

Mortality Reasons of Romany Children in Eastern Slovakia

J. Bernasovská¹, J. Koval², I. Bernasovský¹ and R. Matlovič³

1. *Institute of Biology, Faculty of Humanities and Natural Science, University of Prešov, Prešov, Slovakia*

**E-mail:bernaky@unipo.sk*

2. *J.A.Reiman Children Hospital, Prešov, Slovakia*

3. *Institute of Geography, Faculty of Humanities and Natural Science, University of Prešov, Prešov, Slovakia*

KEY WORDS Mortality. Children. Diseases. Congenital

ABSTRACT The presented speech gives information on mortality reasons of Romany and non – Romany children at the age 0 – 18 years in Prešov region of Eastern Slovakia. Statistical data about the number of lively - born children and about mortality rate from 1997 – 2003. Pathology diagnoses and questionnaires about death reason were used for the analysis. The most frequent reason of death of infants were congenital developing diseases specially those of cardiovascular and of central nervous system. There were on the first place, from the death reasons, injuries, on the second place, pathological state of CNS and on the third place oncological diseases and infections. From the injuries leading to death of children at the age 1 – 18 the most frequent was drowning, next crash injuries, accident falls, suicides, murders and death because of burning or of electric strikes.

INTRODUCTION

Romany population in Slovakia belongs from demographic point of view to developing populations that is significant because of progressive type of age structure with high number of children. Increase of Romany population is for long – time, essentially higher in comparison with increase of non – Romany population. It is consequence of different reproductive behaviour of Romanies, which is special because of higher natality and higher mortality rate in comparison with the rest of population (Haviarová, 1999). Although it is expected continuing converging of reproductive behaviour of Romany and non – Romany population it is probable that Romanies will save certain specific characteristic in the reproductive area (Vaðo, 2001). Change of reproductive behaviour within developing population in connected with the one of living condition, increase of standard of living and the growth of educational level. These changes are being carried out relatively slowly in the consequence of isolation of Romany population. It is possible to confirm (according to available statistical data) changes in the development of Romany higher natality and mortality rate. Improving of health condition of Romany population will bring decrease of mortality rate and prolonging of life (Vašečka, 2002).

Mortality rate of Romany children is important

demographic indicator of paediatric treatment – prevention care but it also shows standard of living and biological state of population, too. The strongest threat for health of children are places not typical for it, those are home and school. Children in Romany settlements have to stay face to face many risks existing in their living environment such as: imputable water, insufficient food hygiene, unsuitable living, cumulation of waste, contamination of environment etc. Children are frequently victims of accidents, poisonings, very often they are innutritioned, and those increase their sensitivity to risks connected with environment (Mušinka, 2002).

MATERIAL AND METHODS

For the analysis statistical data about number of live born children and mortality rate from 1997-2003, records about the death examination, pathological, anatomic, findings and questionnaires about death reasons were used. Annual analyses of child mortality rate as well as annual analyses of child, infant, new-born, perinatal mortality rate are regularly being worked out in cooperation with gynaecological wards in the region.

RESULTS AND DISCUSSION

From 1997–2003 69,711 children were born in Prešov region, from which 19,181 were Romanies.

1198 children died at the age of 0 – 18, from which 577 were Romanies. From the total number of children in Romany population mortality was of 3 %, in non – Romany population it was 1.25 %.

Mortality Rate of Infants

From 1997 there is evident almost continuous decrease of infant mortality rate in Prešov region (Table 1, Fig. 1) but in comparison with Slovak average it is by 3 per mile higher on average. Romany infant mortality rate is still 2 – 2.5 times higher than in non – Romany children. Congenital developing diseases presented the most frequent group of infant mortality reason. We have found out on the base of diagnoses that there were especially the following congenital developing diseases: of cardiovascular system, which is 39.2 %, central nervous system in 18.8 % gastrointestinal system in 12.5 %. In Romany infants congenital development heart diseases were in 38.3 %, CNS 3.5 % and GIT 11.3%, while in non – Romany infants it has been found out 40 % congenital development heart diseases, 15% CNS and 13 % GIT. Next significant group was presented by medical factors (pneumonia, sepsis, meningitis, enteritis and other infections) with 18.2 % occurrence. Significant difference

Table 1: Infant mortality rate in Prešov region of Slovakia (in per mile)

Year	Romanies	Non-Romanies	Prešov region
1997	22.0	6.8	10.5
1998	26.1	7.2	12.0
1999	21.5	6.4	10.4
2000	24.2	8.1	12.5
2001	11.5	4.4	6.5
2002	17.7	6.6	9.9
2003	17.1	6.1	9.6

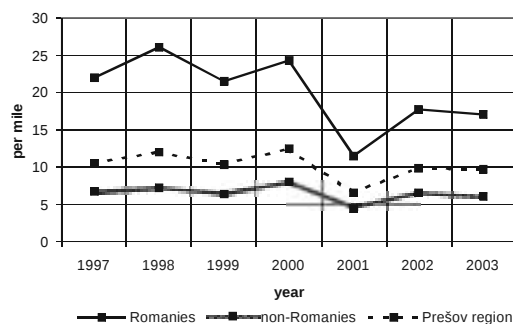


Fig. 1. Infant mortality rate in Prešov region of Slovakia

has not been recorded between Romany and non – Romany infants.

Neonatal Mortality Rate

From 1997 – 2003 neonatal mortality rate (Table 2, Fig. 2) oscillated from 3.9 to 6.3 per mile. But it was still higher than the one within non – Romany neonatals. From neonatal mortality reasons there are congenital development diseases on the first place and their deal on neonatal mortality rate is 38.6 %. Increase has been recorded from 33.3 % to 40 % during the observing time. It has been found out 45.7 % amount in congenital developing disease causing death within Romany congenital while in non – Romany congenital 30.9 % occurrence has been recorded. On the second place there were deaths of neonatal from respiratory distress syndrome, which participated by 22.3 % in deaths. It has been recorded more cases in the group of non – Romany neonatals, 26.6 % in comparison with Romany ones, where 18.9 % of those were performed. High mortality was performed in small group of neonatals with extremely low maternity weight under (999 g) that is 12.5 %. In to the group of neonatals died at home, children who died during 28 days all of a sudden at home, were involved. There were total 9 of them, what was 2.9 %.

Table 2: Neonatal mortality rate in Prešov region of Slovakia (in per mile)

Year	Romanies	Non-Romanies	Prešov region
1997	8.1	4.6	6.0
1998	14.4	4.8	7.2
1999	11.1	4.3	6.1
2000	12.5	4.5	6.6
2001	6.3	2.9	3.9
2002	9.8	4.5	6.1
2003	6.3	5.3	6.0

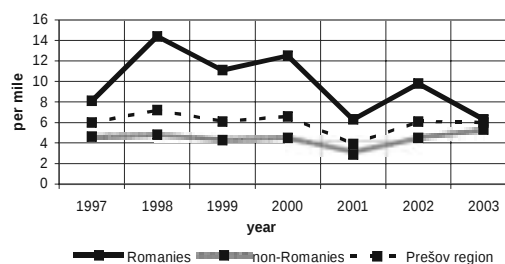


Fig. 2. Neonatal mortality rate in Prešov region of Slovakia

Postnatal Mortality Rate

During observing time participated in infant mortality by 43 %, in Romany children it was 63.2 %, while in non – Romany ones 32.4 % (Table 3, Fig. 3). The highest number of children mortality occurred in first 3 months of life. To this time children with developing diseases are involved and the highest number of home deaths has been recorded. Premature children who participated by more than 50 % had important place in postnatal mortality rate. So the highest home mortality rate was within Romany children namely 90 %.

Table 3: Postnatal mortality rate in Prešov region of Slovakia (in per mile)

Year	Romanies	Non-Romanies	Prešov region
1997	11.9	2.4	4.6
1998	11.7	2.5	4.8
1999	10.4	2.1	4.3
2000	11.7	3.6	5.9
2001	5.2	1.5	2.6
2002	7.9	2.0	3.8
2003	8.7	1.2	3.6

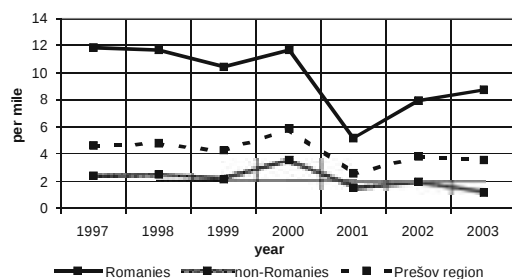


Fig. 3. Postnatal mortality rate in Prešov region of Slovakia

Children Mortality Rate at the Age of 1-5

This times is characterised as more risky one from the point of view of complex care and social factors in comparison with following age categories. In the observing time this indicator oscillated between 13 – 14 %, in Romany children on average 18 – 20 % (Table 4, Fig. 4). The most frequent reasons leading to death were injuries, congenital severe diseases, pathological states of CNS, oncological and infection reasons. During the observing time 183 children died from which 119 Romany ones that was 61.1 %. As far as for the reasons on the first place there were injuries, there were 54 of them (29.5 %). The

Table 4: Children mortality rate at the age of 1 - 5

Year	Romanies	Non-Romanies	Prešov region
1997	16	9	25
1998	35	20	55
1999	7	11	18
2000	12	8	20
2001	17	11	28
2002	8	7	15
2003	15	7	23

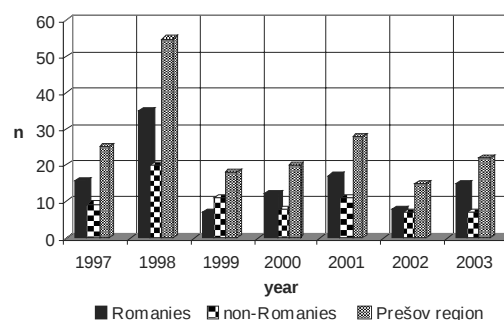


Fig. 4. Children mortality rate at the age of 1-5

highest number of them was in 1998 by number of 30. This increase was caused by flood during which 25 children drowned at this age group. Congenital developing disease presented 16.9 % in all deaths. On the third place there were pathological states of CNS with 16.3 %. Infections participated in the deaths at this age group by 14.7 %. There were especially severe infections as meningitis, pneumonia, septicemia. Oncological diseases were presented by 15.8 %. Whiting Romany children as far as for reasons on the first place there were injuries – 38.2 %, on the second places congenital developing diseases (21.8 %) and on the third one there were infection (19 %). Oncological diseases represent 6 % in Romany children and 20 % in non – Romany ones. Deaths of infection prevailed (77.7 %) in Romany children from total cases of infections.

Children Mortality Rate at the Age of 6-14

At this age group, during researching time, 187 children, from which there were 78 Romanies, died in Prešov region (Table 5, Fig. 5). As far as for reasons on the first place there were injuries (39.6 %), next congenital developing diseases (20.8 %), pathological states of CNS (17.1 %), oncological diseases (12.8 %). Within Romany

children there were on the first place pathological states CNS (34.6 %), followed by injuries (32 %) and congenital developing diseases (19.2 %). Oncological diseases were represented by 3.8 %. Because of oncological diseases at this age group during the researching time 24 children died from which 21 non-Romanies and 3 Romanies.

Table 5: Children mortality rate at the age 6 - 14

Year	Romanies	Non-Romanies	Prešov region
1997	11	9	20
1998	24	14	38
1999	12	25	37
2000	13	14	27
2001	5	17	22
2002	9	15	24
2003	4	15	19

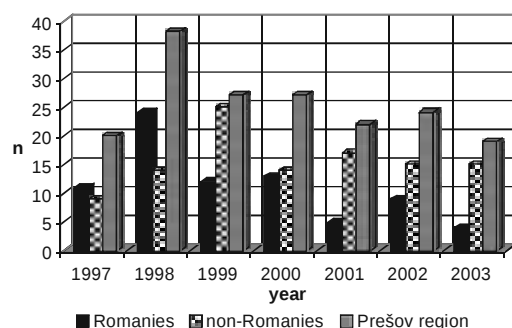


Fig. 5. Children mortality rate at the age of 6-14

Children Mortality Rate at the age of 15-18

During the researching time 100 children died, 23 Romanies and 77 non-Romanies (Table 6, Fig. 6). From the reasons on the first place in the whole searching group of children there were injuries with 48 %, on the second place pathological states of CNS with 14 %, oncological diseases with 12 %, congenital developing diseases with 10 % and infections with 6 %. Within in researching age group of Romany children there were injuries with 34.8 %. Oncological diseases causing death at this age group were represented by two from which in Romany children there was just one.

Injuries as the Most Frequent Reason of Death Within Children at the Age of 1-18

Death because of injuries are on the first place in the world at the age category of 1-18 in Slovakia

Table 6: Children mortality rate at the age of 15-18

Year	Romanies	Non-Romanies	Prešov region
1997	6	3	9
1998	4	6	10
1999	4	7	11
2000	2	17	19
2001	3	18	21
2002	0	13	13
2003	4	13	17

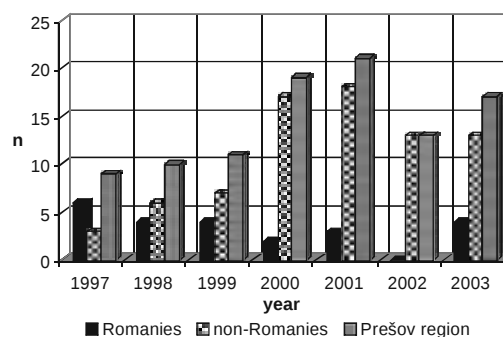


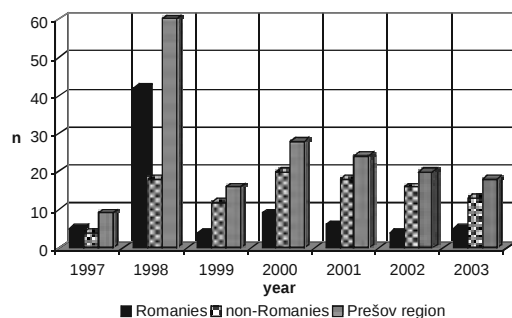
Fig. 6. Children mortality rate at the age of 15-18

as well as in Prešov region (Table 7, Fig. 7). In 1997-2003 drownings were the most frequent with 34.1 % in Prešov region. Higher percentage of death because of drowning is connected with flood in 1998 in the region when 37 Romany children drowned at this age group. During the researching time 60 children drowned totally from which it was 45 Romany ones. On the second place there were crash injuries with 32.4 %. On that occasion 57 children died totally from which there were 16 Romanies. As a consequence of accident falls 12 children died and no one was Romany. As far as suicides there were 16 of them and Romany children committed 2 suicides. Three Romany children were murdered. Death because of burning and electric strike was found out in the case of three Romany children and 4 non-Romany ones.

During long-time researching of children mortality rate and especially that of infants influence of whole-society changes, social-economical situation and medical progress on to the development of this demographic indicator may be observed. At the beginning of 21st century infant mortality rate in Slovakia is similar with that in Greece and just a bit higher than in Great Britain and Portugal. Very good results can be seen in the Czech Republic that has lower infant mortality

Table 7: Deaths of children as consequence of injuries at the age of 1 – 18

Year	Romanies	Non-Romanies	Prešov region
1997	5	4	9
1998	42	18	60
1999	4	12	16
2000	9	20	29
2001	6	18	24
2002	4	16	20
2003	5	13	18

**Fig. 7. Deaths of children as consequence of injuries at the age of 1-18**

rate than Switzerland, Germany and France (Ginter et al., 2004). High infant mortality rate in Romanies which is in Prešov region 2 – 2.5 times higher than that one in non – Romanies. Higher figures are especially in South – Eastern regions of Slovakia (Banská Bystrica, Košice, Prešov) known by high number of Romany population (Dluholucký, 2001). Similarly in England and Wales there are significant differences of infant mortality rate according to social groups (Syróvátka, 1996). In 1994 total infant mortality rate in the USA was 7.9 per mile while there is difference between mortality rate of Americans and Afro – Americans. Main part of infant mortality rate is neonatal one. That one significantly correlates with frequency of lively - born children with low birth weight. Infant mortality rate within Romany children is higher on average by 2.5 per mile. Postnatal mortality rate is presented by lower deal at infant mortality rate. In the world neonatal mortality rate represents 75 – 80 %, postnatal one represents 20 – 25 %. In Slovakia infant mortality rate is 60 – 65 % and postnatal is 35 – 40 % at recent time. In Prešov region during

the researching time 35 % children died at this group from total mortality rate and in group of Romany children it aimed 63.2 %. This negative indicator of Romany children is caused by negative social – economical situation, influence of environment and also by approach of parents of those children towards health and bringing-up care. Prevention should be directed especially onto prenatal care, decrease of number of precocious births, care of critically ill infants in perinatalogical centers. In postnatal time it is necessary to concentrate on death prevention at home and improve care of infant in family as most Romany families in Prešov region are risky ones from paediatric point of view. As risky factors of Romany families are considered poor economical thinking, low social level, low hygienic standard, low interest of medical care, almost 100 % unemployment, families with high number of children, immature mothers, high level of violence, smoking, alcohol, drugs addiction, prostitution, poor nutrition. It is concluded from the mentioned information that not all the conditions of decrease morbidity and mortality rate of Romany children are in charge of medical workers. Many of them are connected with overall state of the society, with its economical development and medical care awareness. But there are a lot of social – economical aspects that are considered as significant overall society problem.

REFERENCES

- Dluholucký, S.: Mortality rate of infants in Slovakia. *Ěskoslovenská Pediatria*, **46**: 417-422 (2001).
 Ginter, E., Havelková, B., Baráková, A. and Hlava, P.: Different health state in different regions in Slovakia. *Medicínsky Monitor*, **4**: 6-7 (2004).
 Haviarová, E.: *Development and Current Stage of Romany Population*. Ph.D. Thesis (Unpublished), Faculty of Pedagogy, University of Bratislava, Bratislava (1999).
 Mušínska, A.: Habitation of Romanies. pp. 631-655. In: *Ěaèipen pal o Roma. Summary report on Romanies in Slovakia*. M. Vašeèka (Ed.). Inštitút pre verejné otázky, Bratislava (2002).
 Syrovátka, A.: Pediatrics and demography. *Ěskoslovenská Pediatria*, **51**: 639-641 (1996).
 Vašo, B.: *Demographical Characteristics of Romany Population in Slovakia*. Infostat, Bratislava (2001).
 Vašeèka, M.: *Ěaèipen pal o Roma. Summary report on Romanies in Slovakia*. Inštitút pre verejné otázky, Bratislava (2002).