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Special Focus: *Safe Motherhood*

Safe Motherhood: Investing in the Health of Women

In the United States in the 21st century, illness and death from pregnancy should be, at worst, a rare occurrence. However, each day in the United States, more than 2,000 women have a major complication before labor begins, and two to three women die as a result of pregnancy. Of the more than 10,000 women a day who gave birth in 1997, 2,200 had a surgical (cesarean) delivery. "A woman's illness during pregnancy affects not only her health, but the physical, emotional, and economic health of the whole family. Each death represents a devastating loss to the woman's family and to the entire community," said Hani Atrash, MD, MPH, Chief, Pregnancy and Infant Health Branch, Division of Reproductive Health, NCCDPHP. "Even one woman dying is too many women dying."

In 1987, the United Nations launched an international initiative called Safe Motherhood. Safe motherhood begins before conception with proper nutrition and a healthy lifestyle. It continues with a planned pregnancy, appropriate prenatal care, the prevention of complications whenever possible, and the early and effective treatment of any complications that do occur. It ends with a labor at term without unnecessary interventions, the delivery of a healthy infant, and a healthy postpartum period in a positive environment that supports the physical and emotional needs of the woman, infant, and family. "Safe motherhood is a vital, cost-effective economic and social investment," said Dr. Atrash. "Yet for too many women, safe motherhood is not a reality."

Pregnancy-Related Deaths

Although the risk of dying of causes related to pregnancy declined dramatically from the 1950s to the early 1980s, it has remained virtually unchanged since 1982. Every year, at least 700 American women die of pregnancy-related complications during their pregnancy or within 1 year after their pregnancy. Studies estimate that at least half of these deaths could be prevented. The most important causes of pregnancy-related deaths are massive bleeding (hemorrhage), pregnancy-induced high blood pressure (preeclampsia and eclampsia), blockages in the blood or lungs (emboli), and infection.

The risk of dying as a result of pregnancy is not the same for all women. In particular, women of certain racial and ethnic groups and women who become pregnant later in life are at increased risk. For example, the risk of a pregnancy-related death is four times greater among black women and almost two times greater among Hispanic women than among white women. Women older than age 35 are three times more likely than younger women to die of pregnancy-

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Improving Women's Health: National Strategy Needed

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JUST over 100 years ago, a woman's average life span was only 48 years, and simply bearing a child was a life-threatening event. Despite advances in public health and childbirth techniques, however, a safe and healthy pregnancy still eludes some women. For every 100,000 deliveries, experts estimate that about 20 U.S. women die of pregnancy-related complications, and about one in five women have serious problems before entering labor. Most disconcerting is that the majority of these women enter pregnancy relatively young and healthy.

The Office on Women's Health in the Department of Health and Human Services is dedicated to the maternal and child health objectives unveiled in *Healthy People 2010*, the nation's health agenda for the next decade. *Healthy People 2010* has two goals: to increase quality and years of healthy life and to eliminate racial and ethnic disparities. We are seeking a significant reduction in the official maternal death rate, to 3.3 per 100,000 live births, reduced from the current rate of 8.4 in 1997. We are also seeking to increase the proportion of pregnant women who receive early prenatal care (entry into prenatal care in the first trimester of pregnancy) to an average of 90%, from a baseline of 83% in 1998.

To eliminate disparities in health status, the objectives for early prenatal care are further specified by racial and ethnic group. For example, one objective seeks to reduce maternal illness and complications due to pregnancy. The 1997 baseline average for this objective is 30.7 per 100 deliveries for white women, compared with a rate of 39.2 for African-American women. The *Healthy People 2010* goal is set at 20 per 100 deliveries. Similarly, the 1998 base for entry into prenatal care during the first trimester is 88% for non-Hispanic white women, 73% for non-Hispanic black women, and 74% for Hispanic women. The *Healthy People 2010* goal is 90% for all women.

Despite continuing disparities, we have seen some promising trends. Of the 17 maternal and infant health objectives included in *Healthy People 2000*, progress has been made toward the target in eight: infant death, fetal death, cesarean delivery, breast-feeding, early use of prenatal care, hospitalization for complications of pregnancy, abstinence from tobacco use during pregnancy, and screening for fetal abnormalities and genetic disorders.

We must also continue our efforts to reduce the number of unplanned pregnancies, as called for in the *Healthy People 2010* objectives, which aim to increase the percentage of pregnancies that are planned to 70%. Approximately half of all pregnancies in the United States are unintended, resulting in a lost opportunity to prepare for an optimal pregnancy and an increased risk of infant and maternal illness and complications.

Improving maternal health, however, requires a national public health strategy that includes all women having high-quality health services that are culturally and linguistically appropriate, access to family planning counseling, and care after childbirth for both physical and mental health needs. Continued public health monitoring of maternal deaths and complications is necessary to accurately assess our progress in this area. Prevention research must be conducted to determine the reasons for the racial and ethnic disparities seen in health outcomes for women. We must develop and improve programs to promote early prenatal care and healthy pregnancies, especially in underserved populations. It is important for Congress to invest in legislation that helps the states improve access to care before, during, and after a woman's pregnancy.

Safe motherhood (as defined in the cover article of this issue, page 1) is supported by an impressive list of national and international groups, and it is heartening to see a global effort to improve the health of mothers and their babies. Safe motherhood is an important measure of a nation's health and should be center stage when planning health and legislative priorities.

Investing in the Health of Women

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related causes. According to Lynne S. Wilcox, MD, MPH, Director, Division of Reproductive Health, NCCDPHP, one of the main objectives of safe motherhood is to eliminate these disparities. "We need to ensure that all women in this country have an equal opportunity to have a safe, healthy pregnancy," she said. "Research to discover why the risk of pregnancy-related illness and death varies by race, ethnicity, or age-group will enable us to plan health programs that make pregnancy safer for all women," stated Dr. Wilcox.

Pregnancy-Related Illness

For every woman who dies during pregnancy, several thousand women have complications resulting from pregnancy. About one of every three women who gives birth in the United States each year will have a pregnancy-related complication before, during, or after delivery. The most common complications are miscarriage, ectopic pregnancy, excessive vomiting, gestational diabetes, hemorrhage, infection, pregnancy-induced hypertension, premature labor, and need for a surgical (cesarean) delivery.

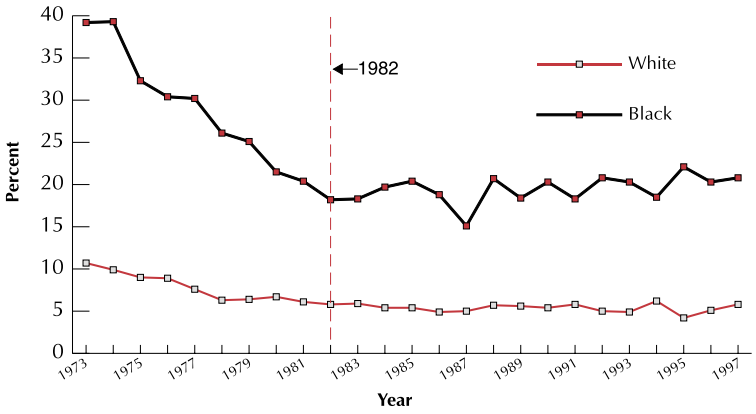
Childbirth is the most common reason for hospitalization in the United States, and pregnancies with complications lead to more costly hospitalizations. In the United States, hospitalizations for pregnancy-related complications occurring before delivery account for more than 2 million hospital days of care each year and cost more than $1 billion annually. Moreover, these numbers do not include hospitalizations for complications that occur during or after delivery.

Reducing Pregnancy-Related Illness and Death

More than half of all pregnancy-related illness and deaths could be prevented by improving health care access, improving quality of care, and educating women to adopt healthier lifestyles, according to Suzanne Zane, DVM, Medical Officer, Division of Reproductive Health, NCCDPHP. "High-quality prenatal care begun early in pregnancy is one of the cornerstones of any safe motherhood program," said Dr. Zane."Women who obtain prenatal care later or not at all greatly increase their risk of having undetected complications during their pregnancy. When these complications go untreated, they can result in severe illness and sometimes death." Women who receive no prenatal care are four times as likely to die as a result of pregnancy as women who receive prenatal care. Although the percentage of women who receive delayed or no prenatal care has declined in the last 10 years, women of different racial and ethnic groups still differ in the timeliness of the prenatal care that they receive. For example, in 1997 the percentage of black women who received delayed or no prenatal care remained more than two times greater than that of white women—about the same as in 1989.

"Public health agencies are a focal point for stimulating and coordinating partnerships to help reduce maternal illness and death," said Cynthia Berg, MD, MPH,

Maternal Deaths* Among Black and White Women—United States, 1973–1997



*Deaths during or within 42 days after pregnancy, per 100,000 live births.
Source: CDC, National Center for Health Statistics.

Maternal Health Team Leader, Division of Reproductive Health, NCCDPHP. CDC is working with states and other partners to improve maternal health by improving efforts to accurately measure the true extent of maternal deaths and complications, determining the reasons for disparities in receiving early prenatal care among women of different racial and ethnic groups, and translating science into quality care.

Monitoring the Health of Women Before, During, and After Pregnancy

In 1987, working with state health departments, CDC developed the Pregnancy Risk Assessment Management System (PRAMS). PRAMS is an ongoing, state-specific, population-based surveillance system designed to identify and monitor selected maternal behaviors and experiences before, during, and after pregnancy. Currently conducted in 22 states and New York City, PRAMS provides vital information for planning and assessing maternal and child health programs. "Data from PRAMS are helping us to understand some of the reasons why many women find it difficult to begin prenatal care early," said Indu B. Ahluwalia, MPH, PhD, Epidemiologist, Division of Reproductive Health, NCCDPHP. "These reasons include being unaware of the pregnancy, not having money or insurance to pay for care, not being able to get an appointment, and not having transportation."

In response to changes in many U.S. health care delivery systems, CDC and its partners are investigating other ways to monitor pregnancy-related illness. Projects include examining complications that occur during delivery among women giving birth in the United States; examining the risk of uterine rupture as a result of vaginal birth after cesarean delivery in Massachusetts; and characterizing the treatment of ectopic pregnancies among members of an HMO in California.

Maternal and Child Health Epidemiology Program

CDC and the Health Resources and Services Administration have developed the Maternal and Child Health Epidemiology Program (MCHEP), a collaborative effort to provide technical support, financial assistance, and time-limited assignments of senior epidemiologists to maternal and child health programs in states and other jurisdictions. MCHEP assists state and local health departments in collecting, analyzing, and using information effectively to build strong maternal and child health programs. In addition, the annual Maternal, Infant, and Child Health Epidemiology Program Workshop offers training opportunities and information to professionals in the field. Myra Tucker, BSN, MPH, MCHEP Program Manager, NCCDPHP, is a strong advocate of supporting state and urban efforts with CDC resources. "Each state faces unique challenges in improving maternal health, and state health agencies are the experts on local issues. MCHEP puts CDC's broader expertise out into the states so that the work can get done right where it is needed for local programs."

Increasing Knowledge and Public Awareness

To provide information essential for developing effective prevention strategies, CDC is conducting prevention research to determine the risk factors for disease during pregnancy. For example, CDC is exploring factors associated with bacterial vaginosis, a condition that has been linked with ectopic pregnancy, preterm labor, and uterine infections after

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Teen Pregnancy Prevention: Breaking the Cycle for Mothers and Children

NATIONALLY, pregnancy and birthrates among teenagers have declined slightly during the past 10 years. In some states, however, teen pregnancy has increased in both urban and rural areas. Overall, teen pregnancy remains a major public health problem in the United States.

- About 1 million teenagers become pregnant each year.
- Nearly half a million teenagers give birth every year.
- One of every five females will have given birth by age 20.
- Seven of every 10 teen mothers will drop out of high school.
- Teen mothers earn an average of $5,600 per year during the first 13 years of parenthood.

Unfortunately, teen pregnancy is not an illness that can be treated with a prescription or prevented by a vaccine. It is a complex social and cultural problem brought on by factors that include poverty, family dysfunction, early school failure, and a lack of prevention education. Teen pregnancy has both immediate and long-term negative health outcomes for teen mothers and their children. Teen mothers complete fewer years of school and are more likely to have large families and to be single parents. They are less likely to get adequate prenatal care and more likely to have premature and low-birth-weight infants. Children of teen mothers have poorer health, lower cognitive development, and higher rates of behavior problems. They are likely to become teenaged parents themselves, perpetuating the cycle of poverty.

CDC has conducted surveillance of state and national teen pregnancy rates since 1974. During that period, however, few programs have been evaluated and proven to significantly reduce teen pregnancy rates. Several CDC offices, including NCCDPHP's Division of Adolescent and School Health (DASH) and Division of Reproductive Health (DRH), address teen pregnancy prevention. DASH coordinates the Youth Risk Behavior Surveillance survey to determine the attitudes and behaviors of young people and document baseline data. In addition, DASH has established the Joint Work Group on School-Based Teen Pregnancy Prevention, a network of eight organizations that offers information, resources, and assistance developing programs and policies to prevent teen pregnancy. DRH houses a teen pregnancy prevention section within its Pregnancy and Infant Health Branch that manages teen pregnancy surveillance, behavioral research, and demonstration projects.

New Perspective, New Strategy, New Hope

In 1995, CDC established the Community Coalition Partnership Programs for the Prevention of Teen Pregnancy to demonstrate that community partners can mobilize and organize community resources in support of programs to prevent initial and repeat teen pregnancies. CDC awarded nearly $3.3 million in multiyear cooperative agreements to 13 community programs and also provides technical assistance and training. These demonstration projects, administered by DRH, are in communities with populations of at least 200,000 or more and a teen birthrate 1.5 times the national average for young females aged 15–19 years. Because traditional methods of providing sexuality education and access to contraception have not sufficiently reduced teen pregnancy, the strategy of the partnership programs is based on the

Children of teen mothers have poorer health, lower cognitive development, and higher rates of behavior problems. They are likely to become teenaged parents themselves, perpetuating the cycle of poverty.

When young people have goals and aspirations, they view pregnancy and childbearing as a hindrance to their dreams."

premise that young people who are experiencing success, who are hopeful about their futures, and who are supported by their communities will postpone pregnancy and childbearing. "It's not enough for kids to beat the odds; we need to change the odds," said Carol Cassell, PhD, Program Director of the Community Coalition Partnership Programs for the Prevention of Teen Pregnancy. Research indicates that youth development programs can help reduce sexual risk behaviors and teen pregnancy. Youth development includes enabling young people to find and build their personal interests, skills, and talents, while broadening their base of knowledge and life experience. Improving a young person's sense of self-worth and increasing opportunities for informal education contributes to an internal motivation to avoid pregnancy. As Michael Dalmat, DrPH, Manager of the Community Demonstration Sites, Division of Reproductive Health, NCCDPHP, noted, "When young people have goals and aspirations, they view pregnancy and childbearing as a hindrance to their dreams."

Changing the perspective of young people and adults is a challenge that requires community involvement and long-term interventions. Through the partnership programs, many local organizations are collaborating to share resources, raise funds, or sponsor joint activities. Although organizations may disagree on teen pregnancy prevention messages, such as abstinence only or education about contraception, most individuals and organizations will support the need for positive youth development.

Asset-Building Approach to Youth Development

One of the 13 partnership programs with established youth and community development activities is Oklahoma City's Healthy, Empowered And Responsible Teens of OKC (*HEART of OKC)*. A project of the Oklahoma Institute for Child Advocacy, *HEART of OKC* promotes an asset-building approach to youth development. Community partners help teens identify interests, build skills, experience successes, set life-defining goals, and make positive choices. This teen pregnancy prevention program serves young people in some of the most economically disadvantaged and diverse neighborhoods in central Oklahoma City. Nine key assets—including constructive use of time, cultural respect, skills for meaningful employment, and aspirations for the future—are being addressed by the *HEART of OKC* team. Public health, education, and law students from local universities work with teens through one-on-one mentoring, career counseling, academic enrichment, and leadership development camps. In addition, *HEART of OKC* and OKC Junior League coordinate Child Watch Tours that give community leaders opportunities to meet with inner-city teens and visit schools and community programs in central city neighborhoods. As a result of participating in a Child Watch Tour, members of St. Luke's United Methodist Church mentor and tutor pregnant and parenting teens at a local alternative school.

In one neighborhood, the *HEART of OKC* community coordinator approached The Home Depot management with a plan to help young people learn marketable skills and provide career options. The company responded by developing a one-week program, "Let Me Do It," and trained teens to hang wallpaper, lay floor tile, install ceiling fans, and paint. In addition, the 15 Latino teens were taught life skills such as decision making and future planning as part of this first pilot program. This program has grown into an established partnership. A youth task force has used skills learned at The Home

Depot to participate in Habitat for Humanity and provide house painting services for community families. "The Home Depot program blends important youth development elements by providing skills and opportunities for young people to work together and serve the community," commented Sharon Rodine, MEd, *HEART of OKC* Project Director. "In terms of prevention, we think we're moving in the right direction," Ms. Rodine explained. "We're giving young people in the central city clear messages about good health and more options for their future."

For more information on teen pregnancy prevention or the Community Coalition Partnership Programs for the Prevention of Teen Pregnancy, call the Division of Reproductive Health, NCCDPHP, at 770/488-5227 or visit the DRH Web site at www.cdc.gov/nccdphp/drh.

To find out more about the Youth Risk Behavior Surveillance program, the Joint Work Group on School-Based Teen Pregnancy Prevention, or teen pregnancy prevention curricula, call the Division of Adolescent and School Health, NCCDPHP, at 770/488-3254 or visit www.cdc.gov/nccdphp/dash.

For more information about the *HEART of OKC* demonstration program in Oklahoma City, call Project Director Sharon Rodine at 405/236-5437 or E-mail srodine@oica.org.

Community Coalition Partnership Programs for the Prevention of Teen Pregnancy

Greater Options for Adolescent Living (GOAL), Boston, Mass

Communities Reducing Adolescent Pregnancies (Communities R.A.P.), Chicago, Ill

Adolescent Pregnancy Prevention Program, Jacksonville, Fla

Kansas City Working with Adolescents in Time (KC-WAIT), Kansas City, Mo/Kan

Community Coalition Partnership Programs for the Prevention of Teen Pregnancy, Milwaukee, Wis

Healthy, Empowered And Responsible Teens of OKC (*HEART of OKC*), Oklahoma City, Okla

Teenage Pregnancy Prevention of Orange County (TAPP), Orlando, Fla

Philadelphia Coalitions for Adolescent Pregnancy Prevention Project, Philadelphia, Pa

Reaching Communities for a Cause (RCC), Pittsburgh, Pa

Monroe Council on Teen Pregnancy (MCTP), Rochester, NY

Project Better Future, San Antonio, Tex

People and Communities Changing Tomorrow (imPACCT), San Bernardino, Calif

Project CHANGE, Yakima, Wash

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pregnancy. CDC will also study the association of douching with preterm delivery and the design of culturally appropriate interventions to inform women about this potential risk.

Working with a variety of partners, CDC is helping to increase public awareness of the importance of safe motherhood and the gaps remaining in this area. CDC has widely disseminated new knowledge to aid prevention efforts through the national press, professional publications, lectures, and statewide videoconferences, and through community and women's groups.

According to Dr. Wilcox, CDC has established national leadership in the science and practice of making motherhood safer. "The work being done by CDC and its partners will help to make motherhood as safe as possible for all women."

The PARTNERS Project: Negotiating Safer Sex Between Couples

The most common reason for reluctance to discuss condom use was fear that the partner would assume the other was unfaithful.

PARTNERS Against Risk-Taking: A Networking and Evaluation Research Study (PARTNERS) is a theory-based intervention that is examining ways to prevent unplanned pregnancy and human immunodeficiency virus (HIV) and other sexually transmitted disease (STD) infection among young women and their male sex partners. Research indicates that male partners often play a major role in influencing women's decisions to use condoms and other contraceptives. "By involving male partners and working with couples to negotiate safe sex practices, we are hopeful that the intervention will be effective in preventing unintended pregnancy and HIV and STD infections," stated Ann Ussery, MPH, CHES, Visiting Fellow, Division of Reproductive Health, NCCDPHP.

In 1998–1999, CDC, the Pacific Institute of Women's Health in Los Angeles, and the University of Oklahoma Health Sciences Center in Oklahoma City conducted in-depth qualitative interviews with couples in Los Angeles, Atlanta, and Oklahoma City. Data from these interviews have helped shape the PARTNERS project intervention strategy. Key findings from the formative research data include the following:

- Among the most common reasons cited for not using condoms were being in a monogamous relationship and not perceiving a risk for disease or pregnancy.
- Nonmonogamous couples were more likely than monogamous couples to use condoms. Reasons cited were lack of knowledge about the partner's sexual history or health status.
- Less than 1% of discussions about condom use were initiated by male partners.
- The most common reason for reluctance to discuss condom use was fear that the partner would assume the other was unfaithful.

Pilot testing was completed in 1999, and approximately 250 couples are being recruited over the next 2 years at the Los Angeles and Oklahoma City sites to participate in the intervention. The intervention will promote safer sexual behavior by increasing participants' understanding of susceptibility to unplanned pregnancy and infection, enhancing couples' communication, and boosting motivation and skills in condom use. The intervention provides sexually active women aged 18–25 years and their primary male sex partners with guidelines for effective communication about sex and basic safer sex strategies (consistent and correct condom use, mutual monogamy, HIV/STD testing, abstinence). Participants are encouraged to develop a personal strategy for safer sex, including a plan to prevent relapses into unsafe behaviors.

Although the project has not yet been evaluated, formative data and pilot testing indicate that this strategy may reduce sexual risk behavior. After the 2-year implementation phase, the program will be evaluated and data analyzed. "Then we may be able to determine what works to change sexual behaviors among young adults," commented Ms. Ussery.

For more information on PARTNERS, call Katina Pappas-DeLuca, Project Officer, at 770/488-5249 or E-mail kdp5@cdc.gov, or Ann Ussery, Project Coordinator, at 770/488-5274 or E-mail aau6@cdc.gov.

Intimate Partner Violence and Reproductive Health

WOMEN are at risk for violence at all stages of life, but the incidence of violence against women is known to peak during the reproductive years. According to recent studies, violence against women may affect and be affected by many aspects of women's reproductive health, including pregnancy, childbearing, reproductive decision making, contraceptive use, and risk of human immunodeficiency virus (HIV) or sexually transmitted disease (STD) infection.

The prevalence of violence during pregnancy appears to range from 4% to 8%. On the basis of these percentages, in 1995, between 152,000 and 324,000 of the 3.9 million U.S. women who gave birth to live infants experienced violence during their pregnancies. Violence may be a more common problem for pregnant women than preeclampsia, gestational diabetes, or placenta previa, conditions for which pregnant women are routinely screened and evaluated. "Reducing intimate partner violence is an important step in improving the health and safety of women and their children, but without further study, we cannot develop or evaluate interventions that may prove effective," said Alison Spitz, MSN, MPH, Epidemiologist, NCCDPHP's Division of Reproductive Health (DRH).

Violence, Reproductive Health, and Pregnancy

Although awareness of intimate partner violence has increased, little is known about the specific effects of violence on women's reproductive health. The elevated stress of being in an abusive relationship may be associated with poor birth outcomes, such as low birth weight. Abused women may delay prenatal care, have poor nutrition, and adopt sexual behaviors that increase their health risks. Exposure to violence may predispose women to high-risk behaviors such as early sexual initiation, prostitution, and drug use, thus putting themselves and their partners at risk for sexually transmitted diseases and increasing their chances of having a mistimed or unwanted pregnancy.

Little is known about risk factors associated with violence around the time of pregnancy, but research has found possible links to delayed prenatal care, unintended pregnancy, and young maternal age. To date, specific investigation of the possible association between violence and pregnancy has been so limited that it is not known whether violence increases during pregnancy and how it affects the risk of poor pregnancy outcomes.

Studies that have examined a possible association between unintended pregnancy and violence have found that women who reported being abused were also more likely to report that their pregnancy was unintended or that they were unhappy about being pregnant. NCCDPHP Epidemiologist Patty Dietz, DrPH, and colleagues examined the association between unintended pregnancy and violence during the 12 months before conception and during pregnancy, concluding that childhood exposure to abuse or household dysfunction may lead to unintended first pregnancy in adulthood.

Preventing Violence Through Screening

Screening women for violence should be an important component of behavioral risk assessment during medical visits.

Violence may be a more common problem for pregnant women than preeclampsia, gestational diabetes, or placenta previa, conditions for which pregnant women are routinely screened and evaluated.

Because women in their reproductive years rely on obstetricians and gynecologists for routine health care, these providers play an important role in screening women for violence and referring women at risk for appropriate interventions. However, the prevalence of routine screening remains low, and many providers cite a lack of effective interventions as a barrier to implementing screening in their practices. Although interventions exist, few have been evaluated, and they are by no means universally available. Moreover, responding to a woman who discloses abuse may require that health care providers and institutions establish linkages to community resources that can provide appropriate assistance to women once they are identified. In many communities, these linkages are weak. "Geography has something to do with the resources that are available to women," according to Mary Goodwin, MA, MPA, Epidemiologist, DRH, NCCDPHP. "In some areas, the safety nets don't exist. Rural clinics, for example, may not conduct screening because there is no place to refer women to." Other concerns involve issues of confidentiality and worries that screening may increase the woman's risk of violence.

Another barrier is that many clinicians lack the specialized training needed to conduct screening properly. "Providers who have not received special training on violence may find it very difficult to raise the issue with their patients, and they may fear not knowing how to respond when a woman reports abuse," observed Ms. Goodwin. Some managed care organizations offer training, and some medical schools have added it to their curricula. The American College of Obstetricians and Gynecologists (ACOG) has developed training tools and recommended a script for physicians to use when asking patients about violence.

Getting Started: The National Conference on Violence and Reproductive Health

Faced with the clear need to develop a research agenda, a CDC working group, with collaboration and support from numerous federal agencies and nonfederal organizations, organized the National Conference on Violence and Reproductive Health: Science, Prevention, and Action, which was held June 1999 in Atlanta, Georgia. CDC sponsors included the NCCDPHP Division of Reproductive Health; the Division of Violence Prevention in the National Center for Injury Prevention and Control; and the CDC Office of Women's Health.

Conference goals were to increase awareness and understanding of the association between violence against women and reproductive health and to lay the groundwork for activities aimed at reducing violence within the context of improving reproductive health. Attendees were experts from the fields of violence prevention and reproductive health, including family planning, maternity care, HIV/STD prevention and treatment, sexual assault, adolescent health, managed care, and substance abuse. Sessions focused on ways to increase the involvement of clinical reproductive health care services in screening and referring women affected by violence. Results of the conference include a special issue of the *Maternal and Child Health Journal* (in press) devoted to issues that emerged from the conference.

Monitoring the Problem of Violence

Data from the Pregnancy Risk Assessment Monitoring System (PRAMS) has been crucial for studying violence during

pregnancy because PRAMS is the only available source of population-based data. However, it includes data only from women who have had live births and therefore does not capture the experiences of women whose pregnancies do not result in live births. Because preliminary research has indicated that women who seek abortions may be more likely than other women to have been abused, some experts have called for incorporating violence screening into abortion services. Again, noted Ms. Spitz, until additional research is designed, conducted, and evaluated, such assumptions cannot be confirmed.

Knowing What Works

"We need to develop interventions, ensure that these new interventions have evaluation components built in, and use these findings to develop more effective interventions," said Ms. Spitz. CDC has recently undertaken two efforts to move toward better interventions. CDC received 1% evaluation funding to assess Title X-funded family planning programs for screening, treatment, and referral of women experiencing violence. More recently, in April 2000, CDC hosted a meeting in Atlanta that brought together researchers, advocates, and clinicians to discuss a research agenda for developing effective interventions. One essential research question meeting participants agreed on was "What happens to women after screening or interventions?" "Although following women outside the clinical setting is difficult because of privacy issues and expense, it is necessary if we are to get past merely asking how often health care providers are screening for violence," commented Ms. Goodwin.

One of the difficulties in addressing the problem is the need for effective links between reproductive care providers, the justice system, and community-based prevention and treatment efforts. "In most clinical settings, the clinic staff and facility are not able to provide women experiencing violence with the full range of services they need to address their situation adequately," said Ms. Goodwin. Developing a network of preventive and support services is the key and will require long-term cooperation among groups unaccustomed to working together, according to Ms. Goodwin.

Interventions designed for women who have experienced violence are only half the solution; prevention measures are also needed. One measure that has been proposed is antiviolence programs for young men, which could be offered in the same settings as programs to prevent pregnancy. School-based prevention programs are being studied to determine whether they are effective. Treatment programs for families at high risk for violence may also prevent future abuse by intervening with children who witness violence in the home.

CDC Partnership With CityMatCH Promotes Safe Motherhood

To help cities use data more strategically to improve maternal and infant health in urban communities, CDC is partnering with CityMatCH, a national public health organization that uses creative approaches to address urban maternal and child health (MCH). CityMatCH helps its constituents use data and research findings more effectively to inform MCH policy and programs, promotes communications and collaboration within

and among U.S. cities, and supports local health departments in improving the health and well-being of women, children, and families in their communities.

CDC's partnership with CityMatCH recognizes that the organization is uniquely positioned as a vehicle of efficient communication with America's 200 largest cities. According to its CEO and Executive Director Magda G. Peck, ScD, the organization's ability to help its constituents translate research into effective public health practice allows communities to "get beyond the demonstration projects and change the way people do the business of public health."

What Is CityMatCH?

Located at the University of Nebraska Medical Center, CityMatCH was established in 1991 as a national public health organization to address the capacity building and policy development needs of its nearly 150 member public health departments serving urban jurisdictions. It is self-described as a "hybrid membership and applied research organization, designed up front to integrate research and data with practice and policy."

"CityMatCH began as a series of questions," Dr. Peck recently wrote. "Who are the public health leaders accountable for the health of women, children, and families in America's cities? What are the most important public health challenges facing urban families and children? What are the most promising public health initiatives to improve the health and well-being of urban children and their families? What do urban health departments need to improve their effectiveness in urban MCH?" CityMatCH's work in the last decade, she said, has been one long response to these questions.

In simplest terms, CityMatCH works to bridge the gap between *what is known* (research, data), *what is done* (interventions, services), and *who decides* (politics) by providing specific ways to develop tools and models for translating prevention research into practice. Two strategies used to shape these tools include building communitywide capacity to use data effectively for decision making, and fostering partnerships for public health action among practitioners, researchers, and policymakers.

Why a CDC–CityMatCH Partnership?

The unique CDC–CityMatCH partnership was created in 1995 after then-CDC Director David Satcher, MD, PhD, noted that the agency seldom asked cities to become active participants in developing and carrying out solutions to their local health problems. CDC traditionally had worked with state health departments and universities to address regional and local public health needs. However, a strategy was needed for responding to the public health needs of cities, which have higher population density and greater burden of disease risk.

The CDC–CityMatCH collaboration is meeting many of these needs in the area of maternal and child health. CityMatCH contributes by efficiently communicating with public health practitioners in urban communities to disseminate the most effective MCH practices; building the capacity of urban health departments and community partners to use data effectively; and working with CDC on specific issues, such as maternal mortality, perinatal HIV transmission, and fetal mortality, to model effective strategies for translating research into practice in the communities hardest hit by these problems.

"Urban health department MCH directors can help us recognize problems and issues that are common to urban areas as opposed to those that are unique to a few," said James S. Marks, MD,

MPH, Director of CDC's NCCDPHP. "[They can]…help us identify best practices and work with us to disseminate them."

Building Capacity: The Urban MCH Data Use Institute

Early in its partnership with CDC, CityMatCH launched the first Urban MCH Data Use Institute (DUI) as a capacity-building training model.

"Urban health departments have an enormous amount of data, but often they lack the ability to analyze these data and translate the findings into meaningful information. We can count on CityMatCH to help urban health departments build their capacity for using data and information to make informed, intelligent decisions to improve their MCH programs," said Hani Atrash, MD, MPH, Chief, Pregnancy and Infant Health Branch, DRH, NCCDPHP.

Collaborators in developing the DUI model included experts from state and local public health practice, federal agencies (CDC and the Health Resources Services Administration), national public health organizations, schools of public health, and other academic-related institutions. The DUI has five guiding principles: Focus on data use, not just the data; build the collective capacity of strategic teams of people who share accountability for MCH outcomes; anchor team leadership for MCH in the local public health agency to reinforce its core functions; employ a strategic mix of proven approaches to adult learning; and focus on improving participating institutions' data use competencies. CityMatCH member health departments must submit applications to participate in the DUI, and special consideration is given to those teams that can effectively leverage local funding to support their participation and continuous learning. Thirty teams have completed this training since its inception in 1997, with 10 more anticipated to participate in the 2000–2001 Institute.

For additional information about this research project, call Jennifer Skala, DUI Project Coordinator, at 402/595-1700; E-mail jskala@unmc.edu or visit www.citymatch.org.

Fostering Partnerships: Multicity Learning Clusters

The CityMatCH "Learning Clusters" are groups of people from cities across the country who engage in structured and well-facilitated team-based learning and problem solving. Participants include a mix of urban community teams, medical and MCH experts, and CityMatCH professional staff.

CityMatCH has developed numerous creative ways to use learning clusters to build capacity and translate data effectively to address public health issues related to safe motherhood. Here are two examples:

Learning Cluster on Perinatal Periods of Risk (PPOR). In 1997, CityMatCH convened a work group of scientists and public health practitioners to address urban infant mortality surveillance and facilitate better local understanding of these deaths in and across urban communities. The group studied the "Periods of Risk" approach to fetal and infant mortality, based on the work of Brian J. McCarthy, MD, MSc, and colleagues with the World Health Organization Collaborating Center and CDC, for possible application in the United States. Work group members were attracted to this method's promise of closely linking results to potential strategies for improving maternal and child health. Research translation projects were undertaken by Learning Cluster teams in Seattle, Boston, and Honolulu to test its utility in U.S. cities.

The work group found that Perinatal Periods of Risk is a straightforward approach that can be used in urban areas nationwide to identify gaps in maternal

and infant health services in the community and among various subpopulations. This approach also can be used to target resources for further study and prevention activities and to mobilize communities to prevent fetal and infant mortality. Steps are under way to expand the application of Perinatal Periods of Risk to multiple cities.

For further information about the Perinatal Periods of Risk approach, contact the CDC Epidemiologist assigned to CityMatCH, William Sappenfield, MD, MPH, by telephone at 402/595-1700 or E-mail at wsappenf@unmc.edu.

Learning Cluster on Preventing Perinatal Transmission of Human Immunodeficiency Virus (HIV) in U.S. Cities. Under a new Association of Teachers of Preventive Medicine (ATPM) cooperative agreement, CityMatCH is working with CDC's National Center for HIV, STD, and TB Prevention to translate science into action in the prevention of perinatal HIV. This research-to-practice effort uses the Learning Clusters approach to foster creative and efficient cross-city learning about effective approaches to assessing and preventing perinatal HIV transmission in the urban communities most heavily affected. The first Perinatal HIV Prevention Learning Cluster includes action teams in five cities: Los Angeles, Miami, Norfolk, Philadelphia, and Washington, D.C. With the help of CDC, CityMatCH, and national experts, these five action teams—made up of service providers, public health leaders in both HIV/AIDS and MCH, local scientists, and consumers—have identified their leading-edge strengths and significant barriers to preventing perinatal transmission. They have become active participants in a "give and get" exchange network, with CityMatCH facilitating the transfer of what works from one city to another. They have identified key core issues they will tackle collectively to make the most strategic impact on this tough public health challenge. CityMatCH also is promoting the dissemination of information about perinatal HIV to all its member urban health departments to increase their awareness of and engagement in this issue.

For additional information about this project, contact Deanna Bartee, MSW, Perinatal HIV Project Coordinator, by E-mail at dbartee@unmc.edu or by telephone at 402/595-1700.

Dr. Peck and CDC remain enthusiastic about the future of the CDC–CityMatCH partnership because of the organization's ability to connect efficiently with cities and its pragmatic and creative methods of building MCH infrastructure. For more information, visit the CityMatCH Web site at www.citymatch.org or call 402/595-1700.

Devising a Strategy to Reduce Unintended Pregnancies

A young married couple weighs their options for either having a family or finishing their educations; they find the currently available contraceptive methods unsatisfactory. An unmarried teenaged couple has unprotected intercourse even though both are fully aware of the risks of sexually transmitted diseases and pregnancy. Either pair may very well join the 3 million couples who face an unintended pregnancy each year. Put another way, some 49%, or nearly half, of all pregnancies in a given year are unintended

because couples do not practice contraception or because a birth control method fails.

The consequences of these unintended pregnancies can be far-reaching, noted John S. Santelli, MD, Assistant Director for Science, Division of Reproductive Health, NCCDPHP. Girls and women who become unintentionally pregnant are less likely to seek early prenatal care and more likely to smoke or use alcohol during pregnancy. Emerging research also suggests that these females may be exposed to more domestic violence. Unintended pregnancy may in turn lead to child abuse and neglect.

Reducing Unintended Pregnancies a Top Priority

CDC has joined other researchers in taking a closer look at the myriad, complex issues associated with unintended pregnancy. Preventing unintended pregnancy, along with improving maternal health, is now one of the top two priorities of NCCDPHP's Division of Reproductive Health. Current efforts to address this public health issue include compiling an inventory of relevant literature, research, and programs that focus on preventing unintended pregnancy; convening work groups to consider programs and to assess CDC's role in preventing unintended pregnancy; and continuing surveillance of unintended pregnancy to document its incidence and help study its determinants.

"Because there are so many interrelated facets to this issue, we need to understand better the determinants and consequences of unintended pregnancy and sort out cause and effect," Dr. Santelli noted. "We are looking at how to refine our concepts and definitions to lay the groundwork for developing effective public health programs and for preventing unintended pregnancy."

Even the most basic terminology associated with unintended pregnancy is being reevaluated. Consider that unintended pregnancies may be either *unwanted* or *mistimed*. "Most unwanted pregnancies occur among women who are near the end of their reproductive years, whereas adolescents and young adults may be considered to have mistimed pregnancies. These are mistimed because many adolescent girls are intending to have children later in their lives," Dr. Santelli explained.

Challenges and Opportunities

The Division of Reproductive Health work group on unintended pregnancy has drafted a preliminary plan of action and is now working on a comprehensive 5-year plan for unintended pregnancy that will consider both domestic and global challenges and opportunities, including research, monitoring, and public health programs.

One important source of data for verifying unintended pregnancy is CDC's Pregnancy and Risk Assessment Monitoring System (PRAMS). PRAMS is a state-specific, population-based surveillance system that collects information from women who have recently given birth on maternal behaviors before, during, and after pregnancy. CDC researchers are using 1997 PRAMS data from 13 states to examine birth control use and unintended pregnancy.

Results of this analysis will enable researchers to better understand the relationship between family planning practices and unintended pregnancy, to target those women at highest risk of unintended pregnancy, and to monitor progress in preventing unintended pregnancy.

For more information, contact John S. Santelli, MD, Division of Reproductive Health, NCCDPHP, CDC, MS K–20, 4770 Buford Highway, Atlanta, GA 30341-3717; call 770/488-5611; or E-mail JSantelli@cdc.gov.

Reproductive Health in Refugee Settings

For several decades, CDC has helped lead efforts to develop international standards for public health practice for refugees. However, requests for guidance and technical assistance to improve reproductive health among refugees have recently increased. In 1998, to support international efforts to respond to these growing needs, NCCDPHP established a Reproductive Health for Refugees Steering Committee and assigned staff members to work full time in this field.

The World Refugee Situation

As of January 1999, approximately 50 million people worldwide, including both refugees and internally displaced persons, had been forced to flee their homes. Of these, almost half—or 21.5 million people—were refugees, representing one of every 280 people on earth. Generally, more than 80% of displaced people are women and their dependent children because many of the men have been killed, taken prisoner, or drafted as combatants.

Infectious diseases have always been major problems in refugee settings, especially in the first, or emergency, phase of refugee operations when basic services (food, shelter, water) are lacking. In the second, or stabilized, phase, the refugees' basic survival needs are met, infectious diseases are better controlled, and death rates generally decline; however, the extent of illness and death related to reproductive health in the second phase has only recently come to light. "We need further research to define the scope of reproductive health problems, which are often persistent and hard to detect, so that we can effectively combat them," said CDC Epidemiologist Mary Kay Larson, MPH, Coordinator, Reproductive Health for Refugees, Division of Reproductive Health, NCCDPHP.

International Research Describes the Need

Recently, two studies demonstrated the importance of paying attention to this vital but often neglected component of refugee health.

- Preliminary findings from the Azerbaijan Study on Reproductive Health and Sexually Transmitted Diseases (STDs) were presented at the first ever reproductive health conference in Baku, Azerbaijan, on October 10, 1999. CDC's principal investigator for this study, Samuel Posner, PhD, reports that the rate of vaginal infections in the refugee camp was high, abortions were common, and HIV education was urgently needed. As part of this study, researchers from Relief International and CDC screened 700 refugee women in May 1999 and found that 88% of them had bacterial vaginosis, almost 28% had trichomoniasis, more than 67% had had at least one abortion, and 36% thought they could get AIDS from a public bathroom.
- A study of pregnancy outcomes in the Mtendeli refugee camp, Tanzania, in 1997 and 1998 found that reproductive health-related deaths were the third most common cause of death in the camp. CDC collaborated with the International Rescue Committee in this study, which concluded that maternal and neonatal deaths accounted for 16% of all deaths among these refugees during the study period. You can read more about these findings in the January 19, 2000, issue of the

Journal of the American Medical Association (Vol. 283, No. 3, pages 397–402).

Reproductive health services for refugees are important for many reasons. The disruption associated with emergencies makes safe motherhood difficult, limits contraceptive access and use, increases the risks of transmitting HIV and other STDs, causes the special needs of adolescents to be largely ignored, and increases the risk of violence against women. Surveillance systems designed to collect health information from refugees seldom address these concerns. For this reason, CDC has placed a high priority on documenting the true magnitude of refugee reproductive health problems, and the U.S. Agency for International Development (USAID) and the Department of State have provided funding to assist in these efforts. With better documentation and stronger scientific support for programs that can help reduce illness and death in stabilized refugee settings, relief organizations will be able to provide more appropriate and effective reproductive health services.

New Research Efforts

To provide the scientific basis for improving reproductive health services for refugees, the International Rescue Committee and CDC will conduct a collaborative study among Afghan refugees in Pakistan beginning in August 2000. CDC's Steering Committee on Reproductive Health for Refugees will use the findings from this undertaking to improve refugee women's access to reproductive health services, develop training curricula and programs, and establish an ongoing surveillance system.

The overall study will have two parts. The purpose of the first part of the study, according to NCCDPHP Epidemiologist Linda Bartlett, MD, MHSc, the principal investigator, is to identify the proportion of all deaths due to reproductive health-related causes among adults and infants living in the refugee camps. The second part of the study, whose principal investigator is NCCDPHP Epidemiologist Basia Tomczyk, RN, MS, DrPH, will investigate unmet needs in family planning and describe the prevalence of gender-based violence against female refugees.

Researchers will analyze early information gathered from the studies and prepare a report for use by the refugee community, the assisting nongovernmental organizations, and the United Nations High Commission for Refugees (UNHCR). A final report of the findings will be sent to all agencies involved in the study. Additionally, findings will be published in peer-reviewed journals.

According to Dr. Tomczyk, there often is a "disconnect" between international research findings and domestic clinical practice. Therefore, sharing findings from these studies more widely could benefit programs for refugees at U.S. public health clinics.

"Information sharing between international researchers and clinical personnel in the United States is extremely important," says Dr. Tomczyk, who worked for 12 years at a public health clinic serving refugees in San Francisco. "These findings can alert clinicians about possible health problems in groups of refugees coming into the country for resettlement. The finding of extremely high rates of bacterial vaginosis among female refugees in the Azerbaijan study is a good example of why the international studies are important. Care providers in the United States need to know that female refugees from this area of the world could be affected by this problem."

"While food, water, and shelter remain a priority, reproductive health care is among the crucial elements that give refugees basic human welfare and dignity

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While food, water, and shelter remain a priority, reproductive health care is among the crucial elements that give refugees basic human welfare and dignity that is their right."

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Communications

Screen for Life

CDC and the Health Care Financing Administration are launching the second *Screen for Life* campaign to promote awareness of colorectal cancer and inform Americans that regular screening tests can prevent the disease. Colorectal cancer is the second leading cancer killer among adults in the United States, and the risk of developing the disease increases with age. *Screen for Life*, the National Colorectal Cancer Action Campaign, encourages people to prevent colorectal cancer through healthy lifestyles and regular screening. People aged 50 years or older should discuss colorectal screening with their physicians. For more information on colorectal cancer, visit www.cdc.gov/cancer and www.cdc.gov/cancer/screenforlife or call Cynthia Gelb at 770/488-4708, E-mail cmg7@cdc.gov.

Conferences

Assessment Initiative Annual State Meeting

The Year 2000 Assessment Initiative Annual State Meeting will be held September 20–22, 2000, in Atlanta, Georgia, at the Omni Hotel CNN Center. The theme for this year's meeting is "Turning Data Into Information for State and Local Health Policy." For more information, contact Angeline Lewis, Professional and Scientific Associates, at 404/633-6869, extension 209, or a_lewis@psava.com.

11th World Conference on Tobacco OR Health

The World Conference on Tobacco OR Health, designed to promote a future without tobacco and to strengthen global leadership in tobacco control and prevention, will be held August 6–11, 2000, in Chicago, Illinois. This international conference gives participants the opportunity to network with health, education, government, and environmental leaders; learn about new technology; and build skills in community organization, mobilization, intervention, and advocacy. The conference is hosted by the American Medical Association, the American Cancer Society, and The Robert Wood Johnson Foundation. Sponsors include the American Heart Association, the American Lung Association, CDC, and the National Cancer Institute. For more information, call Anne Jenkins at 312/464-5159, E-mail 11thWCTOH@ama-assn.org, or visit http://www.wctoh.org.

15th National Conference on Chronic Disease Prevention and Control

The National Center for Chronic Disease Prevention and Health Promotion will host its 15th annual conference November 29–December 1, 2000, at the Hilton Washington and Towers in Washington, D.C. Participants will learn about emerging chronic disease issues, data applications, and intervention research; network with health and other professionals; develop new working relationships; and discover what others are doing in communications, training policy, and partnership development. For more information, E-mail Estella Lazenby at elazenby@kevric.com or call Dale Wilson at 770/488-5885, E-mail dnw3@cdc.gov.

Sixth Annual Maternal and Child Health Epidemiology Conference

The 2000 Maternal and Child Health Epidemiology Conference will be held December 12–13, 2000, in Atlanta, Georgia. The theme of this year's conference is "Reducing Disparities in Maternal and Child Health Outcomes." Conference sessions will highlight effective lessons using maternal and child health data to reduce disparities among various racial, ethnic, socioeconomic, and geographic populations in the United States. For more information, visit http://www/uic.edu/sph/dataskills/michep or call Jan Gray at 770/488-5187, E-mail jeg1@cdc.gov.

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Information Sources

Updated Cancer Legislation Web Site and Database

CDC's Web site on state and Congressional legislation related to cancer prevention and control has been redesigned and updated. It is now divided into three sections: searchable cancer legislation database, reports and analyses, and links to other legislative sites. Three additions have been made to the site: (1) Legislation related to the privacy of medical records can be found at http://www2.cdc.gov/nccdphp/dcpc/nccdclg/search.asp; (2) "Highlights from 1999: Enacted Federal Bills and Appropriations Language Related to CDC's Cancer and Early Detection Activities" is located at http://www.cdc.gov/cancer/legislativehighlights.htm; (3) "The National Breast and Cervical Cancer Early Detection Program: Authorizing and Related Legislation" can be found at http://www.cdc.gov/cancer/nbccedp/law.htm. For more information, visit http://www.cdc.gov/cancer/legislat.htm.

Childhood Diabetes Registries

To address the emergence of type 2 diabetes among children and the worldwide increase of type 1 diabetes, CDC will fund a multicenter study of childhood diabetes. A request for proposal (RFP) will be published in the *Federal Register* by June 30, 2000. This study will primarily be an initial, but rigorous, scientific effort to define childhood diabetes and to measure the disease burden. For more information, call Anne Fagot-Campagna, MD, PhD, at 770/488-1053; E-mail adf@cdc.gov.

Chronic Disease Prevention Databases Offered on CD-ROM

If you need information about health promotion and disease prevention research, resources, and programs, NCCDPHP's recently updated Chronic Disease Prevention (CDP) File CD-ROM may be what you're looking for. CDP File contains nine databases and the Chronic Disease Prevention Directory, a listing of contacts in key areas of public health. NCCDPHP distributes each update free of charge (along with a Thesaurus and User's Guide) to a site in each state. CDP File can also be purchased from the Government Printing Office (202/512-1800) at an annual subscription cost of $104 for four quarterly updates. To learn who in your state receives CDP File or for more information, call Bill Thomas at 770/488-5080, E-mail wthomas@cdc.gov.

NCCDPHP News

Robert G. Robinson, DrPH, Associate Director for Program Development, Office on Smoking and Health, received a Presidential Citation from the American Association for Health Educators on March 25, 2000. Dr. Robinson was honored for his lifetime dedication to the elimination of disparities in the health status of different populations and for serving as a role model for those who seek equity and social justice.

On May 9, 2000, Michael P. Eriksen, Director, Office on Smoking and Health, received the DHHS Secretary's Award for Distinguished Service for his outstanding leadership in national and international tobacco use prevention and control efforts. Two NCCDPHP groups also received the DHHS Secretary's Award for Distinguished Service. Staff from the Office on Smoking and Health—Linda Block, Llelwyn Grant, and Jeffrey McKenna—were recognized for outstanding national leadership in orchestrating a swift and powerful national response to a very promising, but fleeting, public health opportunity. The National Diabetes Education Program, comprising staff from NCCDPHP and the National Institutes of Health, was recognized for outstanding leadership in the development of several effective, award-winning media campaigns.

Lloyd J. Kolbe, PhD, Director, Division of Adolescent and School Health, received the Jeffrey P. Koplan Award in recognition of his vision, steadfast commitment, and leadership in improving the health of young people.

Charles G. Helmick III received the Commissioned Corps Meritorious Service Medal for his sustained leadership in elevating arthritis as a major public health issue and stimulating a national prevention effort.

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Reproductive Health in Refugee Settings

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that is their right," according to the UNHCR. In response to the growing awareness of and concern about reproductive health issues, the UNHCR and more than 30 other collaborating agencies, including CDC, created *Reproductive Health in Refugee Situations–an Inter-agency Field Manual*. This manual includes guidelines for reproductive health services in both emergency and stabilized refugee settings.

For additional information on reproductive health issues in refugee settings, call Mary Kay Larson at 770/488-5221 or fax 770/488-5240. Individual copies of *Reproductive Health in Refugee Situations–an Inter-agency Field Manual* are available on request from DRH at the same telephone number; larger quantities are available at low cost from a partner organization, Women, Ink.; 777 United Nations Plaza; New York, NY 10017; USA; telephone 212/687-8633, extension 212; fax 212/661-2704; or E-mail wink@womenink.org. Women, Ink. also has a Web site at www.womenink.org.

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