AMERICA'S TEEN PREGNANCY EPIDEMIC

Why it's occurring, its impact and what can be done about it were discussed at a recent March of Dimes symposium

BY JOAN AREHART-TREICHEL

Her name is Estelle. She's a white teenager living in Cleveland, and a nurse has just finished palpating her stomach. "Do you think you might be pregnant?" the nurse asks.

"No!" Estelle responds emphatically.

"Has your belly always been this big?"

"Yes!"

"Estelle, you know that isn't true," the nurse admonishes her gently. "You're six months pregnant, and we'd better talk about what you're going to do about it."

Estelle is a real person, one of America's million teenage girls who are becoming pregnant each year, according to statistics from the Department of Health, Education and Welfare. Approximately 600,000 of these girls will give birth, accounting for one out of every five births nationally; the others will seek abortions, according to the President's Commission on Population and the American Future. Three times more American girls became pregnant in 1976 than in 1971, according to the January/February FAMILY PLANNING PERSPECTIVES. Adolescent pregnancies are no longer limited to low income and minority groups; illegitimacy rates for middle class whites are rising, while rates for blacks continue to fall. These facts come from the AMERICAN JOURNAL OF OBSTRETRICS AND GYNECOLOGY. The United States, very simply, is in the throes of a teen pregnancy epidemic.

Why are there so many teen pregnancies? What are their medical, psychological and societal implications? What can be done to stop them? These questions were tackled at a recent March of Dimes symposium in New York City, which was attended by nearly 1,000 physicians, nurses, social workers and educators. Some possible answers emerged.

If there is any major cause for the spate of teen pregnancies, it's society's current emphasis on sex and sexual freedom, asserts Ralph I. Lopez, director of adolescent medicine at New York Hospital-Cornell Medical Center in New York City. And the stress on sex and sexual permissiveness appears to be building, not abating. For instance, sex is replacing violence on television, according to the Feb. 28 NEWSWEEK. Sexual pressures from society, in turn, are igniting the already explosive sexual drives of adolescents and further eroding their generally poor ability to delay gratification of any kind. The result: Four out of 10 American teens are now engaging in permarital sex, according to the National Center for Health Statistics.

A loosening of family and religious ties, as well as the current epidemic of broken families and divorces, is obviously also to blame, concur Lopez and Grace O'M. Sullivan, a nurse at New York Hospital-Cornell Medical Center. Many parents today do not argue for abstinence among their children, but rather encourage them to use birth control, or simply ignore the subject of sex altogether. Yet teens are often reluctant to use contraceptives, explains Pauline Seitz, a nurse-midwife with the Kaiser-Permanente Hospitals in Cleveland. They hold that birth control takes away the spontaneity of sex or pollutes the body, a view gleaned from press coverage of the numerous side effects of oral contraceptives and intrauterine devices. Even if teens try to obtain birth control, they may be stopped by health care providers or parents.

Finally, teens are often incredibly ignorant of human reproduction and life in general, which makes them all the more vulnerable to pregnancy. Said one teen: "I thought you had to be 17 to become pregnant." Then there was a 15-year-old girl who, after receiving an abortion, was told she would receive lunch. She asked, with pathetic naiveté, "Do I need to bring lunch money?" A comment from still another teen pretty well summarizes why so many teens get pregnant these days: "Sex is fun, birth control is messy or dangerous, abortions are wrong and babies are cute, so what's the big deal?"

The deal, unfortunately, is a whopper, not only because of what these pregnancies mean to adolescent girls and their offspring, but also because of its effects on society in general.

First off, pregnant teens and their babies are more at risk for medical complications than are older mothers and their babies, and these risks are compounded even more by teens like Estelle who deny they are pregnant for as long as possible, reports Mildred I. Abbott, a nurse-midwife with Columbia-Presbyterian Medical Center in New York City. Many pregnant teens now want to have their babies rather than have abortions, and keep their infants rather than give them up for adoption. Yet these girls are usually ill-prepared psychologically or financially to be parents. Teen mothers are also more likely to abuse their children than are older mothers, particularly those who have been abused themselves, are depressed, on drugs or having financial problems, reports Vincent J. Fontana, a pediatrician at New York Foundling Hospital in New York City and an authority on child abuse.

Pregnancy is likewise the most common reason why adolescent girls leave school. For the inner city school girl, pregnancy is further complicated by poverty, social disruption, limited vocational opportunities and lack of suitable adult role models. Teen pregnancies also cost Americans financially. For each teen pregnancy brought to term, the first year cost for federal, state and local governments is $2,200, according to an HEW estimate.

So what are the solutions to teen pregnancies and their negative impact? One is hospital programs, such as those at Columbia-Presbyterian Medical Center, New York Hospital-Cornell Medical Center and Johns Hopkins Hospital in Baltimore, which help pregnant teens obtain good pre- and postnatal care, teach them to accept responsibilities as parents, and help them finish school and learn a trade while they, their parents or foster parents care for their offspring. Girls who receive such good care, a study in the March PEDIATRICS shows, are also more likely to use birth control if they engage in further sexual activity than are girls who do not receive such care. However, such programs are considered a luxury at most hospitals, Abbott laments.

Pregnant teens are also more likely to be good mothers if mother-infant bonding is encouraged right after birth, stresses John H. Kennell, a pediatrician at Case Western Reserve University School of Medicine in Cleveland and an authority on mother-infant bonding. One study conducted in Cleveland showed that teens who are exposed to their infants soon after birth are better mothers a year later than are teens who do not receive such exposure. Still another study conducted in Nashville found that early maternal exposure to infants can reduce incidences of child abuse.

As for those girls who are not yet preg-

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that have reached the hospital," says Arnon. "But we don't know how many other cases there are ... and we don't know the number of infants that may have died before reaching the hospital."

Because botulism cannot be detected in standard autopsies, Arnon believes the toxin may be responsible for an unknown number of Sudden Infant Death Syndrome (SIDS) cases (SN: 4/15/78, p. 234). Both of the recorded deaths involved respiratory arrest, the most apparent mechanism implicated in instances of SIDS.

"We're not sure as yet why certain children get infected and others don't," says the researcher. What is apparent, though, is a fairly standard progression of symptoms in the hospitalized botulism-infected baby: constipation, lethargy, poor feeding, swallowing problems, general weakness, loss of muscle tone and poor head control. The majority of young victims seen thus far have been classified as "floppy babies." The syndrome can evolve within the baby in anywhere from six hours to one week or more.

"The first case that occurred in California in February 1976 was a floppy baby," says Arnon. (The first six cases were reported in the May 2, 1977 JAMA.) The California lab is one of the few in the United States equipped to test for botulism. Feces samples extracted from the youngster must meet three criteria to be proven positive:

- They must prove fatal when injected into mice.
- They must be inactivated by heating. If a sample from the same feces that killed one mouse is heated and is not then fatal to another mouse, then the botulin toxin characteristically has been inactivated.
- The specific type of botulism in the sample is determined by testing which antitoxin counteracts the sample injected into a mouse.

"The toxin cannot be identified in a routine autopsy procedure — it is difficult to isolate," says Arnon. In infants, the poison travels almost instantaneously to the nerve-muscle connections and leaves almost no trace behind in the bloodstream, he explains. This could be a major factor in why botulism is potentially an undetected cause of SIDS, he adds. (In about one-third of adult cases, botulism traces can be found circulating in the serum. The reason for this is not fully understood, but Arnon speculates that perhaps adults may ingest enough through food sources to make the toxin detectable in serum. In contrast, he says, infants do not appear to develop botulism as a result of contaminated food. That, combined with a baby's inability to verbally communicate symptoms, contributes to problems in diagnosing the disease, he says.)

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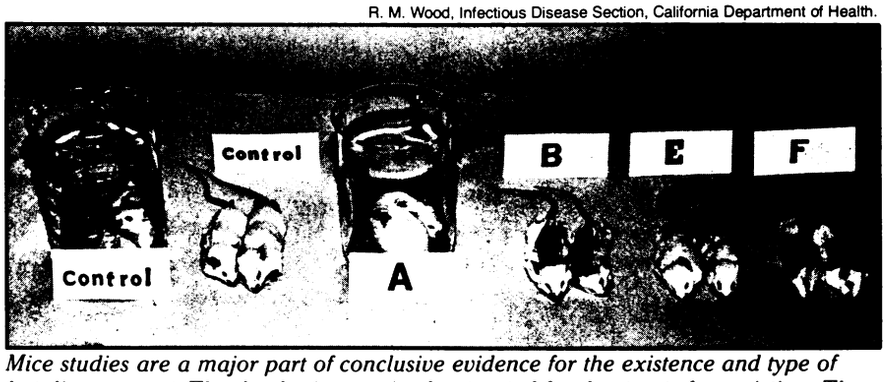

Mice studies are a major part of conclusive evidence for the existence and type of botulism present. The dead mice received untreated fecal extracts from victims. The live mice (in beakers) received antitoxin with the fecal extract.

Aside from the need for specialized, sophisticated equipment and facilities, another reason relatively few labs are capable of testing for the disease has to do with the potency of the toxin. "Some hospital labs just don't want to work with botulism," Arnon says, "and up until now there hasn't been a widespread need for it." Along with California, the Center for Disease Control in Atlanta is among the handful of facilities that is equipped for botulism testing.

Once diagnosed in an infant, botulism is treated by relatively conventional means, which Arnon says are sufficient provided the disease is caught early enough. Antitoxin is not used with babies because of its potentially hazardous side effects. Manufactured in horses, the antitoxin can produce allergic shock (fatal in some cases), kidney inflammation and other problems.

Infant victims require comprehensive supportive care in the hospital for the course of the disease — usually about three to four weeks. Some infants may require artificial breathing machines in respiratory emergencies, but treatment usually consists of close observation, tube or intravenous feeding until strength is regained and a nutritious diet. Penicillin and antibiotics have been used in various cases, but their role in the infants' ultimate recovery is unknown. In fact, says Arnon, "the mechanisms permitting recovering remain obscure."

On the basis of cases documented thus far, Arnon estimates there are about 250 infant botulism attacks a year that require hospitalization in the United States. Victims thus far generally have been products of normal gestation and delivery, he says. They had no congenital abnormalities and were healthy at the onset of illness. Slightly more than half of the victims so far have been males.

Just how many infant botulism cases never make it to a hospital — either because of the mildness of the infection or because they die — is not known. "We have reason to hold to our opinion that infant botulism could be a cause of sudden infant death," says Arnon.

Neither is there any solid indication as to how or why some babies make the toxin in their bodies. "We don't know," Arnon says simply. Botulin spores are present in soils and dust throughout the world, he says, but if there is a link between any specific land area and the onset of the disease, it is too early to tell.

"In terms of medical awareness and diagnostic techniques, we're still in the horse and buggy era," says the researcher. "We think we have a tiger by the tail." □

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nant, the best preventive is better education about human reproduction and birth control, Lopez asserts. A recent study conducted by Planned Parenthood of New York City shows that the reason some sexually active teens use birth control and others do not is that the former have been better informed about birth control, where to get it and how to use it. Abortion, in contrast, does not appear to be a solution to the teen pregnancy epidemic, Sullivan points out, as adolescent girls who solve one pregnancy with abortion often go on to become pregnant a second, third, fourth or even fifth time.

Physicians also need to better inform themselves about laws regarding the dispensation of birth control to adolescents without parental consent, declares Harriet F. Pilpel, a lawyer with Planned Parenthood-World Population, so that they don't withhold contraceptives from sexually active teens who want them and have a legal right to them. Currently, teens have a legal right to birth control without their parents knowing about it through any agency sponsored by federal, state or city funds. However, private hospitals, clinics and physicians have the right, if they so choose, to withhold birth control from adolescents who do not have parental consent to use it.

Probably the best solution to the teen pregnancy epidemic, though, is the strengthening of American family life, Lopez and Fontana concur, since those girls who get pregnant usually come from homes where sexual values and guidance are lacking. "There is no pregnant teenager," Lopez declares, "whose relationship with her parents has been ideal." □