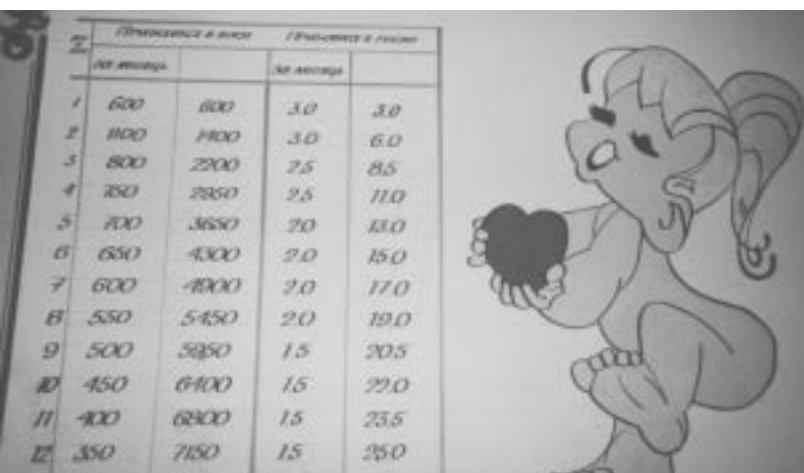




Meeting the Primary Healthcare Needs of Children

BY RICHARD RUPP

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Educating new parents about various stages of normal child development is an important part of primary care. These posters at the Zibolky Ambulatory Clinic in L'viv, Ukraine, provide easy-to-understand information about growth rates and nutrition.

One of the best measures of a society is how it cares for its children. Nations may use different strategies, but most share a desire for their children to grow to be healthy, productive adults. Healthcare systems and the role played by physicians continue to evolve. In the past 50 years, humankind has made great strides in the prevention and treatment of infectious diseases, which drastically improved the well-being of children, but now new causes of morbidity are coming to the forefront. Physicians face the task of preventing and treating these new threats. While each nation has its own set of challenges, lessons can be learned from studying the strategies of others.

Child Healthcare in the Soviet Union

The healthcare system of the Soviet Union addressed the needs of a widely disparate population, spread over a vast continent, providing care to all children free of charge. The majority of families were assigned to a physician or clinic based on where they lived; however, depending on the employment of the parent(s), the family might have the choice of another physician.^{1,2} Large organizations and government agencies had their own physicians and hospitals that were usually considered superior, and parents frequently had their child's care reassigned to these facilities. Either way, the same physician cared for the child

through their adolescence unless the physician changed position or the family moved, neither of which was very common. After birth, nurses visited new parents at home to teach basic infant care, as well as to monitor the growth and development of the baby. Children were brought to the assigned polyclinic for most sick and well care, although physicians did make house calls to care for those who were bedridden. Older children received physical exams, sick care, and immunizations from physicians, nurses, and dentists at school. Teens were allowed to make their own appointments, but often failed to seek help until concerns became major problems. Because young men might be enlisted in the military, they were regularly screened for health problems beginning at the age of 16.

Availability of services varied greatly under the Soviets. Resources were directed toward specialty services, while preventative measures were left underfunded. Consequently excellent specialized hospitals were developed in the largest urban centers. Unfortunately, families in smaller cities and rural regions had great difficulty accessing these hospitals and those seeking specialty care were forced to travel to large cities and face long lines and waits of up to several months.³ Anecdotally, physician visits emphasized medical care; discussion of behavior, mental health, or safety issues was rare unless brought up by the parent or adolescent.

Republic	Reported Infant Mortality Rate (IMR)	Corrected IMR
Armenia	20.4	27.9
Azerbaijan	26.2	33.4
Belarus	11.8	19.4
Estonia	14.7	22.1
Georgia	19.6	27.0
Kazakhstan	25.9	33.1
Kyrgyz	32.2	39.6
Latvia	11.1	18.4
Lithuania	10.7	18.1
Moldova	20.4	27.9
Russian Federation	17.8	25.1
Tajikistan	43.2	50.6
Turkmenistan	54.7	60.3
Ukraine	13.0	20.4
Uzbekistan	37.7	44.7
All Soviet Union	22.7	30.1

Table 1: Infant mortality—infants deaths per 1,000 live births—reported and corrected for the NIS, 1990.

Child Healthcare in the United States

Historically, medical care in the United States has been dominated by patient choice. Families looked for physicians whom they could trust and talk easily with. The majority of physicians provided primary care and coordinated the patient's overall care—including specialty services—while keeping the family's specific needs in mind. Appointments had to be readily available and timely, because if a family was not satisfied with any aspect of their care, they were free to find another doctor. During the past few decades, Americans have taken their children to the physician's office—where in addition to medical consulting, information was provided on safety and child behavior—and house calls have become increasingly rare. Traditionally, few services have been available at schools except for hearing, vision, and scoliosis screening. Families with limited financial resources find accessing services difficult. And, the majority of teens, lacking their own financial resources, receive medical services under their parent(s) set parameters, meaning they may forgo treatment in order to maintain their privacy.

In the United States, the government has increasingly assumed more responsibility for insuring poor families. Skyrocketing costs, due to the price of new technologies and heightened patient expectations, continue to force change. The government and third party payers keep trying various strategies

	1985	1990	1991	1995	1997
Total	10.4	8.9	8.6	7.6	7.2

Table 2: US infant mortality rates—infants deaths per 1,000 live births—for selected years 1985-97.

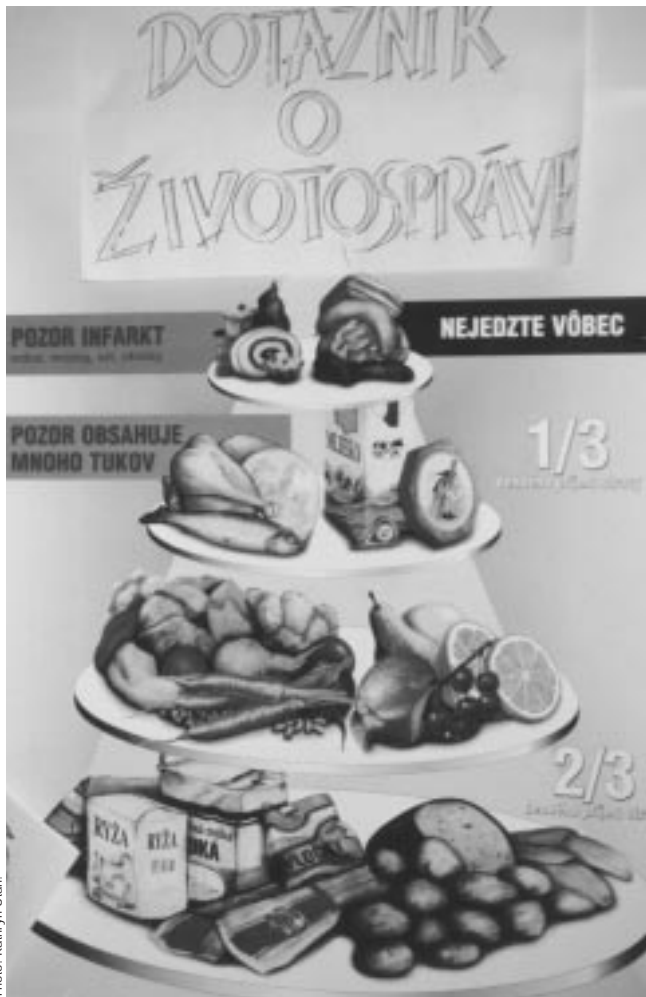
in an attempt to decrease expenses, but many of these strategies effectively limit patient choice, making those accustomed to the historical customer-focused approach unhappy with service provided. Increasingly, insurers are pushing preventative measures for cost containment.

Addressing the Healthcare Needs of Children in Today's World

In developed countries, advances in immunization, hygienic practices, antibiotics, and diagnostic testing have made the risk from many childhood diseases all but disappear. As the threat from these diseases fades, communities increasingly turn to healthcare providers to help address noninfectious threats. Behavior and health indices can furnish information about the nature of these threats and following trends over time can demonstrate whether strategies to improve health are successful. Unfortunately, statistics are not kept or maintained accurately in many nations and are subject to manipulation. Very few statistics are available for the NIS, so this article relies mostly on US statistics, which cannot be generalized to the NIS but can be used to illustrate pertinent issues.

Infancy

The Infant Mortality Rate (IMR)—expressed in deaths per 1,000 live births—indicates the probability of death in the first year of life and reveals much about the general health of a nation. Infant mortality is the product of many interdependent factors such as the mother's health status, her prenatal care and care during delivery, the state of an infant's nutrition, and the control of infectious diseases and other threats to infant health, which are all reflected in this number. Comparing national IMRs is not done easily as the collected statistics depend on definitions that are not universally agreed upon. Table 1 shows IMRs during Soviet rule. In an effort to make the figures comparable to those for other countries, corrected figures are provided. These figures attempt to account for differences in record keeping. For example, the Soviet system excluded infants measuring less than 28 centimeters or weighing less than 1,000 grams who died in the first week from their mortality figures. Most other countries include such infants. The corrections are estimations based on several assumptions that may or may not be correct.^{4,5}



Students at a nursing high school in Martin, Slovakia, prepare educational materials and posters—such as this one encouraging proper nutrition—then develop lessons which they teach to younger children at other schools throughout the region. Both the nursing students and their healthy lifestyles “pupils” benefit from the arrangement: the nursing students learn patient education techniques and their pupils learn how to take responsibility for their own well-being.

Changes since 1985 in the US IMR are seen in Table 2,⁶ while the top five causes of death for US infants are shown in Table 3.⁷

Prenatal care is of utmost importance to decreasing infant mortality. Mothers must be kept in good health, have routine obstetric visits, and, as part of the prenatal services, health issues after birth must be discussed with expecting parents. Providers should gather information on the family’s medical history, the pregnancy, available support from the extended family, employment, and preparations made for the baby. During this time, US physicians are encouraged to help allay expectant parent anxiety about delivery by discussing birthing and nursery procedures. Parents should be encouraged to make decisions before the birth about childcare arrangements, breastfeeding, and circumcision. Other issues needing to be discussed

Cause of Death	Number of Deaths
Congenital Anomalies	6,212
Pre-Term/ Low Birthweight	4,101
Sudden Infant Death Syndrome	2,822
Respiratory Distress Syndrome	1,295
Problems Related to Complications of Pregnancy	1,343
Complications of Placenta, Cord, and Membrane	961
Perinatal Infections	815
Accidents	754
Pneumonia/ Influenza	441
Intrauterine Hypoxia and Birth Asphyxia	461

Table 3: Leading causes of infant death—per 1,000 live births—in the United States.

include setting up a safe crib, the use of safety restraints, and well-infant examination schedules.

After birth, the foundation of the physician-parent relationship is the well-infant visit. Parenting should be emphasized, especially for a couple with their first child. Faced with conflicting advice from friends and family, parents can turn to a physician for unbiased information on different aspects of child rearing. Each well visit should consist of a discussion of parental concerns, as well as nutrition, age appropriate safety issues, development, and behavior. During wellness visits, an infant is examined, his or her growth closely followed, and immunizations are given. The well infant visit has played an integral role in reducing the IMR in the United States. For example, physicians have been part of the campaign to educate parents on infant sleep positioning, which has resulted in a drop in mortality due to sudden infant death syndrome (SIDS).

The community-based Family Medicine Model that is being adopted by some AIHA partners and being incorporated into their primary care centers readily combines these aspects. The relationship between the parents and physician may predate the pregnancy, meaning the physician is already familiar with the family’s medical history, the pregnancy, and the family structure. Infant care material covered in a single prenatal visit can be easily incorporated into the routine obstetric visit and detailed discussions can occur over months, progressing naturally over time. For example, items needed for the baby may be discussed early in the pregnancy while nursery procedures are discussed closer to the due date. Because the family physician is the provider for the parents as well, she is uniquely positioned to help the family with issues such as postpartum depression and contraception for spacing of subsequent children.

Characteristic	1980	1985	1990	1995	1997
TOTAL	63.9	51.8	46.8	40.6	35.8
LEADING CAUSES OF DEATH					
Unintentional injuries	25.9	20.2	17.3	14.5	13.1
Cancer	4.5	3.8	3.5	3.1	2.9
Birth defects	8.0	5.9	6.1	4.4	3.8
Homicide	2.5	2.5	2.3	2.9	2.4
Heart disease	2.6	2.2	1.9	1.6	1.4
Pneumonia/influenza	2.1	1.6	1.2	1.0	1.2
INJURY-RELATED DEATHS BY CAUSE					
All injuries (intentional and unintentional)	28.9	23.0	19.9	17.4	15.5
Motor vehicle traffic	7.4	5.9	5.3	4.5	4.3
Drowning	5.7	4.4	3.9	3.5	3.1
Fire and burns	6.1	4.8	4.0	3.1	2.5
Firearms	0.7	0.7	0.6	0.6	0.5
Suffocation	1.9	1.4	1.3	1.3	1.1
Pedestrian	1.5	1.1	0.9	0.7	0.7
Fall	0.9	0.6	0.6	0.3	0.3

Table 4: US mortality rate—deaths per 100,000 children—for children ages 1-4 by cause of death for selected years.

Characteristic	1994	1995	1996	1997	1998
COMBINED SERIES (4:3:1:3)*	69	74	77	76	79

*The 4:3:1:3 combined series consists of 4 doses of diphtheria and tetanus toxoids and pertussis vaccine (DTP), 3 doses of polio vaccine, 1 dose of a measles-containing vaccine (MCV), and 3 doses of Haemophilus influenzae type b (Hib) vaccine.

Table 5: US childhood immunizations by percentage for children ages 19-35 months vaccinated for selected diseases.

Preschool

If all has gone well, under the family medicine model by the child's first birthday the parents should have a comfortable relationship with their physician who has helped guide them through this time. During the toddler years, behavior becomes increasingly important to most families and physicians can provide information on discipline, toilet training, and child-rearing strategies related to picky eating, sleeping problems, biting, and acting out. Table 4 reveals that in the United States, infectious agents and congenital problems become less of a threat to a child's health during these years, while accidents increase.⁸ A physician should take time during each visit to remind parents of the importance of child safety seats, water safety, fire safety, and fall prevention.

Vaccination has played an important role in the prevention of childhood diseases and immunization rates may be used as indicators of the quality of care children have received. Because a child must have periodic contact with the healthcare system to be fully immunized, immunization status is a nonspecific indicator of accessibility to healthcare, as well as a record of the



Photo: Suzanne E. Grinnan.

Screenings, such as vision exams, are important not only in terms of a child's health, but also in terms of their ability to perform well in school. Increasingly doctors are called upon to help diagnose and treat learning disabilities. Such screenings help determine if a physical deficiency—such as poor eyesight—is the reason for poor performance.

degree of protection. Table 5 shows immunization rates in this age group for the United States.⁹ New immunizations are becoming available at a rapid rate and immunization schedules are in a constant state of flux.

A new phase begins as the child approaches her fifth birthday and the physician evaluates the child's growth, health, and school preparedness. Formal vision and hearing screening should be performed at this time and a physician should look at various aspects of the child's behavior and speech to ensure she has the skills to perform adequately in school. Identified problems need to be quickly addressed to minimize their long-term effect.

School Age

Injuries account for almost half of all mortality in US children



Characteristic	1980	1985	1990	1995	1997
TOTAL	30.6	26.5	24.0	22.5	20.8
LEADING CAUSES OF DEATH					
Unintentional injuries	15.0	12.6	10.4	9.3	8.7
Cancer	4.3	3.5	3.1	2.7	2.7
Birth defects	1.6	1.4	1.5	1.2	1.2
Homicide	1.2	1.2	1.3	1.5	1.2
Heart disease	0.9	1.0	0.9	0.8	0.8
Pneumonia/influenza	0.6	0.4	0.4	0.3	0.4
INJURY-RELATED DEATHS BY CAUSE					
All injuries (intentional and unintentional)	16.7	14.7	12.7	11.7	10.7
Motor vehicle traffic related	7.5	6.6	5.6	5.1	4.8
Drowning	2.5	1.8	1.5	1.3	1.2
Fire and burns	1.5	1.4	1.0	1.0	0.8
Firearms	1.6	1.8	1.9	2.0	1.4
Suffocation	0.9	0.9	0.8	0.8	0.9
Pedestrian	0.2	0.1	0.1	0.1	0.1
Fall	0.3	0.2	0.1	0.2	0.2

Source: D. Hoyert et al.

Table 6: US mortality rate—per 100,000 children—for children ages 5-14 by cause of death for selected years.

from 5-14 years of age (see Table 6,⁶) thus physicians should encourage youth to use seat belts, wear protective helmets when engaging in recreational pursuits such as roller blading, and learn water and fire safety.

Recently, parents and educators have been turning to physicians for help and US primary care physicians have become involved in the diagnosis and treatment of learning disabilities, mood disorders, and attention problems that interfere with learning. This is an area in which primary care physicians are just beginning to be trained. While primary care physicians can treat uncomplicated behavior-related disorders, more complex problems require the physician to coordinate needed mental health, physical, speech, and occupational therapy services. Thus a physician now often finds herself acting as an arbitrator, trying to help the parents and schools balance the needs of the child with the resources available to the schools.

Physicians should begin to discuss the approach of adolescence with parents when the child is around 10 years of age. Parents may desire information on the impending physical and developmental changes their child will soon be encountering and how to best handle them. During well checks, a physician should spend a few minutes speaking with the child alone about puberty, peer relations, school, and/or other topics of concern. This brief encounter accomplishes several things. First, it confirms to the child that the physician sees her as an individual and allows the child to develop skills communicating with a physician. Second, it helps parents understand that the physician-parent relationship is changing and that the child is now being viewed more as a young adult.

> CREATING A HEALTHY FUTURE: BISHKEK'S GROUP OF FAMILY DOCTORS PROVIDES COMPREHENSIVE CARE FOR CHILDREN AND ADOLESCENTS

By Kathryn Utan / AIHA Staff Writer

Each day, AIHA partners throughout the NIS and CEE work to address the health-care needs of children and adolescents in the communities they serve by offering high-quality clinical and diagnostic services along with disease prevention and health promotion programs. In January 1999, primary care practitioners at City Multi-profile Polyclinic #6 in Bishkek, Kyrgyzstan—a model primary care training site affiliated with the Bishkek/ Nevada-Tampa partnership—formed the Group of Family Doctors (GFD) to help improve the health status of young people in this Central Asian capital.

Comprised of an internist, a pediatrician, an obstetrician/gynecologist, and several nurses, GFD provides primary care to more than 23,500 children up to the age of 14, according to Dr. Turat Kasymbekov, head of outpatient services at Polyclinic #6. "In their efforts to meet the healthcare needs of the children in our community, GFD team members not only treat illnesses, but work to educate young people and their parents about disease and accident prevention, proper nutrition, sexuality, reproductive health, and problems associated with alcohol, tobacco, and drug use," Kasymbekov explains, noting that the staff draw from a wide variety of treatment and prevention protocols advocated by the World Health Organization.

Regular interaction between GFD staff and their young patients, coupled with a strong patient education program targeting both children and their parents, helps

practitioners build a solid, effective partnership with those they treat. “Doctors conduct monthly examinations of children to identify risk factors and any deviations from normal physical development. If a disease is revealed, the child receives treatment on an outpatient basis or, if necessary, is seen by relevant specialists. After the appropriate course of treatment, the child is given recommendations on secondary prevention measures,” Kasymbekov says. “This close communication between the practitioners and the children and their families helps clinicians develop a heightened awareness of the climate within each home and thereby puts them in a better position to identify any physical or emotional abuse, as well as possible mental or behavioral anomalies.”

BEHAVIORAL HEALTH AND PATIENT EDUCATION

Noting that adolescence is often a stressful period for many young people, Arsen Aydaraliev, vice rector of international relations at Bishkek’s Kyrgyz State Medical Academy (KSMA), explains that GFD staff work hand-in-hand with psychologists from the Polyclinic to recognize early warning signs of depression, violence, substance abuse, and other behavioral disorders. “In more complex cases, the GFD team consults with staff from KSMA’s Psychiatric Department to determine appropriate diagnoses and courses of treatment. Polyclinic staff have already conducted an in-depth survey to evaluate young adults for hidden depressive disorders and have instituted a campaign to help prevent domestic violence,” Aydaraliev states.

While providing regular check-ups has been relatively easy, getting young people to recognize the importance of preventing disease by adopting a healthier lifestyle has been a bit more challenging, according to Kasymbekov. “Most adolescents are reluctant to participate in voluntary health education programs because they do not completely understand the value of good health. There are no positive role models for them in this regard and they have no incentive to address wellness issues in a proactive manner.” This malaise is even more alarming, he

notes, when candid discussions with local teens reveal that some 65 percent of those between the ages of 14 and 15 are regular smokers and more than half have already tried drugs or alcohol. These same surveys also indicate that 80 percent of the adolescents feel as if they have no say at home or in school, more than 85 percent suffer from chronic health problems, and 100 percent have trouble relating to their parents and other family members.

“This close communication between the practitioners and the children and their families helps clinicians develop a heightened awareness of the climate within each home and thereby puts them in a better position to identify any physical or emotional abuse, as well as possible mental or behavioral anomalies.”

TARGETING SERVICES

Additional surveys, questionnaires, and other assessment tools, as well as more informal discussions with children and teens, were conducted to help determine the overall health status of youth in the community. As a result, the primary care and patient education services offered by GFD were supplemented with programs targeting the most widespread complaints, which included chronic non-specific pulmonary and gastrointestinal diseases as well as substance abuse. Despite the ambivalence of many teens, there is a core group of adolescents who understand the importance of main-

taining one’s health, Kasymbekov says. These children—some 15 percent of those who receive treatment from GFD—actively participate in the fledgling education and outreach programs “We have also had a favorable response from parents and teachers—two groups that are obviously very concerned about the well-being of children. Recent increases in smoking and substance abuse among young people, growing numbers of teenage pregnancies and sexually transmitted infections (STIs), higher rates of violence among adolescent populations, and trepidation about how environmental conditions adversely effect the health of children have caused a great deal of anxiety for parents, teachers, and healthcare providers alike,” he claims, noting that more and more adults are joining forces with clinicians and youth leaders to address these problems by adopting a community-based, multidisciplinary approach.

This collaboration has led to the implementation of additional services and educational programs at area schools, according to Kasymbekov. “There is a staff psychologist at every school, physicians deliver lectures on healthy lifestyles, and new courses focusing on quality of life issues have been added to the curriculum. Additionally, a gynecologist who specializes in adolescent health performs annual exams for young female students,” he states, explaining that future goals include strengthening programs that target children from families in which drug or alcohol addiction is an issue and holding workshops on STI prevention and contraception alternatives.

“We are very pleased that this program has attracted the interest and attention of many people from our community—especially parents,” Kasymbekov continues, noting that this has the added benefit of increasing the likelihood that parents speak more openly with their children about difficult subjects such as sex, interpersonal relationships, and substance abuse. “Candid discussions of these topics not only arm a young adult with the knowledge necessary to make intelligent choices, but also helps to build stronger bonds within the family.” ■



Photo: AIHA archives.

Periodic visits with a healthcare provider are part of a proactive approach to preventing illness and teaching children the value of a healthy lifestyle.

Adolescence and Young Adulthood

As societies become more complex, roles become less stereotyped, and more life-options are available, adolescence—or the transition from childhood to adulthood—becomes longer and more difficult. Adolescent behaviors often begin as early as 10 years of age and may continue into the mid-twenties through what traditionally had been considered young adulthood. Shockingly, mortality rates more than triple for 15-19 year olds in the United States due to injuries related to risk behaviors (see Table 7). Unintentional injuries are the most common cause of death followed by homicide, suicide, and in a distant fourth place, malignancy.

The teen pregnancy rate of a country is seen as a general indicator of the quality and accessibility of adolescent healthcare, and the failure to address the risk behaviors of this age group may be one of the reasons for high pregnancy rates. Table 8 shows the teen pregnancy rates for countries with available data.¹⁰

Characteristic	1980	1985	1990	1995	1997
All causes	97.9	80.5	87.8	83.5	74.8
Injuries	78.1	62.8	71.0	66.1	58.5
Motor vehicle traffic	42.3	33.1	32.8	28.3	27.0
All firearm	14.7	13.3	23.3	24.5	18.8
Firearm homicide	7.0	5.7	13.8	15.4	11.6
Firearm suicide	5.4	6.0	7.4	7.0	6.0

Table 7: US mortality rates—deaths per 100,000 children—among adolescents ages 15-19 by causes of death for selected years.

Country	Pregnancy Rate
Belarus	73.3
Bulgaria	83.3
Czech Republic	32.4
Estonia	66.2
Georgia	66.4
Hungary	59.1
Latvia	54.5
Moldova	64.8
Romania	74.0
Russian Federation	101.7
Slavic Republic	43.3
Slovenia	19.9
United states	83.6

Table 8: Pregnancy rates—per 1,000—for women ages 15-19 for 1995, the most recent year available, with the following exceptions: 1996 for Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Moldova, Slovenia, and the United States, and 1993 for Romania.

In order to truly effect the health and well-being of the adolescent, the physician must address mental health, substance use, and sexual activity. Unfortunately, providers often find engaging adolescents difficult. (For more information on how to communicate with teens, see “Setting the Stage for Effective Communication with the Adolescent Patient,” *CommonHealth*, Spring 2001, page 25.) Teens do not like being seen in a pediatric—“children’s”—clinic because they don’t want to be seen as a child. Family Medicine practices do not cause this identity problem where adults are seen as well.

Thought processes mature during adolescence. Until abstract reasoning is fully developed, deficits lead to difficulties assessing risk and recognizing consequences. This leaves the adolescent feeling omnipotent and immortal. Teens recognize that there are consequences for behaviors but feel personally immune. When faced with adverse outcomes from their risk behaviors, they commonly comment, “I never thought it would happen to me.” Developing the ability to function inde-

Source: National Vital Statistics Reports.

pendently is the major task of adolescence. During this process, the teen tests limits in order to establish boundaries; the drive for independence coupled with immature thought processes is a dangerous combination.

Adults underestimate the influence of peers, but as the teen moves to become less dependent on the parents she does not have the capability to completely function independently. Instead, the adolescent turns to peers for support and guidance, and her values begin to reflect those of her peers. During middle adolescence, peer groups are homogeneous; the group minimizes the stress of becoming independent through uniformity and compliance with norms. The group shares a style of dress and a set of behaviors. Deviance from these standards shakes the foundation of the group, resulting in the loss of membership or stature for the teen. Unfortunately, it is not just the dress, the music, or slang that defines a peer group. Often, it is the risk behavior—such as sexual intercourse and substance use—that confers membership. The desire for acceptance and resulting “need” to conform to peers causes many teens to stray far from family values.

A physician must recognize these coming changes and begin transitioning the parent-physician relationship into a parent-teen-physician relationship before the child grows too old. Up to this point, the relationship has been steered by the parents, but now the relationship must recognize that the teen has a personal agenda. Failure to recognize and adjust to this shift leaves the physician—in the eyes of the teen—as an agent of the parents. Like adults, teens do not like being censured and they desire privacy. If a physician remains nonjudgmental and upholds confidentiality, teens will turn to her as a source of unbiased information. Still, peer group conformity is a priority and so a physician should avoid becoming frustrated when a teen does not immediately comply with health-related advice. Medical counsel will receive higher priority as the teen matures and becomes less reliant on peers.

Each appointment creates an opportunity to provide a teen with information on a risk behavior such as substance use, intimate partner violence, sexual activity, or mood disorders. A provider, in an attempt to be thorough, will often cover too many topics, which rapidly becomes boring to the teen and is seen as nagging. It is more effective to pick one subject relevant to a teen and fully discuss only it during a visit. Because teens often have misconceptions about behavioral topics, question asking and knowledge gathering should be encouraged, thereby allowing the patient to develop her own strategies about how to avoid risky behavior.



Photo: Suzanne E. Grinnan

Immunizations play an important role in the prevention of childhood diseases such as polio and preventable illnesses.

The healthcare needs of nations change, and increasingly, the threats to children's health are in the realm of behavior and safety. While immunization, age-specific mortality, and teen pregnancy rates can be used to identify threats and direct health-care resources for a country, the ability of primary care physicians to individually address behavioral care issues with parents, children, and young adults is one way to determine the success of a society. ■

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Informing and Empowering Children to Prevent Early Addiction

BY PAUL CSAGOLY

Paul Csagoly was the Communications Officer for the Tobacco Free Europe in the WHO Regional Office for Europe; he is currently a consultant for WHO.



Russian cigarettes can be bought in Moscow for as little as six rubles (or 21 US cents, at summer 2001 exchange rates), while American brands like Marlboro command five loaves of bread.

Six-year-old Annette lives with her parents in the small Hungarian town of Kalocsa. Although Annette loves her mother, she never liked it when her mother smoked cigarettes—especially at home—because it smelled bad and made her eyes hurt. But, since many people smoke in Kalocsa, Annette thought that smoking was a “normal” thing to do when you grew older.

Then one day Annette’s kindergarten teacher, Agnes Kovacs, started talking about cigarettes and how they affect our health. Ms. Kovacs showed Annette and the other students two pictures, one of a strong, red, healthy “nonsmoking” cherry and one of a sickly, grey cherry that smokes to illustrate the human lungs. Annette also heard a fun story about a sick dragon who got better after he gave up cigarettes. After the lesson, Annette and her classmates got to bring home some stickers, a new T-shirt, and a little pamphlet with pictures of the cherries. Maybe smoking is not so normal, she began to think. “Smoking smells and it’s unhealthy,” she now says. “It’s very dangerous and it causes lung cancer, too. I won’t ever smoke.”

When she got home, Annette showed her stickers, T-shirt, and pamphlet to her family and told them what she had learned. When later asked whether the talk with her parents had any

effect, Annette replies, “My mother smokes less now and she never smokes in the same room as me anymore.”

A Novel Hungarian Program

The education Annette received was part of the Hungarian *Smoking Prevention Project in Kindergartens*. Inaugurated in 1992, the program provides information on the effects of smoking to hundreds of children aged 5-7 who attend kindergartens throughout the country. Lessons are taught by teachers, who are given educational materials, as are social workers, parents, nurses, and doctors. One result is that many children now ask adults not to smoke in their air-space.

“It is a fantastic program and has had great results,” says Kovacs. “You need to start teaching children about the negative effects of tobacco at this age to prevent them from smoking later.” Her own two children—now aged 11 and 13—went through the program. “They have never tried smoking and they don’t like seeing their friends smoke,” says Kovacs, herself a nonsmoker.

The idea behind the program originated with Tibor Demjen, department head of the Smoking or Health Program at Hungary’s National Institute for Health Promotion. “Some 67 percent of current smokers in Hungary started between the ages of 12 to