside the communes they belong to. (2)

Not only Romania is facing the problems of poverty and social exclusion. It seems that they are also prominent issues on the wider European agenda. At the Lisbon summit in March 2000, building on a long-standing commitment to economic and social cohesion in the European Union (EU), the European Council declared that the number of people living below the poverty line and in social exclusion in the Union was unacceptably high. Moreover, in 2000 EU has had only 15 member states. Nowadays, when EU has 27 member states, poverty is widening East-West gap.

There are large debates between experts on poverty meanings and forms. Obviously, a household lacking of resources to fulfil everyday needs like food, shelter, or heating is poor. But what about a household which can't afford holiday trips, or can't buy a washing machine?

The methods of measuring poverty depend greatly on its definition. Over time, the literature offered a wide range of poverty definitions that evolved from simply lacking the means to live decently toward a pronounced deprivation in well being.

Deprivation bears many dimensions, from material deprivation (measured by an appropriate concept of income or consumption) to low achievements in education and health as well as to a broader social dimension (including vulnerability and exposure to risk - and voicelessness and powerlessness) (4).

Traditionally, two types of indicators are used for measuring poverty:

- monetary indicators (income, expenditure and consumption)
- non-monetary indicators:
  - health and nutrition (life expectancy, nutritional status of children and mothers, incidence of specific diseases)
  - water and sanitation (population with sustainable access to an improved water source, population with sustainable access to improved sanitation)
  - education (level of illiteracy)
  - unemployment (long-term unemployment)

MATERIAL AND METHODS

Out of many measures of poverty, we analysed composite indexes of wealth, combining the different dimensions of

poverty. UNDP uses since 1993 a set of standardized composite indexes to measure poverty, allowing inter-countries/regions comparisons. Out of these, most commonly analysed are (5):

- Human Development Index (HDI) – including life expectancy at birth, adult literacy rate, education gross enrolment ratio, GDP per capita (PPP US$)
- Human Poverty Index (HPI – 1, for developing countries) – including probability at birth of not surviving to age 40, adult illiteracy rate, percentage of population without sustainable access to an improved water source, percentage of children under weight for age
- Human Poverty Index (HPI – 2, for developed countries) – including probability at birth of not surviving to age 60, percentage of adults lacking functional literacy skills, percentage of people living below the poverty line, long-term unemployment rate
- Gender related development index (GDI) – as HDI, adjusted for gender differences

The above-mentioned composite indexes were compared at European Union level (EU-27) based on data made available by the most recent Human Development Report published by UNDP in 2006 (5). A trend analysis for the same indicators was done for Romania, based on data presented by the 2003-2005 National Human Development Report published by UNDP-Romania in 2005, covering the period 1996-2003. (2) Where data were available, few comparisons between Urban/Rural areas for Romania are also included.

Because poverty was evidenced to have a high impact on the access to health care, and consequently on the health status of population, a number of correlations between HPI-2 and some relevant health indicators was also included. Health data were extracted from the Ministry of Public Health current reports, and EpiInfo2002, v3.01 software (Center for Disease Control and Prevention, Atlanta, USA, 2003) was used to calculate correlation coefficients together with F-test for testing statistical significance.

RESULTS

The HDI represents a picture of average national performance in human development. HDI values were compared for EU-27 member states, split in 3 categories: EU-15 member states, EU-10, and Bulgaria and Romania, last 2 EU member states (table 1). In the table, countries are ranked by their HDI value. All EU-27 member states are included in “High human development” country cluster, having a value of HDI above 0.8 in 2004. It is worthy to mention that the countries within EU-15 have the highest HDI values, except Portugal, having a lower value than Slovenia. Also, EU-10 countries disclose the middle level values, while Bulgaria and Romania have the lowest HDI values within EU.

Table 1. Human development index in EU-27, 2004

Rank	High human development	Human development index (HDI) value 2004	Life expectancy at birth (years) 2004	Adult literacy rate (% ages 15 and older) 2004	GDP per capita (PPP US$) 2004	Life expectancy idex	Education index	GDP index
1	Ireland	0.956	77.9	..	38.827	0.88	0.99	1.00
2	Sweden	0.951	80.3	..	29.541	0.92	0.98	0.95
3	Netherlands	0.947	78.5	..	31.789	0.89	0.99	0.96
4	Finland	0.947	78.7	..	29.951	0.89	0.99	0.95
5	Luxembourg	0.945	78.6	..	69.961	0.89	0.94	1.00
6	Belgium	0.945	79.1	..	31.096	0.90	0.98	0.96
7	Austria	0.944	79.2	..	32.276	0.90	0.96	0.96
8	Denmark	0.943	77.3	..	31.914	0.87	0.99	0.96
9	France	0.942	79.6	..	29.300	0.91	0.97	0.95
10	Italy	0.940	80.2	98.4	28.180	0.92	0.96	0.94
11	United Kingdom	0.940	78.5	..	30.821	0.89	0.97	0.96
12	Spain	0.938	79.7	98.0	25.047	0.91	0.98	0.92
13	Germany	0.932	78.9	..	28.303	0.90	0.96	0.94
14	Greece	0.921	78.3	96.0	22.205	0.89	0.97	0.90
15	Portugal	0.904	77.5	92.0	19.629	0.87	0.96	0.88
16	Slovenia	0.910	76.6	..	20.939	0.86	0.98	0.89
17	Cyprus	0.903	78.7	96.8	22.805	0.90	0.91	0.91
18	Czech republic	0.885	75.7	..	19.408	0.85	0.93	0.88
19	Malta	0.875	78.6	87.9	18.879	0.89	0.86	0.87
20	Hungary	0.869	73.0	..	16.814	0.80	0.95	0.86
21	Poland	0.862	74.6	..	12.974	0.83	0.95	0.81
22	Estonia	0.858	71.6	99.8	14.555	0.78	0.97	0.83
23	Lithuania	0.857	72.5	99.6	13.107	0.79	0.97	0.81
24	Slovakia	0.856	74.3	100.0	14.623	0.82	0.92	0.83
25	Latvia	0.845	71.8	99.7	11.653	0.78	0.96	0.79
26	Bulgaria	0.816	72.4	98.2	8.078	0.79	0.92	0.73
27	Romania	0.805	71.5	97.3	8.480	0.78	0.90	0.74

* According to Human Development Report 2006 (4)

The indicators currently used to build the index bear very small differences among the top HDI countries. For this reason, an alternative composite index - the human poverty index (further analysed) - can better reflect the extent of human deprivation that still exists among the populations of EU countries and help guiding the public policies to be developed in the region.

The trend analysis for Romania of HDI reveals a constant increasing trend since 1999, after a slightly decreasing trend during 1996-1999 (fig. 1). The increasing trend of HDI seems to be strongly related to the clear economic growth of Romania after 1999. It is only from 2004 when HDI had a value higher than 0.8, the threshold used by UNDP to delimit the cluster of High human development countries.

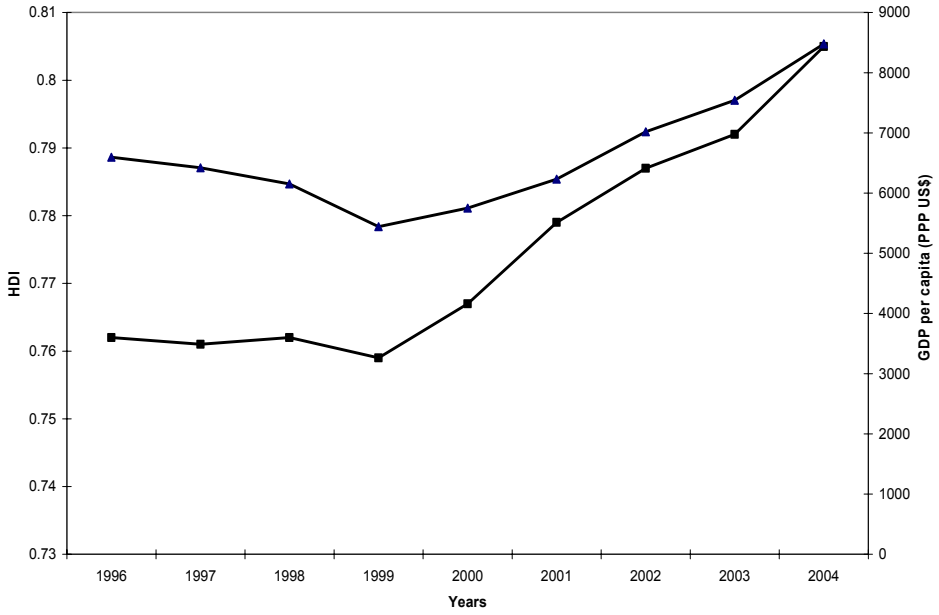

Fig. 1. HDI values and GDP per capita, ROMANIA, 1996-2004. Symbols and lines denote the 2 indicators anlysed: closed squares – HDI values; closed triangles – GDP per capita (PPP US$). Different scales were used to represent the values of the 2 indicators. Data were provided by 2003-2005 National Human Development Report (NHDR) for Romania (2)

It is very interesting to analyse the HPI values in EU region. Unfortunately, data were available only for some EU-15 countries.

Nevertheless, a completely different ranking order is obtained, compared with the HDI analysis. Data for EU-10 countries, Romania and Bulgaria would add important information for adequate policies to be developed at EU level in order to decrease discrepancies between regions and countries.

Although data for HPI-2 are not available in the Human Development Report 2006, they were calculated within 2003-2005 National Human Development Report. It should be

mentioned that HPI-2 for Romania was calculated based on population living under poverty line at 60% of median income, so that results are not fully comparable. However, a trend analysis can be done for this indicator in Romania. (fig. 2). A slight decrease can be noticed, from 15.8 in 1996 to 14.9 in 2003.

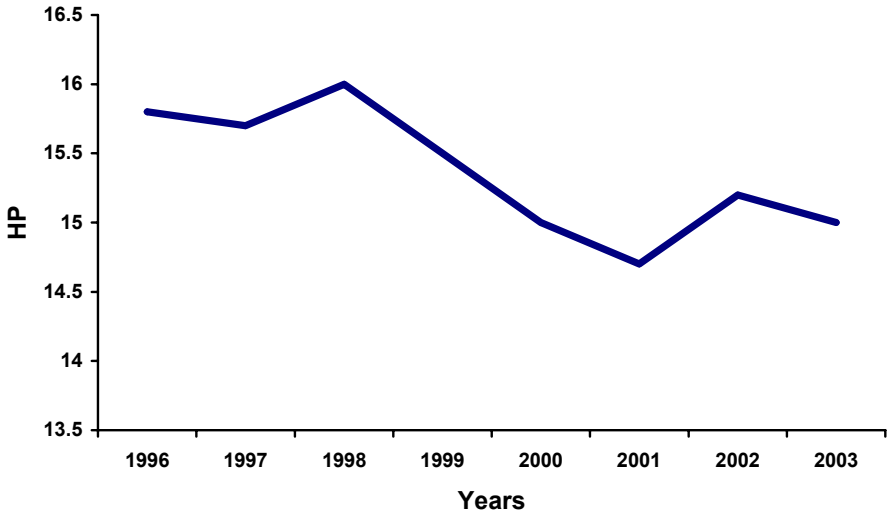

Fig. 2. Evolution of HPI values, ROMANIA, 1996 – 2003. It should be mentioned that HPI-2 for Romania was calculated based on population living under poverty line at 60% of median income, unlike HPI-2 calculated by UNDP in Human Development Report 2006 for the poverty line at 50% of median income. Data were provided by 2003-2005 National Human Development Report (NHDR) for Romania (2)

Despite positive trends of HDI and HPI-2 in Romania during the last decade, these data can hide striking disparities between geographical areas, as well as between rural/urban areas. Although the 2003-2005 National Human Development Report did not calculate HDI and HPI-2 for rural/urban comparisons, poverty rate indicator was provided for this comparison. The same positive trends are present since 2000 both for absolute poverty rate and severe poverty rate in rural and urban areas. However, the remarkable differences between rural/urban are still present after 17 years of transition, being even more prominent for severe poverty rate. (fig. 3 and fig. 4).

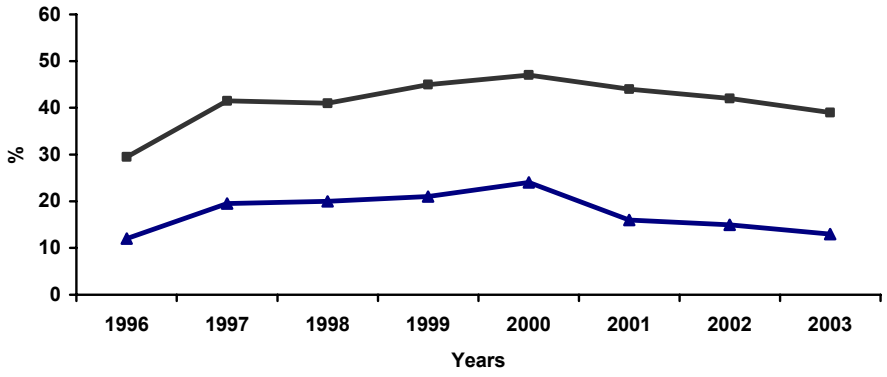

Fig. 3. Absolute poverty rate, ROMANIA, 1996 – 2003. Symbols and lines denote rural and urban areas: closed squares – rural area; closed triangles – urban area. Definition used for Absolute poverty rate - proportion of persons from households where the consumption expenditures per one equivalent adult are below the income poverty line defined by the cost of a basket of products (foods, non-foods and services) considered the minimum necessary for consumption needs. (2) Data were provided by 2003-2005 National Human Development Report (NHDR) for Romania (2)

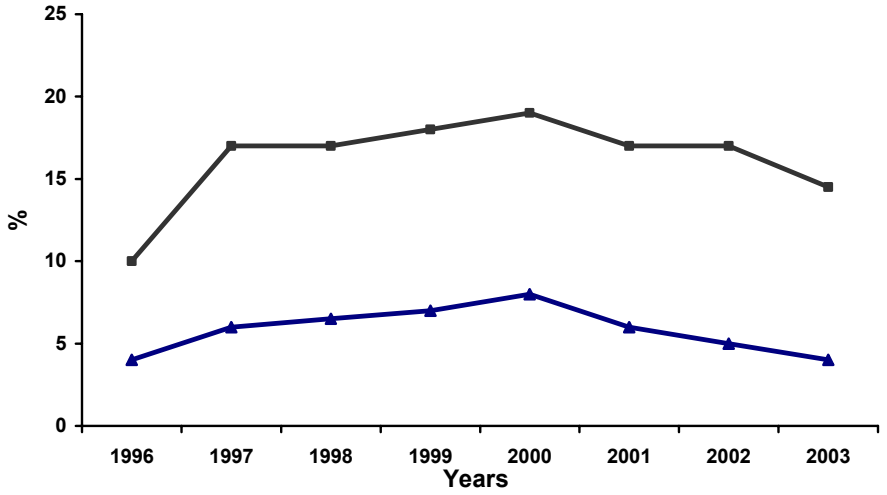

Fig. 4. Severe poverty rate, ROMANIA, 1996 – 2003. Symbols and lines denote rural and urban areas: closed squares – rural area; closed triangles – urban area. Definition used for Severe poverty line - threshold was calculated by summing up the food component and the cost of non-food products and services consumed by households whose total consumption expenditures are equal to the food threshold. (2) Data were provided by 2003-2005 National Human Development Report (NHDR) for Romania (2)

The impact of poverty, measured by HPI-2, was analysed in relation with some health indicators that have been proved to be influenced by it, including: infant mortality and incidence of certain diseases (TB, TB in children under 15 years of age and viral Hepatitis A).

As expected, there is a direct correlation between infant mortality rate and HPI-2, with a positive correlation coefficient of 0.79, a significant value if considering the p-value (0.023) of the F-test. Infant mortality rate revealed a constant decreasing trend after 1996, following a similar pattern for HPI-2 (fig. 5).

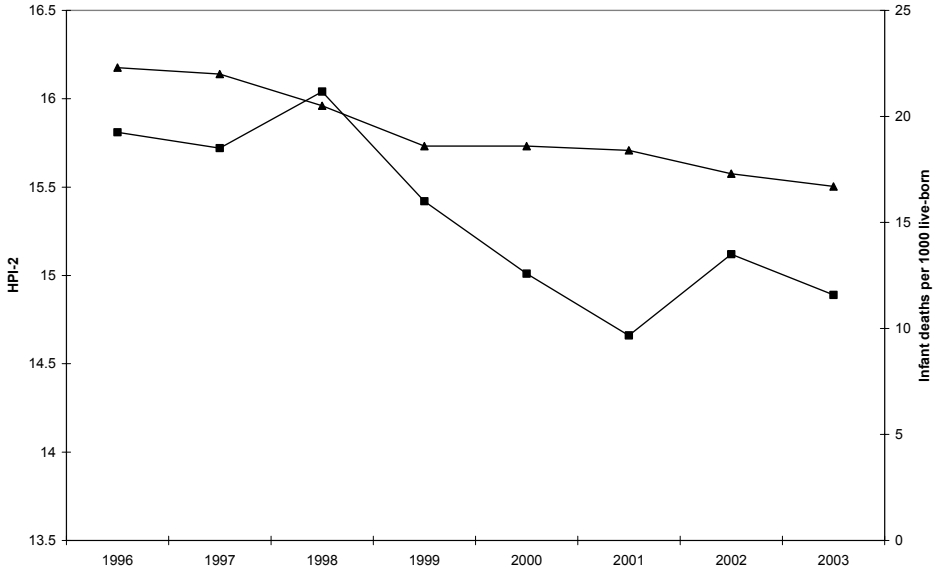

Fig. 5. Infant Mortality Rate and HPI-2, 1996 - 2003, Romania. Symbols and lines denote the 2 indicators anlysed: closed squares – HPI-2 values; closed triangles – Infant Mortality Rate. Different scales were used to represent the values of the 2 indicators. Data were provided by Health Statistical Yearbook 2005 (8)

A similar analysis was done for viral Hepatitis A and HPI-2. The finding was not statistically significant (p-value of 0.466), with a correlation coefficient of 0.3.

However, the incidence of viral Hepatitis A was constantly decreasing since 2000 (fig. 6).

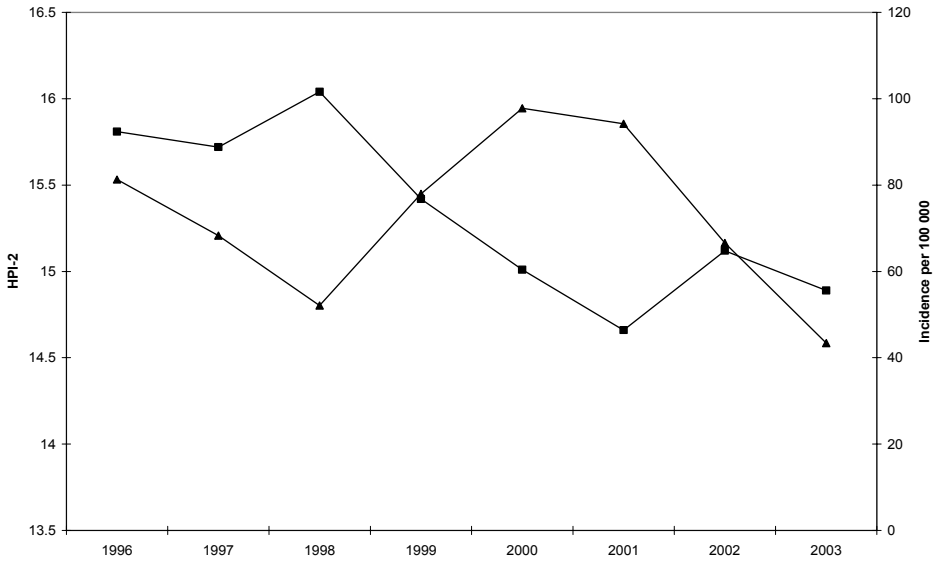

Fig. 6. Viral Hepatitis A and HPI-2, 1996 - 2003, Romania. Symbols and lines denote the 2 indicators anlysed: closed squares – HPI-2 values; closed triangles – Incidence of Viral Hepatitis A. Different scales were used to represent the values of the 2 indicators. Data were provided by Health Statistical Yearbook 2005 (8)

An unexpected finding was obtained for the correlation analysis of TB incidence (both in general population and in children under 15 years of age) with HPI-2. It is well known that TB is the disease of poverty. Despite the fact that we obtained significant strong correlation coefficients for incidence of TB with HPI-2 both in general population and in children under 15 years of age, of -0.78 (p-value 0.027) and -0.91 (p-value 0.002) respectively, both correlations were reverse.

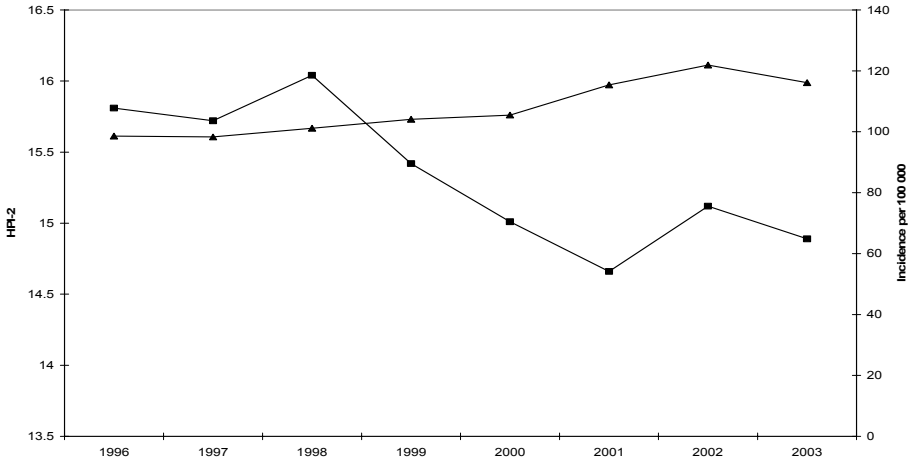

Figure 7.A. TB incidence and HPI-2, 1993 - 2003, Romania. Symbols and lines denote the 2 indicators anlysed: closed squares – HPI-2 values; closed triangles – Incidence of Tuberculosis. Different scales were used to represent the values of the 2 indicators. Data were provided by Health Statistical Yearbook 2005 (8)

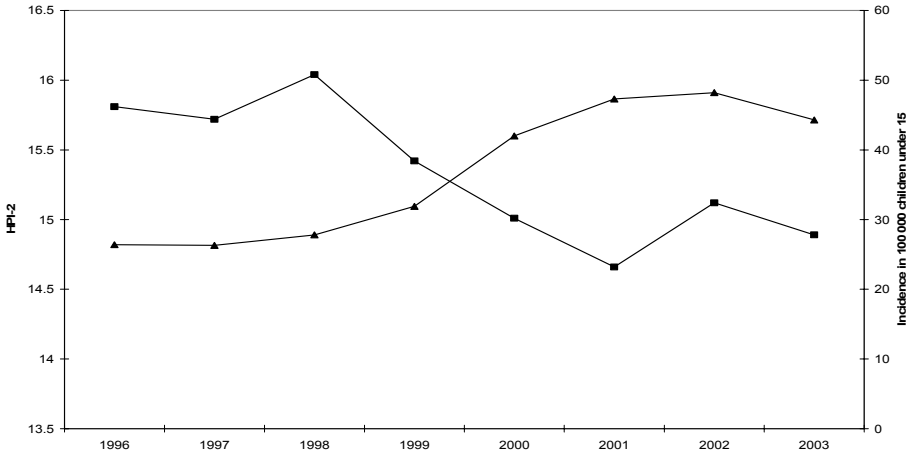

Figure 7.B. TB incidence among children under 15 years of age and HPI-2, 1993 - 2003, Romania. Symbols and lines denote the 2 indicators anlysed: closed squares – HPI-2 values; closed triangles – Incidence of Tuberculosis among children. Different scales were used to represent the values of the 2 indicators. Data were provided by Health Statistical Yearbook 2005 (8)

DISCUSSION

If before 2004 Romania was classified as medium human development countries (with HDI values ranging from 0.667-0.788), after 2004 Romania belongs to the cluster of high human development countries (with a HDI value of over 0.800). Nevertheless, Romania ranks last according to HDI between EU-27 member states.

The improvement in the HDI since 2000, part is in great based on the GDP per capita and educational components, as the life expectancy rate has remained relatively unchanged and much lower than the average life expectancy in EU (71.88 in Romania and 78.27 EU average, data for 2004). (6)

Regardless of how measures of health status (mortality, acute and chronic conditions, etc) and measures of poverty (current income level, recent income change, poverty flags and number of composite indexes of poverty) are combined, there is little doubt that poverty leads to ill health. Existing poverty in Romania is one of the major factors contributing to the unsatisfactory population health status. As noticed from Figure 5, infant mortality rate has steadily decreased in Romania. However, the level of this indicator (16.84 ‰ in 2004) is 3 times higher than the level for EU (5.27 ‰ in 2004) (6). Furthermore, the geographical analysis of infant mortality rate reveals large inequalities between different regions in Romania, especially those affected by persistent poverty.

Among infectious diseases, tuberculosis proved to be the most striking problem of Romania, with a value of 130.54 new cases per 100 000 in 2004, ranking the last within EU (with an average of 17.64 new cases per 100 000 in 2004). It is worthy to mention that the trend of TB incidence, both in general population and in children under 15 years of age, was not simply related to poverty measured by HPI-2, as revealed by Figures 6 and 7. Conversely, the incidence of TB continued to increase, despite the observed decrease of HPI-2. This fact might be explained by the introduction of modern methods of detection, thus increasing the number of new cases in a first phase.

That poverty is still a matter of concern in Romania. It is proved by the fact that the Romanian Government's after 2000 committed to develop a coherent and integrated social policy to address poverty and prevent social exclusion. This commitment was translated in the formulation of critical laws, enlarging the social protection system. The establishment of the Anti-Poverty and Promotion of Social Inclusion Commission in April 2001 was also an illustration of these concerns. Currently, the Commission coordinates the implementation of the Government's social policy and handles research methodologies for poverty and social exclusion. The National Anti-Poverty and Social Inclusion Plan was adopted by the Government in July 2002, being one of the first products of this Commission's work. This Plan was developed in the format established by

the European Council in 2000 for the national plans of the European Union member states, while taking into account the specific characteristics of Romania as a transition country. It proposes objectives along two timelines:

- Medium/long-term objectives: 2002-2012;
- Short-term objectives: the duration of the current government's term of office (2002 -2004) (7).

CONCLUSIONS

If before 2004 Romania was classified as medium human development countries, after 2004 Romania belongs to the cluster of high human development countries (with a HDI value of over 0.800). Nevertheless, Romania ranks last according to HDI between EU-27 member states. Existing poverty in Romania is yet one of the major factors contributing to the unsatisfactory population health status. Sustained efforts are requested to develop and implement effective poverty reduction policies in Romania.

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