GYNAECOLOGIA ET PERINATOLOGIA

Gynaecol Perinatol Vol 17, No 1; 63–126 Zagreb, April–June 2008

UVODNIK
EDITORIAL

Gynaecol Perinatol 2008;17(2):63–67

University Department of Gynecology & Obstetrics, Sv. Duh Hospital, Zagreb

POVERTY AS AN INFLUENTIAL FACTOR FOR ILL PERINATAL HEALTH

SIROMAŠTVO KAO ČIMBENIK POGORŠANJA PERINATALNOG ZDRAVLJA

Asim Kurjak

Review

Key words: poverty, perinatal health

SUMMARY. Poverty is one of the most influential factors for ill health, and ill health – in a vicious cycle – can lead to poverty. Education has proven to be a critical strategy to break this cycle. There is a two-way link between poverty and health. Illness impairs learning ability and quality of life, has a negative impact on productivity, and drains family savings. Poor people are more exposed to environmental risks (poor sanitation, unhealthy food, violence, and natural disasters) and less prepared to cope with them. Because they are also less informed about the benefits of healthy lifestyles, and have less access to them as well as to quality health care, they are at greater risk of illness and disability. Maternal, infant and child mortality illustrate the largest gaps between the rich and the poor in today's world. There are between 7 and 8 million perinatal deaths, but we do not know exactly how many are stillbirths and how many are early neonatal deaths. In many cases, births of infants who die soon after birth are neither recorded nor counted. Although exact medical causes in countries may differ, the problem is simple: the common denominator for those deaths is the lack of appropriate and quality services, confounded by poverty.

Pregled

Ključne riječi: siromaštvo, perinatalno zdravlje

SAŽETAK. Siromaštvo je jedan od najutjecajnijih činitelja za bolesno zdravstvo, a bolesno zdravstvo u začaranom krugu može dovesti do siromaštva. Dokazano je da je edukacija najbolji način da se ovaj krug prekine. Dva su načina što povezuju siromaštvo sa zdravljem. Bolest smanjuje sposobnost stjecanja novih znanja i kvalitetu življenja, ima negativan utjecaj na produktivnost i iscrpljuje obiteljske zalihe. Siromašni su izloženiji rizičnim činiteljima okoliša i manje pripravni da se njima bore. Budući da su manje informirani o prednostima zdravog življenja, te da im je teže dostupna kvalitetna zdravstvena skrb, izloženi su većem riziku od obolijevanja i oštećenja. Majčinski, dojenački i mortalitet djece najbolje ilustriraju najveće razlike između bogatih i siromašnih u suvremenom svijetu. U svijetu perinatalno umire 7 do 8 milijuna djece, ali još uvijek ne znamo koliko ih je mrtvorođeno i koliko je doista ranih neonatalnih smrti. U mnogim slučajevima porod dojenčeta koje ubrzo umre ne zabilježi se niti pribraja. Premda se stvarni uzroci smrti razlikuju od zemlje do zemlje, problem je poprilično jednoznačan: nedostatak primjerene i kvalitetne skrbi udružen sa siromaštvom.

Recently all medical journals in the world have been asked to join extensive international action against poverty. With this editorial our Journal is joining this important issue inviting its readers to contribute with their own opinions and suggestions. It is clear that poverty cannot be defined solely in terms of lack of income. A person, a family, even a nation is not deemed poor only because of low economic resources. Little or no access to health services, lack of access to safe water and adequate nutrition, illiteracy or low educational level and a distorted perception of rights and needs are also essential components of poverty.

Poverty is one of the most influential factors for ill health, and ill health – in a vicious cycle – can lead to poverty. Education has proven to be a critical strategy to break this cycle. There is a two-way link between poverty and health. Illness impairs learning ability and quality of life, has a negative impact on productivity, and drains family savings. Poor people are more exposed to environmental risks (poor sanitation, unhealthy food, violence, and natural disasters) and less prepared to cope with them. Because they are also less informed about the benefits of healthy lifestyles, and have less access to them as well as to quality health care, they are at greater risk of illness and disability.[1–5]

Close to 1.5 billion people in the world live in extreme poverty, a situation which is particularly stark in the developing world, where 80% of them live. Poor people

have little or no access to qualified health services and education, and do not participate in the decisions critical to their day-to-day lives.

Those who live in extreme poverty are five times more likely to die before five years of age, and two and a half time times more likely to die between 15 and 59 than those in higher income groups. The same dramatic differences can be found with respect to maternal mortality levels and incidence of preventable diseases. Level of education in relation to health is particularly important among women. In addition, education for women is closely associated with later marriage and smaller family size.

The impact of poverty on health is largely mediated by nutrition and is expressed throughout the life span. However, nutrition and health are only somewhat responsive to mere economic growth. Those living in poverty and suffering from mal-nutrition have an increased propensity to a host of diseases, a lower learning capacity, and an increased exposure and vulnerability to environmental risks. Poor children frequently lack stimuli critical to growth and development.

Experiences in several countries have shown the power of education to increase the nutritional levels and the health status of the poor. In urban India, for example, it has been found that the mortality rate among the children of educated women is almost half than that of children of uneducated women. In the Philippines, it has been demonstrated that primary education among mothers reduces the risks of child mortality by half, and secondary education reduces that risk by a factor of three. Several strategies can be used to improve the access of mothers and children to educational opportunities as a way of improving their health status. At the national level governments, particularly in developing countries, have to establish education – including the education of the parents – as a priority, and provide necessary resources and support. At the international level, lending institutions have to implement debt-reduction policies for those countries willing to provide increased resources for basic education. Emphasis on education can provide substantial benefits in the health status of populations even before reducing the economic gap between the rich and the poor.

The world's population will likely reach 9.2 billion in 2050, with nearly three times as many people over the age of 60 and virtually all growth in the developing world, the UN Population Division reported.[1] An important change in the new population estimate is a decrease in expected deaths from HIV/AIDS because of the increasing use of anti-retroviral drugs and the downward revision of the prevalence of the disease in some countries. The new report estimates 32 million fewer deaths from AIDS during the 2005–2020 period in the 62 most affected countries compared with the previous UN estimate in 2004.[1] This change contributed to the slightly higher world population estimate of 9.2 billion in 2050 in the 2006 estimate, compared with 9.1 billion in the 2004 estimate, the report said. The new 2006 report also confirms »the very huge changes« that the population of the world is about to experience decrease, mostly as a result of the reduction in fertility in developing countries, which means women are having fewer children.[2]

Fertility has already reached below replacement levels in 28 developing countries which account for 25 percent of the world's population, including China, the report said. China's average birth rate during 2005–2010 is estimated at 1.73 children per woman.[2] If fertility levels are slightly higher than projected, global population would reach 10.8 billion in 2050, and if they were slightly lower, it would hit 7.8 billion, the report said. The growing population will be absorbed mainly in less developed countries whose population is projected to rise from 5.4 billion in 2007 to 7.9 billion in 2050. The populations of poor countries like Afghanistan, Burundi, Congo, Guinea-Bissau, Liberia, Niger, East Timor and Uganda are projected to at least triple by mid-century. By contrast, the population of richer developed countries is expected to remain largely unchanged at 1.2 billion. The report said the figure would be lower without expected migration from poorer to richer countries, averaging 2.3 million people annually. But according to the report, 46 countries are expected to lose population by mid-century including Germany, Italy, Japan, South Korea, most of the countries in the former Soviet Union, and several small island nations.

Population growth will remain concentrated in populous countries with half the projected increase from 2005 to 2050 in eight countries listed according to the size of their expected growth – India, Nigeria, Pakistan, Congo, Ethiopia, the United States, Bangladesh and China, the report said.

Half the increase in world population between 2005 and 2050 will be the result of a rise in the over 60 population while the number of children under age 15 will decline slightly, it said. Today, just 8 percent of the population in developing countries is over 60 years old, but the report said that by mid-century the figure will rise to 20 percent.

How perinatal health is affected

As perinatologists, we should know that for 90% of the pregnancies and deliveries in our world, the reality is very different. A young woman in Ethiopia, for example, goes into the reproductive phase of her life with a one-in-ten chance that she will die as a result of pregnancy or delivery. That is not only shocking – it is totally unacceptable. Poverty has a woman's face: of the world's 1.3 billion poorest, only 30% are male.[6] Poor women are often caught in a damaging cycle of malnutrition and disease. This plight stems directly from women's place in the home, and in society: it often also reflects gender bias in health care. We often find poor women at the back of the waiting line. There were 132 million births in the year 2000, 90% of them took place in developing countries where more than 80% of people live.[3,5,7]

Today's mothers were born at the times when fertility rates were high, infant mortality rates were falling and major population efforts and programmes had just started. Thirty years of efforts to increase contraceptive use has resulted in reduced fertility all over the world. However, we have seen that the main factor affecting fertility is the changing socio-economic conditions that have taken place in these countries over the past three decades. They have reduced the optimal size of a family. They have also let to better education for women, and given women better control of their own reproductive choices. But far from all women have access to contraception. As a result, unsafe abortion rates are high.

Maternal, infant and child mortality illustrate the largest gaps between the rich and the poor in today's world. There are between 7 and 8 million perinatal deaths, but we do not know exactly how many are stillbirths and how many are early neonatal deaths. In many cases, births of infants who die soon after birth are neither recorded nor counted.

Although exact medical causes in countries may differ, the problem is simple: the common denominator for those deaths is the lack of appropriate and quality services, confounded by poverty. Despite two Safe Motherhood conferences, and 15 years of recognition of the importance of skilled attendance and other basic recommendations, progress has been painstakingly slow. Looking at the daunting challenge in front of us, many are relying on the traditional providers.[7,8] The term »skilled attendant« refers to »an accredited health professional« – such as a midwife, doctor or nurse – who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and immediate post-natal period, an in the identification, management and referral of complications in women and newborns.«.[8,9] The presence of a skilled attendant is an essential but not always a sufficient condition for safe delivery. Also needed is access to referral facilities able to address obstetric complications.[8–10]

Traditional providers in this area are a reality of today but it is not a solution for the future. While their role in providing different kinds of care around the childbirth period should be recognized, there is no evidence that they can manage on their own once complications arise and there is a need for special services. This area requires two kinds of skills: to know the normal and to be patient, but also to recognize the abnormal and to react quickly once complications arise. For this, we need skilled attendants, doctors, midwives and nurses. There is no way around this fact.

One of the major successes of perinatal medicine is prevention, early detection and treatment of malformations and genetic diseases. Statistics of developed countries show that mortality due to malformation has decreased substantially.[9–11] The potential health burden of congenital disorders can be greatly reduced by implementing basic reproductive health approaches, including family planning, adequate diet, prevention and management of maternal infections. This is information and services mothers cannot get from traditional providers.

Birth weight is a crude summary of fetal experience. WHO and UNICEF estimate that 15% of babies weight less than 2500 g at birth.[9–11] In some countries, a full one third of all babies born are below this weight. Yet, probably only 1/3 of infants are weighed at birth and it is among those births without weight statistics we are likely to find the poorest. We know what low-birthweight means for immediate survival. We are only starting to understand the importance of long-term effects of fetal under-nutrition, but we are concerned that it could be a drawback that will be carried forward through several generations. It is a vicious cycle. Yet, progress is painfully slow. How can we help this change?

For most of us, the work-day is far removed from the issues confronting poor women in Cambodia or Cameroon. But there are ways in which our actions can help these women in the long run. One is research.[4] The development of research partnerships between developing and industrialized countries will not only help to combat the global inequity of health but will also be of enormous mutual benefit for all. Another is spreading knowledge, through articles, through personal contact, through dialogue with other countries' health professionals and governments. Pregnancy, childbirth and being a newborn are not diseases – they are special periods in human life when the risk of death or disability can be very high. This must be understood clearly by all: from medical, nursing and midwifery schools, from research funding bodies to industry and governments. Not understanding or knowing well the normal can lead to abuse of technology and iatrogenic complications. It is vitally important for developing countries to maintain a focus on the basics of what can and should be done in this important field of public health.[3]

Women in developing countries continue to suffer from a staggering rate of maternal morbidity and mortality.[5] During the 20th century it has been noticed a dramatic drop in maternal mortality throughout the developed world. For example, maternal death rates in England and Wales, between 1935 and 1978 dropped from 341 to 10 per 100,000, in Croatia from around 450 to 10 per 100,000.[12] In 1990 – truth to say in the small sample – there were no deaths attributable to pregnancy and delivery in Iceland, Luxembourg and Malta. The statistics for maternal mortality in developing countries are particularly shocking. Every year, more than 500.000 women die in pregnancy, during childbirth, or from unsafe abortions. Again, 97% of these deaths are in developing nations. Even more distressing than the absolute numbers is the fact that the vast majority of these deaths are preventable. Indeed, for an obstetrician, there is no more tragic event than a maternal death and they occur because pregnant women in many parts of the world lack access to even the most basic medical and obstetric care.

The countries with the highest maternal mortality ratios (MMR) today are in Africa. Table 1 shows MMRs estimated by UN Agency.

Table 1. UN estimates of maternal mortality in 2000[1]
Tablica 1. Procjena UN za maternalni mortalitet u 2000.[1]

Region Regija	MMR* Stopa smrtnosti*	Number of maternal deaths Broj umrlih majki	Lifetime risk of maternal death. Omjer umrlih majki 1 in/ na
74 World total	400	529,000	74
Developed regions	20	2,500	2,800
Developing regions	440	527,000	61
Northern Africa	130	4,600	210
SubSaharean Africa	920	247,000	16
Eastern Asia	55	11,000	840
South Central Asia	520	207,000	46
South Eastern Asia	210	25,000	140
Western Asia	190	9,800	120
Latin America & the Caribbean	190	22,000	160
Oceania	240	530,000	83

* Maternal deaths per 100,000 live births

The UN agencies (WHO, UNICEF and UNFPA) developed the »UN Guidelines«.[8] The guidelines identify eight »signal functions« which are deemed necessary to manage obstetric complications. Each should have been provided to at least one patient in the last 3 months for the health facility to be considered able to provide it. The functions are : parenteral antibiotics, parenteral oxytocics, parenteral antihypertensives, manual vacuum aspiration, manual removal of placenta, assisted vaginal delivery, cesarean section, and blood transfusion. The UN Guidelines have now been used in several evaluations and have proven to be useful. They are likely to be carefully reviewed in the near future however, and may undergo minor modifications.

How do we respond? The turning point in creating a global awareness about maternal mortality was achieved with the convening of the International Conference on Safe Motherhood, in Nairobi in 1987. The target is to reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio.

What can be done?

Over the last two decades many international, governmental or non-governmental organizations have created programs aimed at promoting safe motherhood, both in terms of decreasing mortality and morbidity. Only one program however, was promoted and implemented by obstetrician-gynecologists – by the International Federation of Gynecology and Obstetrics, the only organization capable of combining the experience of doctors in the industrialized world with the local knowledge of their colleagues in the developing world to combat the scourge of maternal mortality and morbidity. With this initiative, obstetricians-gynecologists all over the world provided clear proof that they are part of the solution, rather than being part of the problem.

FIGO's activities, named the *FIGO Save the Mothers Initiative*, have been ongoing since 1998 with funding from UNFPA, the World Bank and Pharmacia Corporation and FIGO's own resources and today span over several fields: prevention of maternal mortality, treatment of disabilities (vesico-vaginal fistulas) and prevention of hemorrhage during labor, delivery and the post-partum. These are the areas where obstetrician/gynecologists can contribute most and, at the same time, acknowledge the roots of the problem and the need for other interventions. The overall objective of the project was – and continues to be – to mobilize the obstetric/gynecological community in both the developed and developing world to work in partnership to reduce maternal mortality, and to show the feasibility and effectiveness of integrated essential and/or comprehensive obstetric services.

The beginning of a new era was marked in September of 2003, when all major organizations active in the field of maternal health, joined forces and launched, in Kuala Lumpur, the Partnership for Maternal and Neonatal Health. Four major strategies have been identified to reach safer pregnancies and deliveries:

- Skilled attendance at all births,
- Basic emergency obstetric care in peripheral units,
- Comprehensive emergency obstetric care in referral hospitals, and
- Rapid transport of women in need of special care.

In view of the problems noted above, it should be apparent that no simple solution exists to the challenge of how to decrease perinatal and maternal mortality in developing countries. New endeavor is needed to develop broad strategies as well as innovative solutions. We need to enlist the help from scientists and researchers in our attempts to find simple, economic, and valid solutions for developing countries. The complexities of such a challenge are enormous but it must be taken seriously if we are to achieve our goal of reducing maternal deaths by one half in not so distant future.

References

1. Manila bulletin of UN: World population will reach 9.2 B in 2050, March 15, 2007.

2. Kurjak A, Carrera JM. Declining fertility in developed world and high maternal mortality in developing countries – how do we respond? (Editorial). J Perinat Med 2005;33:95–9.

3. Kurjak A, Dudenhausen J. Poverty and perinatal health. Editorial. J Perinat Med 2007;35(4):263–5.

4. Kurjak A, Dudenhausen J, Chervenak FA. Does globalization demand a different kind of perinatal research. Editorial. J Perinat Med, 2008, submitted to publication.

5. Carrera JM. Maternal mortality in Africa. J Perinat Med 2007;35(4):266–77.

6. Ronsmans C, Graham WJ. Maternal mortality: who, when, where and why. Lancet 2006;368:1189–200.

7. World Health Organization. World Health Statistics 2007. Geneva: WHO, 2007.

8. World Health Organization. Making pregnancy safer: the critical role of the skilled attendant. Joint statement by WHO, ICM and FIGO. Geneva: WHO, 2004.

9. World Health Organization. Promotion of births attended by a skilled attendant:2007 updates. Factsheet, Geneva: Department of Reproductive Health and Research, WHO, 2007.

10. Shah IH, Say L. Maternal mortality and maternity care from 1990 to 2005: uneven but important gains. Reproductive Health Matters 2007;15:17–27.

11. Berer M. Maternal mortality and morbidity: is pregnancy getting safer for women? Reproductive Health Matters 2007; 15:6–16.

12. Dražančić A. Maternal mortality. Gynaecol Perinatol 2005;14:7–17.

Paper received: 5.02.2008; *accepted:* 10.04.2008.

Address for correspondence: Prof. Asim Kurjak, MD, PhD, Univ. Dept. of Gynecol. & Obstet, Sv. Duh Hospital, Sv. Duha 64 Street, 10 000 Zagreb

✳ ✳ ✳

VIJESTI
NEWS

XXX ALPE ADRIA MEETING OF PERINATAL MEDICINE
Isola, Slovenija, 19–20. IX. 2008.

Topics:

1. Pain in labour and in neonate

Introductory lectures. Obstetric: Wolfgang Walcher et al, Graz.; *Pediatric:* Italy (not received)

Invited obstetric lectures: S. Klingenberg et al, Graz; Tomislav Hafner and Damir Žalac, Zagreb; György Vajda, Szeged; Italy not received; Slovenia not received.

Invited pediatric lectures: C. Rotky-Fast et al, Graz; Maja Jurin and Emilja Juretić, Zagreb; Éva Görbe, Szeged; Italy, not received; Slovenia, not received.

2. Multiple pregnancies

Introductory lectures. Obstetric: Gordan Zlopaša, Zagreb*; Pediatric:* Hajnalka Orvos, Szeged.

Invited obstetric lectures: E.C. Weiss, D. Schlembach, M. Häusler, Graz; Vesna Gašparović, Zagreb; Gábor Németh, Szeged; Italy, not received; Slovenia, not received.

3. Special lecture.

Slovenia, not received.

4. Free papers

Deadline for sending the abstracts: June, 15-th 2008

Informations: http://www.obgyn-si.org./alpeadria-2008/toplevel.html

Hotel accomodation: www.belvedere.si; www.hotelmarina.si; www.sansimon.si; www.lifeclass.net