

Kosice's Perinatal Mortality Declines in Response to Regional Efforts

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Since 1995, healthcare professionals in Kosice, Slovakia and Providence, Rhode Island have worked together to implement new models of perinatal education, delivery system reform, and technology transfer within obstetrical and high-risk neonatal care settings in Eastern Slovakia. Their combined efforts have resulted in dramatic improvements in maternal and child health reflected in a significant decline of perinatal mortality rates for low birth-weight infants in Kosice. One direct cause of this decline is the partnership's emphasis on identifying at-risk infants and mothers and transferring them to regional perinatal centers for appropriate care.

Before 1995, the survival of babies born in Eastern Slovakia to high-risk pregnant mothers largely depended upon where the birth took place. AIHA's Providence/Kosice partnership is changing that. (For more information on perinatal care in Eastern Slovakia, see *CommonHealth*, Spring 1997, page 30.)

In recent years, Eastern Slovakia, which has a population of over 15 million, has experienced a birth rate decline. In 1995, there were 21,038 obstetrical deliveries performed in the region. That number dropped three percent in 1997 to 20,497. A corresponding decline in abortions accompanied this trend, the most dramatic being a decline in pregnancy terminations between the 8th and 12th weeks after conception. This overall decline reflects a growing shift from larger (four to five children) to smaller (one to two children) families as women continue to postpone their first pregnancies (see Fig. 1). Slovakia's continuing economic trans-

formation represents increased financial hardships for larger families, contributing to the decision of many to have fewer children. But in spite of this decline in Eastern Slovakia's birth rate, the number of high-risk births continues to increase, resulting in perinatal mortality rates as high as 14.1 per every 1,000 births in Trebisov and 10.2 per every 1,000 births in Michalovce.

Two specific groups represent a large portion of Eastern Slovakia's high-risk pregnancies: single mothers and Roma (Gypsies). In 1995, the percentage of low birth-weight babies born to single mothers was 11.2 percent, a significantly higher rate than the 7.9 percent typical of the general population. While Roma constitute 20 percent of the population of this region, they experience a low birth-weight rate nearly twice that of the

general population. Since low birth-weight rate is related to mortality risk, both Roma and single mothers have correspondingly higher infant mortality rates.

However, regions of Eastern Slovakia affected by the Providence/Kosice initiative that introduced perinatal regional care by transferring both infants and high-risk mothers to Slovakian-designated perinatal centers have greatly increased the survival rate of low birth-weight babies. Transfers to Kosice's First Clinic of Gyne-



A low birth-weight infant just brought to the NICU (neonatal intensive care unit) via transport.

Photo courtesy of David Gagnon.

colgy and Obstetrics (FCGO) and the Department of Neonatology at the Faculty Hospital, as well as to the regional partner hospitals of the Second Clinic of Gynecology and the Louis Pasteur Hospital, have been highly beneficial to the health of both mother and child.

The city of Kosice has one of the lowest

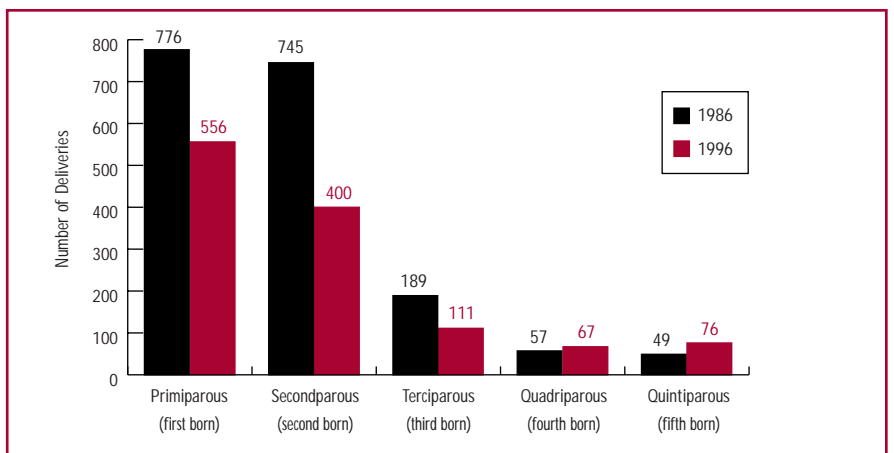


Figure 1. Comparison of birth order for 1986 vs. 1996 in the First OB Clinic in Kosice.

In the print version of *CommonHealth*, this area contained jumped text, which in the PDF version has been placed with its respective story.

| Year | Perinatal Center | | Referral Hospitals in Kosice | | | | | |
|------|---------------------|-----|------------------------------|------|---------------------|-----|----------------------|------|
| | I. GPK ¹ | | II. GPK ² | | L. Pasteur Hospital | | Hospital Kosice-Saca | |
| | %LBW | PM% | %LBW | PM% | %LBW | PM% | %LBW | PM% |
| 1995 | 9.0 | 7.6 | 10.4 | 15.1 | 10.1 | 8.4 | 11.3 | 16.9 |
| 1996 | 10.0 | 7.8 | 10.2 | 7.9 | 9.3 | 6.4 | 8.6 | 8.6 |
| 1997 | 10.4 | 5.8 | 6.2 | 0 | 8.4 | 1.3 | 7.3 | 7.3 |

¹ 1st Clinic of Gynecology and Obstetrics

² 2nd Clinic of Gynecology and Obstetrics

Table 1. The relationship between the percentage of low birth-weight infants and perinatal mortality in FCGO's perinatal center and its three referral hospitals.

perinatal mortality rates despite the high percentage (10.6%) of low birth-weight infants delivered at FCGO. Table 1 shows the relationship between the percentage of low birth-weight infants and perinatal mortality in FCGO's perinatal center and its three referral hospitals. Since FCGO serves as the regional perinatal center, it is responsible for an increasing number of low birth-weight infants. The other hospitals show a corresponding decline in both low birth-weight infants and perinatal mortality as a result of transferring high-risk pregnant patients to the perinatal center. These figures reflect the outcomes of an effective regionalization of perinatal care.

Similar declines in perinatal mortality have also occurred in areas where the partnership has successfully implemented the principles of regionalization, including the cities of Michalovce, Rožnava, and Gelnica. In addition to establishing lines of communication and means of transport for moving high-risk mothers and infants, the Providence/Kosice perinatal program has focused on improving clinical care at the perinatal center and providing training for resuscitating, stabilizing, and transporting at-risk infants after birth.

Given its successes in Kosice and surrounding areas, the partnership will work to disseminate a similar approach to other regions of Slovakia. Special emphasis will be placed on the Presov region, which has perinatal centers in the cities of Hu-

meni, Poprad, and Presov. The partnership also will work with the Slovak Ministry of Health to establish consistent standards for identifying at-risk pregnancies and transferring high-risk mothers and infants to appropriate perinatal centers that can treat serious maternal, fetal, and neonatal illnesses. In Kosice, the partnership will also use its resources to help reduce the stillborn rate, which still comprises a significant portion of perinatal mortality in Slovakia.

Although the Slovak Republic has established a national system of hospital classification in which a perinatal center is designated for each region of the country, public and private insurance programs rarely allow funding for parents to "travel" with the patient. This is one of the major roadblocks to effective regionalization, similar to barriers found in the United States, where exclusive contracts often restrict patients from receiving care in hospitals not covered by their insurance plan. Partners will work with policymakers in the Slovak Republic to surmount this barrier, and continue efforts that should result in a further decline in perinatal and infant mortality.

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