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PROGRAMMING FOR WOMEN AND HEALTH

by
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July, 1980

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The views and interpretations in this publication are those of the author and should not be attributed to the Agency for International Development or to any individual acting in its behalf.

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Equity Policy Center Associate**

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PROGRAMMING FOR WOMEN AND HEALTH

Summary

Health problems of Third World women fall roughly into three inter-related categories--those related to personal health, reproductive health, and occupational health.

A. Personal Health

Chronic malnutrition, perhaps the most important health problem affecting women in developing countries, compounding all other problems, affects women at each stage in their lives, but most severely once they start bearing children. By custom almost everywhere, women and girls tend to eat last and least of whatever is available to the family while they continue to carry heavy workloads. Women and girls are especially prone to nutritional anemia because of their relatively high requirements for iron, three times that of men. When not pregnant or lactating, they need nutrients to replace those lost in menstrual flow, while pregnancy increases the requirements of a woman's body to meet the needs of the growing fetus; during lactation, breastmilk passes iron and folate on to the newborn baby, to the detriment of the mother. An estimated 230 million women--i.e., about half the non-pregnant women and nearly two-thirds of pregnant women living in developing countries--are anemic.

Infections of the reproductive tract are numerous and widespread in women. They are caused by viruses, yeasts, bacteria, and other agents, and most are acquired through sexual intercourse. Pelvic inflammatory disease, involving inflammation of the fallopian tubes and/or ovaries and uterus, often follows, especially where the infection results from gonorrhoea. The consequences can be serious enough to require hospital treatment for ectopic pregnancy, and genital tuberculosis; infertility is also a common result of genital infections.

Women are also at greater risk from other common diseases, in part because their maternal duties bring them into frequent contact with sick family members and household duties involve daily exposure to unsanitary conditions. Pregnancy heightens the risk. Malaria attacks are more severe during pregnancy, with greater risk of spontaneous abortion; where malaria is endemic, women lose their immunity during pregnancy and often die as a result. Tetanus, commonly associated with unhygienic methods of childbirth, is also a serious problem that affects both mothers and infants.

Mental stress among women is clearly a growing phenomenon. Traditional family and societal ties tend to weaken or break under the press of modernization, leaving older women particularly adrift. Migrant and refugee women are subject to a type of stress akin to culture shock, as well as that resulting from having to live, work, and care for children in conditions of poverty, alone and unsupported by the wider family.

Violence against women is encouraged by their lower status in the family and society. Notions of manliness, machismo, and honor in many Third World societies tend to support a system in which wife- and child-beating is condoned and rape goes unreported.

Female circumcision affects as many as 10 to 30 million women in Africa and the Middle East. In its most extreme form (infibulation), female circumcision involves removal of all external genitalia and the virtual closing of the vagina. Girls are subject to extraordinary physical and psychological hazards from these crude operations, with damage that can last their lifetime. Despite its obvious implications for women's health, however, this practice persists, even in upper and middle class settings, because of its deep hold on the cultures concerned. Indeed, African women often insist that their daughters be circumcized in order to insure their marriageability. In December 1979, the regional Conference on the Integration of Women in Development at Lusaka went on record against infibulation, but condemned "international campaigns which do not take into account the complexity of African reality."

B. Reproductive Health

Childbearing, its prevention and its consequences, are the leading causes of death for women between 15 and 45 in many developing countries. Both maternal and infant mortality are higher when childbearing takes place below the age of 19, above the age of 35, and/or with the birth of the fifth and succeeding children. In these circumstances, complications of pregnancy (toxemia, hemorrhage, infection, etc.) result in maternal death rates as high as 8 per 1,000 (compared to less than 0.2 in the U.S.), especially when babies are born at home, in unsanitary surroundings, with help only from undertrained midwives.

Abortion--which is undergone by at least 35 million, and perhaps 55 million, women each year worldwide--is a health hazard of major proportions in the Third World. In Latin America, for example, it is thought to be the cause of 1/5 to 1/2 of all maternal deaths. Unsafe procedures abound, made even riskier when women try to abort themselves by methods that they have learnt only by hearsay. Tetanus is a particularly serious danger.

Abortion laws have not kept pace with medical developments. In Bangladesh, for example, a total of three medical practitioners is supposed to be involved in the abortion decision--a requirement unrealistic to the point of fantasy. Furthermore, the majority of developing countries permit abortion only if the life (not the health) of the mother is threatened. Even where laws are liberal, as in India, lack of facilities renders legal abortion effectively unobtainable for most women.

Contraception is increasingly seen as a health issue of special interest to women, in view of the hazards of frequent childbearing and illegal abortion. Not that the contraceptive techniques central to modern family planning are without risk. But uncontrolled fertility is, statistically, many times riskier. Some doctors suggest that the pill may actually be safer for women in poor than in rich countries, because the former are less susceptible to cardiovascular problems that are aggravated by smoking and cholesterol-rich diets. Studies by WHO and others appear to show that fears expressed regarding the injectible contraceptive, Depo-Provera (that it may induce cancer, infertility, etc.) have been exaggerated, and WHO has twice announced that its experts saw "no toxicological reasons for discontinuing its use," even though the U.S. government has yet to

approve it for domestic distribution and AID does not finance its distribution under U.S. aid programs.

C. Occupational Health

Toxic substances used in agriculture are of particular concern to women because of their need to protect the fetus. Some commonly used pesticides and fungicides are known to cause cancer, miscarriage, birth defects, and genetic mutations. Pregnant women and prepubescent children are particularly susceptible, especially in developing countries where overspraying by untrained workers is common and protective clothing largely unknown. WHO estimates that 500,000 people worldwide are poisoned by pesticides each year, and 5,000 die of them. In Guatemala, studies have shown that mothers' milk is contaminated with DDT.

In addition to chemicals, one must ask whether women's household tasks expose them to health risks from daily contact with polluted water and excreta, whether carrying heavy loads of wood, water, and produce produces backstrain and other low-grade ailments, whether women are likely to contract hookworm or schistosomiasis from working in the fields, and whether these risks are greater for women than for men.

Industrialization in the Third World may provide female workers with more income, but it also exposes them to the occupational hazards and diseases from which men have traditionally suffered the most: stress-related heart diseases, accidents related to the use of machinery, exposure to toxic substances. Textile workers, for example, are subject to "brown lung" from exposure to cotton dust. Skin disorders are common among workers in food processing, textiles, and hospitals. Hair dyes used by beauticians have been shown to be carcinogenic. In the electronics industry, workers often get serious eyestrain after a year or two. Women are prominent in all these industries in the Third World.

Overwork is probably the most common occupational hazard of all for women. Studies in any number of countries have shown that women in poor households work full days in economically productive activities in addition to taking care of their children and households. This "double-day phenomenon" produces almost constant fatigue. It clearly cuts into women's productivity and doubtless lowers their resistance to various health hazards.

In order to move much beyond generalization and speculation, however, research on women's health needs--individual and occupational as well as reproductive--will have to be given much higher priority. A first need is to keep much more careful track of the differential impact of various health problems and health interventions on women and men. Most of the areas covered above might well receive higher priority in development programming if more were known about them. But at the moment there appears to be a severe shortage of solid data and analysis.

Toward More Equitable Programming

Equity and practical development considerations suggest the need for giving higher priority to women's health needs in development programming. Programs oriented toward mothers can further both development and equity, for examples by averting early infant death. A recent review of ten health and nutrition projects

by the Overseas Development Council notes that providing nutritional supplements to mothers "seems to have been a particularly effective means of averting early infant deaths." Immunizing mothers against tetanus averted "at least 80 percent of the potential deaths from neonatal tetanus" among infants, and the women were protected as well.

Losses to development in the form of lowered productivity result from the chronic ill-health of women in general, yet health services reach Third World women, if at all, primarily in their roles as bearers and nurturers of children. Even though major problems for women occur at or around the time of child birth, health programs should not be limited to providing these services exclusively. The great majority of women over 15 years of age are neither pregnant nor mothers of small children, however. Initial World Fertility Survey (WFS) data suggest that, conservatively speaking, over 70% of women in the Asian and Latin America countries surveyed are neither pregnant nor lactating. (See Fig. 1 attached. Figures for Africa are not yet available.) In other words, maternal and child care programs that focus on mothers and children under 2 are not necessarily appropriate for more than two-thirds of the women in the countries of Asia and Latin America surveyed by WFS, and family planning services are irrelevant to more than 1/4 of them.

Women are the targets of maternal and child health programs because they are interested in improving the health of their children--and because their cooperation is essential to any program directed to this end. It is they who must be taught to seek prenatal care, to prepare more nutritious foods for their children, to treat childhood diarrhea, to store and use water safely, to keep their children's excreta from polluting the family home and water supplies. It is they who form the broad base of the primary health care system, as providers of family self-care.

Women may well be eager to make an added effort if the health of their children is involved, but the facts of their existence may make it difficult for them to do so. A WHO-sponsored conference on women and family health warned in 1978 that "in the existing definition of primary health care, and in the way women's roles were described, there was the danger that women's already heavy workload would be increased and that the 'voluntary' nature of their traditional work in health would be exploited." In the absence of compensating efforts to reduce women's workloads, or to involve men more closely in family responsibilities, women may lose still more ground to fatigue, stress, and lowered resistance to disease.

The reality of women's lives also has implications for the accessibility of primary health care facilities. Among the factors that may render these facilities effectively inaccessible to women are:

--cost, including the costs of transportation for themselves, their children, and, often an accompanying adult family member, as well as for drugs or other medicines.

--convenience. The effective service area for health clinics typically has a radius of only three to five kilometers, and even this much of a trip can be difficult for a woman with small children in tow; clinic hours often conflict with women's other work responsibilities.

--compatibility with their own needs and preferences. Rural women are particularly likely to be illiterate or unable even to speak the language of urban-trained providers. In some areas, women are uncomfortable with male health providers. Doctors and nurses may be cold and unsympathetic.

The attitudes of men and male-dominated society may also inhibit women's access to health care for themselves and their children. It is always said that women, as mothers, are key to the family's health, nutrition, and education. But women alone cannot make the changes needed to improve the health of the family without the resources, information, and authority which so commonly remain with men.

The basic contention of this paper, however, is that women's health needs will not be met if programming continues to focus narrowly on the health sector alone. Such problems as malnutrition, fatigue, excessive fertility, to say nothing of various forms of violence against women, are intimately bound up with women's generally low status and lack of opportunity for education and employment. Programs to improve the status of women, along with literacy, income generation, and the like deserve priority in their own right; they can also be expected to improve the outlook for successful family planning programs and in general help to improve women's chances for a healthy life.

In addition to intensified efforts to raise the status of women, three areas--all of which lie at the interface between health concerns and women's interests--seem particularly appropriate for development activity relating to women's health:

(1) Expand the number of women in decisionmaking positions. As in other fields, it is questionable whether health development programs will ever reflect women's needs and concerns adequately in the absence of women at all levels of the health system, particularly where these systems continue to be dominated by male physicians.

It is crucial that women "consumers" of health services be included in community consultations and that they be well represented among health workers at the community level. The new thrust toward primary care in international health programming is likely to provide greater opportunities for training women as midwives, community health workers, and other physician extenders. The importance of upgrading the skills of traditional birth attendants, used by up to 90% of rural women, is also increasingly well-recognized, though too little attention is yet paid to the wider roles of traditional attendants in providing abortions, female circumcision, marriage counseling, and help for menstrual disorders, infertility, and the like.

Nursing and other health occupations will remain an important source of independent income and status for women for a long time to come and the number of women in these occupations needs to be expanded especially in countries where health providers are overwhelmingly male. It should be remembered, however, that these women, no less than factory workers, are subject to the problems that attend working a double day. They may not be able to perform their functions adequately without supporting arrangements such as child care and maternity leave; in the case of single women, housing may be a special problem.

Women are most seriously underrepresented at higher levels in health management and research. With rare exceptions, health systems in developing countries, as in the U.S., continue to be administered and policies set by men, often physicians insensitive to women's needs. The number of women scientists involved in biomedical research and decisionmaking may be even smaller than the number in the management of health care systems.

If employment of women at policymaking levels is to be encouraged, more women will need training in management skills, as well as in confidence building, assertiveness, and nuts-and-bolts things like record-keeping, project preparation, and fund-raising.

(2) Made better use of women's organizations, both grass roots and voluntary. The impetus for starting some of the oldest and best organized groups was health related--homemaking, family planning, clean water supplies, etc. Women's groups that seek to encourage late marriage, modernize abortion laws, start rape crisis centers, call attention to hazardous working conditions, and generally raise the status of women can also have important health effects.

(3) Recognize women's need for time and money in order to be able to follow desirable new health practices. One promising approach would be to look for projects that can do double duty--that would, say, generate income for women while improving family nutrition, or save women time while making more water available for family hygiene. (Two important caveats are that women need to have control over allocating any time saved from traditional tasks and that they be taught to maintain and repair any machinery involved.) Until greater interchange takes place between those whose primary concern is health for all, and those whose primary concern is the welfare and status of women, certain kinds of programs are in danger of falling between the slats in development programming, and these are most likely to involve programs affecting the underserved aspects of women's individual and occupational health and status.

I. INTRODUCTION

"All peoples," declared the International Conference on Primary Health Care, held in Alma Ata, U.S.S.R. in 1978, are entitled by the year 2000 to "a level of health that will permit them to lead a socially and economically productive life."⁷⁶ This paper will explore ways in which development programming might help Third World women to reach this goal. As one study suggests, "In each country there exist two distinct subpopulations, men and women, each with its own morbidity and mortality patterns, which are often very different."⁵¹

The Alma Ata delegates saw primary health care as "the key" to attaining the goal of health for all by the year 2000. They advocated a preventive and holistic approach to health. Their general philosophy was to look for better ways to use existing resources, including traditional medicines and practitioners; for ways to extend the impact of trained doctors and nurses; and for ways to prevent illness in the first place. They emphasized, inter alia, basic health, nutrition and family planning services; water and sanitation; control of endemic diseases; maternal and child care, and education.

The Alma Ata Declaration could presage a significant move away from the urban-centered, hospital-based, curative approach which has--with encouragement from Western-trained doctors of all nationalities--absorbed the largest portions of health budgets in most developing countries, while reaching only a small proportion of the people. It seeks to reverse recent trends indicating that mortality rates in the Third World, while falling, are not falling as fast as they did in comparable European stages of development. In India, for example, information available in 1964 led planners to expect that the average Indian would live to 57 years of age by the early

1970s; in the event, this figure had to be revised sharply downward, to 50 years for men and 49 for women. United Nations data show a similar decline in the rate of progress in other countries. Life expectancy in all developing regions was increasing at an average of .6 to .7 years annually in the mid-1950s; by the early 1970s, the reported annual improvements were only .2 to .4 years.²⁰ A new approach to health care--one that would reach the rural and urban poor--seems clearly needed.

The Alma Ata approach tends to place heavy emphasis on small children, and their mothers, on the theory that their health is the key to reducing illness and death rates in the Third World. It is in line with the basic human needs strategy now favored by major international development agencies and many governments. But what are the implications of this strategy for women in developing countries? Will it meet the needs of women which go beyond their roles as bearers and nurturers of children?

It should be said at the outset that hard scientific information regarding many aspects of women's health is difficult, if not impossible, to come by. Few governments collect the sex-disaggregated data that would be needed to support precise conclusions on female morbidity and mortality patterns, for example. Nonetheless, the general dimensions of women's health problems are evident.

Women, like men, are subject to the entire spectrum of human disease (a full discussion of which is beyond the scope of this paper). However, the heavy workload of women in both rural and urban areas, and their generally lower status in society, expose women in developing countries to a range of additional health problems. The following pages will discuss (1) these special health problems of Third World women and (2) ways in which

development programming might better meet those needs.

II. WOMEN'S HEALTH IN DEVELOPING COUNTRIES

Most discussions of women's health begin with problems related to pregnancy and childbirth, times when women in the Third World are most vulnerable to acute health crises. But this approach tends to downplay the contribution of women's generally poor health status to their vulnerability at the time of pregnancy. Furthermore, it ignores the great majority of the female population.

A surprising number of adult women in developing countries are neither pregnant nor the mothers of very young children. Initial World Fertility Survey data, for example, suggest that over 70 percent of all ever-married women under the age of 50 are neither pregnant nor lactating.⁶⁸(See Fig.1) More than 10 percent of women in most of the Asian countries surveyed, and 5 to 10 percent of the women in Latin America, are infecund. (In many parts of Africa, as many as 40 to 50 percent of women are unable to bear children.) In addition, almost 5 percent of Asian women and almost 10 percent of Latin American women have been sterilized (sterilization was the major method of contraception in four countries and second in two others at the time of the surveys), and more than 10 percent are widowed, divorced, or separated.

Furthermore, fertility is declining at a dramatic rate in many of these countries. In Costa Rica, for example, women aged 45 to 49 have experienced 7.2 live births, but younger women are now expected to average only 3.8 births by the time they reach the same age. This is a decline in family size of about 40 percent. In Sri Lanka, women aged 45 to 49 had an average of 6.0 live births, but women of reproductive age now are expected to have only 3.4 births by the time they reach their late forties, an equally

sharp decline.⁴² These World Fertility Survey data refer only to potential mothers; they do not include young girls, spinsters, or women over 50, who collectively represent a substantial portion of the female population.

Taking the totality of Third World women, then, it is more appropriate to say that their health problems fall roughly into three inter-related categories--those related to personal health, reproductive health, and occupational health--and to begin with personal health, which applies to all.

A. Personal Health

In addition to the communicable diseases and other illnesses that shorten the lives of both men and women in developing countries, certain illnesses and injuries are peculiarly associated with women. Except for hazards related to pregnancy and childbirth, these problems are not necessarily the death-dealing ones that tend to attract medical attention. Indeed, Third World women's life-spans are beginning to grow longer (though they are still 20 years shorter than their sisters' in rich countries, and overall statistics disguise high, even worsening, death rates among poor women in some countries.) Even in most developing countries, women tend to live longer than men. But women's lives, especially among the poor, are marked by unnecessarily high mortality rates and by high rates of illness, infection, and fatigue that take a heavy toll on their productivity and well-being.

In general, women's non-reproductive health problems are the least likely to be treated: Health care facilities are scarce and often inaccessible. Women's ailments are often chronic and ill-suited to the care that clinics have to offer. In the case of violence against women, male-

oriented societies tend to be unwilling to face its existence or its consequences. And, as caretakers of their families' well-being--an inextricable part of their traditional role--women are least able to reduce their workload and retire to a sickbed. They often continue to work right through their illnesses. Even where health care might be available, then, they do not or cannot seek it.

1. Malnutrition

Perhaps the most important health problem affecting women in developing countries--one which compounds all other problems--is chronic malnutrition. By custom almost everywhere, women and girls tend to eat last and least of whatever is available to the family. In some societies, women and girls actually eat separately, consuming what the men (and often boys) have left. Furthermore, girls in developing countries start working within the family (carrying water, sweeping, etc.) earlier than do their brothers, and women continue to work throughout their pregnancies, often at heavy agricultural tasks. This means that age-for-age, women may actually require more than the standard nutritional minimums understood in the West. But when family food is limited, what is left for women is likely to fall far below their nutritional requirements, especially during planting season, when food is scarcest and energy demands for agricultural labor are high.

Malnutrition affects women at each stage in their lives. As babies, they are often weaned earlier and given less food than boy babies, with the result that, in some Asian and African countries, girls have less chance of surviving the first five years of life than do boys.^{51,45} One study of seventeen Punjab villages, for example, showed that boys under the age of two in all castes were better nourished than girls of the same age; the

nutritional discrepancy was much larger in the case of the lower castes, and girls' mortality rate was almost 150 percent higher than that for boys.⁴⁵ In Colombia, 1968-74 statistics showed a malnutrition rate of 64.6% for girls, compared to 47.5% for boys.⁶⁷

Without adequate supplies of protein, calcium, and vitamin D, the bones will not grow as long, strong, or hard as they should. In girls, the pelvic bones will be small and may be deformed, causing difficulties later during childbirth. Studies of rickets (vitamin D deficiency), goiter (iodine), pellagra (niacin), and shortages of vitamins A and B complex have all revealed higher incidence in women than men.³⁶ The high incidence of liver disease in developing countries adds to the general malnourished state.

Once women start bearing children, the "maternal depletion syndrome" becomes commonplace. In poor families, women seldom even reach the minimum acceptable weight gain during pregnancy, and yet they breastfeed each child as long as eighteen months or two years, often becoming pregnant again before their bodies are able to recover. Some deficiencies are aggravated by traditional food taboos, which most often relate to protein foods to be avoided during pregnancy, when they are most needed. In Malawi, for example, pregnant women cannot eat meat (for fear of transferring animal traits to the child), eggs, milk, or chicken.⁴⁵

Women and girls are especially prone to nutritional anemia because of their relatively high requirements for iron. In their reproductive years, they are at special risk in two ways: when not pregnant or lactating, regular menstrual blood loss constitutes a continuing drain of nutrients which have to be replaced, while pregnancy increases the requirements of a woman's body to meet the needs of the growing fetus; during lactation, breastmilk

passes iron and folate on to the newborn baby, to the detriment of the mother. A WHO expert group has calculated that women need to absorb 2.7 milligrams of iron daily, compared to the 0.9 milligrams required by an adult man.⁷¹ Women who use IUDs, which tend to increase menstrual flow, require even more.

Anemia in its severest form can lead to death, but this is rare. Even mild and moderate degrees, however, lessen resistance to fatigue and affect work capacity. As one WHO document notes, "There are individuals who can function seemingly normally with even severe degrees of anemia, but most cannot."⁷¹ During pregnancy, of course, anemia increases the risk of illness and death in both the mother and the fetus.

But an estimated 230 million women--in other words, about half the non-pregnant women and nearly two-thirds of the pregnant women living in developing countries--do not get the iron they need. Poverty restricts their diets. Diseases like hookworm and malaria interfere with their bodies' ability to make use of the iron they do get. The highest proportions of anemia are probably found in India, where vegetarian diets and extreme poverty combine to produce anemia in up to 80 percent of all pregnant women.⁷¹

2. Infections of the Reproductive Tract

Infections and reinfections of the female reproductive tract are numerous and widespread, and appear to be increasing rapidly.^{60,14,72} They are caused by viruses, yeasts, bacteria and other agents. Most are acquired through sexual intercourse or through poor hygiene around the menstrual period, childbirth, or abortion. The presence of an IUD may aggravate the infection. (Conversely, use of a condom by the male partner may prevent it.)

Pelvic inflammatory disease (PID), involving inflammation of the fallopian tubes and/or ovaries and uterus, often follows genital infection, particularly from gonorrhea. Endemic diseases such as schistosomiasis and filariasis, which weaken tubal tissue and make it more vulnerable to secondary infections, may also affect the incidence of PID.

The consequences are often serious enough to require hospital treatment, making PID a problem of some magnitude for the public health system.¹⁴ Ectopic pregnancy, for example, is six to ten times more frequent following PID than otherwise. It is estimated that 10 to 17 percent of women who have suffered an inflammatory episode become infertile because the fallopian tubes become altogether blocked; in parts of Central and West Africa, infertility associated with gonorrhea is estimated at 30% or more.^{67,70} Genital tuberculosis--now a rarity in most developed countries--also accounts for a significant proportion of the infertility in the Third World.⁶⁰

Health care is rarely obtainable for the diagnosis and treatment of reproductive tract infections in developing countries, even where there are family planning clinics and other services. One problem is that accurate diagnosis and treatment are much more difficult in women. Moreover, health workers are often ill-informed about these problems. Chronic infection is particularly unlikely to be caught. Women themselves may not know they have been infected, since many infections are asymptomatic in their early stages. Gonorrhea, for example, very soon produces obvious or painful symptoms in men; but by the time more serious symptoms appear in women, they may have infected others or passed it on to their children during childbirth. Educating women about sexually transmitted diseases, in particular, is complicated in many societies by double sexual standards and beliefs that these diseases are only for prostitutes. Shame and fear are thus more likely to

inhibit women from seeking treatment even where they recognize that they are ill.¹⁴

3. Other Diseases

Women are also at greater risk from other common diseases, in part because their maternal duties bring them into frequent contact with sick family members and household duties can involve daily exposure to unsanitary conditions. (By the same token, these roles can make women the transmitters of disease to others.) Pregnancy heightens the risk. Malaria attacks are more severe during pregnancy, with greater risk of spontaneous abortion; where malaria is endemic, women lose their immunity during pregnancy and often die as a result. Pregnant women are also more susceptible to poliomyelitis,⁷⁰ and pregnancy may precipitate the development of overt leprosy. Other infections, such as hepatitis and pulmonary tuberculosis, especially when combined with malnutrition and anemia, are widespread among women. Tetanus, commonly associated with unhygienic methods of childbirth, affects both mothers and infants.

Cancer has been less visible as a disease of women because so many of them die early of other causes. Nonetheless, rates of cervical cancer seem to be about the same for both Western and Third World women, with more of the latter resulting in death.⁷⁰ Poor socioeconomic conditions, early marriage, frequent childbirth, and poor obstetrical care are thought to be the primary causes of the particularly high incidence of cervical cancer in India.⁷² More cases of lung cancer are also being seen in developing countries, as liberated city girls take to smoking cigarettes and village women in some areas continue to smoke their cheroots and hookahs. Among women in Andhra Pradesh, India, there is a high incidence of cancer of the palate, because women there habitually smoke with the burning end of

the cheroot inside the mouth. Nobody seems to know how this inverted form of smoking began; perhaps the women did not want to be seen smoking, perhaps they wished to avoid singeing their babies while nursing.⁷²

4. Mental Health

Little attention has been paid to the mental health problems of women in developing countries in part because they have long been the province of traditional healers, shamans, and others of often surprising effectiveness, in part because treatment of women for mental disorders of various sorts is hampered by attitudinal biases of male doctors in the Third World no less than in the West. In Ghana, for example, one survey found twice as many males as females in the country's mental hospital, a ratio which is unlikely to reflect the true relative needs of Ghanaian men and women.⁵⁹

Nonetheless, mental stress is clearly a growing problem for women. Traditional family and societal ties tend to weaken or break under the press of modernization, leaving older women particularly adrift. More and more women find themselves the sole support of their families as a result of widowhood, divorce, or their husband's or their own emigration to cities and other countries; up to one-third of the households in developing countries are now effectively headed by women. Women also constitute a disproportionate number of the refugees churned up by upheavals in the Third World, up to 90 percent in the case of Somali refugees from Ethiopia. Migrant and refugee women are subject to a type of stress akin to culture shock, as well as that resulting from having to live, work, and care for children in conditions of poverty, alone and unsupported by the wider family.

5. Violence against Women

Little is known regarding violence against women in developing countries beyond the fact that it exists, as in the West, in greater degree than offi-

cial statistics suggest. The lower status of women in the family and society, to say nothing of wars and other upheavals, creates conditions that render women liable to violence. Notions of manliness, machismo, and honor tend to support a system in which wife- and child-beating is condoned and rape goes unreported.^{70,51,27}

Women who have been subjected to violence do not seek help for fear that exposure will bring dishonor to themselves and their families. (In rural Egypt, there have even been instances in which a rape victim was murdered by her relatives to save the family honor.)³⁴ For those who do not seek help, few facilities are available. Police and court systems are often unsympathetic. Indeed, many women were raped by police and militia during the Bangladesh war for independence and during the violence that accompanied the overthrow of Salvador Allende in Chile. Women's groups have only recently forced Indian authorities to recognize that some hundreds of young brides did not burn to death accidentally but were in reality murdered by their husbands or in-laws because they brought an insufficient dowry.⁶³

One form of violence against women--genital mutilation--has, however, been the object of increasing concern among some Western^{66,18} and Third World women.^{1,4} The origin of this custom is obscure (it is not a part of Islamic doctrine, for instance), but it is part of the definition of womanhood in large parts of Africa and the Middle East. Whatever the reason, as many as 10 to 30 million young girls, usually aged five to ten, have undergone excision of all or part of the clitoris or, worse, infibulation, which involves removal of the entire clitoris, the labia minora and majora, plus the closing of the vagina with thorns or catgut or thread, leaving only a small opening for passage of urine and menstrual blood. Such practices are frequently

described as female circumcision, but the degree of damage is not comparable to the far more minor circumcision of males.

Girls are subjected to extraordinary health hazards from these crude operations, often performed in elaborate rites by village midwives using unhygienic tools.³² Infibulation is particularly damaging. Complications include the immediate shock from pain and hemorrhage, lacerations due to the child's struggling, and closing of the urethra, to say nothing of psychological damage. Health hazards do not end with the operation itself. If urine and menstrual blood do not flow freely, infection may result.^{74,53} At the time of marriage, more lacerations are inflicted on the woman by her husband; Sudanese women report that husbands sometimes have to get themselves drunk to effect penetration. Additional incisions have to be made at the time of childbirth, and labor is likely to be long and difficult; infibulation is sometimes repeated after each delivery.

Despite its obvious implications for women's health, however, and despite official government policies against female circumcision in many countries, the practice persists, even in upper and middle class settings (where the operation is often done more hygienically in hospitals), because of its deep hold on the cultures concerned. Riots accompanied a British attempt to outlaw the practice in Sudan in 1940.⁷⁴ Indeed, African women themselves often insist that their daughters have the operation in order to insure their marriageability.

While "opposing infibulation and other sexual mutilations," delegates to the Second Regional Conference on the Integration of Women in Development held in Lusaka in December 1979, made it clear that they also opposed "international campaigns which do not take into account the complexity of African reality." They looked for solutions, rather to feminine associations "in

the countries concerned."⁵² The low-key efforts of UNICEF and WHO have also been welcomed.^{53,74}

A. Reproductive Health

Although chronic malnutrition is women's most pervasive health problem, women are most at risk of acute health crises during their reproductive years. Indeed, childbearing, its consequences, and its termination by abortion, are the leading causes of death for women between 15 and 45 in many developing countries.

1. Pregnancy and Childbirth

Childbearing places major demands on women, ones which poor and malnourished women are ill-equipped to meet. Women in developing countries are 20 to 30 times more likely to die in childbirth than in countries where good nutrition and maternal care are generally available.^{70,35} Both maternal and infant mortality are higher when childbearing takes place too early, too late, or too often. Below the age of 19, above the age of 35, and/or with the birth of the fifth and succeeding children, the statistical jump is sharp, with maternal death rates reaching as high as 8 per 1,000 live births in countries like Bangladesh (compared to an average of less than 0.2 in the U.S.).

The greater the number of children a woman has, the more opportunities arise for complications of pregnancy--toxemia, hemorrhage, infection, etc. Recent studies have shown that women of high parity are also at increased risk of developing diabetes, cervical cancer, rheumatoid arthritis, hypertension, and chronic ill health. The implications for malnutrition and anemia have already been mentioned. Furthermore, the great majority of women in the Third World have their babies at home, often in unsanitary surroundings, with help only from undertrained midwives. Complications and

death are all too likely in these circumstances.

These problems are compounded when the mother herself is a teenager-- and girls in many developing countries marry and begin to bear children by the time they are 15. From 10 to 20 percent of the babies in most poor countries are born to teenage mothers. Such babies are often underweight and sickly, making them harder to care for. Furthermore, the adolescent mother's personal maturation and development is disrupted and often impaired by early pregnancy, her education cut short, and her ability to earn a living curtailed.

2. Abortion

Repeated studies have shown that women in developing countries well understand the disadvantages of high parity for themselves and their families.⁴² About half of all married women of reproductive age want no more children.⁴² Not surprisingly, many of them seek abortions. Every society has traditional abortifacients, and midwives are usually abortionists as well as birth attendants. Induced abortion is illegal or highly restricted in the majority of developing countries, but, legal or not, it is the most widely used method of fertility regulation. At least 35 million, and perhaps 55 million, pregnancies worldwide are terminated annually by these means.^{70,35}

Apart from questions of whether or not women should have the right alone to decide on whether to seek one, abortion is a health hazard of major proportions in the Third World. In Latin America, for example, it is thought to be the cause of one-fifth to one-half of all maternal deaths.⁷⁰ Unsafe procedures abound made even riskier when women try to abort themselves by methods they have learned only by hearsay. In Bangladesh, for example, women will usually try an oral preparation containing quinine, potassium permanganate, mercury, and other substances. If the oral mixture doesn't work, oleander

roots or other objects are inserted through the cervix in order to cause contractions and expulsion of the uterine contents.⁷ Tetanus is a particularly serious danger arising from the use of such methods. The deep abdominal massage used by midwives in parts of Asia to induce abortion can result in excessive blood loss and shock, in addition to being extremely painful.⁷

Newer, safer, earlier methods of abortion, like menstrual regulation and vacuum aspiration, which do not require complicated medical equipment or highly trained physicians,⁷ are only beginning to be introduced in some developing countries on a limited basis; various questions as to their suitability in Third World settings are still under study.⁶⁹

Abortion laws continue to restrict women's access to safe medical procedure. In Bangladesh, for example, a total of three medical practitioners is supposed to be involved in the abortion decision--a requirement unrealistic to the point of fantasy. Multiple opinions are similarly required in Algeria, Costa Rica, Ivory Coast, and numerous other countries. Furthermore, the majority of developing countries permit abortion only if the life (not the health) of the mother is threatened.⁵⁶

Even where laws are liberal, as in India, lack of facilities render legal abortion effectively unobtainable for most women. Thus, there are only 2,192 centers authorized to perform abortions in India, and most of these are located in hospitals and health centers in urban areas; poor and rural women must still fend for themselves.⁷

3. Contraception

In view of the hazards of frequent childbearing and illegal abortion, family planning is increasingly seen as a health issue of special interest to women in developing countries. Women also make the connection between

limiting their families and having more time and energy for themselves. Indeed, it is in areas where women are denied opportunities for education and independent income, where their dependence on men is greatest and their status in family and society is defined by the number and sex of their children, that efforts to promote family planning are more likely to fail. For such women, infertility, which afflicts around 10 percent of women in developing countries, is the greater fear and treating it the greater perceived health need.

Not that the contraceptive techniques central to modern family planning are without risk. As with any medical intervention, they have negative side-effects as well as the positive effect of preventing conception. IUDs tend to increase menstrual blood loss, a serious problem for women who are already anemic, and they increase the risk of infection in the reproductive tract. Nausea, headaches, and blurred vision can accompany the use of oral contraceptives, while cardiovascular disease is associated with long-term use, especially for older women. Some researchers question the effect of the pill in women who are already malnourished or who have chronic diseases.^{14,70,26} On the other hand, the pill is also associated with decreased ovarian and endometrial cancer. Some doctors suggest that the pill may actually be safer for women in poor than in rich countries, because the former are less susceptible to cardiovascular problems that are aggravated by smoking and cholesterol rich affluent diets.

More recently, the long-lasting injectable, Depoprovera, has come under attack by women activists for use in developing countries, since it has not been approved for domestic distribution under U.S. drug laws. (Depoprovera is manufactured in Belgium by a U.S. company.) Early tests appeared to show that Depoprovera might be carcinogenic or otherwise harmful in some animals.

Other charges are that it suppresses lactation, may cause sterility, and so on.^{16,14,30,31} These charges are disputed by medical researchers, however. Studies by WHO and others appear to show that fears expressed so far regarding Depoprovera have been exaggerated, and WHO has twice announced that its experts saw "no toxicological reasons for discontinuing" its use.⁶⁹ Some researchers even suggest that Depoprovera is safer than oral contraceptives because it contains no estrogen and because its active agent (progesterin) is chemically closer to the body's natural progesterin than that used in the pill.⁴⁷ In any event, Depoprovera has proved remarkably popular with many women in developing countries, presumably because injections are needed only every three months or so and because, except for some irregular spotting in the first months of use, it seems to have no "nuisance side effects." Studies of its effects on humans are now under way, notably in Thailand, where women have been using Depoprovera for more than a decade.

However, one thing is certain. Uncontrolled fertility for women in developing countries is, statistically speaking, many times riskier than any method of contraception currently in use. And research is continuing to find safer more acceptable methods that are as effective as the pill and other modern contraceptives.

C. Occupational Health

Comparatively little is known about the occupational hazards facing Third World women, a reflection of the general tendency of governments and international agencies to ignore the economic contribution that women are everywhere making in their societies.

In rural areas, for example, up to 70 percent of the agricultural labor force is female, but much of their work takes the form of unpaid family labor and so is often overlooked by national accounting systems. Women are usually

responsible for tending subsistence crops and small animals, and often help to weed, harvest, and process cash crops as well as to market produce and handicrafts. Fetching household water and firewood is also "women's work," sometimes with help from small children.

In towns and cities, women work as domestics, unskilled construction laborers, beauticians, clerical workers, and in numerous factory situations, especially where manual dexterity and low-cost labor are wanted. Many support themselves in the informal sector, through petty trading, piece work at home, scavenging, prostitution.

Everywhere, women are additionally responsible for the care and feeding of the family and for household upkeep.

1. Agricultural Hazards

Occupational hazards of course exist for both men and women, though women's need to protect the fetus poses additional complications. Toxic substances used in agriculture are particularly worrisome. Studies to date have focused on Western women working in industrial settings. Little is known about the effects of agricultural chemicals on women and children in the Third World.

Some commonly used pesticides and fungicides are known to cause cancer, miscarriage, birth defects, and genetic mutations.⁵⁰ In addition to systems poisoning pesticides can cause skin and eye lesions. Pregnant women and prepubescent children are particularly susceptible. Thus, U.S. courts recently banned farmers from using 10- and 11-year-old children for harvesting in pesticide-treated fields.⁶⁵ Pregnant women and children are likely to be at equal or greater risk in developing countries, where overspraying by untrained workers is common and protective clothing largely unknown. In Pakistan, for example, at least five people died and 2,900 became ill in 1976 from the

common pesticide malathion. Sprayers had mixed it with their bare hands, washed the spraying equipment in local water supplies, and spilled the malathion, which can be absorbed through the skin, in areas where barefoot children played.⁶⁴

The World Health Organization and the National Academy of Sciences estimate that 500,000 people worldwide are poisoned by pesticides each year, and at least 5,000 die from them.³³ An accurate count is difficult, partly because workers are discouraged from reporting illnesses by landowners fearful of liability, and partly because women, in particular, are less able to leave their homes to seek medical help. But what is known is cause enough for concern. For example, in Guatemala mothers' milk is contaminated with DDT, a pesticide banned for use in the U.S. but not for export and sales promotion in developing countries, and one FAO study found the average content of DDT in blood samples from Guatemala was 30 times the U.S. average.^{10,6} In Nicaragua, children were used as "flagmen" to indicate target cotton fields for aerial pesticide spraying--and many died from acute pesticide poisoning.^{61,15} Pesticides also remain on the food that mothers prepare for their families; one Central American Farm Survey found the level of Aldrin on cabbage to be 2000 times the level allowed in food sold in the U.S.⁶ Furthermore, Third World farm populations are likely to be more susceptible to the ill effects of pesticides than Western populations because the former are less healthy and well nourished to begin with.⁶¹

2. Industrial Hazards

Modernization in the Third World has added an overlay of new health problems for women. A growing number of them are entering the industrial labor force, which may provide them with more income but which also exposes them to the occupational hazards and diseases from which men have traditionally

suffered the most: stress-related heart diseases, accidents related to the use of machinery, exposure to toxic substances. Given the overriding concern for industrialization in most developing countries, and the consequent tendency to downplay associated environmental and health risks, the Third World is all too likely to reproduce the health crises of the Industrial Revolution in the West, with women as the most vulnerable victims.

In the early twentieth century, for example, textile workers were commonly disabled by "brown lung" disease, which comes from exposure to cotton dust; there are still 500,000 cases reported annually in the U.S.⁶² Textile workers in developing countries, many of whom are women, are subject to the same risk. Toxic fumes from caustic chemicals and eye ailments are the twin enemies of workers in the electronics industry, which employs about 250,000 women throughout East and Southern Asia.^{19,77} A description of African women's working in fish-freezing plants speaks of rheumatism, bronchial ailments, and untreated sores from handling the fish.³ Skin disorders are common among workers in food processing, textiles, and hospitals. Anesthetic gases have been investigated as a cause of increased incidence of miscarriage, congenital defects, and infertility among nurses working in operating rooms in the U.K.⁵¹ Hair dyes used by beauticians have been shown to be carcinogenic. Clerical workers and retail salespeople are subject to backaches and other chronic disabilities, as well as stress.

In the absence of an adequate data base, it is difficult to determine the full extent to which Third World women in these and other industries are at risk, or whether they are at greater risk than men or Western women, when exposed to the same occupational hazards. But pregnant women are at risk whether or not they themselves work with toxic substances. There is abundant

evidence that miscarriage, stillbirth, and congenital defects can result from the exposure of their husbands. As a result, excluding reproductive-aged women from certain types of work because of potential health dangers would not only be inequitable; it could be futile as well. There is no substitute for attempting to eliminate such dangers for all workers.

3. Fatigue

The most common occupational hazard of all for women is probably overwork. Studies in any number of countries have shown that women in poor households work full days in economically productive activities in addition to taking care of their children and households.^{45,37,9} In Upper Volta, for example, women work an average of 9.5 hours a day, as compared to 7.6 hours for men. In wheat-growing areas of Haryana, India, rural women work an average of 15 to 16.5 hours a day, about half of them in agriculture and animal husbandry. In some countries, women walk five kilometers or more a day carrying heavy loads of water and wood (and babies). Grinding, pounding, and otherwise preparing food for cooking often takes several hours or even days. Women's overload becomes aggravated when they are heads of household and have to undertake men's work share along with their own; if they are old, the work may be beyond their physical strength.

This "double-day phenomenon"--as the combination of economic and family responsibility is known--produces almost constant fatigue. It clearly cuts into women's productivity and doubtless lowers their resistance to various health hazards. But little scientific information is available. In many cultures, the over-burden of work done by women is accepted as "women's lot," of little interest to researchers. Indeed, women themselves often do not perceive fatigue as the health risk it surely is.

The picture sketched in these pages suggests that women in developing countries have health problems that are different from, and in some cases more serious than, those of men. These problems have a major impact on the general welfare and productivity of half the population of the developing world. They are all the more serious because the female half of the population has the double roles of worker and childbearer.

In order to move much beyond generalization and speculation, however, research on women's health needs--individual and occupational as well as reproductive--will have to be given much higher priority. The relation of fatigue and stress to productivity and ill-health is known only in general terms. The effects and true extent of exposure to toxic substances for women, children, and men in Third World settings need further investigation. Epidemiological studies of pelvic inflammatory disease and others of special interest to women need to be undertaken and approaches to cure evaluated. Health problems of poor urban women have been given very little attention even though higher percentages of women will be living in cities in future.

A first priority is to keep much more careful track of the differential impact of various health problems and health interventions on women and men.

III. HEALTH POLICY AND WOMEN'S CONCERNS

The thrust of much development programming today is to help developing countries meet basic human needs, especially among the rural poor. This strategy implicitly acknowledges poverty to be the major health hazard in the Third World. Although a decade's research in many sectors has served to underline how often "development" works to the detriment

of women, the basic needs strategy appears to have the potential for making a considerable impact on women's general well-being. Improvements in smallholder agriculture promise more food for the family table. Education, formal and non-formal, opens new possibilities for the women whose lives it touches. Appropriate technology may help to ease their work burden. Training and credit programs can help them earn independent income, which, as studies show, is likely to be spent on the well-being of the family.

A. Women and Primary Health Care

Within the basic needs strategy, equity and practical development considerations suggest the need for giving higher priority to women's health needs in primary health programs. Women are heavily involved as participants in, and targets of, these programs, at least insofar as they are bearers and nurturers of children. As UNICEF has noted, "in any developing country situation, more than 80 percent of the workload of the primary health care worker will be related to mothers and children."⁵⁵ There is no clear distinction between maternal and child health programs and those labeled primary health care.

Women do benefit from these programs. Primary care includes elements of prenatal and obstetrical care and family planning, all of which, as noted in the previous section, are major health needs of women. Some programs also include interventions such as supplementary feeding and nutrition education, which help combat malnutrition in women insofar as more and better foods reach mothers as well as children. (The emphasis of most programs is on feeding children, however.) Benefits to women would also, of course, derive from advances in water and sanitation, disease control, and health education. Healthier children--who thus

required less care--(and attention from mothers)--could save women's time and energy, as could increased availability of water supplies, more accessible health services, etc. In addition, women stand to benefit from greater ability to space and limit their childbearing and, ultimately, from population research on determinants of fertility (including the importance of higher status for women) and on new and safer contraceptives for both women and men.

On closer inspection, however, the chief focus of much international health programming is the child--as fetus, as newborn, as toddler.⁵⁷ Thus, primary care programs emphasize immunizations against common childhood diseases (DPT, measles, polio, etc.); oral rehydration and other basic medicines to combat infections, especially infant diarrhea; promotion of breastfeeding for infants; and better nutrition and health care for children generally. Nutrition interventions have placed heavy emphasis on providing or developing special weaning foods for infants, in part to ensure that the food provided is not eaten by the rest of the family. Contraceptive research and family planning programs are advocated at least as much to enable women to bear stronger, living babies as they are to improve the health of the women themselves. Prenatal and obstetrical care and supplementary feeding programs for pregnant mothers are seen as key means to reduce infant mortality and permit mothers to breastfeed their babies successfully.

Women are targets of these programs because they are interested in improving the health of their children--and because their cooperation is essential to any program directed to that end. Indeed, the participation of mothers is central to the success of the primary health care strategy. It is they who must be taught to seek prenatal care, to

prepare more nutritious foods for their children, to treat childhood diarrhea, to store and use water safely, to keep their children's excreta from polluting the family home and water supplies. It is they who form the broad base of the primary health care delivery system, as providers of family self-care.

Without altering the basic child-centered thrust of primary health care programs, more could be done to enable women to receive greater benefits to their own individual health.

Indeed, recent research suggests that such child-centered goals as averting early infant death, for example, may best be approached through improving the health of their mothers. Thus, a recent detailed review of ten health and nutrition projects by the Overseas Development Council²¹ cites maternal nutrition supplements first among the factors contributing to program effectiveness. In projects in rural Guatemala and India, "this component seems to have been a particularly effective means of averting early infant deaths," producing heavier, stronger babies and increased maternal lactation. The second "particularly promising" intervention cited by ODC is maternal immunization against tetanus; in one project "at least 80 percent of the potential deaths from neonatal tetanus were thereby averted." These programs had the further advantage (which goes unremarked by ODC) of doing something positive for the health of the mothers, but most maternal and child health programs continue to emphasize direct care for children only. Supplementary feeding programs could be extended to lactating mothers (many societies traditionally offer more and richer food for lactating women, but not for the 18 months to two years for which women in many countries commonly breastfeed their children), even to girls, in order to promote the

bone development necessary to successful delivery of healthy babies.

Programs relating to adolescents might also be given higher priority, especially where girls can be reached through schools or workplaces before they marry and become mothers. If daughters are to break out of some of the health patterns handed down by generations of mothers and grandmothers, they must make enormous changes in the way they think and in their understanding of their own power to change practices which affect their lives. "Domestic science" education for girls has too often been irrelevant to their real-life concerns (and too often been the exclusive content of girls' education), but it can usefully be geared to practical matters related to family health--nutrition, the value of breastfeeding, even family planning and sex education. One sex education program in a Jamaican high school, for example, succeeded in cutting the female dropout rate due to pregnancy by 80 percent after two years.⁸

Treatment of sexually transmitted diseases in women and men could also be made a more important part of primary health services. Some infections of the female reproductive tract are difficult to diagnose and treat, but gonorrhea, for example, can be treated quite easily and cheaply.

Although diagnosis in women is difficult, it is easy in men and their female partners have a 60 percent chance of being infected; epidemiologists advocate treating the women automatically, thus possibly averting a common cause of infertility and medical complications.

It should also be noted that the use of condoms, promoted in many family planning programs, helps to prevent the spread of sexually transmitted infections to women.

B. Constraints on Women's Participation

Success in many of these areas will depend on how well health-related advice, education, and services can be absorbed into the reality of women's lives. Women may well be eager to make an added effort if the health of their children is involved, but the facts of their existence may make it difficult for them to do so. Nutrition interventions aimed at mothers, for example, have failed because they did not take account of the pressures on women's time; at some times of the year, women have been known to be too exhausted from work in the fields to cook at all. Nutrition programs directed to mothers may also be too narrowly targeted in that daughters and grandmothers often take responsibility for preparing the family's food while the mother works at other productive tasks.⁴⁵ Sanitation projects have failed because women widely perceive children's feces to be harmless; as a practical matter, new latrines are often unattractive, inconvenient, and even frightening to both women and children.¹² Women could make better use of new water and sanitation facilities for themselves and their children if they were provided with inexpensive equipment--soap, plastic pails and washbasins, even mirrors.

The following are some of the major constraints on women's participation in primary health programs.

1. Women's Time and Energy

A WHO-sponsored conference on women and family health warned in 1978 that "in the existing definition of primary health care, and in the way women's roles were described, there was the danger that women's already heavy workload would be increased and that the 'voluntary' nature

of their traditional work in health would be exploited."⁷³ This danger would appear to be very real. Women will be asked to prepare special foods for their children when they are weaning or sick; to boil water used in cooking or for oral rehydration; to prepare and administer oral rehydration solutions; and so on. Insofar as more firewood or dung cakes are required in order to boil water, the woman will have to find them. Insofar as larger supplies of water are required, she may need to spend more time in home gardening, find some other way to get the money to buy them, or forgo the extra money that the sale of vegetables and small animals might bring in the market. Insofar as more trips to the nearest health clinic are required for prenatal care, weighing babies, children's immunizations, and the like, she will have to find time and money for the purpose. All these are likely to be extra tasks for the mother. She will still have to fulfill her other family responsibilities. In the absence of compensating efforts to reduce women's workloads, or to involve men more closely in family responsibilities, women may lose still more ground to overwork.

2. Women's Health

Another constraint on women's participation is their own health. That fatigue, stress, and lowered resistance to disease are consequences of the double days women work has already been noted. Malnourishment is particularly likely to result during the later stages of pregnancy, when women cannot reduce their energy output and may even, as a result of food taboos, have to reduce their food intake. Restriction in a woman's physical activity is particularly important during the last three months of pregnancy, when weight gain of the fetus is crucial, but the

majority of women cannot afford the necessary time for resting.

It must also be recognized that the stress development agencies are placing on the value of breastfeeding has important implications for women's health and economic well-being.^{75,57} On the one hand, breastfed babies are healthier, which will mean mothers need to spend less time caring for sick infants. And mothers will save money they might otherwise spend on infant formulas. In addition, they will benefit from the contraceptive effect of breastfeeding. On the other hand, women breastfeed their babies for 18 months to 2 years in many countries; as desirable as it is from the point of view of the child--and, under normal circumstances, from that of the mother, too--prolonged breastfeeding increases the likelihood of anemia in women who are already malnourished.^{45,14} Mothers who breastfeed for 9 months can lose 2 to 4 kilograms in comparison to their pregestational weight; in a very ill-fed mother this loss can be as much as 7 kg. after a year of lactation.¹⁴ Furthermore, in some settings, especially where women are part of the formal workforce, breastfeeding may not be practicable; in these circumstances, women who breastfeed may find their ability to hold jobs reduced. One study concluded that breastfeeding is too "costly" an activity for poor working mothers in urban settings,⁴³ the others dispute this.⁴⁶ The value of breastfeeding for both mother and child is not at issue; rather, the problem is to ensure that the mother's health status enables her to breastfeed without damage to herself.

3. Service Accessibility

The reality of women's lives also has implications for the accessibility of primary health care facilities. Among the factors that may render these facilities effectively inaccessible are:

--cost, including the costs of transportation for themselves, their children, and, often, an accompanying adult family member, as well as for drugs or other medicines. In many areas, meeting such costs will be the woman's responsibility, making even minor charges more difficult to meet when women have few sources of independent income;⁴⁵

--convenience. The effective service area for health clinics typically has a radius of only three to five kilometers, and even this much of a trip can be difficult for a woman with small children in tow; during the rainy season, it may be impossible.^{24,44} Even if health services are to be brought directly to the village, their timing and location must take account of women's schedules. Primary health workers may expect to work during the day, but daylight hours may be just the times when women are working away from their homes. (One nutrition education project had considerable success by basing the program at the local river where women came for washing.); and⁵

--compatibility with their own beliefs and preferences. In some areas, for example, women are uncomfortable with male health providers. Many are loath to undress even their children, much less themselves, in front of strangers. Rural women are particularly likely to be illiterate; in places like Bolivia, they may be unable even to speak the language of urban-trained providers. Doctors may be cold and unsympathetic, and nurses unwilling (or too harried) to take the time to listen to the subtext of women's problems regarding themselves or their children.

4. The Roles of Men

The attitudes of men and male-dominated society may also inhibit women's access to health care for themselves and their children. This

is particularly true in the case of family planning, where men may not permit their wives to use contraceptives or be willing to use them themselves. Perdita Huston cites the message from many villages: "My husband would go off and marry another woman if I don't have a child every year." "My husband says the more children he has, the more prestige he will have." "I don't dare discuss it with my husband."²³ Some countries have tried to deal with this problem by directing family planning propaganda directly to men and by promoting the sale of condoms in tobacco shops and other places where men congregate. Others, like Pakistan, have set up man-woman motivation teams to visit families village by village, thus assuring talk with both husband and wife.⁵⁸

Male attitudes are also relevant to child-oriented programs. Even if they appreciate the advantages of healthier wives and children, for example, men may be unwilling or unable to spare their families from agricultural duties long enough to attend nutrition education classes or well-baby clinics. If men do not eat with their families, they may not even realize the extent of their deprivation; one researcher believes that men would not take so much for themselves if they actually saw the meager portions and the hunger of their children.⁵⁹ It is always said that women, as mothers, are the key to the family's health, nutrition, and education. But perpetuating this exclusive interpretation of their role may be self-defeating. Women cannot make the changes needed to improve the health of the family without the resources, information, and authority which so commonly remain with men.

More than simply giving passive support for their wives' involvement in various health programs, men will need to be persuaded to share some of the responsibilities for family care that have hitherto devolved solely

on women. Thus, family education programs need to be directed at men as well as women. As one researcher has noted, "It is easy to scoff at official exhortations for men to do more work at home, but the effect of such policies over time may outweigh their often negligible short-term impact."³⁷

These kinds of programs are well-recognized in the literature on women in development. They are less well-recognized in material devoted to the health sector generally. While health-sector programming cannot by itself solve the societally induced constraints on women's participation, it can attempt to work on those amenable to practical solution. WID research is doing a better and better job of identifying the factors known to affect women's participation positively and negatively. This research needs to be brought to bear before investment decisions are made, when action plans are formulated and evaluations undertaken. Most of the areas covered earlier in this paper might well receive higher priority in development programming if more were known about them.

C. The Women and Health Connection

The basic contention of this paper, however, is that women's health needs will not be met if health programming continues to focus narrowly on the health sector alone. Such problems as malnutrition, fatigue, and excessive fertility, to say nothing of various forms of violence against women, are intimately bound up with women's generally low status and lack of opportunity for education and employment. It would not be possible to reduce abortion as a public health problem until laws and attitudes regarding contraception as well as abortion begin to catch up with medical technology. Research on women's health issues is likely to remain of low priority if scientific establishments continue to be

overwhelmingly male. Nutritional and other health benefits sometimes depend on development of new technology, which in turn requires higher priority for women's concerns. Programs to improve the status of women, along with literacy, income distribution, and the like deserve priority in their own right; they can also be expected to improve the outlook for women's health, promote successful family planning, and so on.

In addition to intensified efforts to raise the status of women, three areas--all of which lie at the interface between health concerns and women-in development interests--seem particularly appropriate for development activity.

1. Expand the Number of Women in Decisionmaking Positions

As in other fields, it is questionable whether health development programs will ever reflect women's needs and concerns adequately in the absence of women at all levels of the health system. Women need to be motivated and able to express their own health concerns, and their concerns require greater political visibility and priority at policy-making levels, particularly where public health systems continue to be dominated by male physicians.

It is crucial that women "consumers" of health services be included in community consultations and that they be well represented among health workers at the community level. Until women become integral components of planning strategies, and officials learn to tap into women's networks of communication, limited acceptance of new health interventions is all too likely. Too often, women's participation begins, if at all, after a development service has been planned and set up, and takes the form of paying small fees, listening at meetings, upkeep of facilities, or even simple acceptance of "benefits." Any community consultation--which itself may be pro-forma--takes place with men.

In this connection, the report of the Alma Ata Conference on Primary

Health Care is less than reassuring as an indication of changing attitudes. That report suggests that women "can contribute significantly to primary health care, especially during the application of preventive measures." But men, it emphasizes, "can contribute by shaping the community health system."⁷⁶ The new thrust toward primary care is likely to provide greater opportunities for training women as midwives, village workers, and other physician extenders on the lower rungs of health care, where women dominate in most countries. The role of traditional birth attendants, used by up to 90 percent of rural women in developing countries, is also increasingly well-recognized.^{38,41,17} A good number of programs for upgrading their skills (and, in some cases, using them to promote family planning) are under way, though too little attention is yet paid to the wider roles of traditional birth attendants in providing abortions, female circumcision, marriage counseling, and help for menstrual disorders, infertility, and the like.

Women activists tend to emphasize the importance of opening up new fields of work for women. But nursing and other health occupations will remain an important source of independent income and the number of women in these occupations needs to be expanded, especially in countries like Sudan where health providers today are largely male. Their training needs to extend beyond maternal and child health and related subjects; for example, ability to diagnose and treat pesticides poisoning could significantly reduce poisoning problems.⁵⁰

It should be remembered, however, that these women, no less than factory workers, are subject to the problems that attend working a double day. Community health workers and other physician extenders are likely to retain a full range of household and child-care duties. They may not be able to perform their functions adequately without special arrangements, especially if they are--as is quite likely--heads of their own households.

Maternity leaves, child care, and flexible working hours are some of the measures frequently advocated. In the case of single women, housing may be a special problem.

Women are most seriously underrepresented at higher levels in health management and research. With rare exceptions, health programs in developing countries, as in the U.S., continue to be administered and policies set by men, often physicians insensitive to women's needs. The number of women scientists involved in biomedical research topics may be even smaller than the number of women in the management of the health care system. International health development projects, usually undertaken in cooperation with physician-dominated Ministries of Health, follow this traditional pattern in too many instances.

If enough women are to be included at decisionmaking levels to make a real difference in health programming, more of them will need to be trained as physicians, administrators, and researchers. Most importantly, the supply of women with management skills needs to be increased. The women-in-management course of the Center for Population Activities, a private Washington-based effort to train middle-level Third World women with management potential, is one example of what can be done. This course is an imaginative blend of confidence building, assertiveness training, and nuts-and-bolts training in such things as project preparation, record-keeping, and fund-raising. The 350 or so women who have completed the women-in-management course--about half of them from the health and family planning sectors, half from integrated women's programs--now form a mutual-support network of people in both government and private positions who are beginning to train their compatriots. This kind of activity needs to be greatly expanded.

2. Make Better Use of Women's Organizations

Health-sector programming also needs to make better use of women's organizations, both grass-roots and voluntary, and to employ more women who are in a position to open up natural channels with women leaders. Women's groups represent a considerable resource for improving women's health. Indeed, the impetus for starting some of the oldest and best organized of them was health-related--homemaking for Mothers' Clubs in Korea, vaccinations and family planning for Concerned Women in Bangladesh, clean water for self-help groups in Kenya, etc. Many of these groups quickly branch out into non-health related fields as the connection between family health and women's income becomes apparent and the habit of cooperation grows.^{29,39} In Indonesia, for example, village planning groups that arose spontaneously to help women get contraceptives from distant supply depots have now expanded into weaving, tile-making, and other direct economic undertakings like cooperative chicken raising and marketing.⁴⁰ The People's Health Center in Bangladesh is supporting vocational education programs and agricultural credit along with basic sanitation, hygiene, nutrition, and family planning.²⁶

By the same token, groups devoted to women's welfare more generally often find themselves involved in health-related issues. Older groups have traditionally been concerned with child care and homemaking, and some of them are now trying to make the content of their activities more relevant to the lives of poor women. Newer groups are often concerned with questions of violence against women. Indian women, for example, are campaigning against rape and wife-burning. The Somali Women's Democratic Organization is actively concerned with problems of female circumcision. Women's groups that seek to encourage late marriage, modernize abortion laws, start rape crisis

centers, call attention to hazardous working conditions, and generally raise the status of women can all have important health effects. There is room for a more conscious promotion of this women-and-health nexus, based on a better understanding of the formal and informal networks for women's communication.

3. Recognize Women's Need for Time and Money

As noted earlier, one major constraint on the effectiveness of health related programs is that poor women often lack time and money to follow new health practices, however desirable. Health programmers would, therefore, do well to look for projects that can do double duty--that would, say, generate income for women while improving family nutrition, or save women time while making more water available for family hygiene. By the same token, "women's projects" might more readily become viable if they were rooted in women's continuing concern for their families.

Nutrition-related projects seem particularly suited to this double-pronged approach, especially where they could build on women's existing skills. For example, women's groups in Cameroon operate hand grinding mills that save women time and generate some income; they could become the basis for small-scale preparation of weaning foods. Women in Nigeria operate small oil presses to bring in income;⁴⁸ the defatted seeds of certain crops could serve as an excellent high-protein supplement for infants and children. Women's groups would be logical sponsors of projects to make weaning foods from locally grown crops. Similarly, vegetable gardening projects could include solar dryers or other appropriate technology so that women could store and market any surplus. Dairy projects could include butter churns for the same purpose. If water sources were closer to their villages, thus saving time on water hauling, women could use improved water

supplies for both hygiene and income-generating projects like poultry-raising.²

Two important caveats in connection with this range of projects are that women need to have control over allocating any time saved from traditional tasks and that they be taught to maintain and repair any machinery involved. In the past, some labor-saving projects intended to give women more time for family care have failed to fulfill their purpose because husbands simply used their wives' newly available time for jobs that had previously been the men's responsibility. Men have retained a near monopoly on the knowledge of how to maintain and repair water pumps, grinding machines, oil presses, and the like, thus perpetuating women's dependence and in some cases even taking over responsibility for what had been women's sources of independent income.

The common thread in all three of these suggested approaches is that they would benefit greatly from interchange between programs concerned with health, family planning, and nutrition, and those concerned with raising the status and visibility of women in development. Until greater interchange takes place, certain kinds of programs are in danger of falling between the slots, and these are most likely to involve programs affecting the underserved aspects of women's individual and occupational health and status. There seems to be no overriding reason why health-related programs should not be used to extract maximum benefit for women in all their roles.

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Figure 1.

Country	Reproductive Status of Third World Women ¹ (Derived from World Fertility Survey)						Est. % ² Lactating	+ % Pregnant (a)	= Est. % Pregnant & Lactating	Est. % Not Pregnant Lactating
	(a)	(b)	(c)	(d)	(e)	(f)				
Bangladesh	11.1%	11.4%	.7%	6.2%	11.2%	3.4%	18.7	11.1	29.8	70.2
Fiji	10.8	5.5	14.9	9.9	6.5	7.0 ³	15.1	10.8	25.9	74.1
Indonesia	10.3	13.8	0	14.4	7.5	5.5	16.2	10.3	26.5	73.5
Korea	9.9	6.8	4.7	12.3	3.1	2.3	20.3	9.9	30.2	69.8
Malaysia	10.5	8.0	3.5	10.5	4.0	4.7	19.6	10.5	30.1	69.9
Nepal	9.8	7.4	1.5	10.0	15.9	2.1	17.8	9.8	27.6	72.4
Pakistan	16.0	6.0	1.0	11.0	10.5	3.0	17.5	16.0	33.5	66.5
Sri Lanka	9.4	9.0	8.9	11.8	5.3	5.0	16.9	9.4	26.3	73.7
Thailand	9.7	7.7	7.6	15.3	4.5	2.6	17.5	9.7	27.2	72.8
		Average: 24.4							Average: 28.6	Average: 71.4
Colombia	10.9	13.4	3.6	4.8	4.1	5.5	19.2	10.9	30.1	69.9
Costa Rica	7.9	11.2	11.7	7.8	3.0	12.3 ³	15.4	7.9	23.3	76.7
Dom. Republic	14.5	18.4	9.9	5.7	5.7	4.1	13.9	14.5	28.4	71.6
Panama	8.7	14.6	18.3	6.2	3.2	8.6	13.5	8.7	22.2	77.8
Peru	11.9	10.0	2.5	9.7	2.3	5.2	19.5	11.9	31.4	68.6
		Average: 29.6							Average: 27.1	Average: 72.9

Averages

- (a) % pregnant (World Fertility Survey data)
 (b) % widowed, divorced, separated (WFS data)
 (c) % sterilized (WFS data)
 (d) % infecund (WFS data)
 (e) % exposed with no living children (WFS data)
 (f) % exposed older than 45 (WFS data)

- 1/ WFS data includes all ever-married women, including consensual unions, but not spinsters
 2/ Estimated % lactating women; assumes that mothers breastfeed 5 children on average of 2 years each between the ages of 15 and 45--i.e., 10 years, or 1/3 of the time--clearly an overgenerous assumption for countries with successful family planning programs. In other words: $\frac{100 - (a)}{3}$ through (f)
 3/ data is for women over 40

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N.B. The views expressed in this paper are those of the author and should not in any way be attributed to the persons listed above.