15

Possible Causes
Is Progress Killing Our Babies?

New Delhi (AP) A state health minister said today that 36 pregnant women spontaneously aborted and that six gave birth to deformed babies after the toxic gas leak at the Union Carbide plant in Bhopal here in December. . . Autopsies conducted on 27 other stillborn babies indicated the possibility that their deaths had been caused by methyl isocyanate gas that leaked from the pesticide plant.

The New York Times,
July 16, 1985

Hidden in the back pages of the newspaper, news items such as this report the increasing evidence of an explosive drama. Sometimes in the least likely places, unexpectedly high rates of birth tragedies are becoming apparent.

Pregnant women are the modern version of the canaries which were sent into coal mines to test the safety of the air. If a canary died, the miners knew the mine was unsafe. Similarly, if an unusually high number of miscarriages or birth defects appear in one location or workplace, this is a clue that the environment is toxic.

Hundreds of such clusters of birth tragedies have been reported, but in most instances the causes are still unknown. Will these cases be thoroughly studied by researchers who are supported by government grants to uncover the source of this tragic picture? More likely, they will just be added to the list of statistical anomalies, never understood, and soon forgotten. Unless attitudes change, pregnant women and their babies will continue to be like the canaries, but their warnings are given in vain.

The death or deformity of an infant is in every case a profoundly personal tragedy. But it is also much more. Increasingly, it is becoming clear that there are patterns to many of the tragedies, that they are far from random occurrences. The effects on pregnancy of medication, diet, alcohol and tobacco consumption, and exposure to hazards in the environment and in the workplace are beginning to be understood, and, as a result, the occurrence of the failure of pregnancy is increasingly having political, economic, and legal repercussions.

We take pride in the major advances in both medical technology and in the standard of living that have resulted in dramatically lowered rates of infant loss during this century. The statistics used are almost always those of infant mortality—the proportion of babies born alive who die in the first year of life. Those who do not survive until birth are not so accurately counted. What the statistics conceal, as well, is the possibility that fetal and infant deaths caused by the environment—by pollution, radiation, and chemicals—are actually increasing.

Because the reasons for these events are as yet so poorly understood, miscarriage, ectopic pregnancy, stillbirth, fetal deformities, and infant death are still often treated as mysteries, as flukes of nature. There is not yet enough research being done to try to uncover their causes, and the results of existing research are not often translated into effective preventive measures.

Where there has been research, it has focused mostly on the behavior and psychological makeup of the individual mother. This type of research is easier to do. It is also easier to blame the mother than to uncover the external causes of her suffering. Bereaved parents feel guilty enough about the loss of their child; and since they have few answers, when the answers that do exist seem to point to their own actions, they blame themselves even more:

Over and over I wondered what could have caused our baby's deformities. The doctor said the malformations were not caused by our genes, but were "freak accidents of nature," that some-
thing had gone wrong during my first month of pregnancy. I keep looking for reasons. Did I drink too much diet soda? Did I have a cold and take aspirin? Did they spray our fruit trees that spring? Was I particularly nervous about the new job I started? What did I do? It had to be something!

Most of us are no longer willing to accept “nature” or “God” as the causes of events when we know that there are often specific reasons that can be identified. It is essential to discover the real sources of loss during pregnancy in order to help these parents and to prevent so many tragedies from occurring in the future.

When causes linked to an individual’s behavior are known, preventive action must be taken. Recent evidence emphasizes the harmful effects on a fetus of smoking, excessive drinking, and poor nutrition. Yet young people continue to be bombarded by advertising for products that are dangerous. The tobacco industry says to women: “You’ve come a long way, baby,” associating smoking with progress and freedom. The American government continues to subsidize the tobacco industry. And many doctors fail to advise pregnant patients about the importance to the baby’s health of what they consume.

The focus on the mother’s psychological problems appears particularly in studies of repeated miscarriage. The women who experience this terrible situation are described as rejecting their femininity, being hostile toward their mothers, or unconsciously wishing not to have children. These explanations are particularly cruel in light of the growing evidence of environmental and medical reasons for miscarriage. They also sometimes ignore the fact that the miscarriages themselves may have psychological effects on the women and those effects might be wrongly interpreted as causes.

Some of the most dramatic evidence of environmental causes of birth tragedies comes not from scientists but from the victimized families themselves. Women who have experienced these events have begun to compare their experiences with one another and to uncover some startling connections.

Perhaps the first well-publicized example was that of Love Canal in Niagara Falls, New York. Neighbors in the area surrounding Love Canal became aware that their children were becoming seriously ill and soon realized that many women were experiencing what seemed to be unusually high rates of miscarriage, stillbirth, and birth defects. They discovered that the public elementary school was built on top of a chemical graveyard and that those chemicals had been seeping up through the ground and into their water supply for years. The families immediately surrounding the dump site were finally evacuated, and the school was closed. The women of Love Canal succeeded not only in explaining their own tragedies; they focused national attention on the fact that toxic wastes have been and continue to be disposed of throughout the country in ways which threaten the health and happiness of countless families.

Another example of families finding a common cause for their grief took place in Oregon in the late 1970s. Several women discovered that they and their neighbors were experiencing an unusually high number of miscarriages, especially in the spring. They found that it was no coincidence. The excessive rates of miscarriage appeared in areas which, each spring, were sprayed with a herbicide called 2,4,5-T containing the chemical dioxin. The toxic effects of this chemical had already been suspected for several years. As an ingredient of Agent Orange, best known for its use to defoliate the Vietnamese countryside during the Vietnam war, it has been linked to excessive rates of miscarriage, stillbirth, birth defects, and cancer among the Vietnamese and in the families of American soldiers. In 1970, the United States stopped spraying Vietnam with Agent Orange because of the publicity on its unexpected effects. Yet the same ingredients continued to be used to clear land in other parts of the world, including Oregon. Some families had moved there in search of a clean and simple environment; instead they found disease and heartache.

The women of Oregon organized; they had to fight the timber industry, Dow Chemical—the manufacturer of 2,4,5-T—and the government. One difficult task was convincing government regulators that the observations of nonprofessionals who had experienced tragedy could have any scientific validity. Bonnie Hill, an
Oregon schoolteacher and mother who had a miscarriage in 1973, testified in Congress about the struggle she waged:

It was ironic to me that while scientists have not been willing to study humans who have been exposed to various chemicals, many of them will not lend credence to what people have to say about how they have been affected because their evidence is "anecdotal" or "circumstantial." What else is there left, besides people who are able to observe things that are happening around them, and who are able to reason that certain relationships are most certainly possible... Somehow, we ordinary folk are left to "prove" that we have been adversely affected by a foreign element in our environment to which we are exposed without our consent.

Bonnie Hill and women like her were successful in presenting their case and stopping the use of 2,4,5-T in Oregon. But other dangerous chemicals continued to be used. When community representatives met with officials of one company involved in the spraying of 1981, they were told that "babies are replaceable" and that they should plan their pregnancies to avoid conceiving during the spraying season.

How many other pregnancy-related tragedies are caused by unknown exposure to chemicals whose effects are not yet obvious enough to provide research, protest, and regulation? Environmentalists are finding new sources of chemical pollution all the time—in our air, in our water supply, and underground.

In the spring of 1979, the accident at the Three Mile Island nuclear power plant in Pennsylvania drew the nation's attention to another important source of fetal damage: radiation. Debate continues around the health effects of the accident, with a number of scientists pointing to evidence of increased infant mortality rates in the area around the plant and in the state of Pennsylvania as a whole.

The disastrous 1986 explosion at the Chernobyl nuclear plant in the Soviet Union once again brought public attention to the potential dangers of radiation for human health. Recent revelations have raised concern about the possible ill effects of radon in homes. There is also a growing awareness of the difficult problem of radioactive wastes generated from other sources, such as hospitals and processing plants. These wastes cannot as yet be safely disposed of, and they may increase the risks to pregnant women and their developing infants.

The fear of damage to a fetus is extremely stressful for expectant parents living in areas thought to be hazardous. Pregnant women were evacuated from the Three Mile Island region after the accident, and many left a year later when radioactive gas was vented into the atmosphere. One reporter who covered the Three Mile Island story decided afterward to have an abortion rather than take the risk of bearing an unhealthy child. Some women in Seveso, Italy, a town that was covered by the accidental release of dioxin gas, also sought abortions afterward; they were terrified by the thought of what the exposure to dioxin would do.

One location where the exposure of pregnant women to dangerous substances has produced considerable controversy is the workplace. For example, a study of one computer factory reported in 1987 by the University of Massachusetts School of Public Health found the miscarriage rate among women who etch computer chips with acids and gases to be thirty-nine percent, or at least twice the national average for miscarriages.

With an increasing number of women working and our growing awareness of occupational hazards, employers have sought to reduce their liability for dead and deformed infants by excluding women of childbearing age from certain kinds of jobs. Some women have responded by undergoing sterilization to keep their jobs or by suing to protect their rights to equal employment and to a safe workplace.

What employers have failed to respond to is the growing evidence that fetal death and deformity can also be caused by exposure of the fathers to dangerous work environments. This is possible because some substances (referred to as mutagens) damage not only the ovum but also the sperm before conception even occurs; men are therefore very susceptible to hazards that can damage their future children.

One study carried out early in this century is especially dramatic in demonstrating this common effect: of thirty-two pregnancies begun by the wives of a group of male lead workers,
eleven ended in miscarriage, one in stillbirth, and thirteen in infant death. Only two children survived to adulthood.

More recent studies indicate that male workers exposed to a variety of solvents and other chemicals have sharply reduced sperm counts and are at higher risk of infertility and of fathering children with birth defects. The workplace must be made safe for everyone, not just for fertile women.

Often an embryo is normal at conception but then is damaged by exposure of the mother to harmful substances (teratogens). One workplace known to be hazardous to a fetus but from which, not surprisingly, women workers have not been excluded, is the hospital. Ironically and tragically, medical care and medications have become recognized as important sources of birth tragedies. Exposure to radiation and anesthesia can create risks for men and women working in hospitals, as well as being unexpectedly damaging to the patients they are intended to help.

Doctors have begun to warn that any woman of childbearing age admitted to a hospital for diagnosis or treatment be tested first for pregnancy. They have discovered that many newly pregnant women—not knowing that they have conceived and unaware of the risks—are being subjected to hazardous X rays, anesthesia, and medication.

The effects of all kinds of medications, even aspirin, are becoming increasingly evident. Everything ingested by the mother can affect a fetus in some way, and, in the case of some medications, the effect can be permanent deformity or death.

One terrible example of the effects of medication is seen in the use of the hormone DES (diethylstilbestrol). In the 1940s and 1950s it was given to many pregnant women whose doctors believed they might miscarry. Not only did it have no impact on the likelihood of miscarriage, but many of the children born from those pregnancies are suffering the effects as adults. Daughters of women given DES have higher rates of cervical abnormalities and are thought to have an increased risk of developing vaginal cancer. Research also indicates that the same daughters have a greater likelihood than other women of experiencing miscarriage, stillbirth, and premature—and therefore risky—delivery.

The most surprising source of tragic birth outcomes is the misuse of new obstetrical techniques that, paradoxically, were developed to increase the safety of childbirth. Ultrasound, for example, which is increasingly used routinely during pregnancy, is still not proven completely safe. A panel of experts convened by the National Institutes of Health in 1984 recommended caution in using ultrasound, citing some animal studies which showed that it might produce birth defects or slow fetal growth.

Some techniques, which were intended for use in high-risk births, are too often used automatically in all deliveries and have been attacked as causing unnecessary damage to infants. Routine induction of labor, excessive Caesarean surgery, unnecessary use of medication and anesthesia, and the placement of the delivering mother in a position which reduces the oxygen supply to the infant—these are the major examples of practices that sometimes backfire, harming the child they are intended to help.

The women's health movement—which includes obstetricians, childbirth educators, nurses, and concerned parents—has attempted to spare the mother whose pregnancy and labor proceed normally from the dangers of unnecessary technology. They point to the striking experience of European countries, where there are more at-home or midwife-assisted births and also lower infant death rates than in the United States.

In attempting to explain the higher infant mortality rates in the United States, Americans sometimes claim the difference is due to the more "homogeneous" composition of European populations. What they actually mean is that there are more poor and minority people in the United States and that these groups are responsible for the higher rates of infant death. In this country, black women are twice as likely as white women to experience the death of an infant. Infant mortality has actually increased in the 1980s in areas of the United States with high levels of unemployment and poverty. Income, education, occupation, and race do correlate strongly with pregnancy outcomes, but that is hardly an acceptable excuse.

Poor people in this country are much more susceptible to many kinds of diseases than are middle- and upper-income
people, and disease during pregnancy does increase the risk to the baby. High blood pressure and malnutrition—serious problems for a pregnant woman and her baby—are much more common among the poor. Poor women are less likely to receive proper prenatal care and skilled delivery services. They have even less control than other women over the kind of care they receive. And the poorer classes are much more likely to be exposed to hazards at work.

To attribute the high rates of fetal and neonatal death in the United States to the large percentage of poor women is to ignore the true causes and to pretend that nothing can be done to alleviate the conditions that contribute to their suffering.

Tobacco, pollution, chemicals, radiation, medication, poverty. These are some of the factors that illustrate our growing awareness that fetal and infant death are not simply medical problems. The source of so much anguish is all too often found in our class system, in the workplace, the hospital, and in the air we breathe.

Yet the research, the technology, and the money are focused on saving a baby who is already in distress when born. The years preceding that baby’s conception—and even the first crucial months just after conception—are all but ignored. Many doctors tell pregnant women that they need no medical attention until the third month, and even then the doctors often give little advice about proper diet and potential hazards to the baby. And federal and state regulators are often unwilling to challenge the economic power of industrial polluters and the owners of dangerous factories.

Parents’ fears during pregnancy are magnified by the knowledge that they can never eliminate every potential danger to their baby:

I know that the next time I will be extremely careful about everything I do and about what I eat, even more cautious than I was the last time. But how can I really protect that baby? I don’t know what’s in the water supply or in the air around me. How can I be sure there isn’t another Love Canal just waiting to be discovered in my own neighborhood?

With the help of enlightened physicians and the support of growing scientific evidence, organized consumer groups and women’s health advocates are beginning to bring these issues to light. Fighting the causes of unnecessary tragedies can unite groups of women with very different political views to bring pressure on the political, economic, and medical powers-that-be. Until then, growing numbers of individual families will still face tragedies and wonder if they are to blame.

Margie Gaffer, a woman living in Pennsylvania at the time of the Three Mile Island nuclear power plant accident, put her fears into powerful words of poetry:

I am a woman who carries a child,
A child of three inches who this day
Grows liver, kidney, heart, finger, face, bone,
This day when rain falls and wind blows
From the south, from Harrisburg.

I am a woman who can build a good fire,
Mend tears of cloth or skin,
Who in a summer’s growing fills
A winter’s worth of jars, baskets, cans, crates, stomachs.

I am a woman who sings with children,
Who with care attends each small growth and budding,
Who daily weaves each luminous strand
Into the delicate cloth of family and home.

I am a woman who watches the rain
This day fall upon the soil my fingers cherish,
Sink into the soil that is our life,
Innocent rain, carrying what small death.

I am a woman who chooses not to flee,
Whose fear grows heavy in this rain,
Who envelops yet does not protect the tiny embryo
Growing toe, thumb, or small fingernail.

I am a woman who labors in this understanding
So difficult to grasp in its entirety,
We have left no place in this earth
Safe for the growing of seed or child.
I am a woman who carries a child,
Who can never again embrace the rain as it falls in total friendship,
Who must learn to distrust the soil and its offerings,
Who must teach children to both love and comprehend,
To stand in their humanity with strength and dignity,
To fashion from their fear
Tools for creation.

I am a woman who carries a child.

V

WHAT NEXT?