

SCIENCE FOR THE PEOPLE

**SPECIAL
BABIES ISSUE**

Vol. 16 No.2
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**Making Healthy Babies
Infant Mortality in the U.S.
Nestle Boycott Retrospective
Infant Formula Practices in the U.S.
"Fetal Rights" and the New Eugenics**

about this issue

This Special Issue of SCIENCE for the PEOPLE on "Babies and Science" has been gestating, appropriately enough, for approximately nine months. Even since its conception, enormous changes have occurred with dramatic potential effects for these, our "youngest and most vulnerable citizens," to quote Paul Wise from this issue. We are proud to bring you this collection of varied articles on a vital and underreported topic.

The first successful human embryo transplant, increased debate about gene and embryo manipulation, and *in vitro* fertilization all raise powerful and frightening ethical questions. As science and technology enlarge our capacity to alter, manipulate, even produce human life, the devastating potential applications loom ahead. In anticipation, Ruth Hubbard outlines an important preliminary agenda to help defend parents' rights in her article, "Fetal Rights" and the New Eugenics.

Many other dramatic changes have occurred since the conception of this issue as well. Perhaps most notable is the phenomenal end of the INFACT Nestle Boycott, culminating in an almost complete capitulation by the Nestle Corporation to the INFACT demands. Because of this, some of the 15 million infants in the Third World that die each year before the age of two will have a better chance at survival through their first year of life. Lois Happe's important retrospective article, *People Power Works*, provides a detailed analysis of the growth and history of this prodigious movement, and documents an important end as well as a new beginning.

A major element of this "new beginning" concerns infant formula practices in developed countries like the U.S. The boycott may be over, but Steve Wirtz's article, *Infant Formula Practices in U.S. Hospitals*, gives an important inside look at the not-so-subtle and pervasive ways in which formula corporations hamper parents' ability to receive balanced information about breastfeeding through the U.S. health care system.

But many other recent developments have served to bring issues of infants, childbearing and science to the fore. Not least of these is the overwhelming presence of exclusionary practices by major corporations in this country against fertile women (e.g. any woman age 5-50). Mary Sue Henifin and Joan Bertin are at the center of this struggle, and document the recent legal and political history in their article, *Making Healthy Babies*.

In its report *The State of the World's Children 1984*, UNICEF documents some startling and important information, including the fact cited above that 15 million children per year die in their first year of life, a figure equivalent to the entire under-five population in the U.S. Paul Wise takes a look at infant mortality in the U.S., particularly focusing on the consistently large gap between black and white infant deaths. This powerful article draws on some new evidence to explain why.

As several of our active members have just recently taken the major step of having children, and with at least one set of expecting parents within our ranks, this issue also carries with it a good deal of personal significance. We wish these folks and all other new parents among our subscribers the best in bringing up children in today's world, and look forward to getting to know this newest generation of SftPers!

Announcing...

THE SCIENCE FOR THE PEOPLE 1984 National Conference MAY 19-20, Cambridge, MA



All chapters, contacts, editorial advisors, and interested members are urged to attend. Topics to be covered include:

- National Structure of Organization;
- National Support of Local Chapters;
- Upcoming Organizational Priorities;
- Magazine Review;
- Promotion and Distribution of Magazine.

Proposals for additional agenda items and/or workshops are requested at this time. There are many important issues pending, and many important changes to be discussed. For more information, please contact the National Office:

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Breastfeeding May Help Prevent Diabetes

While scientists have recognized for some time that breastfed babies suffer fewer viral infections than their bottle-fed contemporaries (see Steve Wirtz's article in this issue for more details), a recent study from Denmark shows striking evidence that breastfeeding may help protect children from diabetes.

Researchers at the Genofte Steno Memorial Hospital in Denmark have completed a study of thousands of Danish children, including 181 children born between 1948 and 1978 who developed diabetes before they were 18 years old. According to the findings, the diabetic children were *far* more likely to have been bottle fed, or breastfed for a shorter time than their healthy siblings, or than the control population of children.

In addition to these specific results, demographic data from Denmark seem to substantiate the findings. In Scandinavia, as in other parts of the world, the number of children with diabetes increased rapidly from the late 1940s to the mid-1970s. Since that time, in Scandinavia, at least, the incidence of this type of diabetes has been declining. These figures correlate almost exactly to the rate of breastfeeding. In the 1940s, about 90% of all babies in the study population were breastfed. But for the next 30 years, more and more mothers switched to formula. As breastfeeding began to take off again in the early 1970s, the incidence of childhood diabetes exhibited a marked decline.

Although there is clearly much more study to be done in this area, several hypotheses have been offered already to

explain how breastfeeding might protect against diabetes. Some scientists suggest the importance of breast milk's antibodies which could help fight viral infections which may trigger diabetes. Others stress the importance of small differences in the chemistry of the food which can have enormous effects on the extent to which blood sugar levels fluctuate. For example, sugar in breast milk is in the form of lactose which has little effect on levels of blood glucose.

— information from *New Scientist*

Food Safety Laws in Jeopardy

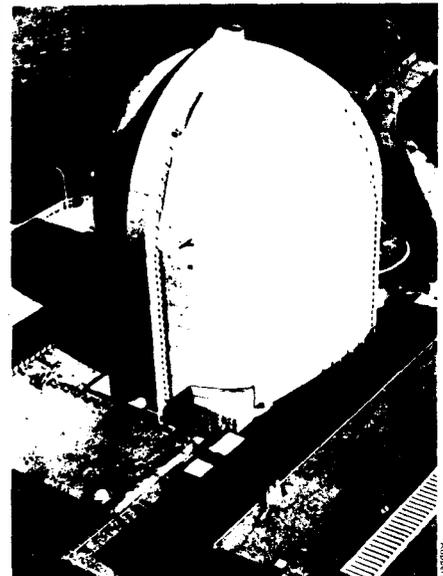
A bill due before Congress would soon weaken key provisions of the current food safety laws. S.1938, the so-called Food Safety Modernization Act of 1983, would add new means by which potentially harmful substances could enter and remain in our nation's food supply. For all its "modernization," not a single provision of this bill, introduced by Senator Orrin B. Hatch (R-UT), would add to the protection of the public health.

Besides changing the definition of "safe" in the existing law to allow additives which have a "negligible" risk of harm to the population (with no definition within the bill of what constitutes a "negligible" risk), the bill also allows for a phase out period of dangerous additives on the market of up to ten years to

minimize economic harm to manufacturers, and exempts a variety of additives, such as those which migrate into food from packaging. Concerned readers are urged to take action against this thinly-veiled weakening of our current food additive laws.

— information from the *Center for Science in the Public Interest*

They Can't Even Give It Away



CPF

Yet another by-product of the ailing nuclear power industry is the existence of massive equipment and parts which will never be used. Anti-nuke activists may not be complaining, but others are. The Public Service Electric and Gas Company, for example, finds itself stuck with a 697-ton reactor vessel after having abandoned a nuclear power project in Salem County, N.J.

Originally worth about \$3.5 million, this nifty item doesn't seem to be going anywhere. Despite "for sale" advertisements here and abroad, no buyers have responded. However, the utility company did get some response: six "salvage operators" have made bids to charge the utility to cut the reactor up and take it out for scrap.

— information from the *New York Times*, February 26, 1984.

UPCOMING ISSUE OF SFTP

The East Cost Editorial Committee is now soliciting articles for the July/August 1984 special issue on "Science and Policymaking/ Science and the Media." Please send articles, outlines, graphics and other material to: **SCIENCE for the PEOPLE**, 897 Main St., Cambridge, MA 02139.

Nitrosamines and Pacifiers

SEND US A NOTE

Send *Science for the People* news notes about science, or related areas of interest to our readers and we'll extend your subscription by six months for those items we print! Please cite your sources and/or include clippings. Send them to: Newsnotes, *Science for the People*, 897 Main St., Cambridge, MA 02139.

Girls, Boys and Math Ability: Update

In the December 2, 1983 issue of *Science Magazine*, Johns Hopkins psychologists Camilla Benbow and Julian Stanley added fuel to the fire of the debate over math ability (see *SftP*, vol. 13, #5, p.6). They presented data to support their conclusions that among high math achievers, boys are superior to girls. When the SAT-mathematics (SAT-M) test was given to 7th and 8th grade boys and girls who had shown aptitude in math, the boys, on average, did better than the girls. Among those who scored over 700, the boys outnumbered the girls 13:1. As in their previous article (*Science*, December 12, 1980), they downplayed any socialization factors that might have played a part in generating these differences.

Curiously enough, in an article published in a more obscure journal (*Am. Educ. Res. J.* 19, 598, 1982), the same authors show that while the boys outscored the girls on the SAT-M test, the girls did better than the boys in math courses and in advanced placement tests when they reached high school! Further, in a study of the same children, Lynn Fox and coworkers (report to the National Institute of Education, 1982) found that prior to taking the SAT-M test, the boys had more out-of-school math experiences and showed greater confidence in their abilities than the girls. These findings were ignored by Benbow and Stanley. As usual, the media picked up on the Benbow and Stanley study as a further indication of the incapacity of women to perform well in mathematically-oriented careers.

Nitrosamines have been present on baby bottle nipples and pacifiers since 1965. The nitrosamines are a result of the manufacturing process for soft rubber. Some nipples have levels as high as 400 parts per billion (ppb).

Now, the Food and Drug Administration (FDA) has announced that as of January 1, 1984, the sale of nipples with nitrosamine levels above 60 ppb is prohibited. The standard is being delayed for two months for hospital nipples which are normally discarded after being used once. The standard will be toughened to 10 ppb in January 1985.

In the meantime, parents can reduce the amount of nitrosamines in their infants pacifiers and nipples by boiling them five or six times before initial use and changing the water after each boil.

—information from the
Washington Post



Dana Collier

Would Science for the People Be Banned in Israel?

Any effective people's science must include wide access to information and open discussion by citizen and "expert" alike. But today, in Israel, an effort is being made to limit public political debate in ways described as "Kafka-like" by the Association for Civil Rights in Israel. At the center of the controversy is Dr. Najwa Makhoul, *Science for the People* contact person in Jerusalem and a former lecturer at Hebrew University. Her proposed journal, *Majalat el Taqadum*, sought to explore technology and society from an independent, Marxist and feminist perspective, "applying the idea of a 'science for the people.'"

Apparently, this perspective alarmed the District Commissioner of Jerusalem enough for him to deny the permit to publish, even though the Israeli press is subject to regular censorship on matters of "security." He invoked a law carried over from the days when Israel was still under British Mandatory Government.

In a signed statement, Menachem Begin, who was acting Defense Minister at the time of application, supported the District Commissioner's action, claiming that "revealing the detailed reasons for his refusal . . . is likely to impair the security of the state." Dr. Makhoul turned to the Association for Civil Rights in Israel (ACRI), who appointed

her lawyers and prepared for an appeal. Heading their effort was ACRI president Haim H. Cohen, a former Supreme Court Justice with a reputation for protecting the judiciary from politicization.

Since there was no evidence before the court to contest, the ACRI lawyers tried to introduce aspects of Dr. Makhoul's work and background which might have been an influence on the decision, in an attempt to show unfairness. An Israeli citizen by birth, Dr. Makhoul was active in the Arab student movement as an undergraduate at Haifa University. After winning a scholarship to study in the U.S., she went to MIT where she received a PhD in Urban Planning. She spent a year as a post-doctoral fellow at Harvard's School of Public Health, then was appointed to the Faculty of Medicine, Hebrew University, in Jerusalem. Her research has involved health care and class formation, the evolution of health care in underdeveloped regions, and field studies of agricultural research and its relation to patterns of hunger.

But the Government would not reveal any considered factors, only their conclusion of a security risk. And the Court upheld the District Commissioner, basing its decision on evidence Dr. Makhoul and her lawyers could not examine or challenge.

Continued

The suppressed journal is not the only one of Dr. Makhoul's projects to meet with official displeasure. On her return to Israel in 1980, she joined in an effort to organize a conference of Palestinians in Israel, the first national meeting of Arab citizens of Israel. But the conference was banned by the Minister of Defense. In 1983, Dr. Makhoul was twice subjected to searches and seizure of her papers as she returned from international conferences in Spain and Hungary, conferences to which she had been invited as a faculty member of Hebrew University.

Israel, unlike many western countries, has no formal constitution and no Bill of Rights. In spite of generally agreed upon principles, such as those in the Declaration of Independence of the State of Israel proclaiming "complete equality of social and political rights to all its inhabitants irrespective of religion, race, and sex," there is no one consistent standard of enforcing the rights of citizens. While the Supreme Court has exercised some authority in the past to guarantee civil rights, in this case ACRI claims that by allowing procedural abuses to circumvent the rights of the accused, the Supreme Court has become too politicized to deliver justice to Dr. Makhoul. "This injury clearly contradicts every principle of judicial responsibility," the ACRI maintains.

Dr. Makhoul's scientific work has also felt the chilling effect of governmental intrusion. As a consultant to a PORI Institute study of West Bank residents, she helped coordinate the first effort to gather public opinion data in occupied territories. Both Dr. Makhoul and PORI were threatened with ten years in prison if they published their findings or even the fact of the study's existence. One interviewer was arrested and tortured in an attempt to identify interviewees. A select part of the study was published in *Time Magazine*. Dr. Makhoul was not allowed to verify its accuracy and has never seen the results of her work.

The ACRI has asked for public support of their position that the publishing ban be lifted and the law requiring permits be abolished. There has been some response in Israel—a sympathetic article appeared in *Ha'aretz*, a liberal newspaper, which was recounted by Noam Chomsky in his latest book, *The Fateful Triangle*. A petition signed by 43 educators from thirteen countries was submitted to the Attorney General of Israel to protest the silencing of their colleague.

His reply, in a letter to Dr. Lesley Doyal of Polytechnic of North London, claims, "Freedom of the press is highly valued in Israel." He says the rights of the individual have to be "balanced against the security of the state," while avoiding the imbalances of that very equation. If the security of the State of Israel, with its massive military resources, can be threatened by a single academic journal and one woman's perspective on political life, what does that reveal about the character of that "security"?

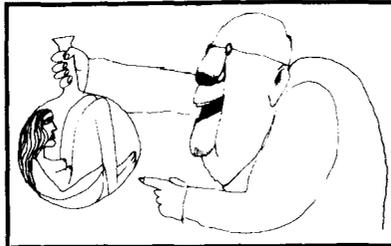
Readers who wish to express their support for Dr. Makhoul, a Science for the

People member and contact person for Jerusalem, can write to Dr. Yosef Burg, Minister of Interior, or Mr. Zevulun Hammer, Minister of Education and Culture, in Jerusalem, Israel. Dr. Makhoul can be reached at the Jerusalem Institute for the Study of Society, 6 B'nai-B'rith St., Jerusalem 95146, Israel.

—Gary Keenan

(Material for this article was drawn from interviews with Dr. Najwa Makhoul, Noam Chomsky's *The Fateful Triangle, Government and Politics in Israel*, by Oscar Kraines, and *Midstream* magazine for January 1984.)

Rent a Womb? Researchers Seek Patent for Medical Process



The fledgling baby production industry received a boost recently, as a medical team at Memorial Medical Center in Long Beach, California announced the birth of a baby brought to term by embryo transfer. In this new technique, a woman who was unable to bear a fetus to term had an embryo (which she conceived) transferred to another woman's uterus while the embryo was still microscopic in size. Now the baby has been born, and will be returned to his genetic mother.

According to the reports given at the press conference announcing the birth, a new company called Memorial Health Services plans to start a profit-making embryo transfer business in Long Beach. The medical team is attempting to patent the embryo transfer process in order to facilitate this venture into the baby-making business. Apparently, Memorial Health Services will charge \$4,000 to \$7,000 for each transfer attempt; nearly \$3 million has been invested privately in order to develop this technique. The proposed cost of an embryo transfer is comparable to that charged for *in vitro* ("test-tube") fertilization attempts.

The social implications of companies going into business to make babies are disturbing, to say the least. Are there going to be laws protecting the medical rights of a woman whose uterus is used as an incubator for someone else's profit? And what about poor people who could benefit from this procedure? Certainly they would have no hope of buying this type of service at thousands of dollars per attempt. Furthermore, the patenting of a medical procedure in order to set up a profit-making corporation to sell the procedure does not bode well, and is an overt expression of the nature of health care under capitalism. Already, many types of medical treatment are prohibitively expensive for most people. Action is needed to prevent new medical techniques from being whisked out of the public domain as soon as they are developed.

—information from *The Boston Globe*,
2/4/84

CORRECTIONS

In the Jan/Feb 1983, Vol. 16, No. 1 *Sf/P*, a paste up error occurred on p. 25 of the "Teaching Peace" article, by Barbara Beckwith and Connie Phillips. The three books discussed in the final two paragraphs should follow the heading at the top of p. 26, not precede it.

We also inadvertently failed to attribute credit for the excellent photos accompanying the cover story. Photographs on pages 18, 19, 20, and 21 were all by Earl Dotter.

“FETAL RIGHTS” AND THE NEW EUGENICS

by Ruth Hubbard

Throughout recorded history, people have had questions about heredity—where our traits come from and why children resemble their parents. However, during the nineteenth century attention to heredity became increasingly important for political and social reasons. In earlier times, inequalities in social privilege could be derived from the laws of God or kings, but after the French and American Revolutions had been fought for liberty and equality, hereditarian ideas came to be essential ingredients of the nineteenth century Euro-American belief in a social order based on equal opportunity and meritocracy. Therefore, it became a problem for political and social theorists to reconcile these ideals with the obvious, and often increasing, inequalities between different groups of people—rich and poor, blacks and whites, women and men.

The ready answer was that social inequalities between different *groups* are the expressions of inborn inequalities between *individuals*. And since everybody knows that people differ, this easy and unspoken transition from the traits of individuals to group characteristics carried a logic that was readily accepted into the basic assumptions of nineteenth (and indeed of twentieth) century liberalism. Hereditarianism provided an intellectual framework to locate the sources of economic and social inequality within *people* rather than in social institutions, while eugenics offered a program of action to get rid of such people.

The “Old” Eugenics

The term, eugenics, derives from the Greek word for “wellborn” and was coined by Francis Galton in 1883 as

a brief word to express the science of improving the stock, which is by no means confined to questions of judicious mating, but which, especially in the case of

Ruth Hubbard is a professor of biology at Harvard University. She teaches and writes about interactions of science and society, particularly as they affect women. She is a member of the National Women's Health Network and has collaborated with the Boston Women's Health Book Collective on the revision of Our Bodies, Ourselves.

man [sic], takes cognizance of all the influences that tend in however remote a degree to give the more suitable races or strains of blood a better chance of prevailing speedily over the less suitable than they otherwise would have had.¹

Galton subsequently became Honorary President of the English Eugenics Education Society which he helped to found, and in the century since he invented the word, he and numerous other advocates of race and class privilege have been busy defining people like themselves as “more suitable” and various groups of other people as less so.

Many readers of *Science for the People* will be familiar with the history and program of the eugenics movement. (For a recent review, see “The New Eugenics” by Barry Mehler in the May/June, 1983 issue.) Therefore I only want to recall that the eugenics program had two prongs: “positive eugenics,” by encouraging the “fit”—that is, well-to-do—to have more children; and “negative eugenics,” by preventing the “unfit” from reproducing. An underlying concern of the eugenicists is well represented in a statement by Lewis Terman, one of the chief engineers of I.Q. testing:

The fecundity of the family stocks from which our most gifted children come appears to be definitely on the wane . . . It has been figured that if the present differential birth rate continues 1,000 Harvard graduates will, at the end of 200 years, have but 56 descendants, while in the same period 1,000 S. Italians will have multiplied to 100,000.²

In this country, negative eugenics (which is what the term, eugenics, usually has come to mean) was implemented by two kinds of legislation: involuntary sterilization laws and the Immigration Restriction Act of 1924. By 1931, some thirty states had enacted compulsory eugenic sterilization laws. Aimed, in general, at the insane and “feebleminded” (broadly interpreted to include many immigrants and other people who did poorly on I.Q. tests because they were functionally illiterate or hardly spoke English), “some of these laws applied to a very wide range of ‘hereditary defectives,’ including ‘sexual perverts,’ ‘drug fiends,’ ‘drunkards,’ ‘epileptics,’ and ‘diseased and degenerate persons.’”³ Though most of these laws were not enforced, by January 1935 some 20,000 people in the U.S. had been forc-

ibly sterilized, nearly half of them in California. Indeed, the California law was not repealed until 1980, and eugenic sterilization laws are still on the books in some twenty states.

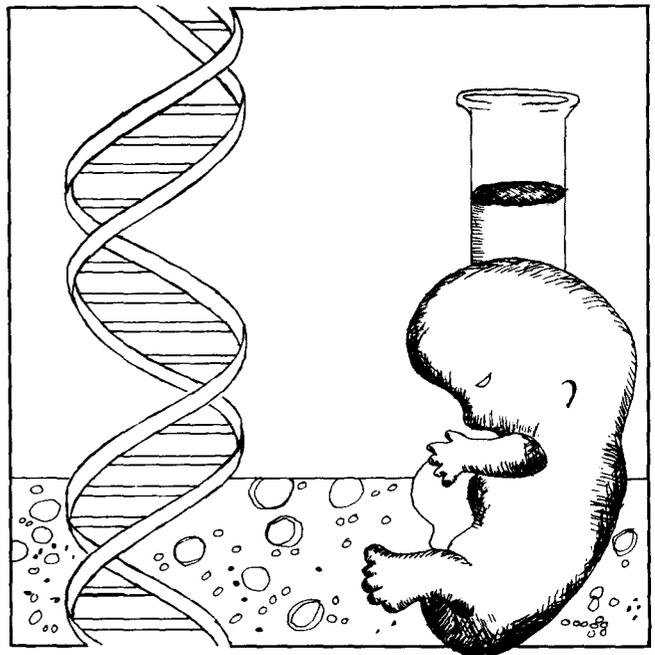
The eugenic intent of the Immigration Restriction Act of 1924 was equally explicit. It was designed to decrease specifically the proportion of poor immigrants from southern and eastern Europe (immigration from Asia had been curtailed earlier) so as to give greater predominance to Americans of British and north-European descent. It did this by restricting the number of immigrants permitted to enter the U.S. from any one country in each calendar year to at most 2% of U.S. residents who had been born in that country, as listed in the census of 1890 (34 years earlier). The date, 1890, was chosen deliberately because it established as a baseline the ethnic composition of the U.S. population prior to the major immigrations from eastern and southern Europe that began in the 1890s.⁴

The eugenic sterilization programs of the earlier part of this century went into decline in the 1940s, partly because of the eugenic excesses practiced in Nazi Germany (see "Nazi Science and Medicine" by Robert Proctor, *Science for the People*, March/April 1982, pp. 15-20). For although Nazi eugenics, like its American precursor, was aimed initially at the insane and "feble-minded," it eventually led to the systematic extermination also of homosexuals, Jews, gypsies and other "undesirables." But there were scientific reasons, as well, why the enthusiasm for eugenic measures declined by the end of World War II. For one thing, it became clear that the inheritance of most traits is far from simple. To the extent that "insanity" or many other diseases or disabilities are biologically inherited—and there is considerable disagreement concerning how much of a role biology plays in the inheritance of most of them and to what extent they are shaped by environmental influences⁵—their biological inheritance involves interactions among genes that cannot be controlled by eugenic measures.

Even if one prevented people who manifested most "undesirable" traits from having children, the genes that might be responsible for their inheritance are so widely dispersed among people who do not manifest these traits, that the frequency with which these traits occur in the population would hardly decrease at all. And this was shown to be true also for most of the simpler genetic traits whose inheritance *can* be described more accurately—diseases such as Tay-Sachs disease (a fatal, neurological disease of young children), sickle cell anemia (a blood disease than can be extremely painful and debilitating), or cystic fibrosis (an often fatal disease of the glands involved in digestion and other secretory functions). For most inherited diseases, preventing the people who have them from having children does not appreciably decrease the number of affected babies born because most of the people who can transmit these diseases are not themselves ill and therefore have no way

of knowing that their future children may be at risk. This was determined independently by a British mathematician, G.H. Hardy, and by a German physician, W. Weinberg, in 1908. It is interesting that their work put no brake on eugenic theorizing or practices until the 1940s, when the so-called Hardy - Weinberg Law began to be cited as a scientific argument against the implementation of eugenics.

Little was heard about eugenics in the 1940s and 1950s. But in the 1960s and 1970s new forms of eugenic arguments began to appear, mostly cast in terms of the need to limit population, particularly in the poor countries in Asia, Latin America and Africa, as well as among poor people and people of color in the U.S. and



in Puerto Rico. A survey of obstetricians, publicized in 1972,

showed that although only 6% favored sterilization for their private patients, 14% favored it for their welfare patients. For welfare mothers who had borne illegitimate children, 97% of physicians favored sterilization . . . In a 1965 Gallup poll, about 20% of the people surveyed favored compulsory sterilization for women on welfare.⁶

A survey conducted in 1973 found that 43% of the women sterilized in federally financed family planning programs were black.⁷

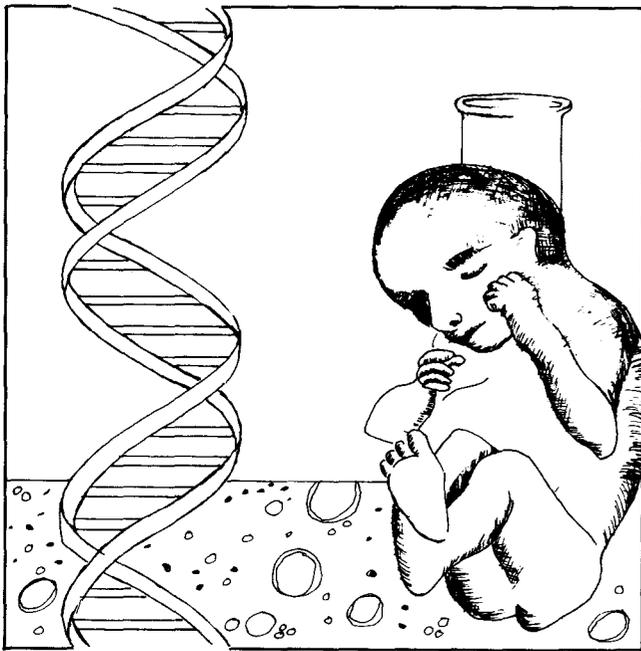
Fetal "Right to Health"

In fact, eugenic thinking was far from dead, but a new language of eugenics was being invented that spoke of "rights" of the unborn to health and well-being. One of its earliest statements, cast in the context of population control, comes from the geneticist, Bentley Glass, in a speech he made as retiring president of the Ameri-

can Association for the Advancement of Science in December, 1970:

In a world where each pair must be limited, on the average, to two offspring and no more, the right that must become paramount is . . . the right of every child to be born with a sound physical and mental constitution, based on a sound genotype. no parent will in that future time have a right to *burden society* with a malformed or a mentally incompetent child . . . [E]very child has the inalienable right to a sound heritage.⁸ [my emphasis]

Professor Glass did not suggest how this “inalienable right” was to be implemented, but his statement brings the earlier, explicitly coercive, language of eugenics into line with the 1960s and 1970s language of civil rights. Before we go any further, it is important to be clear about the fact that statements about the unborn’s “right” to be born healthy are only a polite way of saying that unhealthy fetuses do not have the right to be born. And, of course, in the real world this means that people don’t have the “right” to have unhealthy or disabled children. This has been said explicitly by the theologian and ethicist, Joseph Fletcher, in a discussion



of reproductive rights and risks of genetic diseases. He writes:

Since the United Nations has designated 1979 as the Year of the Child, my thought is that if child abuse is part of its concern we ought to recognize that children are often abused preconceptively and prenatally—not only by their mothers drinking alcohol, smoking, and using drugs non-medicinally but also by their *knowingly* passing on or risking passing genetic diseases.⁹

Clearly, such statements about “the unborn” are statements about the control of prospective parents, especially women. To assure the health of “the unborn” *before* conception requires regulating the reproductive

behavior of women and men, while to assure “the unborn’s health” *during* pregnancy implies controlling the behavior of pregnant women. “Fetal rights” have become familiar as part of the so-called pro-life or anti-abortion movement’s efforts to restrict women’s right to abortion. What I want to call attention to here is that “the unborn” recently has acquired a new set of spokespeople made up of scientists, physicians and attorneys, whose concern is not with the fetus’s “right to life” (indeed, most of them support the U.S. Supreme Court’s 1973 decision in *Roe v. Wade*), but with its “right to health.” To implement that supposed “right” they are quite ready to curtail women’s rights to equal protection.

For example, Margery Shaw, an attorney, argues as follows:

[O]nce a pregnant woman has abandoned her right to abort and has decided to carry her fetus to term, she incurs a “conditional prospective liability” for negligent acts toward her fetus if it should be born alive. These acts could be considered negligent fetal abuse resulting in an injured child. A decision to carry a genetically defective fetus to term would be an example. Abuse of alcohol or drugs during pregnancy could lead to fetal alcohol syndrome or drug addiction in the infant, resulting in an assertion that he [sic] had been harmed by his mother’s acts. Withholding of necessary prenatal care, improper nutrition, exposure to mutagens or teratogens, or even exposure to the mother’s defective intrauterine environment caused by her genotype . . . could all result in an injured infant who might claim that his right to be born physically and mentally sound had been invaded.¹⁰

And she urges:

[C]ourts and legislatures . . . should . . . take all reasonable steps to insure that fetuses destined to be born alive are not handicapped mentally and physically by the negligent acts or omissions of others.¹¹

Of course, one of the big problems with this line of argument is that it not only posits that a fetus has rights, but that these “rights” are different from, and indeed opposed to, those of the mother whose body keeps it alive and who will most likely be the person who cares for it once it is born. Furthermore, it places the burden of implementing these “rights” of fetuses squarely on the individual woman. Shaw does not even suggest that the “reasonable steps” that “courts and legislatures” should take should include making sure that women have access to good nutrition, housing, education and work so that they are able to provide that “proper nutrition” and prevent that “exposure to mutagens and teratogens” that, according to her, every fetus has the “right” to. This language of “rights” is not one that argues for social improvements that could benefit women, children, everyone. It is a language of social control. This control is argued perhaps most clearly by John Robertson, professor of law at the University of Texas. His basic proposition is this:

The mother has, if she conceives and chooses not to abort, a legal and moral duty to bring the child into the

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PEOPLE POWER WORKS

A Retrospective of the Nestle Boycott

by Lois Happe

Our heartiest congratulations! To many in the Third World for whom sheer survival is victory, the Nestle Boycott campaign displayed a rare global vision, courage and stamina. You showed that caring counts, that people's power works. Let this victory against corporate global violence, manipulation and waste be only the first of many.

— Warmest regards, Anwar Fazal, President, International Organization of Consumers' Unions Malaysia (IOCU).

With that brief message, one of the most respected international allies of the Nestle boycott summarized the significance of the January 26th agreement reached between the giant international food company and the International Nestle Boycott Committee (INBC) to suspend the seven-year-old boycott. The message was sent to Mexico City where the INBC met in early February to ratify the agreement and to plan the future of the baby food action network. Anwar Fazal captured at once the basis for celebration and the platform for the coalition's future. He also suggested an appropriate metaphor to describe the work of the movement that was able to change the marketing context of one of the world's largest companies.

In struggles such as the Nestle boycott, the temptation exists to resort to military language to describe progress or retreat. "Victory" is the "objective" of the "campaign." The image of David and Goliath comes readily to mind when we consider the relative size of the protagonists in the infant formula controversy. But the military metaphor is inadequate for social change movements; it suggests an inappropriate dichotomy that encourages "either/or" expectations. If "victory" is not achieved, we are "defeated." Social change is rarely accomplished in "once and for all" events, but rather

through steady accumulation of pressure, changes of habit and shifts in policy that finally bring changes in direction and, consequently, in destination. The infant formula coalition has arrived at a high point in its journey, a vantage point that affords the opportunity to survey where it has been and to take satisfaction in its accomplishments. At the same time, the pause allows the movement to assess its resources and to map out the next leg of the journey.

The particular journey of the Nestle boycott began more than a decade ago when a few medical personnel in the developing world became aware that the increasing numbers of infants suffering from diarrhea, dehydration and malnutrition were overwhelming the slender medical resources that existed in many areas. These health care workers warned that the uninhibited promotion of infant formula was seducing unsuspecting mothers into choosing bottle feeding over breastfeeding with tragic results. Without the resources which are taken for granted in the developed nations — clean water, refrigeration, literacy, adequate income — it is impossible to produce and to maintain sterile and properly-constituted feeds. Babies given dilute and/or contaminated feedings often had repeated bouts of disease and soon became malnourished. The "bottle baby syndrome" has contributed to the deaths of *millions* of children since the introduction of infant formula in the developing nations of the world. Many children who survived the ravages of bottle feeding have been physically and mentally impaired. The problem was, and still is, epidemic.

During the 1960s and 70s, as the birth rate declined and breastfeeding increased in the U.S. and Western Europe, infant formula companies looked for new markets that would allow them to continue to increase sales. The burgeoning populations of the Third World were the most obvious "growth" area, if only mothers could be induced to try a new product.

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Creating a Market

To introduce a new product or new concept to a population, the use of mass media is necessary. Its purpose is to make the product not only culturally acceptable, but desirable. In the Third World, appeals for upward mobility and attacks on traditional practices were the themes for radio jingles, billboards, posters, etc. By the beginning of INFACT's (Infant Formula Action Coalition) campaign, saturation of the public communication avenues had already taken place and the message had taken hold. In too many places, bottle feeding was assumed to be the modern, healthy way to feed newborns. Since that marketing strategy had already accomplished its purpose, it was relatively easy for formula companies to eliminate mass media campaigns early in the controversy. Today, while occasional lapses are discovered, there are few instances of blatant *public* advertising of infant formula.

The second marketing concern is brand loyalty. Once formula feeding is accepted, the companies need to reach individual mothers to establish a loyalty to a specific product. The most effective method is the distribution of samples to vulnerable new mothers, preferably by a person perceived as a medical authority. In the past, companies hired nurses to visit new mothers in the hospital or at home to promote the formula. In addition to giving free samples, the "milk nurses" offered advice on formula preparation and other baby care information. Again, because of their high visibility, milk nurses have been discontinued and replaced by company representatives whose role is promotion to health care workers rather than to mothers.

This shift represents a change in marketing strategy to a more subtle and invidious process. To reach indi-

vidual mothers, companies enlist the aid of medical personnel and institutions to distribute the samples and to provide a climate of acceptance for formula feeding. In this respect, the Third World has achieved parity with the U.S., for this is the most important marketing strategy employed in this country. This strategy is extremely difficult to combat. The companies have been successful in instilling the perception that there is no significant difference between breastfeeding and bottle feeding. As a consequence, medical professionals have, in general, refrained from advocacy on behalf of breastfeeding. By assuming a stance of neutrality, health care institutions have allowed infant formula companies to have an inappropriate role in health care decisions and procedures. Eliminating discharge gift packs that contain a tempting, but subversive, alternative to early anxious breastfeeding would be a fair, reasonable decision, but many professionals perceive carrying it out as "depriving" patients. Out of misguided generosity, misinformation and inertia, the medical establishment is now the primary partner in the marketing enterprise of the formula companies.

Launching a Boycott

After the "scouts" of the medical community alerted the public about the invisible disaster taking place, they were joined by "pioneers" in the religious community in the effort to have marketing strategies changed. As shareholders in American formula companies,* church boards and individuals, under the leadership of the Interfaith Center on Corporate Responsibility (ICCR), raised questions of ethics at company annual meetings. Data was collected that indicted company marketing policies; the Sisters of Precious Blood

When the first demonstrators launched the Nestle Boycott on July 4, 1977 in Minneapolis, it was far from an international movement ... but by December 1983, seven years later, the coalition encompassed 87 national organizations in ten countries, swelling the numbers of companeros to millions. Here demonstrators in Boston protest against Nestle's practices.

*The U.S. formula companies are the following: Bristol Myers, which owns Mead Johnson (product: Enfamil), America Home Products, which owns Wyett (product: Enfamil), America Home Products, which owns Wyett (product: SMA); and Abbott, which owns Ross Laboratories (product: Simulac). See the next article in this issue (p.14) for many more details.

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“Let this victory against corporate global violence, manipulation and waste be only the first of many ...”

sued Bristol-Myers when that company blocked distribution of that information to its shareholders. The out-of-court settlement was the first milestone that the little band of concerned and committed people passed.

Because Swiss-based Nestle was the industry giant — it produced more than half of all formula sold in developing nations — and because it was immune to U.S. shareholder action or legislation, it was clear that other strategies would have to be used to convince that company to change its practices. Since Nestle sold food items in nearly every market of the world as well as infant formula, an international boycott was an obvious choice.

When the first demonstrators launched the boycott on July 4, 1977 in Minneapolis, it was far from an international movement. Although they were confident that the cause was just, they were not at all sure where this step into the future would take them, nor could they count on many companions to join the boycott along



**SAVE A BABY'S LIFE
BOYCOTT
Nestlé
TASTER'S CHOICE**

Infant Formula Action Coalition (INFACT)/(612) 331-2333

INFACT bumper sticker, 1982.

the way. But by November 1977, the boycott became a national movement when the first national conference was held to organize the Infant Formula Action Coalition (INFACT). By December 1983, seven years later, the coalition encompassed 87 national organizations in ten countries, swelling the numbers of *companeros* to millions.

Government officials added their resources to the movement, broadening its impact. In 1978, Senator Edward Kennedy, in Senate hearings, quizzed industry leadership about their responsibility for the consequences of marketing policies. A year later, the World Health Organization (WHO), called an international meeting that included consumer representatives to draw up guidelines for infant and child feeding. At the conclusion of the conference, WHO and UNICEF were asked to develop a detailed international code of marketing breastmilk substitutes.

The WHO/Unicef Code

In May 1981, that work was completed when the World Health Assembly adopted the International Marketing Code for Breastmilk Substitutes by a vote of 118-1. The lone negative vote by the U.S. reflected the Reagan Administration's priorities of profit before people. Nevertheless, the code's adoption is unprecedented in the history of industry regulation. While other segments of the UN struggled to write a general code of ethics for multinational companies, the infant formula coalition, because it focused on very specific goals within a single industry and because it generated an international organization to parallel industry's global reach, was able to inspire the WHO to begin the arduous process of international regulation of transnational industry.

The destination of INFACT and its international partners has been clear — the elimination of unethical promotion of infant formula in areas where its use would result in predictable tragedy. The boycott demands focused on four areas — the end to mass advertising, to distribution of free samples, to the employment of milk nurses and to promotion to health care workers and institutions. The WHO/UNICEF code provided an enormous leap in that direction, but its limitations as the product of political compromise prevented premature celebration.

Although the code prohibited mass media advertising to promote infant formula and the use of milk nurses, in any case, both strategies were directly being eliminated as public scrutiny of company behavior increased. The code addressed the problems of adequate labeling and distribution of “educational” literature by formula companies, providing reasonable guidance for companies and countries that wish to carry out the intentions of the code.

The adoption of the code subtly shifted the focus of the debate with industry. Passed as a minimum standard for behavior, the code soon assumed the role of an absolute criteria for industry conduct. Resolution of the controversy became defined as adequate implementation of the code, in spite of the obvious weaknesses of the provisions regulating the relationship between industry and health care workers and institutions, the very point that requires clarity and strength.

Nestle has claimed to endorse the code since its adoption, but it has been the steady monitoring of company practices and the consequent publicity of infractions that has kept supporters loyal to the boycott and



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Nestle television advertisement, 1978.

encouraged Nestle to continue to alter its marketing philosophy.

By December 1983, INFACT identified the issues that remained to be resolved — adequate warnings on labels, the elimination of gifts to medical personnel and institutions, the limitation of free supplies to institutions, and the revision of Nestle’s educational materials. With surprising swiftness, negotiations proceeded. Nestle agreed in January to comply with these four demands and INFACT agreed to suspend the boycott during a six-month monitoring period. An evaluation of progress at the end of that time will determine the future of the boycott as a strategy of the infant formula campaign.

After the Boycott, What?

Over a decade ago, a journey was begun, a journey whose goal was the elimination of unethical promotion of infant formula. Looking back, recalling the important milestones that have been passed, the many people that now make up the company of the committed have just cause for celebration. Yet, the wisest among them know that what remains to be done will test the ingenuity and stamina of them all. To accomplish what they set out to do means tackling projects more complex and less glamorous than those just completed. Now that the industry giant has been changed, how can the movement re-define itself to address the other multinationals, none of whom can provide the same kind of focus that Nestle offered? How can the variety of national agendas of the groups affiliated with the network be affirmed at the same time an international agenda is developed and pursued? How can the tenacity of the movement be nour-

ished? How can the problem of enforcement of agreements be resolved? Are the U.S. organizations as willing to work to protect mothers and infants in this country from company influence as they have been in the more obvious struggles in the Third World?

There are significant changes in the marketing environment of the formula companies. There are significant changes in public awareness of the role industry has in generating unconscionable consequences in the pursuit of profit. There are significant changes in the public policy priorities of many nations so that maternal and child health issues are more important than ever before.

“People’s power works.” The success of the boycott re-affirmed this truth. The ability to complete the tasks of the coalition will depend on how well it remembers that truth and engages that power. The times call for stamina, for courage, for caring, so that this achievement is the first of many. □



Dana Collier

The Boycott is Off, But the Problem Continues ... in the U.S.

INFANT FORMULA PRACTICES IN THE U.S.

by Steve Wirtz

Although most of the recent public concern over the infant formula controversy has focused on the developing countries of Africa, Asia, and Latin America, there are also important health, political, and socioeconomic reasons for looking at the influence the infant formula industry exercises on infant feeding practices in the United States. First, pockets of poverty exist in this country which share some of the same health, sanitary, and literacy characteristics as those in the developing countries where the introduction of commercial infant formula has been documented as increasing the risk of infant morbidity and mortality.¹ The negative health consequences of bottle feeding in this country may not be as severe as in less developed countries, but research has consistently shown that even for infants of middle class women, the incidence and/or severity of gastrointestinal diseases and respiratory infections is higher among bottle fed infants than comparable breast fed infants.² Several other health risks have also been noted in the United States to be greater in formula-fed infants than in breast-fed ones, including dental caries, otitis media, allergies, necrotizing enterocolitis, Sudden Infant Death Syndrome, and obesity.³ For these and other psychological reasons, breast feeding is recognized by the health community as the optimal method of feeding for all infants.⁴ As would be expected, however, bottle feeding appears to yield even greater increases in morbidity and hospitalization among low income groups.⁵ And yet, domestic research on breast feeding trends clearly shows that low income and less educated women

are less likely to initiate and maintain breast feeding than their more privileged counterparts (see Figure 1).⁶

Second, the formula industry in the United States is dominated by three large pharmaceutical companies (Abbott/Ross Laboratories, American Home Products/Wyeth Laboratories, Bristol Meyers/Mead Johnson) who promote their formula products almost exclusively to, and through, the health care system. This fact takes on added significance in light of the recent shift in marketing strategy toward increased reliance on the health care system that is occurring in the Third World in response to the 1981 passage of the WHO/UNICEF Code of Marketing for Breast Milk Substitutes. (See Lois Happe's article in this issue for more details.) Given their long history in the United States, these companies have intricately woven themselves into the fabric of the U.S. health care system, and the promotional techniques developed here are being duplicated throughout the world. In addition, health care professionals — doctors, nurses, nutritionists, etc. — have traditionally tended to be politically and economically naive concerning the professional and health implications of this not-so-subtle link with the infant food and pharmaceutical industries.

And finally, women in this country deserve the right to an informed choice about infant feeding. This means, in part, that women need access to commercially disinterested information about infant feeding during the crucial prenatal and post partum period. The burden of providing such information and support lies in large measure with the health care system serving pregnant and post partum women. The WHO/UNICEF Code is designed specifically to constrain the influence of the infant food industries in order to insure such informed choice. It was proposed as a minimum standard for the ethical marketing of breast milk substitutes to be applied according to local conditions by the governments of all nations, including the United States (even though the U.S. was the only country to vote against the Code).

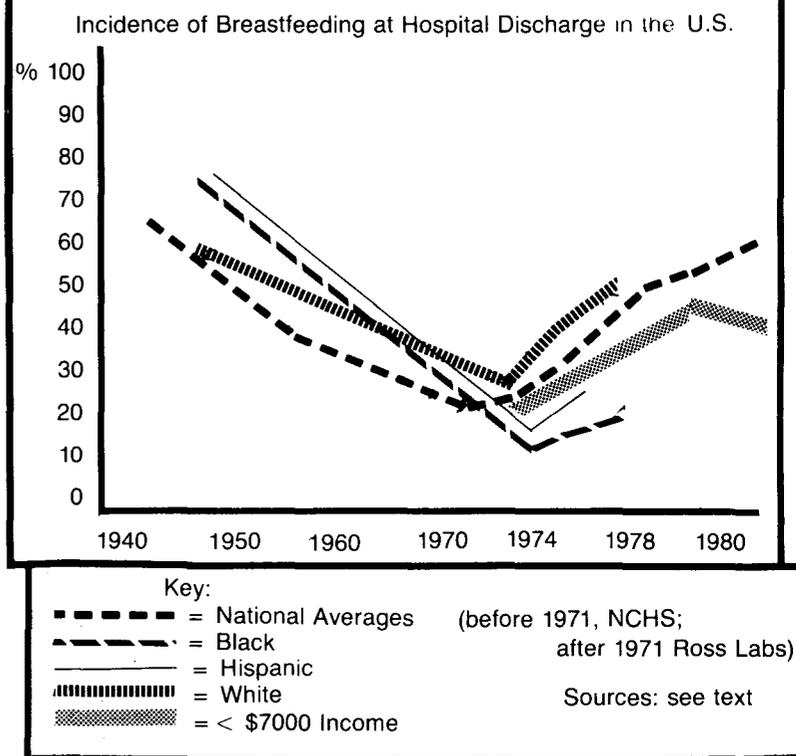
Besides working with the Lactation Research Project of Boston INFACT, Steve Wirtz is actively involved in a breastfeeding promotion project at Boston City Hospital and Boston University School of Public Health, and in a research study at Brigham and Women's Hospital on the determinants of women's infant feeding practices.

Overview of Promotion by the U.S. Formula Industry

The infant formula industry in the United States is highly concentrated, with the three major companies accounting for about 95% of the approximately one billion dollar sales in 1983 (about one quarter of the world market). Ross Laboratories, makers of Similac and Isomil, has about 55% of the market, followed by Mead Johnson, makers of Enfamil, with about a 35% market share and by Wyeth, makers of SMA and S26, with a 9% share. According to James Post, Professor of Management at Boston University, sales are continuing to increase in the United States largely due to increased per unit prices as more concentrated, ready-to-feed and single serving formula is sold with its higher retail cost per ounce. Professor Post has also identified other more questionable overall marketing strategies: 1) competing directly with the breast feeding option; 2) expanding sales among low income and minority women; 3) pushing mixed feeding with early supplementation; and 4) extending the duration of formula feeding up to and beyond one year.⁸

As mentioned above, the current promotional tactics being used by the formula companies are targeted almost exclusively at the health care system. Some 1500 "medical detail" persons are employed to contact health institutions and professionals and to offer goods and services on an ongoing basis. The most extensive review of the infant formula industry's role in domestic infant feeding is presented in an administrative petition entitled, "Petition to Alleviate Domestic Infant Formula Misuse and Provide Informed Infant Feeding Choice" filed with the U.S. government in June 1981 by Public Advocates, Inc., a public interest law firm in San Francisco.⁷ The Public Advocates' *Petition* catalogues a multitude of techniques currently in use. Services provided free to hospitals and clinics include formula for in-hospital or clinic use, hospital discharge packages for distribution to bottle and breast feeding women, hospital equipment large and small, architectural design services, funding for research, large quantities of promotional literature for distribution to women, printing services and other advertising gimmicks such as calendars, growth charts, baby name tags, note pads, etc. Several of these materials (e.g., formulas, discharge packs, "educational" literature) are simply distributed through the health care settings directly to pregnant women and new mothers with whatever "medical endorsement" such a procedure implies. Medical detailing also involves servicing individual health professionals with formula and/or gifts for personal use, research grants, support for travel or school, ad gimmicks, and social activities such as lunches and cocktail parties. Professional health organizations receive a variety of substantial financial incentives from the companies: sponsorship of meetings and conventions, financial assistance to organizations, printing services, and extensive advertising in profes-

Figure 1



sional journals. In addition, the industry sponsors yearly symposia, in-service training programs, and problem-solving services for health professionals and organizations.

Health professionals are aware of many of these promotional activities, however, they often do not recognize that such extensive services and assistance from the companies can actually influence their own attitudes and behavior, or those of their clients, or even the structure and practices of the health care system itself. The provision of seemingly minor gifts and services to health professionals generates more than good will; it serves to keep the name of the company in constant view. Although most may deny it, reception of such services tends to establish, at least subconsciously, an "implied built-in reciprocity." When they do recognize these possible influences they tend to underestimate the serious conflict of interest between their professional role as promoters of optimal health and their covert role in promoting corporate profits. Perhaps the most obvious example of this conflict arises when health institutions and workers become an actual extension of the industry's marketing activities by distributing company literature and formula in the health care setting. The Public Advocates' *Petition* concludes that the sheer volume of services, products and literature supplied by the formula industry has overwhelmed health professionals and the health care system to such a degree that they are often unable or unwilling to make the necessary effort to successfully promote breast feeding.

Research Project Undertaken

In an attempt to replicate the findings reported in the Public Advocate's *Petition* and to evaluate whether local health care facilities serving low-income and minority women are specifically targeted for extensive promotional activities by the formula industry, The Lactation Research Project was initiated in February 1983 by a group of Boston INFACT (Infant Formula Action Coalition) volunteers. The primary objectives of the project were: 1) to document specific promotional activities of the infant formula industry at health care sites in Eastern Massachusetts (Boston, Cambridge, Fall River and New Bedford); and 2) to explore the influence these practices have on local health care professionals and facilities and on the women served by them.

Information was gathered in several ways from a variety of sources: 1) semi-structured interviews and open-ended discussions with 30 health care professionals working in five local hospitals, three neighborhood health centers, four private obstetricians' offices, eight WIC sites (Women, Infants and Children Supplemental Food Program), and the state WIC office; 2) personal observations in 17 of the 21 sites involved; 3) content analysis of formula company literature about infant feeding collected at the health care facilities visited; 4) content analysis of the labels on formula products observed in 50 local retail stores; and 5) review of industry formula advertisements in professional journals. Most of the interviews and observations were conducted during March to May 1983 with ongoing updates occurring for several of the sites visited. The study was intended not as a quantitative or rigorous scientific investigation, but rather as a preliminary descriptive look at the links between infant feeding, and the U.S. health care system and the U.S. formula industry. Hopefully, it may serve to stimulate more systematic investigations by consumer groups, health professionals, government agencies and even the industry itself.

To briefly summarize the results: the overall picture that emerges from the local survey confirms the Public Advocates' claim that all three U.S. formula companies are engaged in widespread and systematic promotional activities directed to, and through, the health care system. Every health care facility visited receives regular visits by sales representatives from at least two (Ross Laboratories and Mead-Johnson) and usually three (Wyeth Laboratories) of the formula companies. The types and amounts of services provided through these company personnel varies between sites, but donations of formula products, promotional literature and other company materials are made to all sites. It appears from the interviews conducted that all of the five hospitals surveyed receive large quantities of infant formula for in-hospital use as well as commercial packages containing formula for distribution to women upon hospital discharge. In at least three of these hospitals, breastfeeding women are also regularly furnished with dis-

charge packages containing either formula samples with bottles and nipples or sterile water bottles with nipples. These discharge packs also contain company pamphlets and discount coupons for future purchases of formula.

The competition among the companies appears to be especially fierce over this privilege of furnishing the hospitals with formula and discharge packs, as can be seen in a few examples. Interviews with health care professionals indicate that in 1982, Wyeth Laboratories' representatives systematically asked nutritionists from neighborhood health centers affiliated with one local hospital to write letters to that hospital urging the hospital to allow Wyeth to join the other two companies in the formula distribution rotation. According to the interviewees, several nutritionists did write as requested.

At another hospital, an ongoing struggle appears to be occurring over the policy of distributing formula in the discharge packages given to breastfeeding mothers. Instead of totally stopping the practice, the hospital allows Ross and Mead-Johnson to continue to furnish commercial discharge packs for distribution to breastfeeding women; they contain sterile water bottles and nipples instead of formula. The hospital staff seems to feel that it is necessary to give their patients anything they can and that to deny the discharge packs to the breastfeeding women would be unfair and perceived by the patients as a deprivation. Even after this arrangement had been implemented, Mead-Johnson was reported to have continued to ask hospital personnel to reinstate the use of discharge packs containing formula to breastfeeding mothers. Other types of promotional activities identified in the local survey ranged from ongoing donations of a wide variety of written material including "educational" pieces for patients, infant formula pamphlets, growth charts, calendars, and nursery name tags, to more substantial efforts to establish good will and access. Incidences were reported of representatives from each company offering and providing free lunches to maternity and nursery nurses, health educators and nutritionists. In addition, company offers to provide monies to support institutional conferences, travel expenses for individual professionals, small departmental services and even individual research efforts were all reported as accepted within the hospital institutions.

Targeting Low-Income Women

Perhaps even more significant, however, are the findings relating specifically to facilities serving primarily low-income and minority women. The evidence available from even this limited survey strongly suggests that the formula industry's marketing strategies do indeed include systematic targeting of promotional efforts at these facilities. These efforts are all the more effective, and thus inappropriate, given the monetary constraints on health institutions serving primarily low income women. The neighborhood health centers, the



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WIC program sites, and public hospitals are all financially unable to provide all the optimal health care services. The formula companies with their huge advertising budgets are able to take advantage of the health professionals' desire to provide needy patients with as complete care as possible. The interviews uncovered a real sense of conflict in some health care workers over the trade-off of services for patients and the "expected reciprocity" to the company representatives. This was seen most clearly in the interviews with nutritionists working with the WIC Supplemental Food Program. Nationally, this governmental program is the world's largest purchaser and distributor of infant formula. Recent estimates suggest the business amounts to approximately one quarter of a billion dollars per year.

The three formula companies each have special sales representatives that visit the state WIC offices, and the individual WIC sites. They were reported to provide the state office with "educational" materials, such as films, slide shows, posters and written pamphlets, printing services (e.g. Ross prints a WIC newsletter), mailings for state conferences, and other "incidental" items such as growth charts, weighing scales and information. The individual WIC sites receive continuous supplies of free formula "for emergency use," promotional "educational" literature, breastfeeding posters (only on request), films, slide shows, flip charts, calendars, and other posters and flyers. The company "good will" extends to offers of personal gifts to the WIC nutritionists

(e.g. free supplies of formula to pregnant women, a free briefcase, etc.) The state WIC office even agreed to have Ross Labs furnish all the WIC nutritionists in the state with personal name plates.

These promotional efforts appear to have a powerful effect on the role WIC plays in promoting breast feeding. While official WIC policy and most WIC nutritionists are clearly supportive of breast feeding, the combination of their "nonjudgemental client centered" counseling, the limited time available for discussing infant feeding issues, and the overwhelming physical presence of formula company products and advertising materials at the WIC sites add up to a mixed or confusing health care message at best. The corporate influence was not recognized by those interviewed as a potential barrier to the promotion of breast feeding or to women's actual breast feeding practices. The general consensus among the WIC nutritionists was that although a few specific items or services might be too commercial, the overall impact of the representatives was either neutral or positive towards breast feeding. Among the personnel we spoke with at the state WIC office, concern was expressed that some sites looked "too much like formula stores," but space limitations were mentioned as the cause. While the office staff felt a strong need to use the services provided by the companies in order to save money for direct client care, at the same time they acknowledge the ethical balancing act involved. Our observations show substantial WIC dependence on formula company services; not all as explicit as cited above.

Until the recently-initiated statewide WIC Breastfeeding Promotional Effort (to which Boston INFACCT offers support and advice), the state WIC program has fallen far short of its potential to actively encourage breastfeeding. The few formal breastfeeding promotion
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It's Not Just Women's Work

MAKING HEALTHY BABIES

by Mary Sue Henifin and Joan Bertin

Many large corporations have adopted employment policies which explicitly exclude women of childbearing capacity from certain jobs. These "exclusionary policies" are ostensibly designed to protect the health of possible future children of women workers exposed to toxic chemicals. However, under the guise of concern for workers' health, these policies both illegally discriminate against women and fail to protect the children of male workers. Moreover, these policies divert attention away from cleaning up the workplace to reduce the risks to all workers who are exposed to these toxic substances.

By requiring women of childbearing age to present affirmative proof of sterility as a condition of proof of hire or of continued employment in a job involving exposure to toxic chemicals, exclusionary policies require women workers to elect between their jobs and their fertility. Women workers who wish to preserve their right to bear children are required to forego their jobs. If they wish to retain their jobs, they must sacrifice their ability to have children. Moreover, these policies overtly limit

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or condition the employment opportunities of all women, regardless of their childbearing intentions. By reflexively accepting the unfounded stereotype that women are the only appropriate objects of policies designed to protect future generations, these exclusionary policies assume that women's employment rights can and should be sacrificed to achieve that goal.

The case of Ms. R. provides an example of an exclusionary policy in action:

In 1980, Ms. R., a trained laboratory technologist, applied for a job with Pittsburg Midway Coal Mining Company, a subsidiary of the Gulf Oil Corporation, to work in a laboratory doing research on coal tars. She was told that it was against company policy to employ women of childbearing capacity in the company's laboratories. The personnel officer then offered to find her a lower-paying clerical job.

Ms. R. was a widow in her forties with a family and no desire to have more children. Nevertheless she was denied employment even though when coal tars can harm all workers' health and may interfere with male reproduction. For over 200 years it has been known that coal tars can cause cancer based on observations that chimney sweeps in London had many more cases of cancer of the skin surrounding the testes than other men.

Ms. R's case is not an isolated one.

Scope of the Problem

Exclusionary policies have been adopted by many large corporations. American Cyanamid Co., Olin Corp., General Motors, Gulf Oil, B.F. Goodrich and Globe Union have been the subject of court or administrative proceedings challenging their policies. Dow, DuPont, and BASF Wyandotte have publicly described theirs. Allied Chemical, Bunker Hill Smelting, St. Joseph Zinc, Eastman Kodak, and Firestone Tire and Rubber have been identified by press and commentators as maintaining such policies. Documents produced by the American Cyanamid Co. in litigation also identify Union Carbide and Monsanto as maintaining exclusionary policies.

It has been estimated that at least 100,000 jobs are closed to women because of these policies. However, this would seem to be an extremely low estimate given the fact that approximately 835,000 people are employed in the lead industries alone and these industries commonly employ exclusionary practices. The Lead Industries Association (LIA) in 1974 endorsed this approach.

Women have been excluded from jobs with exposure to such substances as acrylamide, cadmium, lead, carbon disulfide, fluorocarbon-22, mercury, methotrexate, "unspecified solvents" and vinyl chloride. Federal agencies have received complaints regarding exclu-



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sionary policies governing exposure to about two dozen industrial substances. Some of these agents are commonly used in industrial processes, exposing many workers. Others are used only in the manufacturing of specific products, exposing relatively few workers. For example, methotrexate is a very specialized drug, used in cancer therapy. Some chemical companies bar women from manufacturing this drug, yet nurses who administer it to patients are exposed. Fluorocarbons are used widely in plastics manufacturing. Although fertile women are being excluded from jobs with exposure to these agents, most of these agents also harm the male reproductive system as well as harming the general health of both men and women workers.

Sensitive Sperm

The male spermatazoa are some of the smallest cells in the human body. The testes, vulnerably located in the scrotal sack outside the body, are the "sperm factories" where sperm are constantly being produced. It takes about 72 days for each sperm to mature through the type of cell division called meiosis, known to be one of the body processes most susceptible to chemical toxicity. Exposure of men to chemicals may cause mutations in sperm (changes in the hereditary information they carry), or cause sperm deformities, slow movement or reduction in sperm numbers.

There is increasing evidence of reproductive damage caused by male susceptibility to chemical toxicity. Last year, American scientists attending a conference in Viet Nam on long term environmental effects of herbicide spraying during the Vietnam War, examined data on birth defects of children whose fathers were exposed to Agent Orange while fighting in South Viet Nam. Wives remaining in villages in North Viet Nam, whose husbands were in the South, had higher incidences of pregnancies resulting in stillbirths and birth defects than women whose husbands remained in the North during the war, where herbicides weren't used. In the United States, male Viet Nam veterans contend that their exposure to Agent Orange has caused birth defects in their children.

Common workplace exposures to lead, x-radiation, and anesthetic gases have been shown to damage male reproductive abilities. A recent study at a Louisiana Exxon refinery showed a 20% rate of miscarriage and stillbirth in wives whose husbands were exposed to chemicals at the refinery's waste-water treatment plant.

The National Institute for Occupational Safety & Health (NIOSH) recently undertook a study in response to the complaints of male workers at an Olin facility in Brandenburg, Kentucky, that chemical exposures had adversely affected their reproductive capabilities, allegedly causing infertility and miscarriages in the wives of exposed workers. NIOSH findings, although preliminary, "strongly suggest a problem of toxicity to the male reproductive system affecting workers exposed" to the specific chemicals involved.

When industry, in the face of overwhelming evidence, finally admits that a chemical does harm male reproductive functioning, they do not simply exclude males from the workplace. For instance, when it became highly publicized in 1977 that men producing the pesticide DBCP were becoming sterile, the production of DBCP was banned in the United States. (Researchers had reported as early as 1961 that DBCP caused testicular atrophy and sterility in laboratory animals). Kepone was also banned after it was shown to interfere with male reproduction.

Permanent Pregnancy and Other Myths

While the substance and not male workers were banned when male reproductive abilities were impaired, this is not the approach to female reproductive hazards. Many industry representatives have argued that *all* fertile women must be excluded from contact with toxins which they suspect may adversely affect the fetus through maternal exposure.

For the purpose of exclusion, fertile women are defined as women of ages 15 to 54, or between the onset of menstruation and menopause, or women who have not been sterilized. At least one company has no age limit. The corporate medical director of the Olin Corporation has testified in court that females between the ages of 5 and 60 have been known to conceive. He explained that a woman might become pregnant unintentionally and that her fetus might be exposed before she knows that she is pregnant.

Many in industry fear expensive liability lawsuits. A deformed child who could prove her birth defects resulted from a parent's exposure to a reproductive hazard on the job would not be covered by workers' compensation laws that limit employer liability. Because less is known about the effects of toxic exposure of fathers on fetuses, some have assumed, rather too hastily, that most such lawsuits would be limited to maternal exposure. In fact, male railroad workers are suing to recover damages for birth defects in their offspring which they claim were caused by paternal exposure to the herbicide oryzalin, used to clear vegetation from railroad tracks. Male Viet Nam veterans are bringing suit over claims of birth defects resulting from their Agent Orange exposure. Male DBCP workers recently received a substantial monetary settlement for injuries to their reproductive systems.

It is true that fetuses are particularly susceptible to damaging environmental influence at the time when their organs begin to develop, which for humans occurs from about the eighteenth to the sixtieth day after conception, and that they are most sensitive between the twentieth and thirtieth days. While at that particular point, many women do not yet know that they are pregnant, it is inaccurate to assume that women do not plan the general timing of their pregnancies. Exclusionary policies rest on the assumption that all women are permanently potentially pregnant. However, only a small number of women workers will have children after age 34. Women in blue collar positions tend to complete their childbearing early in life, before they work. In 1977, only 1% of married blue collar working women aged 30 or over expected to bear a child within the next year. Women workers generally plan their pregnancies. The fertility rate for women in the labor forces is half that for women who do not work outside the home. Thus, working women bear fewer children, earlier in life, and plan pregnancies after they become employed.

In contrast, males procreate throughout their working lives and experience twice as much occupational exposure per child birth as women.

Most of the industrial jobs from which women have been excluded require no skills or education and pay union-scale wages. In contrast, unskilled women workers can otherwise obtain employment only as waitresses, grocery store check-out clerks, household workers, or stock clerks — all jobs which pay the minimum wage at most. At present, women earn approximately 62 cents for every dollar earned by men; a woman with a high school diploma on the average earns less than a man with an eighth grade education. Thus, for unskilled women — often also for women with secretarial or clerical skills — the only route to economic independence may be through “non-traditional” employment. It is precisely many of the jobs from which they were previously excluded, many of which are now being closed to them by operation of new exclusionary policies.



There are women who have submitted to sterilization surgery in order to secure higher-paying industrial employment. We know of 5 such women at the American Cyanamid Co. in Willow Island, West Virginia who were exposed to lead, and there are reports of others. The women at American Cyanamid report that their fear of losing their lucrative employment which they did not think could be replaced — they claim the Company told them that the government was behind the policy and that no fertile women would be working in chemical plants within the year — led them to take such a drastic step. The human tragedy in that case is compounded by the fact that, within a year after the exclusionary policy was implemented, the company closed the lead pigments

section of the plant to which it applied. So, 5 women were sterilized solely to keep jobs which were then eliminated anyway.

The Myth of Unique Female Susceptibility: The Case of Inorganic Lead

The differential treatment given men and women exposed to reproductive hazards, which we have been describing, is well illustrated by the example of lead. Lead is widely used in many industrial processes, with more than 800,000 men and women working in over 120 different occupations exposed to it regularly. They include those working with ceramics, enamel, insecticides, and other chemical products. It has been known for almost a century that absorption of excessive lead can cause damage to the kidneys and the central nervous system. It is also known that lead can cause blood dysfunction, gastrointestinal disturbances, weight loss, neurological impairment, and other symptoms.

Both human and animal evidence exists showing that the male and female reproductive systems are affected by lead, but there is little data about the ability of lead to act as a teratogen. Yet lead has been the most commonly-cited substance in this area of social and scientific debate.

One researcher studied the semen quality of 150 male workers exposed to lead in a storage battery facility. In lead poisoned workment an "obvious and highly significant" decrease in semen quality was observed. Results showed significant sperm changes, including decreased motility, and increased malformations. Even in workers with moderate lead absorption significant decreased in sperm numbers and motility were observed. The most significant and frequent alterations revealed by the semen analysis were sperm malformations. Children of male lead workers have also been shown to have excessive lead levels in their bloods, most likely due to the contamination of the workers' clothing which is then brought in to the home environment.

In 1975 the Occupational Health and Safety Administration (OSHA) asked for comments on whether the proposed new lead standard should consider fertile women as particularly susceptible to lead poisoning because of the effect lead might have on the fetus. The Coalition of Labor Union Women presented testimony disputing the concept that all women of childbearing age represent a uniquely "susceptible" subgroup of the population. The purpose of the testimony was not to show that there are no adverse effects of lead on women or that there are no adverse effects of lead on reproduction. Rather it was to show that there is much evidence against treating women's occupational exposure to lead differently from men's, and that standards should be set so as to avoid adverse effects in any worker, irrespective of sex.

The Lead Industries Association (LIA) and many of its members maintained at OSHA hearings that the permissible blood lead level for all workers should be 80

mg/100 g. OSHA ultimately found that blood levels of 80 mg/100 g and above would result in "severe lead intoxication." At the time of OSHA hearings members of the LIA were in general non-compliance with OSHA air standards of 200 ug/m³.

In May, 1981, the American Cyanamid Company submitted public comments to OSHA stating "there is no body of scientifically sound evidence that points to the need for an airborne exposure limit lower than 200 ug lead per cubic meter of air." At the same time, the Company insisted exclusion of fertile women was the only way to insure protection of the fetus.

What appears is a different standard of acceptable risk depending on who is involved. Where male workers or their offspring are concerned, no risk is acknowledged until the evidence is conclusive and the risk proven — and sometimes the hazard is still not recognized. In contrast, when women are involved, a "zero risk" standard applies: risk is presumed to exist for the fetus even on the flimsiest evidence, all women are presumed to be always pregnant, and no precautions are adequate to eliminate the risk entirely.

One company official admitted that its policy excluding fertile females from various operations was based on 'educated guessing.' The corporate medical director of American Cyanamid Co. wrote in a letter to a colleague:

Threshold limit values for fertile females ... were arrived at solely by professional judgment and 'educated guessing' and certainly are not based on any clinico-laboratory experience. We admit that we are ultraconservative Others have been somewhat less restrictive about threshold limit values for fertile females such as Dr. O'Connell of Olin who has stated that they use half the present threshold limit value for adults [N]either of us has any good documentation for adopting the levels we have.

Other documents also suggest that this company has been less than forthright in the development and explanation of its policy. An internal memorandum states:

There are two published reports that I know of which address the effects of lead on male reproduction If one is considering damage to the unborn fetus then these reports, as well as those cited in the references to the papers, indicate that it may occur. However, structural changes could occur in the sperm without altering the genetic material per se. I know of no conclusive studies relative to the question. I would have to conclude, based on these papers, that there is evidence that blood leads in the 40 to 70 ug/100 ml range can alter reproduction in the male. Further, I know of no published work showing that they do not.

Ionizing Radiation: Contrasts and Similarities

In contrast to the industrial setting, where many women have been denied employment in traditionally male jobs, there has been little attempt to exclude fertile women from "women's jobs" that involve some of the same exposures. For example, in industries which rely on a largely female workforce — like nursing, textile work, and custodial work — fertile women are rarely

excluded, despite the presence of reproductive hazards. Women commonly work as X-ray technicians, but few are employed in nuclear power plants. But even here, exclusion is seen by some as the "solution" for health concerns about radiation exposure. Stimulated perhaps by the influx of women into industrial jobs involving radiation exposure, in August 1980, the Environmental Protection Agency tentatively proposed regulations for exposure of women workers to ionizing radiation. (No final regulations have been issued by EPA.) The EPA proposed four alternatives, one of which was that women of childbearing age be excluded from jobs for which the whole body dose rate is more than 0.2 rem per month. Another alternative suggested the above dose limit for fertile women, but did not make it mandatory. The other two alternatives were sex neutral.

The Coalition for the Reproductive Rights of Workers (CRROW), an advocacy group of trade unionists and other groups and associations, in its comments on the proposed standards pointed out the sex discrimination in the EPA's approach. "EPA's justification for suggesting an exclusionary policy for women workers exposed to radiation is to protect the offspring. However, if the offspring is the concern, men would be the justified target of exclusion. According to EPA's own background report, the risk to future generations from mutational effects is five times greater for paternal exposure than for maternal exposure." The United Na-

tions Scientific Committee on the Effects of Atomic Radiation discusses the increased sensitivity of sperm compared to eggs in their 1977 report and estimates "from 2 to 10 congenitally malformed newborn children per million conceptuses, per rad of paternal irradiation, with about five times this number of recognizable abortions and about 10 times the number of losses at the early embryonic stage. The corresponding risk from maternal radiation is likely to be small" (i.e. per rad of radiation exposure). Further, because effects on the fetus from maternal irradiation have only been seen at very high levels of irradiation, the U.N. committee states "no satisfactory data are yet available for deriving reliable quantitative estimates of the risk from pre-natal irradiation at comparable developmental stages, particularly at the low doses and dose rates." In spite of this, the EPA has proposed protecting a fetus by excluding women of childbearing capacity as one solution, while it has made no parallel suggestion to exclude fertile males.

Solutions

Recent court decisions have held that a company may not employ an exclusionary policy unless it can prove that there is no harm to the children of exposed male workers; nor can employers engage in sweeping discriminatory conduct where alternatives are available to protect the health of workers' future children. But these decisions do not go far enough. Where hazards cannot be eliminated or reduced, and there is reason for special concern about reproductive injury, the fair and humane solution is to grant women and men planning families job transfers or "parental leave" with full seniority and salary security. This approach is also consistent with both civil rights laws, which prohibit sex discrimination, and with health and safety laws, which protect employees from exposure to known hazardous health conditions. However, as long as occupational health and safety remains a political football, subject to the powerful lobbying of industrial groups, the right to a safe and healthy workplace will be compromised. Strong occupational health and safety standards, actively enforced, and worker right-to-know laws, would be a beginning. But an even more fundamental reform must lay the groundwork for achieving full protection of workers. Until there are enough jobs to allow worker choice, economic blackmail can be used to intimidate workers from organizing around health and safety issues and to create competition for the limited jobs available, despite the hazards they pose. It is to be hoped that the initial focus on women's alleged "susceptibility" to certain hazards will ultimately produce the realization that women are not unique in this respect, and that both sexes need protection. This result will be stimulated by insistence on the principle that women's right to work cannot be made the price for their safety. Basic fairness demands that women not be penalized simply because they can and do bear children with and for the equal benefit of the other half of society. □

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Who Dies and Why

INFANT MORTALITY IN THE U.S.

by Paul Wise

Infant mortality has a long history as a sensitive indicator of the general well being of a population in that it is closely related to the nutritional, sanitary, and medical conditions of a society. Early in 1983 a series of reports pointed to rising infant mortality rates in areas of high unemployment.¹ In response, the Senate committee charged with the oversight of childhood nutrition programs, the Committee on Agriculture, Nutrition and Forestry, chaired by Jesse Helms, held hearings on this issue.

The reaction of government officials and many academicians was to fault these reports on the unreliability of their statistics. They pointed to the "randomness" inherent in annual mortality data from a small geographic area (e.g., city or state) whereby increases in rates may occur by chance alone. Their advice was not to view these increases as real, and further that the declines in infant mortality over the past decade would indeed continue. The committee's dismissal of the short-term rise in mortality precluded, however, the very real possibility that the mortality reflected transitory but very real change in social conditions. A related issue underlying much of the debate was the notion that cities or states with large black populations should not be compared to others with primarily white populations or to a national average. Helms stated it best when he noted as part of a question:

Some observers have noted that the comparative use of inner city statistics — where black populations are often higher — with the national average is inappropriate because black infant mortality is historically close to double the national rate.²

The implication is that rates for blacks and whites must be viewed separately, as black rates have been "historically" so much higher than those of whites. This dis-

ussion highlighted two fundamental observations. First, that racial differentials in infant mortality are enormous and persistent. Second, and far more subtle, was the unspoken attitude that high black mortality was both tolerable and somehow related to inherent racial differences. The "history" of high black infant mortality implied some form of natural order, not particularly responsive to public policies, and a source of statistical error if not controlled for in comparative studies. The true implications of these differentials were rarely approached, and only in the written testimony of Dr. Peter Budetti, a respected public health researcher and child advocate, did their devastating presence receive the attention they deserved. The concentration of infant mortality in the black community has become so marked that the ranking of states by infant mortality generally corresponds to the percent of their population that is black. The precise causes of this high black infant mortality remain unclear. However, recent efforts to better understand the nature of infant mortality trends have shed light on some areas of special concern.

Neonatal Mortality: Disparity Between Blacks and Whites

Infant mortality is defined as the number of deaths experienced in children from birth to one year of age, and is usually expressed per 1000 live births. In 1982, the infant mortality rate for the United States was 11.2. This implies that for every 1000 children born alive in the United States, an average of 11.2 of them will die before their first birthday. It has been known for some time that the majority of infant deaths occur shortly after birth from causes significantly different from those which kill infants later in the first year. In the United States approximately 70% of all infant deaths occur during the newborn, or "neonatal," period, defined as the first 28 days of life. Therefore, discussions of infant mortality must primarily address trends in neonatal mortality.

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The concentration of infant mortality in the black population has become so marked that the ranking of states by infant mortality generally corresponds to the percent of their population that is black.

The neonatal mortality rate (NMR) in the U.S. has been falling for more than a century. However, despite the considerable variation in NMR over the years, there has been one constant observation: for any given year, the NMR for black newborns is substantially higher than that for whites. The long history of high black mortality rates has provided the basis for a widespread acceptance of unequal mortality and the accompanying view that it is in large part due to innate characteristics of black women and infants. A closer look at these data, however, suggests that black rates ultimately assume the level of white rates; it is just that it takes more than ten years to occur. The white rate was 17.2 in 1960, but it took until 1974 for the black rate to reach that level. The white rate reached 15 in 1967, while the black NMR did not fall below 15 until 1977.

Also intertwined with the issue of racial differentials is the larger question of class. In this society racial patterns of mortality are heavily influenced by social and economic forces. When one compares the neonatal mortality experience of wealthy whites with that of poor whites, poor whites reveal much higher rates of death. The same inverse relationship with income has been documented for black neonates. Therefore, poverty is associated with poor birth outcome for infants of both races. However, when neonatal mortality is analyzed for each race and income level, black mortality has been shown to be higher than that of whites even within the same income groups. This suggests that in the U.S., black neonatal mortality is associated not only with income effects but also residual social influences more closely related to race than to income.

Birth Weight as a Crucial Factor

An important insight into the nature of these patterns in neonatal mortality can be gained by partitioning neonatal mortality into its component parts. It has been well documented that the risk of death in a newborn is closely related to its weight at birth. In general the lower the birth weight the higher the risk of death. This is due to the fact that the birthweight is a relatively good proxy measure of the maturity and intrauterine growth of the child. Neonates can then be categorized into various birth weight groupings each associated with its respec-

tive mortality risk. Commonly newborns under 1500 gm (3.3 lbs.) are termed very low birth weight (VLBW), below 2500 gm (5.6 lbs.) low birth weight (LBW) and above 2500 gm normal or high birth weight. The group with the highest mortality is the VLBW group. The smallest risk is in those newborns with birthweights above 2500 gm. This general framework of risk stratification allows neonatal mortality in a population to be broken down into two parts: 1) the distribution of birth weights in that population and 2) the relative survival of newborns in that population that are born at a given birth weight. The first component is usually labeled the "birthweight distribution", and the second the "birthweight-specific mortality." Therefore, to analyze differences in mortality one must establish whether one group had a higher proportion of births born with weights associated with high risk (VLBW and LBW groups) and subsequently any differences in survival once they are born at a given birthweight.

This partitioning has helped explain why newborns in the United States experience higher mortality than in 16 other industrialized countries. Comparisons between the U.S., Norway³ and Sweden⁴ reveal that the cause of relatively high NMR's in the U.S. are due to unfavorable birthweight distribution. The U.S. experiences much higher rates of VLBW and LBW births. Birthweight-specific mortality rates were in fact significantly better for these newborns in the U.S. Once an infant is born in the U.S., its chances of survival are somewhat better than that of newborns of the same birth weight born in Norway and Sweden. The problem in the U.S. is that due in large part to poor nutrition particularly prevalent among black and low income mothers, a far higher percentage of infants are born at low birth weights.

When racial and income differentials are analyzed in this manner a similar pattern emerges. For the most part, black birthweight-specific-mortality rates for LBW babies are better than those of white neonates. Once born at a given birth weight, black newborns' survival is even better than white survival. Then why are black NMR's so much higher than those of whites? The answer is that blacks have much higher rates of low birth weight births. In fact, blacks experience approximately twice the low birth weight rate of whites.

The Issue of Low Birth Weight

Unlike birthweight-specific-mortality, declines in low birthweight rates have not been similar for both races. Reports from diverse locations including North Carolina,⁵ California,⁶ and Boston,⁷ have shown that white LBW rates fell more steeply than did those of blacks. National estimates have echoed these findings. This divergence has helped to widen the gap between white and black NMR's.

Attempts are often made to explain these observed racial and income differentials in NMR's based on differences in the demographic characteristics of the compared populations. Most notably has been the argument that the different rates are due to a higher portion of births to young women among blacks. It has been known for some time that newborns of women under 16 years are at significantly higher risk of death. It has also been well documented that the number of births for black and poor white teen-age women is almost double that for wealthy whites. This has led some to the conclusion that by preventing teen-age births much of this racial differential in NMR could be extinguished. This proves false, however, when one considers that less than 5% of black or low income white births occur to women under 16. If all births to women under 16 were prevented, less than 10% of the racial and income differential would be reduced. The mortality risk associated with births to women 17 to 20 years is not appreciably higher than that of women 20 to 35 years. Therefore, teenage pregnancy cannot be held responsible for the mortality differentials. Programs dealing with pregnant teenagers and young parents are important because these births are associated with high medical and social risk and require special resources to help improve their outcome. However, they should not be viewed as a means of significantly reducing inequalities in overall neonatal mortality. Rather the focus must be on preventing the relatively high rates of low and very low birthweight births. Until this is accomplished the racial and income gaps in neonatal mortality rates will not be reduced, and indeed may widen.

The major recent declines in NMR's in the U.S. may have even exacerbated racial differences. Both national⁸ and state-specific analyses^{9,10} have suggested that both blacks and whites have experienced remark-

able reductions in birthweight-specific-mortality rates over the past decade. Once born at a given birthweight, newborns today are much more likely to survive than they were ten years ago. However, the birthweight distribution component has not fared as well. The percentages of all births which are of low birthweight has fallen much more slowly than birthweight-specific mortality rates. Continued efforts to improve the quality and access to intensive neonatal care when needed will remain an important aspect of neonatal care for all infants in the years to come. However, the concentration of mortality into the very low birthweight category of newborns makes it unlikely that differentials can be reduced through greater reliance on neonatal intensive care. What is needed is greater emphasis on preventive strategies.

Preventive Strategies

Nutrition supplementation programs have generally proved effective in increasing the birthweight of newborns. The most important of these has been the Women, Infant and Child (WIC) supplementation program. A federal program administered through state agencies, WIC provides coupons for nutritious foods for eligible pregnant and lactating women and children under five years of age. Eligibility is based on nutritional and income criteria. In conjunction with coupon distribution, nutritional and medical consultation is an ongoing requirement. While controversy over its impact persists, the WIC program has been shown to increase the birthweight of neonates born to enrolled women. The Reagan administration has made recent efforts to significantly reduce funding for WIC and tighten eligibility requirements despite the fact that less than half of all eligible women and children in the U.S. are presently served by WIC.¹¹

Caring and conscientious monitoring of the woman, fetus, and family from the first trimester until delivery are directly associated with an improved rate of infant survival.¹² However, numerous studies have shown that poor black women are much less likely to receive prenatal care than are whites. In some cities as many as one half of all black women will receive no prenatal care or begin care just weeks before their scheduled due date.

Infant mortality represents a stark if not ultimate expression of social and economic injustice in our society, and at some level, reminds all of the brutal cost this disparity exacts from its youngest and most vulnerable citizens.

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Improvements in the quality of and access to comprehensive prenatal services, therefore, would seem to be more important than ever. The critical importance of LBW birth rates to overall racial differentials in NMR's has never been greater. However, all indications are that prenatal services for poor women in the U.S. is beginning to erode due to constriction of federal programs in this area. Cutbacks in the WIC program and funds supporting the delivery of general prenatal services have already occurred.¹³ Further efforts by the Reagan administration to curtail funding for these and related programs can only reduce the already inadequate resources dedicated to this area of preventive care.

While understanding the patterns of neonatal mortality is useful in assessing the need and nature of medical and social initiatives, it also helps focus attention on the presence and the scope of social disparity in the United States. That poor, black neonates experience almost four times the mortality of wealthy white neonates provides insight into the human toll of continued structural inequalities, and helps explain why the issue of infant mortality becomes so heavily contested in the political arena. It is in this sense that infant mortality represents a stark if not ultimate expression of social and economic injustice in our society, and at some level, reminds all of the brutal cost this disparity exacts from its youngest and most vulnerable citizens. □

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“FETAL RIGHTS”

continued from p.9

world as healthy as is reasonably possible. She has a duty to avoid actions or omissions that will damage the fetus . . . In terms of fetal rights, a fetus has no right to be conceived—or, once conceived, to be carried to viability. But once the mother decides not to terminate the pregnancy, the viable fetus acquires rights to have the mother conduct her life in ways that will not injure it.¹²

This being so, “Laws that prohibited pregnant women from obtaining or using alcohol, tobacco, or drugs likely to damage the fetus would be constitutional,”¹³ and “statutes excluding pregnant women from workplaces inimical to fetal health . . . would be valid.”¹⁴ Thus:

The behavioral restrictions on pregnant women and the arguments for mandating fetal therapy and prenatal screening illustrate an important limit on a woman’s freedom to control her body during pregnancy. She is free not to conceive, and free also to abort after conception and before viability. But once she chooses to carry the child to term, she acquires obligations to assure its wellbeing. These obligations may require her to avoid work, recreation, and medical care choices that are hazardous to the fetus. They also obligate her to preserve her health for the fetus’s sake or even allow established therapies to be performed on an affected fetus. Finally, they require that she undergo prenatal screening where there is reason to believe that this screening may identify congenital defects correctable with available therapies.¹⁵

This analysis gets women into an interesting predicament, though one with a long history. The same Professor Robertson is also a member of a panel that has proposed a model statute to guarantee a person’s right to refuse treatment. Its first proposition is that “A competent person has the right to refuse any medical procedure or treatment . . .”¹⁶ However, we have just seen that a woman loses this right if, once pregnant, she decides to carry the fetus to term. At this point she ceases to be a “competent person” and comes under the control of physicians and judges.

Thus, by setting up pregnancy as a conflict of rights between a woman and her fetus, attorneys and judges (predominantly male, of course) have injected themselves into the experience of pregnancy and have appointed themselves advocates for the fetus. Judging by other precedents, this new mechanism of social control could be used against women not only when we are pregnant, but could be expanded to cover all women of childbearing age by invoking “rights” not just of the fetus a woman carries, but of a “potential” fetus—the one she may carry at some future date. Stellman and Henifin have shown how the concept of “potential” pregnancy already has been used by some industries to exclude women of childbearing age from more prestigious and more highly paid, traditionally male jobs.¹⁷ By this kind of reasoning, women of childbearing age are always either pregnant or “potentially” pregnant, hence always subject to medical surveillance and control.

To present pregnancy as a conflict of rights between a woman and her fetus is entirely inappropriate, for it does not represent women’s experience of a wanted (or accepted) pregnancy—and the above arguments are addressed specifically to accepted pregnancies that will be carried to term. A wanted (or accepted) fetus is as much part of a woman as any part of her body. And, of course, women should have the means to take proper care of it as part of caring for themselves, but it makes no sense, biologically or socially, to pit fetal and maternal “rights” against one another. As long as a woman and her fetus are connected, nothing can happen to the one that does not affect the other. This does not negate the pregnant woman’s right to sever that connection by aborting the fetus. It is *her* right—rather than, say, her partner’s or her parents’ or the state’s—precisely *because* the fetus is part of her body. To argue “rights” of the fetus *versus* those of the mother ignores this organic unity. As long as a fetus is attached to the pregnant woman, her body maintains its life and her body wall bars access to it. Ultrasound now allows physicians to view the fetus inside its mother’s womb, but a pregnant woman must be able to refuse doctors permission to do that and—even more importantly—to refuse permission to puncture or cut her body in order to gain access to her fetus. I agree with the bioethicist, John Fletcher, who recently wrote:

In my view, it would be unwise . . . to close the issue between fetal interests and parental interests in favor of the fetus. As long as the fetus is not separate from the mother, choices about treatment ought to be made only with her informed consent.¹⁸

The Present Status of Prenatal Interventions

At present, several groups of prospective parents are supposed to be warned by their physicians or counsellors that their children may be at greater than usual risk of being born with a disability or disease:¹⁹

- women over 35 of the increased risk of their child having Down’s syndrome—a chromosomal condition that can be due to abnormalities in either the egg or sperm (but that is traditionally regarded as though it were always introduced by the egg);
- partners who are both of Ashkenazi Jewish descent of the increased risk of having a child with Tay-Sachs disease;
- partners who are of Afro-American descent of the risk of having a child with sickle cell anemia;
- partners who, because of family history or the previous birth of a disabled child, are thought to be at greater than usual risk of having a child with a disability.

Of course, as more procedures become available and more diseases and disabilities can be diagnosed before birth, increasing numbers of pregnant women will be counselled, tested and/or urged to undergo medical or surgical procedures during pregnancy. And since physicians have been sued for not advising prospective parents of the availability of tests that might have enabled them to abort an affected fetus or to have it



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treated in utero, they feel increasing pressure to inform prospective parents of the hazards and options for intervention.²⁰ Yet at present, most procedures for prenatal diagnosis and therapy are scarce and expensive. Since many American women do not have health insurance, they, in fact, do not have the choice to use these new screening methods. Furthermore, recent legislative restrictions and federal budget cuts have deprived many teenage and/or poor women of food stamps and other provisions for more adequate nutrition and other prenatal care, as well as of their right to abortion, although these women have a greater than usual risk of having premature, underweight and/or disabled infants and therefore should have ready access to medical options.

At the same time that such services for many pregnant women and their children have been cut, some pregnant women have been confined to hospitals and even forced to undergo Caesarian sections against their will, when physicians have decided these measures were necessary for the health and well being of the fetus.²¹ In all these cases, attorneys and judges have been called in and have ruled “for the fetus,” which means against the pregnant or birthing woman.

But what shall be termed a “defect” and for what range of “defects” shall a fetus be tested, treated in utero, or aborted? Down’s syndrome? Spina bifida? Wrong sex? With most inborn disabilities no one can predict before the baby is born how serious the “defect” will be and just how it will express itself—in other words, what kind of person the baby will be. To some people, and in some circumstances, the prospect of having a child with a disability, no matter how mild—and as I mentioned, the degree often cannot be predicted—is intolerable. Ten years ago when there were no tests, they might have taken the risk to have a child even when they knew it to be at risk for a specific disability. But now that tests exist they may well decide to have the tests (if they can afford them) and to abort a fetus if there is even a small likelihood that it may be disabled.

Though I strongly support every woman’s right to make her own decision about whether and when to have a child—and that must include the right to abortion—there is a big difference between deciding to abort a fetus because one does not want to have a child (or, at any rate, not just then), and, while wanting a child, aborting a particular fetus because one does not want *that* one. That decision to abort can be much more problematic and difficult. And though, of course, a woman has the right to make such a decision, she must also feel free not to make it, even if the fetus is known to have a disability.

Personally, I have problems with these so-called choices, because of the intrinsic unpredictabilities of bearing and raising children. No matter how hard we try, we cannot know what kind of children we will have, whether they will be healthy and able-bodied and remain so, and what sort of people they will grow up to be. Prenatal testing cannot guarantee any of that, because having children is intrinsically risky. For any one of us, the chances are very small that we will have an ill or disabled child unless, because of family history, we have reason to know otherwise. Therefore it would make better sense to work on providing the kinds of social and economic supports that would make it easier for us to cope with the unforeseen than to zero in on the individual pregnant woman and her fetus. Disabling accidents or illnesses can happen at any point in life, not just before birth, and at any of those times we will need better supports than are now available to cope with disabilities. Furthermore, all the measures used to monitor pregnancy introduce their own risks. For example, the effects of ultrasound, which is widely used to monitor fetal health and development, are far from understood and there is reason to be concerned that it may introduce its own hazards.²² I believe that we have the best chance of successful parenthood if we are prepared to accept our children, whoever they are, and do the best we can to help them accept themselves and, hopefully, us as well.

People with disabilities have begun to speak out about this. They say—and I agree—that all children should be welcome, and that it is short-sighted to think we can circumvent the uncertainties of childbearing and rearing by aborting “defective” or “wrong” fetuses. And they rightly point out that the focus on preventing the birth of disabled children is increasing the unfair stigma to which people with disabilities, as well as their parents, are exposed.

Another, quite different, issue that we must be aware of is that the increasing emphasis on prenatal testing reinforces this society’s unfortunate tendency to individualize people’s problems: disability becomes a personal problem to be dealt with by individual parents.²³ Yet parents on their own cannot possibly provide for a disabled child who may outlive them by decades. The logical solution: don’t have one! Logical maybe, but not practicable because, as I have said before, many inborn disabilities cannot be predicted or prevented. Indeed, the incidence of disabilities that result from accidents or exposure to chemicals or radiation after a child is born is likely to increase rather than decrease in the near future. Prenatal screening, diagnosis and therapy can help a relatively small number of prospective parents solve their individual problems and therefore can make a few lives better. But it makes better sense to regard people’s mental and physical disabilities as social, not

personal, issues. Many of them—whether inborn or acquired later in life—are the results of social circumstances: accidents, inadequate living conditions, chronic poisoning by heavy metals or drugs, workplace exposure to radiation, mechanical or chemical hazards, and so forth. They cannot be dealt with by victim-blaming individualizations, but only by social measures.

Whereas the U.S. government has become increasingly lax about proposing or enforcing legislation to ameliorate such problems (or even has opposed these kinds of legislation), it has begun to interfere more and more with women’s rights to control our own childbearing. The outcome which we must worry about and forestall, is that women—and men—will lose the admittedly limited choices we now have if the new eugenicists step in and in the guise of “fetal rights to health” legislate how pregnant women must behave.²⁴ Nor must we permit women to lose the right to refuse medical interventions that are aimed at the fetus—that ideal patient who cannot talk back. If, as John Robertson urges, the state becomes able to survey pregnant women’s behavior and mandate prenatal screening “with criminal penalties for the woman who fails to obtain it,”²⁵ this society will have taken a giant step towards the Brave New World in which the state can regulate who is fit to bear children and who is fit to be born. □

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25. Robertson, “Procreative Liberty and the Control of Conception,” p. 449.

INFANT FORMULA

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efforts we identified at WIC sites were due in large measure to the initiative and persistence of individual WIC nutritionists or centers. At the time of our interviews, the State WIC Office had not produced a single breast-feeding pamphlet for their clients. Instead, they relied on the large quantities of free company materials, a limited number of relatively expensive noncommercial pamphlets and the individual initiative of WIC nutritionists to produce their own. Although not presented here, we did analyze the content of the formula company literature using the WHO/UNICEF code as a standard. The materials clearly show systematic and substantial noncompliance with the code. In addition, the discussion of infant feeding choices in the 1983 WIC Training Manual underscores the lack of priority breast-feeding has received. While the text cautiously suggest that breastfeeding must be encouraged in a responsible way "without alienating women who choose to bottle feed," the picture accompanying this first page of text on infant feeding shows a woman bottle feeding her infant.

Formula Industry and Research

Another area of more indirect corporate influence that has not received sufficient critical attention is the industry's role in the scientific domain of infant feeding research and policy. Its extensive financial support of research activities and its substantial role in the dissemination of research knowledge have at least been documented, although the effect of these practices has not been fully explored. In addition, the formula industry participates directly in scientific research activities. On the one hand, the formula industry conducts useful research on the nutritional requirements of regular and special formulas, and thus establishes itself as a legitimate partner in the scientific community. On the other hand, the formula industry engages in practices of questionable ethics. An extreme example involves Ross Laboratory's active and persistent interference with a 1978 research project sponsored by the National Council of Churches and the Interfaith Center on Corporate Responsibility (ICCR), two organizations deeply involved in monitoring the marketing practices of the domestic formula industry.

Ross Laboratories' efforts to disrupt the ICCR study began when the company obtained a copy of the primary survey instrument without permission of the research team. Ross subsequently hired a marketing firm to "test" this instrument in the same study sites and during the same time period as the original ICCR study. This was apparently done in an attempt to identify weaknesses in the study design or methods. Because of possible confusion on the part of the participants, the research team was forced to prematurely end data collection. After the raw data was sent to the government's Center for Disease Control for analysis, the Ross Cor-



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poration continued its harrassment by filing a Freedom of Information Act petition to obtain the raw data. Court proceedings delayed the project for several years. In the final legal ruling, the formula company was able to gain access to the raw data in advance of publication by ICCR, a procedure unheard of in the scientific community. Documents obtained from Ross Laboratories indicate that the company has made specific plans to discredit any publication of the study data. There are also suggestions that the review process used to screen articles for scientific publications was indirectly influenced by the company. The details of this systematic breach of scientific ethics have yet to be fully disclosed.

The formula industry's own research on infant feeding trends has also had a substantial direct and indirect influence on the health professional community. Although Ross Laboratories has been collecting data on infant feeding practices since 1955 for its own marketing purposes, the company did not publish the results of its yearly national mail questionnaire surveys until 1979. By not publishing this data until well after the national decline in breast feeding had stopped and a clear up-

ward pattern had been established (see figure #1), the Ross Corporation missed an important opportunity (for whatever reasons) to help alert the health community to this significant trend. Since Ross went public with its marketing data, its surveys have become the most authoritative source of national infant feeding trends. The conclusion drawn in these reports, and echoed in the 1982 American Academy of Pediatrics breast feeding policy statement, is that the dramatic increase in breast feeding since the early 1970s has shown the same pattern among women from all socioeconomic strata. A closer look at these surveys, however, suggests that they have several important limitations, the implications of which have not been fully recognized by the health professionals responsible for promoting optimal infant feeding practices.

First, they are not representative of the total U.S. population of new mothers because the sampling frame used in the marketing survey only included 70% of the national births and because only about 56% of the mothers returned the questionnaires. Thus the findings are based on a sample comprising only 40% of the eligible national population. Both limitations tend to produce an under-representation of women from low income and minority groups. Second, comparisons with other research studies suggest that the Ross survey systematically over estimates breast feeding rates. National Center for Health Statistics (NCHS) also collected national information on breast feeding practices during the 1970 to 1975 period. Although a strict comparison of the results is not possible given the differences in design and sampling, the NCHS figures are consistently lower than the Ross figures, especially regarding the duration of breast feeding.

In addition, other noncommercial studies of selected high risk populations show lower breast feeding prevalence and duration rates among low income and minority groups than shown in the Ross surveys. In a 1979 Center for Disease Control survey, Hispanics along the Texas-Mexico border showed a declining trend in breast feeding rates (and duration) from 1971 to 1979. In the 1978 ICCR study discussed above which looked at 1,381 low-income women in five states, the prevalence of breast feeding was found to be 15% for Blacks and Native Americans, 43% for Hispanics and 1% for whites, while the overall rate was 26%, well below the 34% average reported for the low income and WIC subgroups in the 1978 Ross survey. More recently, a baseline survey of WIC participants in Rhode Island found that only 16% of the 290 women returning the mail survey indicated any attempt at breast feeding, again much lower than the 1980 Ross figures on WIC recipients.

Perhaps a more accurate picture of breast feeding trends can be seen in figure 1. The striking feature of the figure is the distinction between the line representing the national pattern and the lines representing low income and minority groups. These latter groups start in the 1950s to show the highest initial rates, experience the steepest decline in the 1960s, reached the lowest levels in

the early 1970s and show the slowest and most uncertain upward swing in the 1970s and 1980s. Data from two local Boston hospitals also confirms this basic socioeconomic differential in breast feeding rates.

In conclusion, both the health professional's role as promoter of optimal infant feeding practices, and women's opportunity for informed infant feeding choice have been compromised by the wide ranging marketing and promotional activities of formula companies. There are clear signs, however, that as the issues of corporate influence on infant feeding in the U.S. is made public, consumers, health professionals and government agencies are taking action to protect women's rights and the health of infants through breast feeding promotion and support efforts, especially among the vulnerable low-income populations. □

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The Whole Birth Catalog — a source-book for choices in childbirth, edited by Janet Isaacs Ashford. The Crossing Press, Trumansburg, NY 14886, 1983, 313 pp., \$14.95.

Advocates for Choices in Childbirth, 100 Berkeley Dr., Syracuse, NY 13210, publish newsletter, *The Advocate*, \$15/year includes membership and newsletter.

National Midwives Association, 1119 E. San Antonio, El Paso, TX 79901, publish monthly newsletter.

INFACT, 310 E. 38th St., Suite 301, Minneapolis, MN 55409.

* * * *

WOMEN'S HEALTH

Women's Work, Women's Health: Myths and Realities, by Jeanne M. Stellman. Pantheon Books, Div. of Random House, 201 E. 50th St., New York, NY 10022, 1977, 262 pp. illus., \$12.95.

White Paper on the Impact of Hazardous Substances upon Infertility Among Men in the United States and Birth Defects, by Erik Jansson, available from Friends of the Earth, 530 7th St., SE, Washington, DC 20002, 1980, 20 pp., \$2.00.

Working Position Paper on Women and Occupational Health, available from national Women's Health Network, 224 Seventh St., SE, Washington, DC 20003, 4pp.

"Scientific' Obstetrics Attacks the Home Birth Movement," by Gena Corea, H.O.M.E., 511 New York Ave., Takoma Park, MD 20912, 1981, 9 pp., \$2.00

For Ourselves, Our Families, and Our Future: The Struggle for Childbearing Rights, by The Childbearing Rights Information Project. Available from Red Sun Press, 94 Green St., Jamaica Plain, MA 02130, 1981, 140 pp., illus., \$4.95 plus \$1.00 postage, 40% discount for 5 or more.

INFANT MORTALITY

When Pregnancy Fails: Families Coping with Miscarriage, Stillbirth, and Infant Death, by Susan Borg and Judith Lasher. Beacon Press, 25 Beacon St., Boston, MA 02108, 1981, 252 pp., \$12.95.

After a Loss in Pregnancy, by Nancy Berezin. Simon and Shuster, Rockefeller Center, 1230 Ave. of the Americas, New York, NY 10021, 1982, 170 pp., \$9.25.

Infant Mortality annotated bibliography available from BIRTH, 110 El Camino Real, Berkeley, CA 94705, Vol. 8, no. 2, Summer '81, \$4.00.

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Marijuana Health and Research Conference

Sponsored by the NORML Council on Marijuana and Health, and the Northeastern University School of Medicinal Chemistry.

On April 14, 1984 at the Park Plaza Hotel in Boston, leading researchers and health professionals will gather to discuss various issues related to marijuana and other drugs. This conference will be the most comprehensive drugs and health seminar of 1984. Subjects to be covered include:

- epidemiology of marijuana use
- chemistry of marijuana
- marijuana and cancer therapy
- neurology and marijuana
- marijuana use by women and adolescents
- moderate use vs. abuse
- marijuana impairment and intoxication, and
- changing patterns in drug use.

The Council's third annual conference is being chaired by Dr. Norman Zinberg of the Harvard Medical School.

Seminar registration is \$50. Mail your check to NORML Council on Marijuana and Health, 2035 P Street, NW, Washington, DC 20036. CME credit is available for this seminar through Northeastern University. For further information contact: Joanne Gampel at 202/331-7363 or 301/730-6015.

Seminar participants include:

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Harvard Medical School

Carol Cronin, M.S.
Dana Farber Cancer Institute

Melony Dreher, PhD
Columbia University

Joanne Gampel, M.S.
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Veterans Administration, Boston, MA

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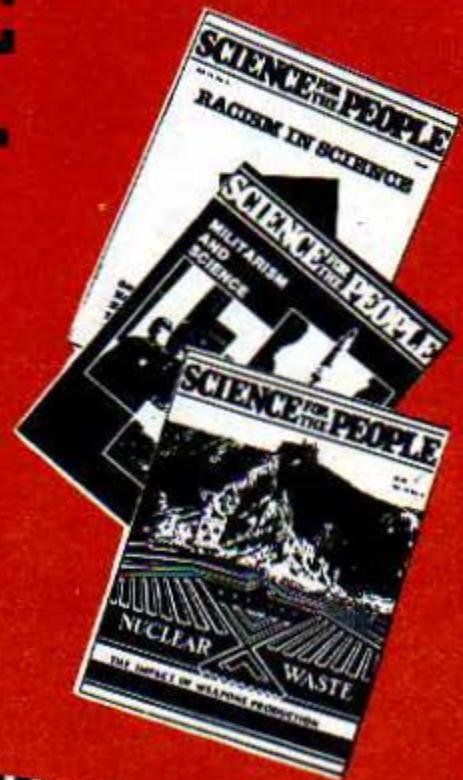
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